Enhancing Organizational Performance through HR 4.0 and Advanced Communication Tools

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Abstract - In order to better understand the mediating and moderating impacts of talent matching, this study examines the relationship between quality hiring and the implementation of HR 4.0 technology. The theories suggest that the implementation of HR 4.0 technology has a substantial direct impact on quality hires as well as an indirect impact through talent matching acting as a moderating and mediating element. This study investigates the substantial influence that HR 4.0 technologies have on firms' ability to hire top talent. Through a careful analysis of the literature and empirical data, this study clarifies the complicated implications of cutting-edge technological tools like automation, machine learning, artificial intelligence (AI), and data analytics on the recruiting and selection process. These results demonstrate how crucial it is to apply successful talent matching techniques in addition to HR 4.0 technologies to improve the quality of hires made by firms. Future research directions are suggested, along with implications for theory and practice.

Keywords: Enhancing Organizational, Advanced Communication Tools, HR 4.0

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INTRODUCTION

The advent of the Fourth Industrial Revolution, often referred to as Industry 4.0, has brought about transformative changes across various sectors, including human resources (HR). HR 4.0 represents the integration of advanced technologies such as artificial intelligence (AI), machine learning, big data analytics, and the Internet of Things (IoT) into HR practices. This integration aims to enhance efficiency, improve decision-making, and foster a more dynamic and agile workforce. As organizations navigate this new landscape, understanding the impact of HR 4.0 on organizational performance becomes crucial. According to Anwar, (2017), with regard to Kurdistan region of Iraq, the growth of the SME segment is also of significant position and requires some feasibility, in specific as the nation experiences tasks in the systems of restricted work prospects for people in the private region and a wealth which lasts to trust generally on the hydrocarbon division. In Kurdistan region of Iraq, 40 percent of the employees is engaged in SME sector and this GDP range is between 15 to 20 percent(Anwar & Abdullah, 2021) The accelerating pace of technological innovation, the connectivity of data, and the advent of intelligent automation present a unique confluence of factors, which have necessitated a Revaluation of traditional HR practices.(Hirshberg et al., 2020)

The integration of IoT in HR practices further exemplifies the shift towards a more connected and responsive workplace. Wearable devices and smart office technologies can monitor employee well-being, track attendance, and provide real-time feedback on workplace conditions. These innovations contribute to a healthier and more productive work environment, ultimately boosting organizational performance .(Vazquez,2011),Technological and economic developments have worsened the belief that the level of knowledge assets gives an indication of The achievement of efficiency and effectiveness of human resources necessarily requires the potential for future profitability using the technologies of the Fourth Industrial Revolution 4.0.

Employee job effectiveness is a very critical variable for both employees and organizations. Effective employees show high levels of productivity and performance, which in turn play a significant part in lifting organizational performance. Scholars found that employee job effectiveness is affected by numerous factors including human resource management (HRM) practices. The introduction of industry 4.0 concept results in various changes in how organizations should work. However, the transition to HR 4.0 is not without challenges. Organizations must address issues related to data privacy, cybersecurity, and the ethical implications of using AI in HR processes. Ensuring that employees

are adequately trained to work with new technologies and fostering a culture of continuous learning are also critical for the successful implementation of HR 4.0. (Shamaileh et al., 2023)

(Kosti et al., 2018) However, just like in other disciplines, ergonomics science has undergone some advances, changes and renewals relating to the innovations and needs brought by this age and technology. When recent studies in the field of ergonomics are examined, the most important contributions within the scope of human–machine interactions come from studies with brain imaging techniques, especially those using neuroscience tools. The main reason for this is that new developments are happening in Industry 4.0 today: labour-intensive work is decreasing over time in light of these developments, and technology-intensive jobs that require a greater mental workload are increasing .As an example of these studies, Rickets on established the neurorobotics laboratory infrastructure with its own resources at the beginning of 2017 in Turkey (Kosti et al., 2018) Current studies suggest that human resource management is situated in a central place for the achievement of environmental performance. Organizations implement environmental management by carrying out green practices (e.g., personnel selection, and performance evaluation) that are consistent with environmental goals(Tang et al., 2018)

Aim and Objectives

Aim

The next stage of human resource development, known as HR 4.0, will transform HR procedures by fusing cutting-edge technology like big data analytics, machine learning, artificial intelligence, and the Internet of Things. The objective of this transformation is to improve decision-making, employee engagement, efficiency, and overall strategic alignment in order to improve organizational performance. This study investigates how HR 4.0 affects organizational performance by looking at important areas where this technological integration has an impact.

