A STUDY ON DIGITAL TECHNOLOGY EVOLVING HUMAN RESOURCE PRACTICES AND ITS CHALLENGES

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ABSTRACT

Digital technologies are electronic tools leveraging organisation performance. Digital transformation Paved the way to numerous technologies contributing organisational sustainability. Not all companies could sustain yet others are ahead on the ball keenly incorporating new technology strategies in the different areas of organisation. DT has taken up HR practices to a higher state in recruitment, training & development, rewards, payroll and performance management giving rise to Digital HR transformation. The objective ofthe study is to identify how digital technology evolved HR and its practices. The second objectives focus the challenges faced by HR on Digital transformation. Primary data collection adopting interview method with HR employees of IT /ITES companies in Bangalore north. Due to pandemic critical condition non probability sampling using convenience method is adopted. Based on the study a set of questionnaires was framed prior and interviewed experienced HR employees of not less than one year to collect the data. The interview was scheduled according to employee convenience; telephonic interview was much preferable. The study outcome states digital aspects have not changed the current focus and efficiency but they could take firm and swift decision in HR process, creating strong work force and agility in meeting business needs. Challenges faced on creating digital culture platforms, Health related problems are constant among internal employees. HR revamped its practices digitally in engaging employees through various activities.

1. INTRODUCTION

World has completely transformed into digital in all fields like IT, ITES, Telecom, Railways, ticket booking and so on. Many innovations ignited firms and industries into a new phase of production which enables every customer to receive innovative products. Industrial revolution 5.0 is an emerging trend and upcoming future creating challenges which made a huge impact in this competitive world? Big giant Organization like Infosys, TCS, Facebook and Google optimized digital operations scaling in all functional departments resulting sustainability development for long span of years. This study focus on how digital technology has evolved HR practices. Some of the technology which are trending from decade are like Artificial Intelligent, Cloud technologies, Big data, Data analytics, dashboards and IoT (Internet of Things). The recruitment process, selection process, training and development, engaging employees, evaluating performance are gone digital leading to great organisational change. Industrial 4.0 originated in 2011 usually referred as German Industry 4.0 automated HR process, no longer manual records. The technical components like AI, cloud, IoT created smart HR practices

There is a difference between HR activities and HR practices. Many of us blend this word disproportionately. Both comes under a one umbrella of HR functions. HR practices are strategic operations of HR and its implementations includes planning, organising, staffing, evaluating and managing systems to meets the business needs. Planning strategic mission and goals for the department enhance the ability to accelerate employee engagement. HR activities are carried day to day activities like recruitment, orientation, training, grievances handling. To perform HR activities, you need HR practices and to improvise employee performance you need HR practices. Digital technology has manipulated the HR practices and implementing this practice into activities. The greatest challenge to HR is in recruiting huge number of heads for the organisation process and conducting, organizing training for different group to cope up with the new technology and how to use it. The study deals with IT/ITES firms in knowing the tactics how HR practices are molded into one roof called HR digitalization. How these transformations are scaling HR employee in having vertical and horizontal communication free flow. The research says adoption of Digital technology has transformed 89 per cent of the business into digital. As per the data driven from a source says it took 5years for Microsoft company to transform completely into digital with growth rate 258 per cent. Target company took 8years for digital transformation and developing its core capabilities digitally.

Recently team agility and work agility became very significant at every level of organisation unit and with employees. There is another point to note that Can digital technology bring in agility teams and how swiftly agility can pull of employees. Sometimes organisation stand on fence to find the right strategic action for digital agility. Let us say the app fresh to home, Big basket, Licious are big time digital game changer. Big basket leverages in building data science for optimizing their business model. Machine learning and analytics envisaged 99% successful on time delivery. Data is the main principle to reach and manage their customers. IoT application is used to ensure delivery of quality fresh products in fruits and vegetables says Subramani.M head of Analytics, Big Basket. This study has been taken up to understand the Digital HR practices and how digital transformation has changed the work flow. What is the strategic plan the department

has taken for its effectiveness and steps for challenges?

