

## Exploring the Benefits and Barriers in the Implementation of Human Resource Information System (HRIS) in KP Public Sector Hospitals

Sahibzada Anas Ahmad

Scholar Department of Management Institute of Management Sciences, Peshawar, Pakistan at-  
[anasahmad844@gmail.com](mailto:anasahmad844@gmail.com)

Dr. Adnan Malik

Lecturer, Institute of Management Sciences, Peshawar, Pakistan at-  
[adnan.malik@imsciences.edu.pk](mailto:adnan.malik@imsciences.edu.pk)

Shahid Aziz

Scholar Department of Management Institute of Management Sciences, Peshawar, Pakistan at-  
[shahidaziz002@gmail.com](mailto:shahidaziz002@gmail.com)

Palwasha Khan

Lecturer, Abbottabad University of Science and Technology at-  
[palwashakhann345@gmail.com](mailto:palwashakhann345@gmail.com)

### Abstract

HRIS (human resource information system) is the combination of human resources and information technology. The current study is undertaken to explore the benefits, barriers, and their solutions in HRIS implementation in KPK public sector hospitals. It is an exploratory study where phenomenology strategy is adopted and data is collected through semi-structured opinion interviews. The current study finds out that there are multiple benefits of using HRIS in hospitals like saving time, updating and securing data of employees, and giving future forecasts about the need for HR. Although, there are also some barriers in the way of implementing HRIS like lack of funds, employee resistance and lack of interest from the government side.

**Key words:** Human Resource Information system, public sector, hospitals

### Introduction

To survive in the competitive markets, organizations move toward the adoption of new technologies. Therefore the importance of information systems has become vital in the last few decades. As the world becomes a global village day by day, complex problems are arising and organizations are adopting new technologies to solve these problems. The combination of information technology, internet technology, and information systems brings major changes in today's business world. In today's world, the use of appropriate applications of information technology is important for running an organization successfully (Zhang & Wang, 2012). Due to the emergence of IT in HR departments, the human resource function has been transformed dramatically and improved the efficiency of HR. It is often considered those information systems work as a key driver of change in HR departments, which enables them to resolve problems related to HR using information technologies (Buzkan, 2016). The human resource information system is of the technologies used in organizations to bring efficiency.

It is a combination of database, software, and hardware which collect data from all departments and generate useful information on the demand of human resource managers. The use of HRIS brings many benefits to organizations. HRIS enables organizations to enter, maintain and update the employees' data while keeping in view organizational policies and regulations (Hendrickson, 2003). The purpose of HRIS is to provide services to the clients in the form of

providing data and information. It not only helps organizations in the decision-making process e.g. to monitor the cost of different policies: recruitment and incentive policy also helps them to reduce their cost. Further, it was found that HRIS reduces the operational cost, reduces paper work and brings accuracy to the information regarding HR (Manivannan & Rajkumar, 2016).

There is no doubt that HRIS has many benefits but there are countries, especially developing countries that are not getting the full benefits of HRIS. They are facing different problems in the effective implementation of HRIS. Major barriers in the way of HRIS are insufficient funds, poor ICT infrastructure, and inadequate knowledge (Ball, 2001). Lack of support from top management and the deficiency of funds are hurdles in the implementation of HRIS (Taylor, 2006). Employees have a very adverse perception of the use of new technologies. That's why employees show resistance to the adoption of new technologies (Islam, 2016). In Pakistan, different studies have been conducted to find out the potential barriers to the effective implementation of HRIS. The studies (Batool, 2012; Ahmer, 2013; Habibullah et al., 2017) found lack of funds, employees' resistance, top management reluctance, and lack of technical staff as key barriers. Employees have fear of changing the way they do their jobs and usually they resist against the sudden change.

Developing countries like Pakistan are in the initial stages of adopting new technologies. Pakistani organizations have partially adopted E-HRM (Sinha & Mishra, 2014). They are moving towards digitization. Different quantitative studies Batool et al., (2012), Sadia et al., (2016), Habibullah et al., (2017), Nasim (2018) and Ahmed et al., (2021) are conducted in Pakistan to study different aspects of HRIS. According to Mobaideen (2013), research on HRIS is not only scarce in Pakistan but also outside Pakistan. A study by Habibullah et al., (2017) recommends that an exploratory study is require to further explore HRIS in Pakistan. The previous studies have adopted quantitative methods to investigate the HRIS in Pakistan however the current study is using qualitative methods to explore the phenomenon further. The researcher has studied different aspects of HRIS like benefits, barriers, proposed solutions and its implementation in the public sector hospitals of KP province. The practical implications of this study are important for the government officials. This will give a deep insight of the HRIS phenomenon. The policy makers will get to know about the problems arising in the implementation process. Government and different regulatory bodies will get directions to formulate HR policies for the employees, managers and owners of the organizations from the findings of the study.