Objectives

- To Automate the screening process, reducing time-to-hire and improving the quality of hires.
- To Forecast talent needs and identify potential skill gaps before they become critical.
- To Reduces biases in performance appraisals by relying on quantifiable data.
- To Ensures the right talent is in place to meet organizational objectives

LITERATURE REVIEW

Adoption of HR.4.0 Technologies

Traditional human resource management practices include several practices such as employee recruitment and selection, employee training and development, employee performance appraisal, employee job planning. Organizations cannot depend only on these traditional practices in today's world that are inspired by new technologies (Verma et al., 2020) such as industry 4.0 technologies. Hence, organizations should readjust their policies of human resources i.e., to adopt smart human resource 4.0 in order to gain numerous benefits such as performing human resource operations quickly and efficiently, attracting, developing and retaining new-age talents, and leaner human resource departments(Vereycken et al., 2021)**.**

Academics have investigated the elements influencing HR 4.0 technology adoption in businesses. The desire for greater efficiency, cost savings, talent competitiveness, regulatory compliance, and push to innovate are a few examples of these drives. Knowing these factors makes it easier for academics and professionals to evaluate the reasons behind business decisions to invest in HR technology. Effect on HR Functions: Researchers have looked at how HR 4.0 technologies are changing the way that conventional HR tasks are done. Their effects on hiring and acquiring people, performance management, learning and growth, employee engagement, pay and benefits, and the provision of HR services are all included in this. Researchers and practitioners may predict changes in HR roles and responsibilities by having a better understanding of these consequences.

Quality of hires

The quality of hiring determines the calibre of employee performance. While many executives would agree that this is a simple reality, the majority of businesses today do not identify and systematically manage the elements that affect the quality of recruitment. However, in the future, businesses who establish standardised procedures and measurements pertaining to hiring quality would gain a significant competitive advantage. Numerous research examining strategies to reduce expenses and boost workforce efficiency can be found across the business literature. However, there hasn't been much published on the importance of hiring quality and how it relates to profits and sales. (Lermusiaux & Snell, 2005) .

Several researchers have defined QOH per their convenience, and HR leaders view QOH more as a "fit" construct to be determined through psychometric assessments and past job-skill experience .Among the several suggested approaches to measuring the quality of hire, new hire performance, and turnover rates, employee engagement and culture fit with the new hire are considered the most effective (Dutta & Vedak, 2023). Studies focused on using practice tests to manage the candidate quantity-quality dilemma. Still, they limited the definition of quality to the ability to separate qualified and unqualified candidates and reduce selection costs . Several organizations also consider the tenure of employees and use it as a measure of QOH. In a LinkedIn

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study, 97% of the respondents agreed that tenure is crucial for the organization.

Further, 39% of the hiring managers argued that QOH is the most valuable metric for tracking recruitment performance (Dutta & Vedak, 2023). During the previous three years, the majority of the companies that responded to the poll (55%) have employed new workers for occupations that need a two- or four-year degree from New Jersey colleges and universities. Numerous companies voice their worries over the degree of preparation obtained by graduates holding bachelor's and associate's degrees. Refer to Table 3. Employers in New Jersey, four out of five of them, do not believe there is a difference in the quality of education between graduates from New Jersey colleges and those from other states. Additionally, during the previous five years, employers did not see any appreciable improvements in the calibre of college graduates. One employer gave this explanation for her worries about the calibre of graduates: "The demands in the workplace haven't gotten worse; they've just gotten bigger."(Van Horn, 1995)

Employee engagement satisfaction levels

Outcomes of job satisfaction as reported in the literature include it effect on employee productivity(Bhatti & Qureshi, 2007)**.** which means that employee productivity and performance can be enhanced based on employee job satisfaction(Sabuhari et al., 2020)**.** Explaining the casual relationship between job satisfaction and job effectiveness could refer to the drivers of job satisfaction that supports employee competencies. Based on prior works on employee job satisfaction, it was noted that employees who are satisfied with various factors such as supervisor cooperation, communication style, working conditions, pay(Sabuhari et al., 2020) identified various facilitators of job satisfaction such as adequate job resources, career development, organizational systems, employee training, employee motivation, and positive organizational value**.**