2. NEED FOR THE STUDY

The Globe has become so uncertain. Disruption of technology creates fear of unemployment pushes employee to anxiety because they should upskill and reskill according to the change, undergo new training period, engage themselves into a current scenario which they are unaware. Thus, the study is required to understand digital transformation institute substantially more digital technology, every organisation seek to execute in their establishments. Implementing good HR practices for a company is paramount, such that company and its employees can overcome the challenges faced due by disruption. Good practices direct employee satisfaction, motivation and increase in performance.

3. OBJECTIVE OF THE STUDY

To identify how digital technology has evolved HR practice. What are its challenges? What are the new HR practices?

4. REVIEW OF LITERATURE

Darwish, Singh & Mohamed (2013) examined the role of strategic HRM practices in organization effectiveness study states Motivated employees with good HR practices stay longer span of period and engage at work activities in a positive contribution of success towards organization benefits. To obtain organization effectiveness study considers few factors to be very careful like recruitment, selection & training and development. Retaining employees is the major concern for organization effectiveness Bowra et.al (2012). Good HR practices can balance and generate effective performance. Trullen, et al. (2016) studied the HR department's contribution to

line manager's effective implementation of HR practices. In order to motivate employee, create abilities and opportunities HR department formulates policy such that line managers can effectively perform. Digital implementation can scale up line managers with the help of digital HR practices enhancing directs free flow of communication to all line manager. Accessing data in real times facilitating productivity of line managers. Rose & Raja (2016) analyzed the role of HR practices; job satisfaction, organization commitment in employee retention concludes organization should strive to have good HR practices to keep employees satisfied. Hence to keep them satisfied digital technology can help them to get into new practices which is faster in information and innovation makes employee interesting to accomplish work. New digital practices can help improve organization commitment in relation with employee retentions.

Betchoo (2016) examined the digital transformation and its impact on human resource management. The research sums up that digital revolution has positive impact on human resource, influence the role of HR until HR understand the application of good system and data transformation within the business system. The Digital transformation in HR. Concludes digital transformation is a paradigm shift from manual work process into machine process. Connectivity between resource and technology can create a magic. AI function in recruitment process, screening process, measuring candidate skill fit to the job culture or not. Enhances employee onboarding data transforming and security. Unal & Mete (2012) analyzed the impact of Information Technology on Human resource practices and competencies states the finding in increase of effectiveness by decrease in time and cost, digital practices empower organization

decisions making, widely used technology give rise to self-service, e-recruitment, e-training and transforming functional practices to strategic process. Examined the Evolution of the field of Human resource information system: Co-evolution of technology and HR process focus on 4 key areas of technology a) mainframe b) client server c) ERP d) cloud-based system. The HIRS is the outcome using technology. A study on innovative practices in digital human resource management. Digital HRM mainly concern on retaining employees. Traditional HRM replaced by technical advanced process. Andonova (2019) Algorithmic Management, Organizational changes and the Digitalization of HR practices: A critical Perspective. Concluded digital HR brought into new agility of work, collaborative with other onsite employees, information is very transparent. Algorithm is based on digital   traces, encourages internal communication. Vereycken, et al. (2021) Human resource practices accompanying industry 4.0 in European manufacturing industry. The study states about the relationship between industry 4.0 and three HR practices i.e. employee involvement, job design and skill development. Employee involvement shows positive relationship with industry 4.0 irrespective of digital technology.

Larkin (2017) HR digital disruption: the biggest wave of transformation in decades. Social media a digital technology place a significant role with expectation and working practices for employees. One of the important technologies used is cloud technology makes easily accessible information and effective communication, Thus digital leverages the strategic decision and effective leadership. It also increases the recruitment process digital solutions. Impact of Human resource practices on employee performance. Finding sorted out to in analyzing few various factors of HR

practices and how this factor leads to employee performance. The study considered three factors like training, performance appraisal and employee participation. Training has high correlation with employee performance compare to other two factors. Drawback of this study is if there is implementation of digital technology the other two factors would have played a role. Ybema, et al. (2020) HR practices for enhancing sustainable employability: implementation, use and outcomes states HR practices increases the worker's sustainability employability at work. Nadarajaha, et al. (2012) The relationship of HR practices and job performance of academicians towards career development. The association between HR practices and job performance outcome can help top management to plan out its HR practices and focus much more on the career development on its employees. Budhwar (2000) Determinants of HRM policies and practices in India: An empirical study.

