## 湖南大学学报(自然科学版) Journal of Hunan University(Natural Sciences)

Vol. 50. No. 06. June 2023

Open Access Article

## ANALYSIS OF ENTERPRISE RESOURCE PLANNING MODEL ON HUMAN RESOURCE MANAGEMENT

# Pawan Kumar Paras<sup>1</sup>, Amol Parashar<sup>2</sup>, Aakanksha Parashar<sup>3</sup>, Sunil Kumar<sup>4</sup>, Manvinder Singh Bedi<sup>5</sup>

<sup>1</sup>Apeejay Stya University, Haryana, India, <sup>2</sup>Doon Business School, Dehradun, India 
<sup>3</sup>L.M.Thapar Institute of Management, Mohali, India 
<sup>4</sup>School of computer Science, UPES, Dehradun, India 
<sup>5</sup>Chandigarh University, Punjab, India

<sup>1</sup>pawan.parashar@gmail.com, <sup>2</sup>amolparashar8@gmail.com, <sup>3</sup>akankshaparashar541@gmail.com, <sup>4</sup>drskumar.cs@gmail.com, <sup>5</sup>manvinder.bedi@gmail.com

Corresponding Author: Sunil Kumar (drskumar.cs@gmail.com)

Abstract- The purpose of this research is to examine how an Enterprise Resource Planning (ERP) system affects Human Resource Management (HRM) procedures including hiring, promoting, training, and compensating workers, and how those in turn affect an organization's output in terms of employee output. Samples for this descriptive study were chosen using a stratified random sampling technique. The research team utilized a method of stratified random sampling to collect 250 samples. The questionnaires included a wide range of topics, including ERP software, HR management, and overall company efficiency. Employees of all ranks and departments utilizing ERP were asked to react. ERP installation is negatively correlated with staff training and development but positively correlated with recruiting and selection as well as salary and benefits. The processes of hiring new employees have a negative correlation with an organization's output, whereas those of paying employees a competitive wage and providing opportunities for professional growth have favorable correlations. Small sample sizes, time restrictions, and competing demands on human resources can dampen the power of studies.

**Keywords:** Human Resource Management, Payroll Management, Enterprise Resource Planning, Inventory Control

#### Introduction

HRM refers to the practice of managing an organization's human resources (Aswathappa, 2010). It's a crucial aspect of running any kind of company or organization. Human resource management, or HRM, encompasses a wide range of administrative responsibilities, such as hiring and firing, coaching and mentoring, compensation and benefits administration, handling labor disputes, and promoting happy and productive employees. Rather than being confined to the conventional method, these techniques are now widely employed as a tool for achieving the goals of the business (Negi, 2013) HRM refers to the methods used to coordinate the efforts of individuals and businesses to achieve mutual objectives (Rao, 2005). Today, this is one of the most important roles for every business. Human resource management encompasses a wide range of disciplines, including but not limited to:

Received: April 04, 2023 / Revised: May 22, 2023 / Accepted: June 22, 2023 / Published: June 30, 2023

strategic planning, recruitment, selection, placement, training, development, performance evaluation, remuneration administrative structure, incentives, health care benefits, social security, employment law, employee grievances, collective agreements, employment records and accounting, and many more. Companies now try to meet customer demands for products and services as quickly as possible. As a result, ERP is being used as a "common language" to construct a variety of business applications with unified, up-to-date data across departments.