Defined EE as the "application of individuals' physical, cognitive, and emotional expression during role performances in engagement, organisation members' selves". But much as with other behavioural science concepts, there is disagreement about what exactly constitutes EE. Define EE, for example, as having two facets: absorption and attentiveness. While absorption refers to "being engrossed in the role and refers to the intensity of one's focus on a role," attention is defined as "cognitive availability and amount of time one spends thinking about and role."(Kahn, 1990)

Communication Tools and practices:

One of the most important aspects influencing an organization's effectiveness is its workforce. A successful company recognizes that human resources are essential to Factors have a direct impact on and contribute to performance . Any organization's ability

to succeed is mostly dependent on the actions and decisions made by its personnel, however a number of other elements also have a role, including the organization's size, operations, and surrounding environment. Human resource management methods are frequently used to assess an employee's performance inside the company. In the current period, where firms compete fiercely, there is a propensity to increase employee performance through the improvement of HRM practices. (Oczkowski et al., 2016)**.**

After surgery, patients with head and neck cancer have difficult and irritating communication challenges; nevertheless, there hasn't been much focus on patient communication in the clinical and research literature during the postoperative period in the hospital. During the postoperative period 12 months after surgery), ten published studies and one clinical case report specifically addressed the communication needs, methods, or perceived voice quality of patients with head and neck cancer were found through an automated and manual search of the medical (MEDLINE, Cancer lit), psychological (health and psychosocial instruments), and nursing (CINAHL) literature (1968 to April 2002). An overview and critical analysis of the literature on postoperative communication with adult patients with head and neck cancer in hospitals is provided in this review. Information demands, communication styles and voice quality, and quality-of-life perceptions in relation to socialization, communication, and deformity are the three main subjects that are covered. This review demonstrates how patients with head and neck cancer have had their communication needs, communication strategies, and voice quality perceptions disregarded while they were in the hospital. Research implications are provided, along with a discussion of clinical concerns and recent developments in augmentative and alternative communication technologies that are relevant to the in-hospital stay.(MacKay et al., 2022).

METHODOLOGY

Research Design

The research adopted quantitative approach to examine the impact of HR 4.0 on organizational performance. A cross-sectional design was implemented to collect data at a single point in time from participants representing different demographic backgrounds.

Sampling

The study utilized a convenience sampling technique to select customers. A sample size of 350 respondents was chosen based on Skill Matching and Employee engagement and satisfaction levels.

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Random Sampling

Random sampling, a strategy for selecting samples from a group of individuals, guarantees that every potential participant has an equal chance of being picked. A representative sample of the complete population may often be obtained by randomly selecting a sample from a group. Random sampling is among the most straightforward techniques for obtaining data from a large population.

When the population is only picked once, the random sampling formula is as follows.

Data Collection

Gathering data is a critical component of every research endeavors. Primary data collection and secondary data collection are the two methods of information gathering that are most often employed. Using a questionnaire, the main data will be obtained. Aside from these places, books, essays, research papers, yearly reports, and periodicals and journals may also include secondary data.

Tools for Data collection

Surveys/questionnaires: To gather information from respondents, structured questions are used in surveys, which are tools for collecting data. Their usage in research is common, since they provide valuable perspectives on attitudes, beliefs, and experiences. Researchers may quantify data, look for trends, and understand the different perspectives of teacher, student and parents on a given topic by using surveys, which are an adaptable instrument.

Tools and Techniques of this Study

Tools

In this research, the SPSS (Statistical Package for Social Sciences) application is used.

Techniques

Regression Analysis

Regression analysis is a statistical approach for determining the connection between one dependent variable and one or more independent variables. It seeks to understand how changes in the independent factors affect changes in the dependent variable. The basic concept is to adapt a mathematical model to the data that best captures the connection. The most frequent method is linear regression, which uses a straight line to estimate the connection. Regression analysis is adaptable and extensively used in a variety of areas, including economics, biology, and social science. It helps researchers make predictions, analyses patterns, and determine the degree and type of linkages within datasets. The analysis generates a regression equation that may be used to estimate the dependent variable's value using the values of the independent variables. The coefficients in the regression equation indicate the intensity and direction of the associations. A positive coefficient suggests a positive link, while a negative coefficient denotes a negative relationship. Regression analysis is also used by researchers to analyse the statistical significance of correlations, which helps in determining if the observed patterns are dependable and not due to chance. Overall, regression analysis is an effective approach for modelling and analyzing complicated connections in datasets.

