

DISRUPTIVE INNOVATIONS: MANAGING THE EMPLOYEES EFFORTLESSLY DURING COVID- 19 PANDEMIC

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Abstract

The Covid- 19 pandemic has triggered severe social and economic disruption around the world, including the largest global recession since the Great Depression. Widespread supply shortages, including food shortages, were caused by supply chain disruptions. The pandemic has raised issues of racial and geographic discrimination, health equity, and the balance between public health imperatives and individual rights. People are known as the primary asset and the backbone of any organization who helps achieve their goals. Accordingly, to manage these human resources sustainably, the Human Resource manager of the organization makes strategy regarding the policies & practices so that the organization can run smoothly. The purpose of this comprehensive review study is to identify the number of HR practices & policies due to which many challenges, strategies, and the decisions related to human resource management was effected during the COVID-19 pandemic, which responds to the Disruptive Innovations. This study is based on organizations' human resource management strategies with reference to Practices & Policies to combat the COVID-19 impacts. Our study is based on the Secondary data which is collected through various books, literature and the published Journals. The principal goal of this research is to investigate the impact of COVID-19 on HRM, to identify the main challenges and opportunities, and to provide insights into future directions in HRM. This paper also gives a new insight to the different enhanced technologies related to the various policies & procedures used during the Covid-19 pandemic.

Introduction:

COVID-19 is an unmatched health crisis that has intensely shaken the whole world, dipping it into great fear and uncertainty. It has heavily impacted economies, societies, employees, and organizations. This crisis has first started in the city of Wuhan (China), which has witnessed in December 2019 the outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that has known a fast spread thrusting its status to a global pandemic on March 11, 2020, by the World Health Organization (WHO, 2020b).

Given the rapid spread of the COVID-19 virus, these countries have executed several non pharmaceutical measures intended to reduce its spread, such as social distancing. Lockdown measures have been made obligatory; people were quarantined; schools, universities, nonessential businesses, and non-governmental organizations have been temporarily closed; travels were controlled; flights were cancelled; and mass public assembly as well as social events have been prohibited.

Coupled with these measures, the COVID-19 eruption had led to a significant slowdown in the world economic activities, triggering furloughs and layoffs (World Economic Forum, 2020), that led to the increase in the unemployment rate in many countries. Trying to recover from this economic

shock, companies have started reopening, in the mid of this ongoing pandemic, under extraordinary rules and a new functioning (e.g., physical distancing in the workplace) that no one can predict when it will end.

Therefore, this pandemic has obviously led to the emergence of a complex and challenging environment for managers and human resource management (HRM) practitioners who needed to find creative solutions to sustain their company's business and to help their employees to cope with the challenges of this unexpected situation.

In this context, there are very few studies on the impact of COVID-19 on HRM, its challenges, and its potential opportunities for HRM in organizations, whereas managers and HRM practitioners need relevant information that will help them to go through this crisis effectively and efficiently, to be able to support their employees and to sustain their company's business.

Literature review:

Human resource management facing COVID-19:

Implications and challenges HRM 'is about how people are employed, managed and developed in organizations' (Armstrong & Taylor, 2020: 3). It has been grandly impacted by COVID-19, generating significant challenges for managers and HRM practitioners. This impact and these

challenges are explored in this section, in relation to strategic HRM and working conditions, as well as HRM functions, specifically, staffing, performance management, training and development, compensation management, safety and health management, and employees' relations. Each HRM function is discussed individually, however, they are interrelated. This suggests that any change in one HRM function will affect the other function (Mondy & Martocchio, 2016).