Findings suggest that there are many factors which influence the HR policies and practices. Like the four practices are recruitment, selection, Training and development, compensation and employee communication

Stumpf, Doh and Tymon (2010) examined the strength of HR practices in India and their effects on employee career success, performance and potential. The outcome of study states if companies creating a strong human resource climate based on structural HR practices in performance management. professional development and normalized performance ratings. The study believes that effectiveness of HR practices influences employee perception towards career success. Singh (2013) studied that the HRM practices and Managerial effectiveness in Indian Business Organisation concludes HR practices only focus on Planning, organising,

recruitment, selection and T&D, but only planning does not work when there is a digital transformation. Hossin, Ulfy and Karim (2021) identified that the challenges in Adopting Artificial Intelligence (AI)in HRM practices AI

has greater influence in HR practices enhancing the potential of employee performance, talent management, learning and development and employee retentions resulting employee turnover. Ruel and Bondarouk (2014) examined the E-HRM Research and practices: Facing the challenges ahead this research studies that to develop and implement systems and application HR needs e-HRM.

5. RESEARCH METHODOLOGY

Data is collected through primary source following Empirical research qualitative method. Population of IT/ITES HR employees currently working are taken into

account and Bangalore north area. Study has selected Companies based on their establishment, number of employees and sustainability from long run because of reliability and genuinely of data .HR employees working in IT/ITES firm with minimum of one year and more of experience. Due to pandemic, interview method was adopted like Telephonic and Email was most preferable by HR due to situation. A structured questionnaire framed prior and sent via Was up too few HR employees, questionnaire consisting of open ended while others preferred telephonic interviews. Data is represented through graphs and conclusion are made.

The study focuses on three major aspects of HR practices

1. Recruitment
2. Training and development
3. Employee performance

Recruitment started in 55BC; Romans were the

first to implement recruitment. Julius Caesar, the army leader who brought in the employee referral by offering a reward system to one soldier to get in another solider for the war. Romans also introduced head hunting and walk-in interview. Therefore, recruitment word existed. In 55BC onwards people used to hire people for war. Henry Robinson who first started the recruitment agency in 1653.Now people are recruited for accomplish respective companies or industries goals. Recruitment is all about pool of applicants with eligible criteria. Actively seeking to hire a candidate for a required job position. Earlier days recruitment works only through newspaper. Companies advertise job vacancies; suitable candidate type the or write the resume in an England letter and post to the companies. Wait for long time for the response. Recruitment was quite difficult during earlier days. During 1950's digitalization entered the market with computers converted complex into simple works. Most of the companies started to evolve and implement the smart works of digitalization. Recruitment became one of the important practices in an organisation, HR department focused on hiring right candidate for the right job, as more and more pool of applicants received it enhanced the recruitment process step by step by having few rounds of screening.

Digitalization created wide range of networks across country in introducing telephonic and video call recruitment. Job hunting and job source place a higher level of experience. Traditional method gradually swapped with modern method of recruitment. Technology has made ease in collecting information in platforms like Facebook, twitter and Instagram set down to place the job opportunity connecting globe.

Training & Development: Digital skills are

most wanted skill in digital age. Upskill and reskill of an employee according to the project work will magnify knowledge. Digital training and digital learning increase productivity, increases organisation performance, increases self-directed learning. Digital like social media generate an opportunity for an employee to interact globally allowing boundaryless transfer of knowledge and learning. Agility towards work is effective and also reduces additional cost like recruiting trainer, training material, time, remuneration etc. Data analytics has evolved HR practices has helped in identifying the training needs, assessing the training outcomes and evaluating the performance. This helps in paradigm shift of learning process. Pre and post training can swiftly predict the loop holes about employee performance and take corrective action. With the help of data analytics feedback is obtained immediately in real times. Thus digital technology has evolved in analysing the job description, evaluating employee performance in real times, hiring process are quite easy updating employees with vast knowledge by increasing productivity.