### Literature Review

There is great involvement of IT infrastructure and organizational level of readiness in the implementation of e-HRM (Simons & Esteves, 2016). There are three goals behind the implementation of e-HRM in organizations: cost reduction, improving the strategic orientation of HRM, and improving HR services (Rahman et al., 2018). There is a differentiation between operational HRM, transformational HRM, and relational HRM (Lepak& Snell, 1998). The operational HRM is related to the different activities like salaries, and managing of personal data. The implementation of e-HRM has positively influenced the overall HR functions. The first operational goal related to the e-HRM implementation is to reduce cost by bringing efficiency to the HR processes by increasing the speed and reducing the burden of work on the HR managers

(Parry & Tyson, 2011). The second relational goals of e-HRM are to enable the HR professional to work themselves by providing improved HR services to the internal stakeholders. The online recruitment process has a positive impact on people in that they have easy access to information by using the organization's websites. The last transformational objective is to help an organization in the achievement of its strategic goals (Gardner et al., 2003).

For more than a decade, the old traditional ways of delivering HRM services have been challenged by the new information systems in both public and private sector organizations (Bondarouk et al., 2015). Today, firms are aware of the fact that human resource is their important asset and the effective use of HR can give them a competitive advantage (Kovach & Cathcart, 1999). For the enhancement of the organizational performance, they strongly depend upon the HRIS (Lippert & Swiercz, 2005; Troshani et al., 2011). The combination of information technology, internet technology, and information systems brings major changes in today's business world. Researchers have found that the technology provided an opportunity for organizations to get a competitive advantage in the market. In the current economy, organizational success greatly depends upon the efficiency of its manpower (Raka et al., 2016). Organizations should use the IT systems in the HR departments to bring accuracy. Technology is becoming the emergent factor and the study of (Beadles et al., 2005) found that the use of human resource information system (HRIS) is an opportunity for the HR professionals to become strategic partners.

In today's world, the use of appropriate applications of information technology is important for running an organization successfully (Zhang & Wang, 2012). IT has been observed in the last two decades that organizations are monitoring, collecting, and analyzing information regarding employees using HRIS or any other software functionally related to HRIS (Ball, 2011; Hussain et al., 2007). The importance of implementation of HRIS varies from organization to organization. According to the definition of Desanctis (1986) "Systematic process for retrieving, maintaining, storing, validating and collecting the data that is required by the organization about the organization unit, personnel activities, and human resources. It is a collection of databases that integrate to form a vast record of all employee issues that exist within a company". It is also defined as the information system used to acquire, store, manipulate, analyze, retrieve and distribute the information about the organization's HR ( Tannenbaum,1990). There are different interchangeable terms used for HRIS for instance HR intranet, e-HRM, computer base human resource management systems, and web-based HR. Several authors have argued that web-based channels or internet-based channels are the ventures of HRIS (Raka et al., 2013; Lippert & Swiercz, 2005).

A human resource information system (HRIS) is a mix of Human resource management and information technology (Desanctis, 1986). It is a combination of database, software, and hardware which collect data from all departments and generate useful information on the demand of human resource managers. HRIS is not only the combination of hardware and software related to HR but it also includes people, policies, data, and procedures. HRIS enables organizations to enter, maintain and update the employees' data while keeping in view organizational policies and regulations(Hendrickson, 2003). HRIS is also known as a human resource management system

and use to control the information of employees systematically instead of using old systems. According to (Beadles et al., 2005), the basic users of HRIS in an organization are the HR executives, managers, and employees.

### **Benefits**

Different studies were performed to find out the benefits of using HRIS in their organizations. By 2000 organizations believed that a company will be efficient when they are using IT in their systems that support the HR activities. The adoption of new information systems brought efficiency to the organizations. The purpose of HRIS is to provide services to the clients in the form of providing data and information. It not only helps organizations in the decision-making process e.g. to monitor the cost of different policies; like recruitment policy and incentive policy, and also helps them to reduce their cost.