Disruptive technology

Disruptive technology is a technology which displaces the existing technology used, resulting in changing the entire industry. Disruptive innovation as defined by Christensen is a process by **which a product or service takes root initially in simple applications at the bottom of a market and then persistently moves up market, eventually displacing established competitors**. He also specifies that the change and innovation we see today have its root in technology. The best companies may lose market leadership despite doing the right things if they do not adopt the disruptive technology (Christensen, 1997). Disruption does not occur all of a sudden and it is overlooked by the business houses until the market has already moved away from them (Christensen et al., 2002). **Disruptive technology is summarised into four categories of artificial intelligence, robotics, networking and advanced manufacturing** (Evans, 2017). Empirical results show that organisations respond to disruption by changing or extending or adapting the resources, processes and values/culture present in the organisation (Karimi and Walter, 2015). Digital disruptions are about big data, convenience, personalisation and contextual services with the use of algorithms, data visualisation and machine learning. Any organisation which focuses on surviving in the marketplace has to consider the companies which cause disruption in the market and take into account current trends, markets, competitors and customers (Kassel, 2017)

Disruptive technology and HRM practices

Human capital is the differentiating force and active asset of the organisation (Fitz-enz, 2009). The positive and significant relationship is identified between human capital and competitive advantage of firms (Kamukama, 2013). Human resources (HR) are the firm's intangible resources, which can become a competitive advantage for the firm as they are difficult for the competitors to imitate (Khandekar and Sharma, 2005). In order to lead and drive growth, new ways of managing the human capital are important (Fitz-enz, 2009). One of the competency domains for HR on individual

effectiveness and business success is being a technology proponent, which means improving and leveraging technology and also building internal processes which align with the external environment demands (Ulrich et al., 2011).

Achievement of organisation goals by exercising better control over the performance and behaviour of employees is made possible through electronic human resource management (E-HRM), a concept that utilises information technology to do functions related to HR (Sabir et al., 2015). E-HRM transforms the HR function to be more strategic and effective.

For effective use of E-HRM, the organisations also have to look into the skillsets of the HR professionals. Weisbeck (2017) necessitates organisations to take effective steps to ensure that HR leaders have technological skillsets like innovative reasoning, master of employee intelligence (data analytics), mindset focused on business (the effect of HR on the entire organisation), design thinking HR (designing the way employees work, using technology which results in employee retention and stakeholder satisfaction), cross-cultural competency, technological competency, creative inquiry (finding right, healthy, less disruptive solutions to complex business problems) and new media literacy (leverage the new tools for attaining goals). The right logic (strategy of talent), the right analytics (questions and results that are valid), the right measures (data sufficiency) and the right process (knowledge management) strengthens the HR metrics and analytics. These act as a force towards strategic change, as validated by Boudreau and Cascio (2017) while referring to the LAMP model.

Organisational outcomes on the basis of Disruptive technology and HR practices

The consequences for the organisation, when internet/intranet is used in HRM transactions are classified into three major categories viz.

- operational (administrative aspects),
- relational (connection,
- communication and cooperation aspects) and
- transformational (strategic aspect)

Acceptance of technology in HR by users gives way to a positive attitude towards the system while increasing the efficiency of HRM activities and practices. The realisation of E-HRM goals depends on the IT users' acceptance (Panos and Bellou, 2016). Sanders (2007) found out that the use of e-business technologies has a direct and indirect effect on the organisational performance.

Outcomes of E-HRM include HRM processes which are more efficient, a higher level of HR service delivery, strategic contribution of HR, and all these would result in achieving

organisational goals (Ruël et al., 2007). Usage of technology in HR facilitates virtual relationships which can be utilised in the areas of recruitment in the organisation. E-HRM can decrease the transactional cost and also the head count of the HR department. Implementation of technology in the functions of HR results in improvement of performance by increasing value for users and also helps in saving human and other resources (Oladele and Omotayo, 2014). IT environment has a strong influence on HRM effectiveness as the frequency of usage results in higher value creation (Sabir et al., 2015). The use of technology in HR positively influences HRM responsiveness, service quality and helpfulness (Obeidat, 2016).

COVID-19 and strategic human resource management:

Strategic human resource management is a universal approach to accumulating the best team for your business's growth and success. Its main purpose is to effectively use the human resources to serve the strategic needs of the organization. In order to ensure the achievement of the organizational goals in a time of crisis, strategic attentiveness is required.

