AN EMPIRICAL STUDY ON PARADIGM SHIFT IN HUMAN RESOURCE RECRUITMENT AND MANAGEMENT SYSTEM IN THE CORPORATE.

Harshita Singh¹, Deeksha Vishnoi², Aniket Dixit³

^{1,2,3}Department of Computer Science & Engineering,

Mangalmay Institute of Engineering & Technology, Uttar Pradesh India.

ABSTRACT

The Human Resources Recruitment & Management System project is primarily focused with the administration of a company's Human Resource Department. The systems and processes at the confluence of human resource management and information technology are referred to as a Human Resource Management System (HRMS). It combines HRM as a discipline, and more specifically, basic HR activities and processes, with the information technology sector, whereas data processing system programming grew into standardized routines and packages of enterprise resource planning software. Acquiring and retaining high-quality talents is critical to an organization's success. As the job market becomes increasingly competitive and the available skills grow more diverse, recruiters need to be more selective in their choices, since poor recruiting decisions can produce long-term negative effects, among them high training and development costs to minimize the incidence of poor performance and high turnover which, in turn, impact staff morale, the production of high-quality goods and services and the retention the organizational integrity. At worst, the organization can fail to achieve its objectives thereby losing its competitive edge and its share of the market. The electronic human resource recruitment system has attracted a lot of attention because the human resource recruitment system has been a key point of enterprise recruitment and competition. This project argues the characteristics of traditional human resource recruitment and compares the types of human resource recruitment from five perspectives: quality, speed, dependability, flexibility, and cost. The process of onboarding employees, tracking their staffing capacity, and adding and terminating employees are all covered in this project. This project should keep track of each employee and their company's staffing capacity, which can be used for performance evaluation. On this basis, transfers, removals, and promotions can be made.

Keywords: Human Resource Management System (HRMS), HTML - hypertext markup language, CSS - cascading style sheets ,XML ,CSV - comma-separated values ,SQL - structured query language

INTRODUCTION

In the 21st century, human beings are accelerating the speed to the information society, taking advantage of computer science is a long trend of enterprise recruitment in the future. Considering the development of technology and the importance of the human resource, managers realize that human resource is valuable, rare, inimitable and non-substitutable, electronic human resource recruitment has been a key point of the enterprise management and competition, so the electronic human resource recruitment system has attracted a number of attentions. Even though the human resource recruitment system is a large investment for organizations, it can save the cost for organization and increase the effectiveness.

The human resource recruitment system is a system to create a real-time, information-based, self-service, interactive work environment, and it refers to complete human resource recruitment practice with the advantage of computer-based technologies (Gainey, Klaas, 2003). Little attention was paid to exploring the differences between traditional human resource recruitment, and there was little literature showing how this project optimizes the human resource recruitment process. It is the reconstruction process of human resource recruitment. Before adopting the human resource recruitment system, managers should evaluate HR processes reengineering, this paper discusses the HR processes reengineering from the operation management perspective.

RELATED LITERATURE WORK

With the development of human resource recruitment system, comparing with the traditional human resource recruitment; it has several domains in this system: In the traditional human resource recruitment, the specialists are responsible for the different activities of HRM (e.g. Selection & Onboarding; Training & Development, Compensation Management, Employment Relationship), that means, the information of traditional human resource recruitment systems is separated in different units, the specialist may give feedback to employees about their information, the information flow is sent from specialists to employees or their managers. But in the human resource recruitment system, all information is collected in the database; employees can get their own detailed information through their personal account in the system. For the specialists, they can acquire information from the database, and their information will be sent to

the database. The data of the HRM is two-way flow (from specialist to database and from database to specialist). In traditional HR recruitment, the process of HRM is following those steps: (a) Sourcing (b) Screening, (c) Evaluation control, (d) Selection, (f) Employee relationship. Superior recruitment and selection strategies result in enhanced organizational results. With focus on this framework, the literature review of recruitment management systems will be prepared to shed light on Recruitment and Selection procedure. The core matter is to recognize universal practices which organizations adopt in recruitment and selection of employees then, to determine how the recruitment and selection procedures have effects on organizational results (Nel et al., 2004).