The ERP system's Human Resource module simplifies the administration of personnel and human capital. Training, Hiring, Payroll, and Time and Attendance are its four key pillars. The HR section of the resource is responsible for regularly updating and storing all relevant payroll information, such as names, addresses, phone numbers, email addresses, salaries, attendance records, assessment results, and promotion recommendations. These days, businesses have to deal with a constantly shifting external environment. They need to increase both their speed and their efficiency to fulfill the criteria of their patrons. To combat this, relying just on physical labor is insufficient, and instead, businesses should look to technology as a means to enhance their performance since it has the potential to do so in a way that is both more efficient and more effective (Kimani 2013). Information technology is being used throughout businesses to address issues that arise in every facet of the workplace. As a result, businesses have rapidly increased their use of software implementations such as enterprise resource planning (ERP) systems. These systems play an important part in providing solutions and coordinating between departments to obtain smooth business processes and accomplish company-wide goals. enterprise resource planning systems (ERPs) assist with all different kinds of business operations, to increase overall productivity. These systems eliminate the need for human labor by automating it, which results in an immediate change to the majority of business operations. It is possible to integrate with the ERP systems the flow of information among the stakeholders as well as the flow of information across the core functional areas of the organization (such as finance, human resources, manufacturing, customer relationship management, and supply chain management, amongst others). The purpose of this research is to investigate the potential for enterprise resource planning (ERP) technologies to enhance human resource management (HRM) procedures. HR processes and HR departments are vital components of the company, and they collaborate with a variety of tasks (policies, practices, and activities) that are carried out by the business. Therefore, HRM units make use of ERP systems to make their judgments in a manner that is more efficient, effective, and viable to assist the business as a whole (within and out). OrangeHRM, Oracle/PeopleSoft, Lawson HRM, and SAP are some of the ERP software tools that are used the most often in the HRM field. This is because achieving that level of integrity requires a variety of ERP software products that provide HR solutions.

#### **Reviews of literature**

Performance at the individual level is the actual performance of the people working with and managing this system (Gattiker, T.F., and D.L. Goodhue, 2005). When workers are happy with the system, it has a greater organizational influence, and when data is accurate, it is more helpful (Seddon, P.B. and

M.Y. Kiew, 2007). Whether or whether an employee decides to stay with an organization depends on many factors, including the clarity and accessibility of information, the quality of contact with coworkers and clients, and the competitiveness of pay (Boselie, P. and T.V. Wiele, 2002). High-risk organizations place less value on immediate rewards and perform worse than those with a similar level of risk but a higher emphasis on incentives (Bloom, M., & Milkovich, G.T., 1998). Activities like recruiting, training, development, remuneration, benefits, record keeping, retirement planning, and so on are all part of human resource management (Tadinan, H., 2005). Enterprise Resource Planning (ERP) software is highly efficient at managing a wide variety of tasks common to manufacturing organizations, including but not limited to: procurement and inventory management of raw materials, order tracking, information about accounts receivable and payable, storage and distribution of finished goods, payroll and timekeeping, and financial record keeping. System training aid in comprehension (Compeau, D., & C. Higgins, 1995). Education and training can play a role in determining whether or not an ERP is successfully implemented. Companies that implemented ERP without making significant changes to their processes or investing in employee training often have a weak commitment to change and fail to adequately prepare their staff for ERP usage. Because of the reluctance of certain employees, they must incur substantial training expenses. Failure may be turned into success if workers are taught what is expected of them and given the tools they need to do their jobs well. In an electronic workplace, ERP software may be used to manage all aspects of human resources and make that data available to all employees (Hoch, J.E. and J.H. Dulebohn, 2013). It took users a long time to discover and adopt new systems, which harmed productivity. Employee satisfaction will be poor if proper training is not provided, but new systems will improve the quality of work and the extent to which they may innovate.

Human resource management (HRM) is the most common method of managing employees, and it has spawned several ideas on human nature and how it manifests in the workplace from a wide range of experts in these fields. Human resource management in the modern era seeks to work with coordinated effort and identify and develop the best people for specific jobs regardless of caste, power, gender, or bias, in contrast to the division of labor that was prevalent in ancient societies and led to biases due to factors such as gender and caste. When workers fail to fully make use of a new information system, it undermines the company's attempts to reap the system's advantages. Employees' reluctance and opposition to change are often cited as the cause of a faulty system (Venkatesh, V., S.A. Brown, L.M. Maruping, and H. Bala, 2008). Human resource management activities have a substantial impact on business performance and productivity (Absar, M.M., B. Nimalathasan, and M.M. Jilani, 2010). Growth in product quality, customer happiness, new product development, the organization's capacity to recruit and keep talented workers, and the quality of the working relationship between management and those employees are all measures of its success (Delaney, J.T. and M.A. Huselid, 1996). Human resource management (HRM) activities and policies have a substantial impact on organizational performance, leading to organizational productivity, as stated by Katou, A.A. and P.S. Budhwar (2006). These activities and policies include recruitment, training, promotion, incentives, benefits, safety, and health measures. In addition, training and remuneration play a significant role in evaluating employee and organizational success (Singh, K., 2004). There is a constant need to build and maintain a better match between the company, teams, workers, and working environment, and recruitment and selection play an important role in making such determinations (Tzafrir, S.S., 2006). Even though the literature suggests there are no agreed-upon rules and dimensions for measuring ERP system performance in a better way, ERP systems make a significant difference in the success of organizations and are evaluated based on the evaluations of the employees who use the systems (Wickramasinghe, V. and M. Karunasekara, 2012). Employees will always choose the path of least resistance while completing a job, and this technological method of working provides just that (Keebler, T.J. and D.W. Rhodes, 2002).