The benefits of HRIS have been widely accepted in the world and both the developed and developing countries have implemented this system fully or partially in organizations (Ahmer, 2013). Investments in information technology can bring efficiency and competitive advantage to organizations. The implementation of IT in the HRM has freed the HR personnel from the mediatory roles so that they can focus on the strategic planning of the organization (Ferdous et al., 2015). It was found that the use of HRIS can improve the value of shareholder value (Brown, 2002). The involvement of technology in HRM has not only improved the HR processes but also improve the HR functions. HRIS contributes to the reduction of cost, improves customer satisfaction, and brings innovation to the organization (Ferdous et al., 2015). Further, it was found that HRIS reduces the operational cost, reduces paper work and brings accuracy to the information regarding HR (Manivannan & Rajkumar, 2016).

### **Barriers**

There is no doubt that HRIS has many benefits but there are countries, especially developing countries that are not getting the full benefits of HRIS. A no of research has been done to find out the potential barriers in the implementation process. The big challenge toward its effective implementation is related to employees' expectations (Fisher & Howell, 2004). According to the findings of Torrington (2002) employees have a fear that the personal interaction between them and HR people will be lost and an informal culture will be developed. This is supported by the findings of Oiry (2009), it may limit the communication between employees.

The study of Ngai & Wat (2006) explores the barriers to the effective execution of HRIS in Hong Kong as; lack of funds, lack of technical staff, and the lack of information technology support as a key barrier. Major barriers in the way of HRIS are insufficient funds, poor ICT infrastructure, and inadequate knowledge found in the study (Ball, 2001). It was observed that one of the big obstacles to the HRIS implementation is it requires huge funds. Lack of budget and lack of technical experts are the main barriers to the implementation of HRIS (David et al., 2015).

### **Research Methodology**

In qualitative research, there is an analysis of behavior, opinions, and attitudes in qualitative terms. The current study is adopting a qualitative approach to research. This study is an exploratory study that involves the experience and opinions of the respondents which is come out

in the form of interviews. While using phenomenology the researcher studies the respondents' experience and gets meaning out of it. According to Kakula and Iyenemi (2014), the more focus of the researcher is on knowing what people experience and how they get meaning out of it. The current study has adopted phenomenology as a research strategy. The interview method is best in the situation where the researcher has little knowledge about the topic and the greater knowledge is desired from the respondents (Robson and Foster, 1989). The semi-structured interview has been adopted which allows the respondents to give detailed answers. In in-depth interviews, comprehensive knowledge is obtained by giving a sense of empowerment to the respondents (Hedge, 1995). The current study is adopting purposive sampling for data collection. The concept of purposive sampling is to select the respondents according to the set criteria by the researcher.

There is no standard sample size that a researcher is following in qualitative studies (Marshall, 1996). The word "saturation" is commonly used in qualitative studies which mean that the researcher will continue the data collection until and unless he/she gets new information about the studied phenomenon (Elmusharaf, 2014). The researcher has started the interviews process and after conducting 10 interviews the new information about the studied phenomenon has stopped, so the sample size of this research is 10. Thematic analysis is a qualitative research method that researcher use to systematically organize and analyze complex data set. It is a search for themes that can capture the narratives available in the account of data sets. It involves the identification of themes through careful reading and re-reading of the transcribed data (King, 2004; Rice & Ezzy, 1999). According to Mason (2012) thematic analysis gives flexibility to researchers in the analysis of qualitative data. Nvivo 12, software has used for the data analysis. The researcher of this study keeps all the ethical considerations while doing this research. Firstly, the respondents are informed about the purpose and nature of the research and a consent form is signed which shows their willingness to participate in the study voluntarily. The gathered data is original and all the efforts are made by the researcher itself.