There is a need of the Organizations to be able to prepare and allocate their resources so that it needs to get coordinate with the mechanism; and to properly use the organizational resources and knowledge .

In this context, the novelty and the complexity of the COVID-19 represent a significant challenge that might compromise the achievement of organizational goals.

In this case, most organizations were not able to provide their employees enough information about their management plan or their intended reactions toward the pandemic where as having clear workplace guidelines during hard times helps to reduce employees' stress and to increase their motivation and confidence .

Working conditions:

Working conditions represent 'the core of paid work and employment relationships'. They 'cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace. The COVID-19 crisis has severely changed working conditions in organizations. Indeed, to ensure their business continuity, most organizations have moved to distant working, requiring their employees to work from home.

For example, **Google** announced that its employees will continue distant working until at least Summer 2021 whereas **Twitter's employees** were given the opportunity to distant work indefinitely.

Notwithstanding, the category of employees working from home represents a small fraction of the overall workforce, mainly because remote working is not suitable for manufacturing industries and it cannot be applied to all job positions . In this context, there were two possible scenarios for companies whose nature of their business does not allow them to adhere to these types of working conditions. Either to require their employees to be physically present while respecting the measures of physical distancing and wearing personal protective equipment or to lay them off.

The study by showed that employees whose job tasks cannot be performed from home are more likely to lose their jobs. In these circumstances, HRM practitioners are urged to identify the job positions that can be performed remotely, those which can be performed in the physical workplace, and those positions that need layoff due to the situation provoked by the pandemic.

Therefore, these unexpected and drastic organizational changes represent significant challenges for managers and HRM practitioners. In addition, they might have significant implications on employees mental health and person–environment fit perceived by employees as well as the employee experience related to the job design, the workspace and interactions with their peers and managers . Physical presence in workplaces has been maintained with rigorous protection measures (e.g., physical distancing and wearing protection masks) with the implementation of work schedules for different groups of employees.

Staffing:

Staffing refers to 'the process of attracting, selecting, and retaining competent individuals to achieve organizational goals'. It had been greatly impacted by COVID-19, which has reshaped its dynamic in organizations. COVID-19 had mostly asymmetric impacts on industries. Some industries were experiencing a sharp decline in their business leading some of them to temporarily close their shops, whereas other industries have seen their business flourishing during this pandemic . Therefore, the repercussions of COVID-19 on staffing differ from one organization to another. In this context, organizations that were facing financial difficulties due to this pandemic have adopted downskilling by cutting back on recruitment of high-skill jobs more than low-skill jobs, to reduce their costs and try to sustain their business ,they have frozen or cut back all their recruitment; or they have laid off their employees. Indeed, millions of people found themselves unemployed due to the COVID-19 outbreak (Blustein et al., 2020; Elsafty & Ragheb, 2020).

Cheng et al. (2020) pointed out that the employment activities have increased after the companies' reopening in some US states mainly due to the return to work of employees, after lockdown, to their physical workplace. Nevertheless, the reemployment probabilities diminish significantly for employees who stayed longer away from their workplace. Laying off employees is not an easy decision for organizations, but it might be inevitable in times of crisis such as COVID-19. The main challenge of HRM practitioners, in this case, is to support managers and employees during this process and to offer proper information. However, it might not be easy in the context of uncertainty. Actually, all over the world, no one knows when this pandemic will end and if its consequences on organizations will be temporary or permanent (Bartik et al., 2020).