Hypothesis Development

H_1: There will be significant impact of Adoption HR 4.0 technology and Quality of hire.

The quality of hire is one of the many HR activities that might be greatly improved by HR 4.0, the integration of Industry 4.0 technology into Human Resource Management (HRM). This section examines how HR 4.0 technologies affect hiring quality, emphasizing the ways in which cutting-edge technology enhance the procedures and results of the hiring process.

AI and Machine Learning

With the advent of the fourth industrial revolution and the fierce competition to fill open positions in industries, companies are moving the hiring process online. Candidates must be talented, qualified, intelligent, and potential. Since artificial intelligence (AI) can process information quickly and adapts to large amounts of data, it can analyse and display data to employers in a clear and understandable manner, enabling them to make informed judgments.

The question of whether newly applied candidates for a position will perform as expected under the recruiting criteria or not, as well as how to choose a candidate who will, comes up in the near future. Although it can be difficult to assess a candidate's performance before hiring them, employers are nonetheless worried about the performance reviews of their current staff.

This paper offers a conceptual framework for a follow-up use of artificial intelligence (AI) in the hiring process that combines social screening and performance management to forecast the predicted performance of a new hire by examining past employee conditions and performances. An extra factor that helps the recruiting decision-makers will be provided by this strategy. To provide optimum accuracy, the performance evaluation should be handled in different areas. For instance, the employee's ethics level should be evaluated separately from their talents in another field.

Big Data Analytics

A methodical technique to optimizing data for the employment process is big data analytics. It entails leveraging data to derive insights regarding personnel acquisition, including forecasting requirements and sourcing tactics. The previous intuition-based decision-making process is replaced

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with this data-driven method, which shortens the time to hire and improves recruitment efficiency overall. Data analytics introduces a purposeful, scientific approach that changes the recruitment paradigm. Recruitment success is measured by metrics such as time-to-fill, cost-per-hire, and quality-of-hire, in addition to KPIs like applicant satisfaction and retention. Organizations may improve strategy and make wise decisions by routinely tracking these indicators, which helps them stay competitive in the ever-changing personnel landscape.

H2: Communication tools practices between adoption of HR and quality of hire

A key element of utilizing HR 4.0 technologies to improve hire quality is effective communication. This section examines a variety of HR 4.0-enabled communication techniques and tools that have a big impact on hiring quality and the hiring process.

AI-Powered Chabot's and Virtual Assistants

Artificial intelligence (AI)-driven chatbots and virtual assistants are computer programs that mimic human-like consumer chats via the use of machine learning techniques and natural language processing (NLP). These AI-powered solutions can function across a range of platforms, such as messaging apps, mobile websites, and mobile apps. In order to reduce the stress on human agents, chatbots and virtual assistants are used to answer regular customer inquiries, troubleshoot issues, and deliver prompt resolutions.

Automating support processes is one of the most common uses of chatbots and virtual assistants in customer service. The stress on human agents is decreased by these AI systems ability to quickly and effectively handle regular customer inquiries, solve issues, and deliver solutions. The several ways that automation improves customer support operations are examined in this section. Large volumes of consumer data and behaviour can be analysed by AI-driven customer care systems. By using this information, they are able to offer highly individualized suggestions for goods or services. This improves client satisfaction while also opening doors for upselling and cross-selling. We'll examine recommendation engines' inner workings and how they affect companies. Consumers anticipate using chatbots and virtual assistants to handle transactions more and more conveniently. The ordering process can be streamlined by using these AI technologies to help customers with order placement, shipment tracking, and real-time updates. We will talk about how artificial intelligence (AI) is transforming how customers place orders and follow through on them in this part.

H3: Relation between adoption and employee engagement satisfaction levels

It has been discovered that HR 4.0 technology adoption has a major impact on employee happiness and engagement levels. This relationship is essential since happy and contented workers are more likely to be devoted, productive, and loyal, all of which boost an organization's success as a whole. Transparent communication channels between management and staff are made possible by modern HR systems, enabling frequent performance reviews, praise, and feedback. Employee engagement and satisfaction are positively correlated with their sense of being heard, respected, and supported in their roles.