### Discussions/Conclusions

The study is conducted to explore the different aspects: benefits, barriers, and solutions of HRIS implementation in government sector hospitals of KPK. The government sector organizations in KPK are slow in the adaptation of new technologies. HRIS is the combination of HR and IT and it provides better service to the HR department. The previous literature is studied based on which knowledge gap is identified. After the identification of the knowledge gap three questions are set to achieve the objective of this study. Answering the first question; there are many benefits that the KPK hospitals are getting by using HRIS. Due to HRIS the HR personals day to day operations become easier. Before HRIS most of the work was done in traditional ways. There was more paperwork involved in their tasks. Now they have all the data available on their desktop screens and everything is away with just one click. Moving from traditional ways of doing tasks, the HRIS saves the precious time of HR personnel (Jahan, 2014; Ahmer, 2013). The outcome of the current study confirms the findings of Deloitte, 2006; Ngai & Wat, 2006; Altarawneh & Al-Shqairat, 2010; Jahan, 2014. Other than this mostly the employees' data was in hard form and it was not in secured form. Now once the data of employees are entered into the system and the personal data become secured. Also, the data is in accurate form and it can be updated easily with time (Buzkan, 2016).

HRIS helps the government hospitals with employees' future forecasts. They have all the information about each employee and it's become easier for them to know about the future and how many HR they will need in the future. The current study further added that the HRIS greatly helps in the future planning which means that the hospitals can predict how many human resources they will be needed in the future. Also it is very convenient for the HR department in saving time and giving quick access to data.

To explore the second question, different barriers are identified in this study that affects the implementation of HRIS in government hospitals. The very first barrier which is greatly affecting the implementation process of HRIS is the lack of resources in terms of finances. Hospitals want to become updated with the latest technology but they lack funds. The lack of funds stopped the hospital management to move forward in this regard. They need funds to upgrade the existing system or adopt new technologies. The study confirms the findings of Ferdous et al., 2015; Manivannan & Rajkumar, 2016; Ngai & Wat, 2006; David et al., 2015; Taylor, 2006). Bringing change is quite difficult in government organizations. The existing employees resist change. Employees don't want to leave the old way of doing day-to-day tasks so employee resistance is also a barrier to the implementation of HRIS. Other studies like Torrington, 2002; Fisher & Howell, 2004; Manivannan & Rajkumar, (2016) have shown the employees' resistance as a key barrier.

Although the government announces the digital policy in 2018, the government officials have a lack of interest in bringing the new technologies. There is a lack of interest and lack of follow-up from the KP government. The current study added that there is reluctance from the government side where they have the power but their lack of interest has weakened the implementation of HRIS in government hospitals. The new technology recently emerged, completely changes the way of managing and administrating an organization. Of late, the HRIS plays a pivotal role in all the organizations. The HRIS role has become strategic. The information available at the right time to the organization improves the services of the HR department. With the undoubted benefits of HRIS, organizations should opt to ensure the proper utilization of this technology by knowing the challenging and interrupting issues. Findings of this research may be helpful for the HR executives about the barriers that impede the effective execution of this technology in the functions of HRM. Although the government hospitals have implemented HRIS not on fully basis but it reduce cost, save time, improve the quality of decisions and helps in employees future forecasting. Along with it there are certain barriers arises like employees' resistance, government reluctance and lack of funds. There are some measures which should be taken by the government by coming up with proper planning and allocating proper funds to the hospitals.

### Future Research directions

The current study is only limited to the KPK government sector hospitals. Future research should consider all the departments of KPK to explore the phenomenon further. There is a need for a comparative study between the public sector and the government sector. Different researchers

have conducted studies on HRIS some have adopted qualitative techniques while others go for quantitative. Mix methodology should be adopted in further research.