Training and career development

Training plays an important role in a period of crisis, such as pandemics (Devyania, Jewanc, Bansal, & Denge, 2020; Hamouche, 2020). It helps to develop the needed skills for employees (Akkermans, Richardson, & Kraimer, 2020); to increase the COVID-19 awareness, to reduce the risk of the virus spread, and to prevent mental health issues (Quaedackers et al., 2020). It also helps to support employees in the process of transition toward remote working. In fact, not all employees have the proper digital skills to cope with these changes generated by the use of ICT, whence the necessity to train them on the utilization of ICT, which will help to facilitate their work and communication with their manager and peers while they are away from their workplace (Greer & Payne, 2014). According to Przytuła, Strzelec, and Krysińska-Kościńska (2020), organizations face the challenge of reskilling and upskilling their workforce to be able to deal with the requirement of new context of 'distance economy.' In this case, the main challenge for HRM practitioners might be related to the development of a training program adapted to the new reality of the organization and the employees and to choose the proper training methods, considering physical distancing measures coupled with the necessity to have employees quickly operational to sustain the company business. This suggests that managers and HRM practitioners need to go beyond the traditional training methods. Devyania et al. (2020) recommended, in this case, to change employees' training programs in a way that ensures a long-term transition toward the new working practices.

Compensation management

Compensation management Compensation management refers to the intrinsic and extrinsic rewards that employees receive for performing their

job. It encompasses monetary (base pay/bonuses) and non-monetary rewards (employee benefits) (Martocchio, 2017). Compensation can influence employees' motivation, performance (Safuan & Kurnia, 2021; Sembiring et al., 2020), and retention (Elsafty & Ragheb, 2020). The study by Elsafty and Ragheb (2020) showed that financial benefits such as bonuses during COVID-19 are associated significantly with employees' retention. As a reaction to the COVID-19 outbreak, some countries have implemented governmental policies to provide financial support for employees and organizations during this health crisis and to encourage them to comply with the stay-at-home orders. For instance, in the USA, the federal government has enacted the temporary paid sick leave, allowing private and public sectors employees 2 weeks of paid sick leave for isolation, treatment related to COVID-19, taking care of a member of their family infected by COVID-19, and childcare caused by the school or daycare closure (Andersen, Maclean, Pesko, & Simon, 2020). Short-time compensation, also known as part-time jobs, has also been adopted to sustain the economy while protecting business and employees' jobs. It consists of offering employees a temporary reduction in the number of their working hours which will help organizations that are experiencing a decrease in the level of demand, to retain their employees and to avoid layoffs (Giupponi & Landais, 2020). These measures alter compensation strategies and policies within organizations. Furthermore, they might create a complex and challenging environment for managers and HRM practitioners. According to some authors, paid sick leave might lead to an increase in employees' absence in the workplace (Maclean, Pichler, & Ziebarth, 2020). But at the same time, it helps to prevent employees' presenteeism when they are sick (Schneider, 2020). Additionally, this type of government's policies, such as paid sick leave, help to increase their implementation in industries where employees have never got such benefits (Maclean, Pichler, & Ziebarth, 2020), which suggest that managers and HRM practitioners need to think about the way to sustain them to avoid losing employees' motivation after the pandemic. In this context, Przytuła, Strzelec, and Krysińska-Kościńska (2020) referred to the importance of intrinsic motivation to retain employees, e.g., increasing employee autonomy.

Performance management

Performance management is 'a continuous process of identifying, measuring, and developing the performance of individuals and workgroups and aligning performance with the strategic goals of the organization' (Aguinis, 2019: 8). It is crucial to ensure that employees' performance is aligned with

the company's strategic goals (Ismail & Gali, 2017). To sustain the company amid a crisis like COVID-19, employees are still required to maintain their good performance (Sembiring, Fatihudin, Mochklas, & Holisin, 2020). However, it seems that the COVID-19 outbreak has also altered performance management in organizations. According to some authors, most organizations were overwhelmed by the challenges resulting from COVID-19, such as measuring employees' performance and the disruption in performance-based pay, that they have reduced or even abandoned performance management, due to the complexity and the novelty of this pandemic (Aguinis & Burgi-Tian, 2020).