## Significance of the study

The implementation of an Enterprise Resource Planning system is one of the most time-consuming and difficult tasks for any company. ERP has had a profound impact on HRM procedures. The use of the system at a high level indicates that it is integral to human resource management processes such as evaluating employees' performance in terms of merit, selecting candidates, planning and executing training programs, and so on. Organizational performance in Qatar's public and commercial sectors depends on many technological and socio-technical aspects. According to studies, the most important aspects of a successful ERP implementation include top-down buy-in, a dedicated team of professionals, a well-defined project scope, some tweaking of business processes, and some management training. Many businesses are expressing their disappointment with the ERP system they have adopted. Inefficient usage on the part of the staff is to blame, not the installation of new software. Post-implementation learning may boost performance outcomes, but the system's need for continual learning has led to mixed reactions from workers. Otherwise, businesses will run into major issues if they fail to show appreciation for their staff and engage them in the use of this system. This study was dubbed "Impact of ERP in HRM" because of its significance to the field of study.

## **Objectives of this study**

The overarching goal is to investigate ERP's role in HRM and its effects. However, the precise goals are as follows:

The goals of this study include: o Analyzing the role of ERP implementation in HRM activities o Determining how HRM activities relate to employee productivity in organizations where ERP is in place o Evaluating the HRM procedures and practices of significant hospitals in Qatar

## Research hypothesis

Responses show no significant correlation between respondents' years in the workforce and their HRM policies and procedures as a whole. ERP has been shown to significantly increase company productivity, HRM practices, and employee satisfaction. To gauge customer opinion and contentment,

this research used a reliable sampling technique known as stratified random sampling in Figure 1. A total of 1249 people from 5 companies were included in the survey.

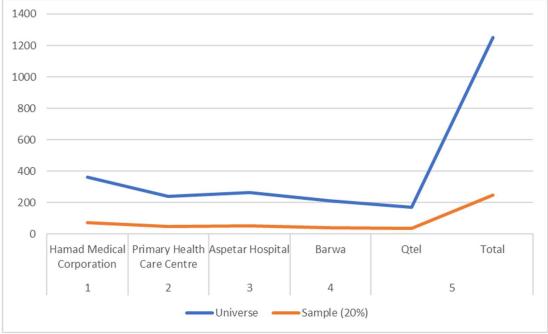


Figure 1 HRM Hypothesis

## Sample

The sample represents 20% of the total population. Twenty-five hundred workers from five companies make up the sample. Organizations in Qatar were chosen for the research because they use an ERP system for their HRM functions.

## **Ingathering Information**

Organizations with a presence in Qatar and a variety of operations worthy of the study were the primary targets of the data collection effort. Hamad Medical Corporation, Primary Health Care Centre, Aspetar, Barwa, and Qtel are the five companies chosen for data collecting. Employees at these companies who are utilizing this ERP system and are also directly impacted by these HRM activities were contacted and given surveys. Data about the population's demographics were also gathered. In this format, we employed a Likert scale with a range of "strongly disagree" to "strongly agree" for our items. Thirty Likert-scale things were constructed using the available literature.

## ERP Systems, or Enterprise Resource Planning Systems

ERP systems, which stand for "enterprise resource planning," are computer applications that allow businesses to more efficiently manage their whole set of resources and operations, from inventory management and order fulfillment to financial reporting and human resources planning and more (ERP). An enterprise resource planning system helps and automates corporate operations. Since the scope of work is expanding and traditional organizational boundaries are dissolving, using an integrated enterprise resource planning system naturally leads to many positive outcomes. Since the power is decentralized to the front lines and procedures are made transparent and consistent, users at

all levels have access to all the data they need. Enterprise resource planning (ERP) is a cutting-edge solution that has been shown to considerably boost organizational performance and aid in the development of competitive advantage (Abdoulmohammad et al. 2011). As a result, the system is geared at facilitating cross-departmental collaboration and the attainment of overall business objectives.