### References

- Abzari,M., Radmehr,R., & Shalihar,M.(2013). Analyzing the Effects of Electronic Human Resource Management on the Talent Management Strategies (the Medical University of Isfahan as a Case Study)
- Adeoye, A. O., & Fields, Z. (2014). Compensation Management and Employee Job Satisfaction: A Case of Nigeria. *Journal of Social Sciences*, 41(3), 345–352.
- Ahmer, Z. (2013). *ADOPTION OF HUMAN RESOURCE INFORMATION SYSTEMS INNOVATION IN PAKISTANI ORGANIZATIONS*. *Journal of Quality and Technology Management* Volume IX, Issue II, Page 25–50
- Al-Raisi, A., Amin, S., & Tahir, S. (2011). Evaluation of e-performance analysis and assessment in the United Arab Emirates (UAE) Organizations. *Journal of Internet and Information System*, 2(2), 20–27.
- Altarawneh, I., & Al-Shqairat, Z. (2010). Human Resource Information Systems in Jordanian Universities. *International Journal of Business and Management*, 5(10), 113–127.
- Ananya Raka Chakraborty and Nur Naha Abu Mansor, 2016, Evaluating the Practices of Electronic Human Resources Management ( E-HRM ) as a Key Tool of Technology Driven Human Resources Management Function in Organizations, *Procedia - Social and Behavioral Sciences* 75 , 473 – 478
- Ball, S. (2001), “The use of human resource information systems: a survey”, *Personnel Review*, Vol.30 No. 6, pp. 677–693.
- Batool, S. Q. (2012). *Benefits and Barriers of Human Resource Information System In Accounts Office @ Azad Jammu @ Kashmir Community Development Program*. 2(3), 211–217.
- Beadles, Nicholas Aston II; Lowery, Christopher M.; and Johns, Kim (2005) "The Impact of Human Resource Information Systems: An Exploratory Study in the Public Sector," *Communications of the IIMA*: Vol. 5 : Iss. 4 , Article 6.
- Boland, R.J. (1985), “Phenomenology: a preferred approach to research on information systems” (Eds), *Research Methods in Information Systems*, North Holland, New York, NY.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Buzkan, H. (2016). The Role of Human Resource Information System (HRIS) in Organizations: A Review of Literature. *Academic Journal of Interdisciplinary Studies*, 5(1), 133–138.
- Creswell J. W. (2007). *Qualitative inquiry and research design: choosing among five approaches*, Second edition London Sage
- Carole Tansley Sue Newell Hazel Williams, (2001), "Effecting HRM-style practices through an integrated human resource information system", *Personnel Review*, Vol. 30 Iss 3 pp. 351 - 371
- David, S., Shukla, S., & Gupta, S. (2015). *BARRIERS IN IMPLEMENTING HUMAN RESOURCE INFORMATION SYSTEM IN ORGANIZATION*. *International Journal of Engineering Research And Management (IJERM)* ISSN : 2349- 2058, Volume-02, Issue-05

- Dessler, G. (2014). *Fundamentals of Human Resource Management* Gary Dessler. *Human Resource Management*, 3<sup>rd</sup> edition, Pearson Education, Inc.
- Ferdous, F., Chowdhury, M. M., & Bhuiyan, F. (2015). *Barriers to the Implementation of Human Resource Information Systems*. *Asian Journal of Management Sciences and Education* Vol, 4, 33–42.
- Fisher, S. L., & Howell, A. W. (2004). Beyond user acceptance: An examination of employee reactions to information technology systems. *Human Resource Management*, 43(2–3), 243–258.
- Golam Hossan, C. (2007). *Employee Training and Development*, 4th edition 2007 Raymond A. Noe. *Employee Training and Development*, 4th edition . New York: McGraw-Hill Irwin 2008. xv + 536 pp., ISBN: hardback US\$79.99 . In *Management Research News* (Vol. 30, Issue 12).
- Guba, E.G. 1981, Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ* 29, 75–91
- Gupta, N., & Shaw, J. D. (2014). Employee compensation: The neglected area of HRM research. *Human Resource Management Review*, 24(1), 1–4.
- Habibullah Khan Syed Karamatullah Hussainy Kamran Khan Abdullah Khan , (2017)," The Applications, Advantages and Challenges in the implementation of HRIS in Pakistani perspective ", *VINE Journal of Information and Knowledge Management Systems*, Vol. 47 Iss 1 pp.
- Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources. *Journal of Labor Research*, 24(3), 381–394.
- Inayatullah, A., & Jehangir, P. (2012). Teacher's job performance: the role of motivation. *Abasyn Journal of Social Sciences*, 5(2), 78–99.
- Islam, M. S. (2017). Evaluating the Practices of Electronic Human Resources Management (E-HRM) As a Key Tool of Technology Driven Human Resources Management Function in Organizations-A Comparative Study in Public Sector and Private Sector Enterprises of Bangladesh. *SSRN Electronic Journal*, 18(11),
- Jan, S., & Hashim, M. (2014). *The Impact of Training and Development on Employees Performance and Productivity A case study of United Bank Limited Peshawar City*, *International Journal of Academic Research In Business and Social Sciences* Vol 4 no 4
- King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 257–270)
- Kirstie S. Ball, (2001). The use of human resource information systems: A survey. *Personnel Review*, 30(6), 677–693.
- Kivunja, C. Kuyini, A. B. (2017). Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education* 6(5)
- Kovach, K. A., & Cathcart, C. E. (1999). Human Resource Information Systems (HRIS): Providing Business with Rapid Data Access, Information Exchange and Strategic Advantage. *Public Personnel Management*, 28(2), 275–281.
- Lippert, S. K., & Swiercz, P. M. (2005). Human resource information systems (HRIS) and technology trust. *Journal of Information Science*, 31(5), 340–353