In fact, measuring employees' performance during this crisis can be challenging, considering the modification of the working conditions. Furthermore, there are many factors related to the COVID-19 outbreak that may influence employees' performance. In this context, the study by Prasad and Vaidya (2020) reported that workplace isolation, lack of communication, family distractions, role overload, and occupational stress factors (role ambiguity, role conflict, career, and job-control), which have emerged due to COVID-19, mainly among employees working from home are significant predictors of employees' performance. Furthermore, employees' performance during remote working is also dependent on managers' understanding of how and what is required to manage a remote team (Aitken-Fox et al., 2020b). Some authors argued that managers might not accept remote working because they might consider that it affects employees' performance negatively, which can lead to the adoption of micromanagement that can be perceived by employees as a lack of trust toward them (Aitken-Fox et al., 2020b), which can create tension between them and their supervisor

Safety and health management

Safety and health management Employers are responsible for the protection of their employees while they are working. They must ensure that the workplace is free from any hazard that may psychologically or physically harm them or cause their death. COVID-19 has generated a new workplace hazard (Hecker, 2020) that represents a significant source of stress for employees (Shaw et al., 2020) and a significant challenge for managers and HRM practitioners (Hamouche, 2020). The impact on employees' health varies based on the working environment and the employee's occupational role (Brooks, Dunn, Amlôt, Rubin, & Greenberg, 2018). Two main challenges can be identified in this context: how to control the spread

of the virus and to protect employees from contagion and how to develop the employees' awareness about the importance to respect the prevention measures implemented in the workplace. The WHO has provided guidelines for organizations to ensure the protection of their employees (WHO, 2020a), nonetheless, controlling employees' behavior might be challenging, considering that some people may ignore self-isolation instructions (Gourinchas, 2020).

Employment relationship

Employment relationship refers to 'the connection between employees and employers through which individuals sell their labor' (Budd & Bhawe, 2010). From a labor law perspective, COVID-19 has created important challenges for employees and employers (Biasi, 2020; Sagan & Schüller, 2020). Due to the lockdown and mandatory closure of business both were not able to accomplish their contractual obligations (Biasi, 2020). In fact, the challenges resulting from COVID-19 have transformed the traditional relationship between the employee and his employer (Leighton & McKeown, 2020; Spurk & Straub, 2020). Work from home has been implemented in different countries and companies (Spurk & Straub, 2020). Hence, the traditional boundaries of the world of work have disappeared (Leighton & McKeown, 2020). In this context, COVID-19 has positioned the government as a planner more than a regulator (Sachs, 2020), which is challenging for organizations that need to adapt government plans and regulations to their organizational context, while taking into consideration the needs of their employees (Sachs, 2020).

Opportunities, future organizational directions, and insights into HRM interventions

COVID-19 has posed grand challenges for managers and HRM practitioners, but it has also opened the door to opportunities worth knowing and understanding, that can help organizations to direct their future actions. Indeed, according to Demirkaya and Aydın (2006), a crisis might create unexpected opportunities for organizations. In this section, we will discuss these opportunities while linking them to the potential future directions in HRM. COVID-19 has challenged organizations' creativity and innovation and has urged discussions about the future of work (Hite & McDonald, 2020). It has accelerated the disruption of HRM as well as the implementation of scenarios expected for the future (Hite & McDonald, 2020). Moreover, it has pushed organizations to rethink their HRM strategies and to go beyond the traditional models of managing human resources, by positioning new information technology as an essential partner to

survive and to ensure the sustainability of their business. In this context, new legislation has been adopted in different countries to support organizations in this sudden and unexpected transformation. For example, Germany has adopted new legislation to introduce the possibility of video conferencing in two areas (Sagan & Schüller, 2020), to support the implementation of remote working in organizations.