METHODOLOGY

Our application combines a number of inter-dependent methods of processing data. As a whole, our project uses Joomla for the backend and Application development technologies or the implementation of the recruitment management system. Each of the mentioned technologies is paramount to the creation of the application and the various steps it would take to produce the output. Web development methods are the primary part of the project as it is our output to the user, and will also be in use for the development of the end application. Application and Web Development Methods will also be in forefront to develop the product website and application. In order to achieve the stated objectives, the following methodology was used. Review of existing processes and systems to perform critical investigation and analysis of the existing recruitment process. System modeling using UML diagrams, use case and sequence diagrams to design/model the recruitment management system. Database management system (MYSQL) is used to create the database for the applicants and companies record.

Tools & Technologies used in Human Resources Recruitment & Management System

This section will describe various tools used to develop the project.

Joomla

Joomla is an open-source content management system used for creating Web content. It is written in PHP and makes use of a MySQL database for storing data and uses object-oriented programming techniques. It is one of the most popular content management systems owing to its features such as page caching, multi-language support, plugins and extensions.are created namely: res1 and res2, for storing crop names that satisfy preference conditions 10 For each

candidate in recruitment dataset "candidates.csv "do If preference 5 is satisfied then If preference 4 is satisfied then Append candidate name to list "res1 "Else if preference 3 is satisfied then Append candidate name to list "res2 "End if Else Reject the crop End if End for Finally, displaying predicted candidate list along with its details to the user.

MySQL

To connect python with the database, a MySQL connector is required. To work with the latest version it requires MySQL server version 8.0, 5.7, 5.6, 5.5. To install the MySQL connector, use command in the command prompt.

HTML

Hyper-Text Markup Language, regularly alluded to as HTML, is the standard markup dialect used to make website pages. Alongside CSS, and JavaScript, HTML is a foundation innovation used to make pages, and additionally to make user interfaces for portable and web applications.

The following are basic hardware and software required to train and test the program.

PHP Version: Joomla recommends that you use a PHP Version that is either 5.6 and up or 7.0 and up.

PHPMyAdmin

PhpMyAdmin, an apache server is required. provides both PHP- MyAdmin and apache for local computers. PhpMyAdmin is required to use the database for login and other purposes.

Data collection



Figure 1 Data Flow Diagram

The entity's data flows through multiple processes to produce results. The HRMS consists of model processing, which facilitates the discovery of information needs within the enterprise, and when a user or a manager requests access to the data, the call action will be performed with the help of the controller to generate the required data.



Design and architecture

Joomla Model View Controller (MVC)

Our application combines a number of inter-dependent methods of processing data. As a whole, our project uses Joomla for the backend and Application development technologies or the implementation of the recruitment management system. Each of the mentioned technologies is paramount to the creation of the application and the various steps it would take to produce the output. Web development methods are the primary part of the project as it is our output to the user, and will also be in use for the development of the end application. Application and Web Development Methods will also be in forefront to develop the product website and application. In order to achieve the stated objectives, the following methodology was used. Review of existing processes and systems to perform critical investigation and analysis of the existing recruitment process. System modeling using UML diagrams, use case and sequence diagrams to design/model the recruitment management system. Database management system (MYSQL) is used to create the database for the applicants and companies record.

User Authentication use case Narrative

Priof Description	This singular module is for getting access into the system by
Brief Description	This singular module is for getting access into the system by
	the user.
Actor(s)	Users
Flow Of Events	Basic Flow:
	The use case begins when the user accesses the webpage
	1. The user enters the URL to the page.
	2. The user inputs his or her login details.
	3. System Displays Homepage
	Alternative Flow:
	If user information is incorrect he or she is not granted access
	to the recruitment platform.
Level	User use case
Parameters	Input: user login details
	Output: The recruitment platform homepage
Pre-Conditions	All users must:
	• Have valid user account.
	• Have working Internet connection.
Post-Conditions	If use case is successful, user is granted access to the System.
(Success End)	

This section displays the user authentication use case narrative alongside the use case diagram

for the user authentication module.

Employer use case narrative

This section displays the user authentication use case narrative alongside the use case diagram for the user authentication module.