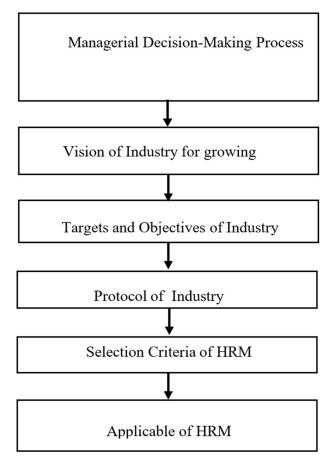
The goal of human resource management (HRM) is to strategically plan for, effectively use, and command personnel resources to accomplish organizational goals. To accomplish these objectives, it is vital to implement long-term policies and procedures and effectively manage the workforce. As a result, HR departments must be integrated into corporate strategies. They need a clear hierarchy between their HRM tenets, such as their philosophy, vision, purpose, and policies in Figure 2.

## **ERP tools for HRM**

In practice, ERP solutions for HRM are offered by many reputable software companies. There are four primary HRM tools in connection to ERP, and they are as follows:

Many small and medium-sized businesses utilize Orange HRM, which is a software/tool that is a sophisticated human resources solution. It is widely regarded as the best open-source HRM (Human Resources Management) solution available today. Orange HRM Open Source, Orange HRM Professional, and Orange HRM Enterprise are more strong variants. System administrators, HR managers, HR assistants, payroll clerks, time clock operators, attendance clerks, recruiters, and performance managers may all benefit from its numerous features. Information about Human Capital requirements is recorded and shared with relevant parties, outsourced business processes are monitored, and executive decisions are aided by these enterprise tools.

Lawson HRM is a human resource management system that allows users to handle payroll, employee benefits, workforce planning, and time and attendance all from a unified dashboard. The enterprise resource planning (ERP) software SAP (System Application Products) is often considered to be the best available. With this HRM solution in place, businesses can better manage their employees and their operations, leading to increased productivity. This is why several industry-leading apps have begun to include HRM tools in their packages.



**Figure 2 HR Selection Process** 

#### **Methods of Statistics**

Data were analyzed using many statistical methods, including a percentage breakdown, the f-test for one-way analysis of variance, and the Karl Pearson Coefficient for correlating variables in Figure 3.

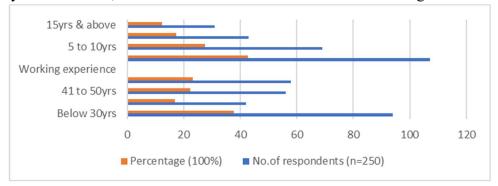


Figure 3 Percentage analysis of Socio-demographic profile

## Data analysis and interpretation

Almost 40% of respondents were between the ages of 21 and 30, 23% were aged 51 and older, 22% were in their forties, and 16.8% were in their thirties, according to the data shown above. A little over

a third (42.8%) of respondents had less than 5 years of experience in the workforce, while 27.6% had between 5 and 10 years, 17.2% had between 10 and 15 years, and the remaining 12.4% had more than 15 years experience in Figure 4.

Found no statistically significant correlation between respondents' years in the workforce and their HRM policies and procedures. The aforementioned hypothesis was put to the test statistically, through the 'f' test for one-way ANOVA.

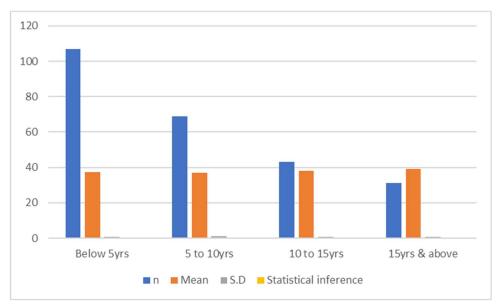


Figure 4 Difference between the working experience of the respondents and their overall HRM practices

**Conclusions:** There is no correlation between respondents' years in the workforce and the quality of their HRM practices as a whole. As a result, the computed value is larger than the table value (p>0.05). The working hypothesis of the study is recognized in Figure 5.