Contribution and practical implications for organizations In the business world

In the business world, crises are inevitable. However, no one can predict a crisis with the magnitude of COVID-19, which has accelerated the disruption of traditional methods of HRM and has created significant challenges for managers and HRM practitioners, who were not fully equipped in terms of information, resources, and competencies to cope with the complexity and the novelty of this pandemic. Besides these challenges, COVID-19 has opened the door to opportunities that organizations should know to be able to properly direct their future actions in HRM. This paper is a general literature review that provides relevant and useful information which can help managers and HRM practitioners to understand the main challenges and opportunities related to COVID-19. The insights provided in this paper into the future directions in HRM should help them to develop an intervention plan adapted to the needs of their organizations and employees.

Objectives:

The objectives and contributions of the paper include:

- To study and understand the effect of disruptive technology on HR management practices.
- To understand the application of categories of disruptive technology (artificial intelligence, robotics and networking) in the HRM practices.
- To study the modifications that have taken place in the HR department and the role of HR managers.
- To know the future implementation of disruptive technology on the HR department, the role of managers and future workforce

Influence of disruptive technology

Influence of HR intelligence Artificial intelligence means the development of computer systems executing tasks that require human intelligence. The main goal of AI is to make machines smarter. During test measures how efficiently AI can pretend to be human. Machine learning is designing, developing algorithms and techniques allowing computers to learn. It is the approach used for artificial intelligence. Google's Allo, Facebook's Messenger, Window's Cortana, Amazon's Alexa, Apple's Siri have paved way for

the next stage of significant developments in artificial intelligence. They are accessible from various platforms like mobile phones, watches, cars, home hubs, etc., and some multi-platform.

HR leaders are testing with the use of artificial intelligence in various HR functions like recruiting, on boarding, development, coaching, etc. Data and information is transformed into analytics and intelligence in the organisation. If not, it is of little value to the organisation.

According to Falletta, HR intelligence is a process which is proactive, systematic, gathers, analyses, communicates and uses HR research and analytics results in order to help the organisations achieve strategic objectives. The results of the study conducted by organisational intelligence institute points out those organisations go beyond metrics and scorecards and they perform a lot of research. They take this intelligence in framing strategy which helps in HR strategy development and decision making. Organisations have to transcend from limited analytics to a broader field which requires enterprise-wide effort for the analytics-driven culture, new analytical skills and technology.

Artificial intelligence tools help in recognising candidates for the job. AI tools also help in assessing a candidate's performance in a job interview and in choosing the right person for the job. Jon Bischke, Entelo's Chief Executive says computers are used to collect large volumes of information available in public domain about the people who have applied for the position. Computers were used in earlier stages of recruitment for bringing down the voluminous data to a wieldy size. After the initial data collection, Unilever is using an algorithm-based recruiting strategy for pre-screening candidates and assembling evidence for choosing the right person before the interview phase.

Some companies like **Utah-based HireVue**, uses algorithms to evaluate data submitted by candidates in the form of videos. The ideal software automates tasks like screening, sourcing and scheduling of interviews. Zoom.ai improves and simplifies employees experience through its automated assistant software which includes schedule meetings, transcribe calls and create departmental knowledge bases. Artificial intelligence can be used to coach managers in leadership and soft skills. Artificial intelligence software company **Butterfly.ai**, based in New York has developed an automated tool for on-spot coaching while the entire industry is concentrating on micro learning at a self-pace. Performance management when linked with artificial intelligence, decreases the bias related to the assessor.

BetterWorks is a software that provides a platform for analytical goal-setting and performance assessment. It provides nonstop feedback and performance review in real-time. This motivates employees as they can see how their involvement is helping the organisation achieve its goals and affects the bottom line. In case the employee does significant work, he/she is instantly rewarded and vice versa. Interferences are immediately triggered when an employee finds it difficult to achieve the set goals.

AI monitoring software has been implemented in organisations for monitoring productivity of employees, their job satisfaction, potential harassment, behavioural issues and retaliation by them. The monitoring tools can be installed and run undetected in the user's computer. Hebbian Inc., has a software solution, HebbianView which does web observing by recording the time and effort spent by the employee on web pages.