The implementation of HR 4.0 technologies has the potential to greatly influence employee engagement satisfaction levels through enhanced recruitment processes, on boarding procedures, data-driven decision-making, work-life balance, opportunities for learning and growth, communication channels, and retention campaigns. Through the efficient utilization of these technologies, firms may establish a vibrant and encouraging work environment that promotes long-term commitment, employee engagement, and satisfaction. The implementation of HR 4.0 technologies frequently results in a recruitment process that is more efficient and customized. A seamless and effective hiring process might have a favourable effect on candidates' opinions of the company. Creating a good first impression might help increase new hires' levels of satisfaction and engagement.

Data analysis

- **Descriptive Analysis**: Descriptive statistics will be computed to provide a summary of the demographic characteristics of the sample, financial literacy scores, and economic empowerment indicators. The data will be described using statistical measures such as mean, median, standard deviation, and frequency distributions

- Inferential analysis will be used to investigate the correlation between programmes aimed at improving financial literacy and measures of economic empowerment. Regression analysis is one of the statistical approaches that will be applied for this purpose. In order to evaluate the distinct impact of financial literacy, it is possible to account for covariates such as age, gender, education, and income throughout the study.

- Statistical tools, such as SPSS (Statistical Package for the Social Sciences) or R, will be used for data analysis. We will estimate regression models to test the hypotheses and uncover important determinants of economic empowerment.

- **Analysis of Results:** The results will be analysed in relation to the study hypotheses, examining the consequences for policy, practice, and future research. The research

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will recognise its limitations and provide suggestions for improving financial literacy

- **Quantitative data:** Correlations and trends are found using statistical tool analysis.
  To identify important themes and ideas from qualitative data, use thematic analysis.

RESULTS

Conceptual Framework
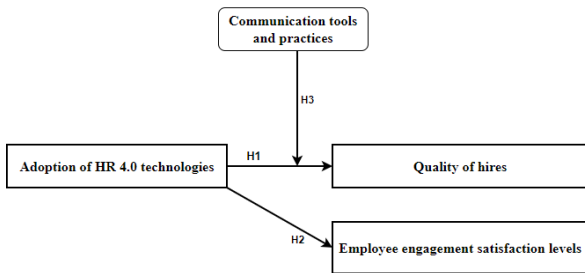
Hypothesis

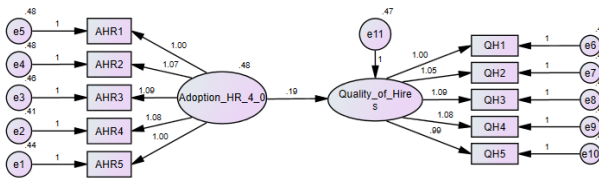**H₁: There will be significant impact of Adoption HR 4.0 technology and Quality of hire.**

Table 12 Regression Weights

Path Co efficient			Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Quality of hires	<---	Adoption HR	.190	.064	.189	2.980	.003
AHR5	<---	Adoption HR	1.000		.723		
AHR4	<---	Adoption HR	1.085	.084	.763	12.869	***
AHR3	<---	Adoption HR	1.092	.087	.744	12.599	***
AHR2	<---	Adoption HR	1.072	.086	.733	12.430	***
AHR1	<---	Adoption HR	.998	.083	.707	12.022	***
QH1	<---	Quality of hires	1.000		.712		
QH2	<---	Quality of hires	1.055	.087	.728	12.188	***
QH3	<---	Quality of hires	1.093	.087	.750	12.510	***
QH4	<---	Quality of hires	1.077	.085	.764	12.718	***
QH5	<---	Quality of hires	.991	.082	.721	12.086	***

Table depicts a hypothetical structural equation model that show cases the interdependence between Two variables, namely the Adoption of HR 4.0 technologies and Quality of hires. In the present model, the independent variable is the Adoption of HR 4.0 technologies, whereas the dependent variable is Quality of hires. The findings of the investigation indicate a positive and statistically significant relationship between Adoption of HR 4.0 technologies and Quality of hires ($\beta=0.190$, P<.05).