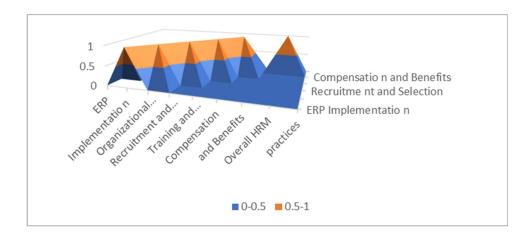


Figure 5 Relationship between ERP implementation and their organizational productivity, Recruitment, Selection, and Training

Development, Compensation and Benefits, and Overall HRM practices

Findings from this study suggest that HRM activities like employment, recruitment, training, advancement, remuneration, benefits and overall HRM are all improved when ERP is implemented. Examining the Data to test the aforementioned hypothesis, we employed the Karl Pearson correlation coefficient.

**Findings:** ERP installation is correlated with improvements in HRM practices including hiring and retaining top talent, providing ongoing education and career advancement opportunities for employees, and providing competitive pay and benefits. As a result, the computed value is lower than the table value (p0.01). The working hypothesis of the study is recognized.

## **Case Study**

A Dutch company in the leisure and hospitality sector (gaming and entertainment) used PeopleSoft's HR module to organize, support, and synchronize HR data across its 13 locations. This HR decision-support tool integrates data on over 5,000 workers' HR statuses from several sources. Users are the 32 HR assistants in the company; thus, its implementation will have an impact on their daily tasks and responsibilities.

Some of the HR assistants' prior responsibilities were automated, as will be discussed in further depth below. As part of the organization's policy of decentralization and delegation of duties, however, certain of the (administrative) functions that were previously carried out at a central level (HQ) has been transferred to the HR departments at the various locations. These sections were allowed to choose for themselves how they would divide up the work of HR assistants and other HR personnel in light of the decentralization. The administrative duties of HR assistants in businesses are impacted by the adoption of PeopleSoft's HR module and the concurrent decentralization of certain activities from the central office to the businesses. There is no way to look at the introduction of the HR module and the decentralization of duties in isolation from one another. When implemented, the HR module may have unintended negative consequences that might be mitigated by the decentralization technique.

## Method

As was discussed above, job content is best understood as the trade-off between expected duties and discretionary authority. The "wholeness" of the work process, the worker's responsible autonomy, and the worker's diversity of abilities are all crucial to striking this equilibrium in the workplace (Trist and Bamforth, 1951). Good occupations, therefore, are those that include finishing tasks and having enough control over variables to satisfy the control demand in an absolute way. Data triangulation (Yin, 1994) was used to combine our quantitative and qualitative approaches. We performed a survey to gauge the work design characteristics, and we utilized qualitative data (from a qualitative expert

instrument and interviews) to interpret the quantitative results and, in turn, make up for the shortcomings of our cross-sectional methodology.

The first thing we did was conduct a qualitative analysis of job content both before and after the HR module was implemented and responsibilities were distributed. Using an expert instrument termed WEBA (well-being at work), we evaluated job content according to Karasek's concept by assessing the equilibrium between job demands (control requirement) and job decision flexibility (control capacity). At the job level, WEBA creates an understanding of the task's content (completeness, complexity), difficulties that arise throughout the work (job demands), and options for resolving these issues via the use of observer ratings ( job decision latitude: autonomy, interaction potential). There are many different ways to define "excellent work," but WEBA identifies seven distinguishing features.

□ but als	Consist of more than only the principal responsibilities of execution (completion of the job) so includes preparatory and auxiliary activities;
-	It has varying degrees of complexity (in terms of the range and depth of mental processing ed) and ease (in terms of the nature of the job to be done); thirdly, not be repetitive (Monotony Work);
	Allow workers to choose their speed, order, and technique of work (workplace autonomy);
□ potent	Provide for the possibility of asking other workers for assistance with issues (interactional ital);
□ organi	Provide avenues for requesting assistance from higher-ups or other divisions (in terms of task ization); and
□ provis	Information that is adequate, accurate, and timely concerning the job to be done (information sion).