They also steady surveillance and workplace privacy. **Talent management company** – crossover has a productivity tool, **Worksmart** which takes screenshots of the workstation every ten minutes and this when pooled with the data helps in monitoring employees. **Interguard** is another employee monitoring tool by awareness technologies. Artificial intelligence is used in legal work. Document discovery tools have helped to identify sources as required by lawyers for cases. A software used by **JPMorgan** called contract intelligence (COIN) identifies sources in seconds. Without AI a lawyer would take 360,000 hours for going through multiple documents, case files and legal briefs. AI is used in the legal field in the areas of authenticating background information, predicting the legal outcome, legal analytics, document automation and billing.

Impact of robots

As NASA puts it, machines that can be used to do tasks are robots and the study of them is known as robotics. Some robots perform on their own and some work based on human's instructions. Robots are used in different ways in various industries. Some robots are designed like humans (humanoid) like the R2 robonaut which can think on its own based on the software, use tools and send messages (NASA website).

Bernd Schmitt, Professor, Columbia Business School says robots are supercomputers which have a human appearance and passes Turing test. Previously robots were used only in industrial systems but now service robots are being used in organisations. Schmitt thinks that within 20 years robots will be doing some of the analytical

decisions now being done by human managers and he wishes managers to start preparing for the time when both human and artificial intelligence work together. Robots may outsmart human beings in information processing and decision making but that is not all; some competences of humans have still not been replicated by robots like emotions and creativity. Humans will still have control over jobs that require skills such as problem-solving, creativity, decision making and soft skills. In the field of recruitment and selection, robots are being used.

Matilda, a robot has been developed by the Director of the Research Centre for Computers, Communication and Social Innovation, Australia's La Trobe University; and Matilda is a expert in interviewing people for sales positions. Matilda reads emotions and regulates whether the person is compatible emotionally and culturally for the position.

For communication, **chatbots are being used.** A chatbot is a computer program with artificial intelligence which is designed to simulate dialogue with human users through auditory and text methods. Chatbots help digitises the processes of HR and enable employees to access the figures from anywhere .

According to ServiceNow survey, more than two-thirds of the HR leaders consider that employees feel relaxed accessing chatbots to report abuse/misconduct and ask questions. Chatbots are used in HR to answer frequently asked questions in a custom-made manner and also improve talent acquisition. Intel's HR virtual assistant Ivy, answers questions related to pay, benefits, stocks and related issues; has a human image; does metrics and gives feedback, and it also continuously learns and improves. The number of technology firms catering to the needs of HR is on the upsurge and some examples and their function for HR is as follows; for sourcing: Textio, for interviewing: MontageTalent, for on-boarding: Talla, for coaching: mobile coach, for social recognition: growBot and for employee service centres: ServiceNow.

Germany's Institute for Occupational Safety and Health (IFA) explains the new category of robots, in short, called as Cobots. It is collaborative industrial robots which work closely with human beings in shared work processes; they also support and relieve the operator. Cobots are used as collaborators with humans in the production arena and they are inexpensive and highly malleable and are used in repetitive functions .In yet other HR role, curtailing workplace harassment, robots are used and this is done with monitoring software.

Impact of networks

Networks are used by HR professionals for various functions. Social networks break boundaries and are of various types like social connections, multimedia sharing, professional, informational, educational, hobbies and academic. Web 4.0 technologies are generating benefits for almost all the major HR practices and Riemsdijk et al. (2005) quoted all the functions of HR that advantage out of it starting from HR planning to performance management and also employee career development along with employee relationship management. Recruiters are using social networking sites to screen job applicants; LinkedIn gives a resume-like view and Facebook profiles give a personal view of the candidate to the recruiters. Social media is used in the learning and development.