Employee Performance: Employee performance is an act or a process of performing his or her duties and assessing their outcomes. Employee performance determines the satisfaction level as well as the organisation performance for a long duration of period. EP can only be achieved when employees are clear with goals, mission and span of control. Leadership is another criterion for scaling EP. Information has to pass on at all levels like vertical and horizontal, which can speed up the work process, decision making. Digital technology has completely evolved EP for both Gen X, GenY and Z. Data are available in real times cross communication is faster than before digital. Problems are resolved virtually across globe. Using technology like AI, cloud, IoT,

Big data, data analytics makes employee engaged and accomplish work without any hurdle. EP is much affected due to job related factors like job environment, job autonomy, job communication. Some of the other factors affects EP are motivation, skill training, organisation practices.

6. DATA COLLECTION

Interview method was adopted to collect data and to understand how digital technology has evolved HR practices.

1. Designation: Most were a) senior HR executive b) HR generalist (Senior and junior)
2. Years of experience: 4-5 years of Employees from HR department
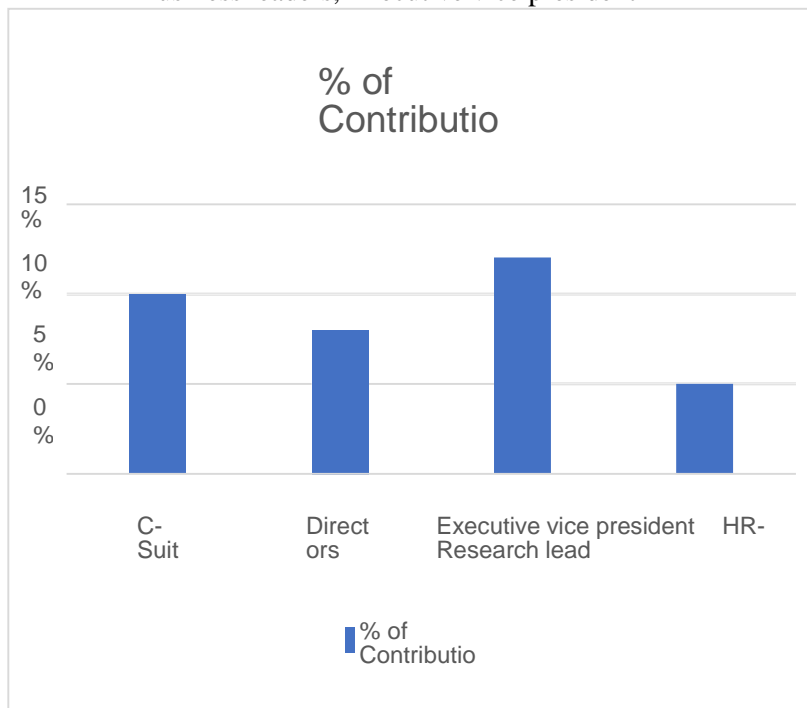3. HR practices are framed by C-Suit, Business leaders, Executive vice president

Figure 1: Percentage of Respondent

4. Major HR practices followed in your organisation
a) Hiring right candidate
b) Employee security
c) Consistently focused on productive teams

d) Training need analysis and assessment

e) Leave management

f) Evaluation of job analysis

g) Promotions and rewards (project based)

h) Retention strategies

i) Talent optimization

j) Employee participation

5. New HR practices recently implimented

a) Talent optimization

b) Digital employee engagement

c) Talent development

d) Transparent information at all levels

e) Create agility of work with clear goals

f) Commitment for consistent work environment

g) Creating digital culture and employee security

h) Digital Talent management

6. Is employee security considered an important HR practice?

Yes, Retention is majorly considered. It is achieved by giving real time feedback, encouraging employee participation, Identifying the skill set for the super jobs, identifying clear goals for each employee and set MBO, Maximum usage of digital technologies and simplifies the work. Another paramount about perk is providing medical insurance for employees and for his/her families too

7. How digital evolved HR work culture?

It has increased the flexibility of work flow, problems solving skills, transparency of information and immediate feedback.HR 3.0 has created data centric delivering high level of employee experience.