## **Role Specifics**

Human resources assistants are hired to provide administrative help. Before the HR module and the subsequent centralization of duties, the HR department at the company's headquarters would dictate what the HR assistants at each of the company's locations would be responsible for doing each day. Human resources assistants at each location were tasked with gathering, sorting, and revising relevant information for their counterparts in central HR. They did this by submitting completed paperwork to a centralized HR office.

In addition to these responsibilities, HR assistants were tasked with handling routine inquiries (such as those concerning maintenance contracts or employer's accreditations), filing employee information, administrating the human resource management information system, and providing support to the leadership's HR manager (by scheduling appointments, reporting problems, trying to answer, and/or making genuine phone calls).

Since the shift, HR assistants' administrative duties have centered on tracking three key areas: new hire paperwork, employee status changes (such as absence tracking), and the departure process. There are two ways in which the nature of this work is shifting. To begin, the primary administrative activities took on a more standardized nature when the HR module was implemented. The primary administrative duties and their numerous subtasks are extremely well specified, and some of the old administrative positions are even more convenient than before.

## Prerequisites for the Job

Before the alterations, most administrative duties had detailed descriptions and adhered to tight processes. Workload requirements, or issues that must be addressed to ensure the task is done well, were therefore low. Difficult questions from workers or lack of communication with the corporate HR department both slowed progress. Issues with central department coordination due to late or subpar information or quality management. For example, the central HR team needed to be contacted if there was a particularly tricky question or issue. However, it took HR assistants a while to get the information they needed from the HR system (at the central level), so they weren't always able to provide timely advice to workers. Now that HR assistants have direct access to the HR database, the previously-existing issue of lengthy wait times while the central HR department retrieved the needed data has been mitigated. The HR module's standard operating procedures for data administration have not eliminated the need for human labor. The system mandates exact data input and rigorous time limits. In addition, HR administrative assistants are immediately impacted by system errors.

The fact that the system has to be shut down for an entire week once a month, to process the mutations, is a serious issue. Thus, all mutations have to be inputted before the system goes down. When centralized tasks were added to previously existing work content, both the number of tasks required per day (for the same number of hours) and the level of complexity of those activities rose. When the workload is high, the task is more susceptible to interruptions.

#### Possibility of independent judgment in one's work

Human resources administrative assistants had ample leeway to choose their priorities and schedules before the adjustments (autonomy). Moreover, they were able to connect and organize their efforts to solve issues by contacting either their coworkers or the central office (such as difficult queries). The amount of planning work they had to do was adequate since it took the form of meetings with

subordinates and superiors. That's why, despite being on the low end, the equilibrium between work requirements and choice liberty was rather good.

This is an example of what Karasek calls a "passive job." Following the implementation of the modifications, there was less leeway in choosing when and how to carry out the duties due to the stringent protocols and short deadlines for adding the modifications to the system. In every profession, this holds. Assistants have greater leeway to make judgments and try new things because of the increased autonomy afforded by dispersed duties. Also, in the event of a system failure, employees may keep working on other projects while IT staff addresses the issue at hand. The assistants are nevertheless equipped to handle most situations, even challenging inquiries, thanks to the availability of resources such as companions (interaction potential) and the central Human resource department (managing duties). Therefore, a similar balance between work requirements and decision freedom exists in the new employment, but at a more advanced level due to the greater diversity of activities and difficulties or obstacles. The new position exhibits more of the traits of an "active job" in Karasek's theory since it allows for more discretion in decision-making to address these issues.

In cases where formerly advising duties have been delegated, subordinates now have more control over their work (regarding the administrative processes). However, because the labor is so carefully specified, there isn't much room for creativity because the system relies on it. In addition, when there are system problems, it is not possible to attend to other matters while the system is being fixed by others. Human resources assistance may experience delays due to system downtime. However, assistants are still equipped to handle most issues, except for technological breakdowns, thanks to the stability of their interaction capacity and their ability to organize work. There is, thus, a balance between the responsibilities and the autonomy one has in a new position, but it is about the same as the one that was enjoyed in the previous position.