Organisations push learning and in certain cases implant learning content into business processes by linking performance management with learning. Current business processes require a new set of skills, capabilities and thought process from both the employees and the management and this can be satisfied through the activities of learning. Learning at work happens by the means of education, experience, environment and exposure. With the development of digital content and books, learning can be improved through e-learning, social learning, collaboration tools and others. Digital learning brings learning closer to the employees and is more employee-centric. Continuous learning is important for employees and this is permitted by micro (takes ten minutes or less) and macro learning. Depending on the individual, spaced learning is fortified. It is also seen that employers can make use of networks and understand their employee's career preferences by analysing their skills and past performance which in turn would help them in framing a career path for them with growth opportunities. Networks allow people to have a self-directed career path, which can be achieved by understanding the opportunities both inside and outside the organisation. Organisations boost communication among employees by encouraging collaboration and knowledge exchange through blogs and RSS (rich site summary – a type of web feed for users to access updates to online content) feeds; these tools enhance interaction and empower employees. Customer relationship management at GE is based upon informal teams developed through social media.

Insinuations of disruptive technology

Digitisation, technology and automation are happening rapidly across various regions, sectors and organisations. The emphasis on the increased

role of information technology is enhancing business continuity. We are in Industry 4.0 and HR function of today will not be the same in future as it needs to evolve at the same pace as the industry. A PwC report 'Industry 4.0: building the digital enterprise', advises that key industries will see quick and express surge in digitisation by 2020. HR will become a professional and an expert activity, as all the routine queries can be addressed faster and accurately through chat applications or by robots. Skills needs are varying and people with skills that are in demand, need to continuously learn and adapt themselves; the best merger of human strength in the skills revolution era is the combination of soft skills, technical and digital skills.

Organisations have started to look for quickness as one of the competencies required during recruitment itself. It refers to the ability of the organisation to adapt and accommodate quickly to unplanned and sudden changes. It is seen as the result of achievement gained through technology, organisational and managerial capabilities and a product of human skills, abilities and motivations. HR with universal skills are in stagnant level; and also there are risks of technology taking over all the jobs and robots replacing people at work. Issues relating to privacy, surveillance and security may crop up because of the developments in technology in the organisation. The approach of workers towards technology contributes to the frustration, due to lack of knowledge to work with the system but the attitude of workers can be positively focused towards a technology by having timely open word through influencers and HR leaders in the organisation.

Transformation in the role of HR manager

Processes of HR are speedily changing with changes in business practices which is the result of the impact of new technologies in this volatile business environment. Technology enables HR professionals to successfully deliver HR administrative services. It also plays a major role in attaching with customers inside and outside. HR managers as technology exponents can advocate, access, analyse and align technology with HR services for information, efficiency and connections. Being a technology follower, HR has to realise and use technology for sharing information, improving HR operations utility, connecting with people both inside and outside the organisation and for leveraging social media tools. HR manager needs to leverage their effectiveness by adopting different forms of technology in terms of AI, robots and social networks as brought out by this paper.

Guiding principle for adopting disruptive technology in HRM practices

In order to have better performance, techno stress (change and uncertainty because of implementation of new technology) of people has to be worked on as it may have deleterious consequences on work places. For implementing new technology or replacement of earlier technology, organisations have to invest in time, talent and resources.

The HR system has to be one that is easy to use and the conditions ease the implementation process. Organisation has to understand its current position and decide on the technology to implement after the evaluation of benefits and outcomes. Based on the current situation of the organisation and its strategy, it has to decide on the goals and objectives specifically. Finally amalgamation of IT department and HR department need to happen for the effective functioning and implementation of technology in HR.

Conclusions

Due to the use of Disruptive technology, HR functions has become more employee friendly and effective. It has almost changed functioning of HR and is the need of the hour. The organisations also needs to absorb disruptive technology as it is very important for their survival. Disruptive technology gives advantages like reduced costs and increased profitability. The key for new market entry, growth and creating a learning culture lies in the usage of new developing technologies in the organisation. Monotonous and repetitive work has got automated which upsurges the availability of HR for high-priority work. The role of HR has transformed but it has not lost its significance.

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