The standardized coefficient of 0.189, a positive association between Adoption of HR 4.0 technologies and Quality of hires, as shown in the route connecting these two variables. The correlation coefficient values (C.R. values) show large magnitudes, suggesting that the observed associations are statistically significant. The fit indices indicate that the model has a good fit, since the factors exhibit statistical significance with p-values over 0.05. The total model fit was evaluated by using seven distinct fit indices, which together demonstrated a statistically significant positive association between Adoption of HR 4.0 technologies and Quality of hires. Standardized Regression Weights: (Group number 1 - Default model)

Table 13 Model fit summary

Variable	Value
Chi-square value(χ^2)	54.161
Degrees of freedom (df)	34
CMIN/DF	1.225
P value	0.172
GFI	0.976
RFI	0.961
NFI	0.971
IFI	0.994
CFI	0.994
RMR	0.029
RMSEA	0.025

The quality of fit was acceptable representation of the sample data ($\chi 2$ = 54.161), NFI (Normed Fit Index) =0.971; IFI (Incremental fit index) = 0.994, GFI (Goodness of Fit) = 0.976, RFI (Relative Fit Index) = 0.961, and CFI (Comparative Fit Index) =0.994, which is much larger than the 0.90. Similarly, RMR (Root Mean Square Residuals) =0.029, and RMSEA (Root mean square error of approximation) = 0.025 values is lower the 0.080 critical value. Results indicated a good fit for the model presented including RMSEA of 0.025, RMR of 0.029, GFI of 0.976, and CFI of 0.994.

H₂: There will be Mediation effect of Communication tools practices on mediate relation between Adoption HR 4.0 technology and Quality of hire.
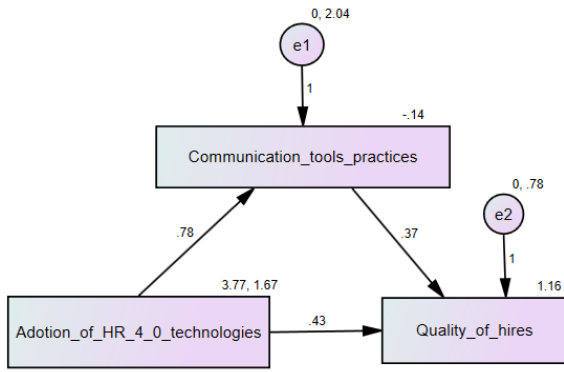
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Table 3 Regression Weights

Path Co efficient			Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Communication tools practices	<---	Adoption of hr 4.0 technologies	.783	.059	0.578	13.243	***
Quality of hires	<---	Adoption of hr 4.0 technologies	.430	.045	0.400	9.585	***
Quality of hires	<---	Communication tools practices	.372	.033	0.468	11.226	***

The regression analysis presented in Table 2 explores the connection between Adoption of HR 4.0 technologies, Communication tools practices, and Quality of hires, with a specific emphasis on examining the mediating role of Communication tools practices. Based on the findings, it is evident that the utilization of Adoption of HR 4.0 technologies and the level of Communication tools practices play a crucial role in influencing Quality of hires. The unstandardized estimate for the path from Adoption of HR 4.0 technologies to Communication tools practices is 0.119, with a critical ratio (C.R.) of 2.215, suggesting a robust positive correlation. In a similar vein, the relationship between using Adoption of HR 4.0 technologies and Quality of hires is supported by a substantial unstandardized estimate of 0.085 and a C.R. of 2.147 In addition, there is a noteworthy unstandardized estimate of 0.653and a C.R. of 16.672 when considering the path from Communication tools practices to quality of hires.

H₃: There will be Moderation effect of Communication tools practices on moderate relation between Adoption HR 4.0 technology and Employee engagement satisfaction levels.
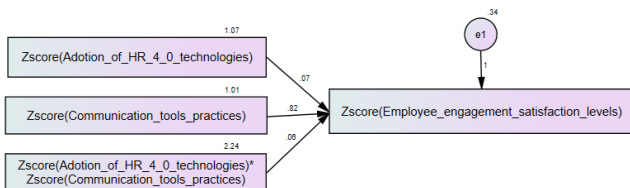

Table 14 Regression Weights

Path Co efficient			Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Z Employee engagement satisfaction levels	<--	Z Adoption of HR 4.0technologies	.065	.030	.066	2.158	0.031
Z Employee engagement satisfaction levels	<--	Z Communication tools practices	0.823	.031	0.812	26.404	***
Z Employee engagement satisfaction levels	<--	Z interaction variable	.056	.021	0.081	2.665	0.004