#### Conclusion

Human resources tasks are crucial for every business. The relatively new service sector has reasonably strong HR processes and procedures, while the more established management facility also has solid processes and procedures and is being improved. The HR system must be bolstered and kept current with the demands of the business world. Due to the low sample size and a lack of time to collect data from businesses, the accuracy of the ERP research is constrained. Quantitative research methods are favored over qualitative ones. This study does not examine the full scope of HRM tasks that may be completed using the ERP system under investigation here. The primary goal of this research was to assess how ERP affects HR operations. Quantitative studies were used to compile data from five separate institutions. The stratified random sampling method was used to choose a sample size of 250. The SPSS statistical package was used to examine the data. According to the results, there was no correlation between enterprise resource planning (ERP) and organizational output. This intermediate variable demonstrates the connection between ERP and organizational productivity, but not remuneration and benefits. However, there is a favorable relationship between ERP installation and

learning and development, and via this intermediary variable, ERP administration and performance and productivity.

#### **References:**

- [1.] Bingi, P.S. (1999), Critical issues affecting an ERP implementation, Information Systems Management, Pp.7-14.
- [2.] Grabski, S.V., S.A. Leech and P.J. Schmidt (2011), A review of ERP research: A future agenda for accounting information systems, Journal of Information Systems, Pp.11-16.
- [3.] Shah, S.I., R.H. Bokhari, S. Hassan, M.H. Shah, and M.A. Shah, (2011), Socio-technical factors affecting ERP implementation success in Pakistan: An empirical study. Australian Journal of Basic and Applied Sciences, Pp.742-749.
- [4.] Chang, H.H., H.W. Chou, C.P. Yin, and C.I. Lin, (2011), ERP Post-Implementation Learning, ERP Usage, and Individual Performance, Impact PACIS Proceedings.
- [5.] Barker, T. and M.N. Frolick (2003), ERP implementation failure: A case study. Information Systems Management, Pp.43-49.
- [6.] Compeau, D. and C. Higgins (1995), Application of social cognitive theory to training for computer skills, Information Systems Research, Pp.118-143.
- [7.] Gattiker, T.F. and D.L. Goodhue (2005), what happens after ERP implementation: Understanding the impact of interdependence and differentiation on plant-level outcomes, MIS Quarterly, Pp.559-585.
- [8.] Boselie, P. and T.V. Wiele, (2002), Employee perception of HRM and TQM and the effects on satisfaction and intention to leave, Managing Service Quality, Pp.165-172.
- [9.] Hoch, J.E. and J.H. Dulebohn (2013), Shared leadership in enterprise resource planning and human resource. Human Resource Management Review, Pp.2-5.
- [10.] Qutaishat, F.T., S.A. Khattab, M.K. Abu Zaid, and E.A. Al-Manasra, (2012), The effect of ERP successful implementation on employees' productivity, service quality and innovation: an empirical study in the telecommunication sector in Jordan. International Journal of Business and Management.
- [11.] Price, A., (2007), Human resource management in business context 3rd edition. Human Resource Management in Business Context, Bedford Row London, Pp.4-15.
- [12.] Venkatesh, V., S.A. Brown, L.M. Maruping and H. Bala, (2008), Predicting different conceptualizations of system use: The competing roles of behavioral intention, facilitating conditions and behavioral expectation. MIS Quarterly and The Society for Information Management, Pp.483-502.
- [13.] Absar, M.M., B. Nimalathasan and M.M. Jilani (2010), Impact of HR practices on organizational performance in Bangladesh. International Business of Journal Insight and Transformation.
- [14.] Delaney, J.T. and M.A. Huselid, (1996), The impact of human resource management practices on perceptions of organizational performance, The Academy of Management Journal, Pp.949-969.

- [15.] Katou, A.A. and P.S. Budhwar (2006), The effect of human resource management policies on organizational performance in greek manufacturing firms, Thunderbird International Business Review.
- [16.] Singh, K., (2004), Impact of HR practices on perceived firm performance in India. Asia Pacific Journal of Human Resources, Pp.301-317.
- [17.] Tzafrir, S.S (2006), Universalistic perspective for explaining the relationship between hrm practices and firm performance at different points in time. Journal of Managerial Psychology, Pp.109-130.
- [18.] Wickramasinghe, V. and M. Karunasekara (2012), Impact of ERP systems on work and work-life. Industrial Management and Data Systems, Pp.982-1004.
- [19.] Keebler, T.J. and D.W. Rhodes (2002), E-HR: Becoming the Path of Least Resistance, Wiley Periodicals, Inc.