Brief Description	This module gives the job provider the ability to view his or
	her information and also to edit it.
Actor(s)	Job providers
Flow Of Events	Basic Flow:
	The use case begins when the user has successfully logged in
	to the system.
	• The Job provider is directed to the homepage from the
	login page where he/she can decide to direct to his/her
	information page.
	• The job provider can decide to update the information
	which he/she initially inputted when he/she registered.
	• System displays job seeker information.
	• Job provider can decide to post a job opening.
	Alternative Flow:
	If the job provider is not logged in he or she is redirected to
	the login page.
Level	User use case
Parameters	Input: session values
	Output: the job provider information page.
Pre-Conditions	The job provider must have been successfully authenticated.
Post-Conditions	If use case is successful, the job provider information page is
(Success End)	displayed.
Post-Conditions	If use case is not successful, an error page is returned or in
(Failed End)	some cases the user is redirected to the login page.
Trigger	Webpage getting the correct session values

RESULT AND DISCUSSION

One of the fundamental principles of strategic HRM research is that the impact of HR practices on individuals as well as organizations is best understood by examining the system of HR practices in place. Considering that HR practices are rarely, if ever, used in isolation, failure to consider all of the HR practices that are in use to manage employee's neglects potential important explanatory value of unmeasured HR practices. Yet, while researchers may agree that a systems perspective is most appropriate, adopting a systems perspective introduces a host of issues and problems that remain to be addressed in literature. Our aim of this work is to develop a human resources recruitment management system. The following are the objectives that will be used to achieve this aim:

- To design/model the recruitment management system
- To create a database system for the applicants and companies record
- To implement the recruitment management system.

In the 21st century, human beings are accelerating the speed to the information society, taking advantage of computer science is a long trend of enterprise recruitment in the future. Considering the development of technology and the importance of the human resource, managers realize that human resource is valuable, rare, inimitable and non-substitutable, electronic human resource recruitment has been a key point of the enterprise management and competition, so the electronic human resource recruitment system has attracted a number of attentions. Even though the human resource recruitment system is a large investment for organizations, it can save the cost for organization and increase the effectiveness.

Human Resources Recruitment & Management system, is a time and money-saving platform that businesses may utilize to lower their recruitment costs. The burden of employers can be eliminated and reduced to a minimum with this research effort. The goal of this project is to make the onboarding process simple and efficient. E-recruitment can be improved even more by adding modules or functions that allow candidates to be tested and then referred to employers based on their scores and rankings on the profiles in order to have a real-time track over the employee.

REFERENCES

- Evaluation and analysis of strategic human resource management based on multi-mode fuzzy logic control algorithms by Feng Jin;Li Wang - 2020 5th International Conference on Mechanical, Control and Computer Engineering (ICMCCE).
- 2. Improvement In Manpower Productivity By Using Training Within Industry Job Methods

(JM) (A Case Study Of Parason Group, India) Meenakshi Tyagi; Shivani Agarwal; Gagneet Kaur Bhatia 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO).

- Impact of Human Resource Practices on Knowledge Management: An Empirical Analysis Rajni 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)
- 4. Agarwala, T. (2003). Innovative human resource practices and organizational commitment: An empirical investigation. International Journal of Human Resource Management, 14, 175–197. Ahmad, O., & Schroeder, R. G. (2003). The impact of human resource management practices on operational performance: Recognizing country and industry differences. Journal of Operations Management, 21, 19–43.
- Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. Journal of Management, 29, 99–118.
- Huselid, M. A., & Becker, B. E. (2000). Comment on "measurement error in research on human resources and firm performance: How much error is there and how does it influence effect size estimates?" by Gerhart, Wright, McMahan, and Snell. Personnel Psychology, 53, 835–854.
- Ichniowski, C., Shaw, K., & Prennushi, G. (1997). The effects of human resource management practices on productivity: A study of steel finishing lines. The American Economic Review, 87, 291–313.
- Jackson, S. E., Chuang, C., Harden, E. E., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive teamwork. In: J. Martocchio (Ed.), Research in personnel and human resource management. Jackson, S. E., & Schuler, R. S. (2000). Managing human resources: A partnership perspective. Cincinnati, OH: South-Western. Jackson, S. E., Schuler, R. S., & Rivero, J. (1989). Organizational characteristics as predictors of personnel practices. Personnel Psychology, 42, 727–786.
- James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and research. Psychological Bulletin, 81, 1096–1112. Johnson, J. W. (1996). Linking employee perceptions of service climate to customer satisfaction. Personnel Psychology, 49, 831–851.

- Katz, H. C., Kochan, T. A., & Keefe, J. H. (1987). Industrial relations and productivity in the U.S. automobile industry. Brookings papers on economic activity. Washington: The Brookings Institute. Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation and implementation. Academy of Management Review, 21, 1055–1088.
- 11. Koch, M. J., & McGrath, R. G. (1996). Improving labor productivity: Human resource management policies do matter. Strategic Management Journal, 17, 335–354.