The regression analysis presented in Table 3 examines the relationship between Adoption of HR 4.0 technologies and Employee engagement satisfaction levels, taking into account the role of Communication tools practices as a moderator. The findings indicate a notable influence of utilizing Adoption of HR 4.0 technologies and the level of Communication tools practices on the Employee engagement satisfaction. The estimate for the regression weight of Adoption of HR 4.0 technologies on Employee engagement satisfaction levels is 0.065, with a standardized estimate of 0.066, suggesting a positive association between the two variables. Similarly, the estimate for the regression weight of Communication tools practices on Employee engagement satisfaction levels is 0.823, with a standardized estimate of 0.812, indicating a stronger positive association between Communication tools practices and Employee engagement satisfaction levels The estimate for the regression weight of Interaction variables on Employee engagement satisfaction levels is 0.056, with a standardized estimate of 0.081, suggesting a negative association between the two variables.
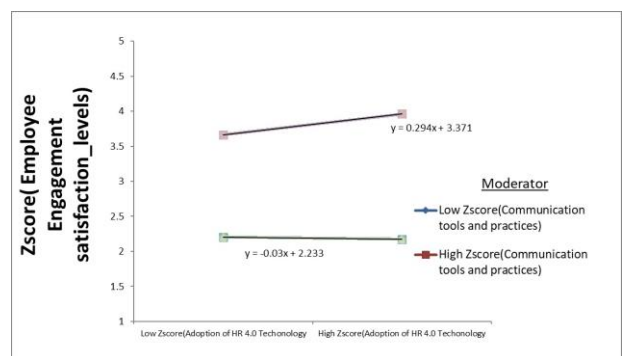
We tested the Z (Communication tools and practices) as a moderator. Result indicate that interaction term of Z(Employee engagement satisfaction levels) and Z (Adoption HR 4.0) exerts Positive and a significant influence on Z(Employee engagement satisfaction levels) (β= 0.02, P<0.05). The result shows that there is statistical support for the moderating role of Z (Communication tools and practices) in our data which is hypothesized nature of relationship. Based on the results in the aforementioned table, that Employee engagement

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satisfaction levels have a significant moderating effect between Extent of HR 4.0 implementation and Satisfaction levels.

Discussion

HR 4.0 uses automation and sophisticated data analytics to dramatically increase organizational productivity and efficiency. HR professionals may focus their attention on strategic duties like talent management, employee development, and organizational planning by automating repetitive administrative processes like payroll processing, leave management, and recruitment. AI-driven recruitment solutions, for example, reduce the time and effort HR staff must spend on hiring by effectively screening and shortlisting prospects. An AI-based recruiting system was installed by a sizable international company, resulting in a 30% reduction in the average time-to-hire and freeing up HR professionals to concentrate on enhancing the on boarding and candidate experience. By analysing employee data, personalized employee engagement platforms powered by AI and ML can identify engagement trends and potential issues before they escalate, enabling proactive interventions. These platforms also offer career development plans, real-time performance monitoring, and tailored feedback, all of which contribute to the creation of a more engaged and motivated workforce and, consequently, higher job satisfaction and lower turnover rates. There is a direct association between HR 4.0 deployment and employee engagement, as evidenced by a poll of employees in firms that implemented HR 4.0 technologies, which found a 20% increase in overall job satisfaction and a 15% decrease in yearly employee turnover.

CONCLUSION

HR 4.0 technology adoption has become a disruptive force in contemporary companies, changing employee experiences and transforming established HR procedures. Organizations may increase overall happiness, boost cooperation, improve the quality of hiring, and streamline recruiting processes with the use of advanced analytics, automation, and communication platforms. The findings show a significant positive association between the uptake of HR 4.0 technology and important performance indicators like overall satisfaction, quality of recruits, communication effectiveness, and employee engagement satisfaction. Employee productivity, retention, and organizational performance all show measurable gains for companies going forward, it is critical that companies maintain their use of HR 4.0 technology while tackling issues like algorithmic biases, data privacy, and skill shortages. Organizations may leverage HR 4.0 technology to establish dynamic, inclusive, and high-performing work environments in the digital age by giving ethical considerations, employee well-being.

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