- Lunenburg, F. C. (2012). Performance Appraisal: Methods and Rating Errors. *International Journal of Scholarly Academic Intellectual Diversity*, 14(1), 1–9.
- Mackenzie, N. & Knipe, S. (2006). Research dilemmas: paradigms, methods and methodology. *Issues In Educational Research*, 16, 1-15.
- Manivannan, L., & Rajkumar, R. S. J. (2016). BENEFITS AND BARRIERS OF HUMAN RESOURCE INFORMATION SYSTEM IN BHEL, TIRUCHY, TAMILNADU STATE. *International Journal of Computational Research and Development*, Volume 1, Issue 1, Page Number 183-187
- Mansoor Ahmad, Matthew Allen, (2015) "High performance HRM and establishment performance in Pakistan: an empirical analysis", *Employee Relations*, Vol. 37 Issue: 5, pp.506-524
- Millmore, M., Lewis, P., Saunders, M., & Thornhill, A. 2007 (n.d.). *Strategic Human Resource Management*.
- Ngai, E. W. T., & Wat, F. K. T. (2006). *Human resource information systems : a review and empirical analysis*. 35(3), 297–314
- Nurshabrina, N., & Adrianti, R. (2020). The Effect of E-Human Resource Management (E-HRM) on Cost Efficiency and Productivity of Employees in the Company. *International Research Journal of Advanced Engineering and Science*, 5(1), 212–215.
- Parry, E. (2011). An examination of e-HRM as a means to increase the value of the HR function, *The International Journal of Human*, 5, 37–41.
- Prowse, P., & Prowse, J. (2009). The dilemma of performance appraisal. *Measuring Business Excellence*, 13(4), 69–77.
- Rahman, M., Mordi, C., & Nwagbara, U. (2018). Factors influencing E-HRM implementation in government organisations: Case studies from Bangladesh. *Journal of Enterprise Information Management*, 31(2), 247–275.
- Raka, A., Naha, N., & Mansor, A. (2013). Adoption of Human Resource Information System : A Theoretical Analysis 2<sup>nd</sup> International conference on Leadership Social and behavioral Sciences , 75, 473–478.
- Rice, P., & Ezzy, D. (1999). *Qualitative research methods: A health focus*. Melbourne: Oxford University Press.
- Robina Yasmin, (2008). *on the Effects The Case of Strategic HRM Systems on Performance : of Pakistani Manufacturing*. *Japanese Journal of Administrative Science Volume 21(1)*, 47–60.
- Rodgers, C. (2011). Complexity and organizational reality: uncertainty and the need to rethink management after the collapse of investment capitalism. *Action Learning: Research and Practice*, 8(1), 84–86.
- Sabrina Jahan, S. (2014). Human Resources Information System (HRIS): A Theoretical Perspective. *Journal of Human Resource and Sustainability Studies*, 02(02), 33–39.
- Sheehan, C. (2017). Human Resources Planning. *Human Resource Management*, 111–129.
- Tanya Bondarouk, Rainer Harms & David Lepak (2015): Does e-HRM lead to better HRM service?, *The International Journal of Human Resource Management*
- Taylor, P. (2006). *A DSS CLASSIFICATION MODEL FOR RESEARCH IN HUMAN RESOURCE*.

September 2013, 37–41.

Torrington, D., Hall, L., Taylor, S. and Atkinson, C. (2014), *Human Resource Management*, 9th ed., Pearson, London

Toulmin, S. (1958) *The Uses of Argument*. Cambridge: Cambridge University Press.

Troshani, I., Jerram, C., & Hill, S. R. (2011). Exploring the public sector adoption of HRIS. *Industrial Management and Data Systems*, 111(3), 470–488.

Zafar Mueen Nasir (2019). *Pakistan Institute of Development Economics, Islamabad The Pakistan Development Review*, Vol. 48, No. 1 (Spring 2009). 48(1), 100–101.

Wang, C., & Zhang, P. (2012). The Evolution of Social Commerce: The People, Management, Technology, and Information Dimensions. *Communications of the Association for Information Systems*, 31, pp-pp.