8. Digital role in framing HR practices

Tremendous change from traditional to modern method of practices leading employee experience. Job design was easy to frame, job analysis is determined within short span of time, future needs are analysed without any hurdles. Training need analysis. The gaps between skill and knowledge were recognized. Rewards and recognition for the high-performance directing retention. The current HR practices perhaps dramatically substitute to augmented reality or virtual reality adopting face detection in hiring process. Diverse work force can give room for innovative notions, flexibility in work locations. Managing employee through digital was easy as pie but the crux of the matter when there is no internet connection and flee from the work time

Key focus	Industrial (HR 1.0)	Internet (HR 2.0)	Digital (HR 3.0)
Decisions (T&D)	Institutions	Analytics	Actionable by AI with real time data
Skills (Recruit)	Soft skills	HRIS (technical skills)	Digital skills
Communication (T&D)	Rigid	Flexible	Transparent
Feedback(T&D)	Based on Annual Goals	Based on Single work assessments	Continuous

9. Challenges faced due to digital technology

HR practices should be framed such a way that it should proactively address the performance issues and workforce Digital leadership swift's role to design thinking and effective collaborate with diverse teams virtually. Gen Z employees are very adaptive but drift with Gen X employees, give on cost to the company investing in training. It's a challenge to keep on employee security, due to digital many health issues arise in employees to cope up with this issues company has to frame HR practices keeping in mind the work load, job responsibility. Employee engagement is crucial in keeping them indulged in job activities. Careful strategic plan in rewarding employees giving opportunity for job enlargement. Talent acquisition practices going digital in focusing right employee with digital skills

7. FINDINGS

The study has identified digital technology has drastically evolved and changed the HR practices, making it very realistic to the future need. Digital recruitment strategies are considered future "value generations" with appropriate job analysis. AI assist in analyzing the right skill for the right job accelerating decision in hiring for higher level jobs. Some jobs and job task will be automated so a new HR practices will be set to frame new job titles and description. Sometimes AI can be worse creating a threat to HR. Future by 2030 digital technologies perhaps change practices from AI to Augmented or virtual reality, which foster hiring by face reading. This will be very challenging for HR and its process. Training and development have taken one step higher in identifying the training gaps between roles and skills. HR analytics promotes in assessing the training needs in real times, such that no hang back. Cloud gives some big-time data to explore for swift decisions. Implementation of digital training has evolved increase in productivity and performance. Other aspect of digital technology promotes cross communication globally and enhance knowledge. Digital technology has changed the workforce of the organisation in terms of complex solving, empathy, innovations. Employee data has scaled up in strategic plans for retention, talent development, well-being, driving agility and understanding the real time work intelligence. Practices has evolved in such a way that recruited employees should change quickly during the times of turbulence.

The study identifies few dimension listed in Table 1

Table 1: HR Dimensions

Dimensions	HR 1.0	HR 2.0	HR 3.0
Employees	Employee's skills	Employee Engagement	Employee experience
Measured	HR measured via budget delivery	Program metrics	NPS
Training	Traditional method	Modern method	Completely virtual
Key focus	On achieving annual goals	Productivity & Performance	Agility
Tools	Excel	Software	Digital (AI, cloud IoT)
Data source	Documents/reports	Internal & external	Analytics
Talent strategies	Experienced employees	Employee retentions	Talent optimization
Approach	Administrative	Strategic	Data driven
Teams	Functional	Virtual	Virtual &Intelligent

8. CONCLUSION

Voluminous of data reduced the time cost incurred in all organization process.HR practices have map out on meticulous actions. The burden on employee vetting on background verification reduced and quick decision made. Practices given way for Agility and employee experience, integrated data in creating programmes on employee well-being, talent optimization and real time feedback. Thus, digital is much paramount in making HR practices supreme resulting effective organization performance

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