Talent Management amidst the Covid-19 Pandemic with the Role of AI in the Health Industry

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[Abstract] Talent management has always been a popular workforce strategy. However, according to the new normal of today after Covid-19, HR professionals are focusing more on this area. Their main aim has been to nurture an agile and self-motivated workforce that grows in these difficult times. Organizations find it challenging to retain and manage their talent globally. On the one hand, organizations need to manage their talent with the new challenges given by the pandemic. On the other hand, the chances of employees leaving their jobs are increasing, which might be due to many reasons like improved career prospects, more salary, work-life balance, better opportunities for growth and promotion, etc. Over centuries, we have witnessed that a human resource is the only resource that has helped organizations deal with such crises. Now is the time for the organizations to repay all this and help their "talent" be efficient and effective during the crisis. Therefore, this paper discusses various techniques to retain talent in organizations, i.e., in the health sector during the Corona pandemic. It will focus on two sub-themes, i.e., the role of artificial intelligence during a pandemic and the role of leadership in changing culture in the health sector to find solutions to the posed challenges.

Introduction

As the Covid-19 emerged, employees, the talented workforce of organizations, moved out of their workplaces, not realizing that the pandemic would irreversibly change the ways of working in the organizations and their workforces. This virus has affected employees' lives across the globe, and everyone is adopting new practices according to the changed circumstances. The biggest challenge during the pandemic was to make the workforce self-managed to fulfill their job responsibilities as effectively and diligently as before. There were many challenges to be addressed in a shorter period of time, starting from providing remote workplace technologies and standard operating procedures to employees, secure and resilient connectivity to organizational digital infrastructure, training and competency development of the workforce, and effectively managing their performance. Organizations also got a chance to see if they had acquired good leaders or not. Now is the time for the organizations to see their return on their previous investments in talent management and leadership development. Organizational choices will be on a test as everything depends on their previous foundations. Undoubtedly, organizations quickly adapted to this change in culture. However, they also designed an effective communication strategy, handled resistance to change by their talent (employees), created feedback instruments for leaders to address their concerns, and

executed the changes vital for the new normal.

Objectives of the Study

- To understand the concept of talent management during the pandemic era.
- To discuss the role of artificial intelligence in the healthcare in the health sector.
- To discuss the role of leadership in the transformed culture in the health sector.
- To suggest how talent can be managed effectively in the health sector.

Research Methodology

The secondary data used in the current study was gathered from a variety of journals, books, and magazines. The paper's focus is on talent management in the context of the Covid-19 pandemic with the role of AI and transformational leadership in the health industry.

Review of Literature

The recent global health crisis has taught us varied lessons, and one of the major issues confronting us was managing the recent talent pool.

According to Brunila & Yllner (2013), there is a shortage of specialized human resources, and, therefore, there is a need for talent management. Organizations always want to retain those human resources that are more efficient and effective than others. Other researchers also think that talent management is the era's need, and after this pandemic, there has been growing importance. To name a few, Axelrod et al. (2002) and Michaels et al. (2001) gave importance to talent management and considered it a driving force that can generate competitiveness and improve performance in the organizations. During a pandemic, it was realized that a specific pool of talent must be managed and dealt with in caring and protective environments where they can grow.

Other researchers like Cappelli (2008), Rothwell (2005), and Berger and Berger (2004) have written literature regarding the growing need for talent management. It has been found that apart from the demand for medical professionals, there has been an increasing demand for personnel outside the healthcare industry. Transformational leaders who can deal with the challenges of the pandemic are also required. To adjust to the new-normal, additional strategies are required. Other authors have also advocated for managing talent, especially in the pandemic era.

Von Eiff, M. C., von Eiff, W., & Ghanem, M. (2021), in their article "Value-based leadership in turbulent times: lessons from the Corona crisis and recommendations for post-pandemic management in the health sector," discussed the urgent requirement of leadership that can manage the procurement of personnel, their policies, ethics, etc., especially during the Corona pandemic. There were many stressful working conditions during those days, and a leader could motivate employees to work, especially under those turbulent conditions in the health care sector.

In another article by Graham, & Woodhead, (2021), titled "Leadership for continuous improvement in healthcare during the time of COVID-19," discussed various safe and effective services that were required during the pandemic. They suggested the requirement of strong clinical leadership, which might be related to using a WhatsApp group for understanding a new disease or developing innovative equipment so that the quality of care can be improved.

Artificial Intelligence in the Health Sector

AI in Healthcare

In current business and society, AI technology is developing rapidly. This technology use has been used in healthcare also. Many aspects of patient care can transform by this technology. AI can perform very well in the health care aspect than humans in diagnosing diseases; this has been found in many research studies. Algorithms are working very well for spotting malignant tumors, and researchers are also getting

suggestions on how to help companies for costly medical institution trials. Moreover, we can believe that humans will replace AI, and it will become a medical process domain reason for many varieties of work.

Types of AI Relevance to Healthcare
Artificial intelligence is the collection of many technologies; it is not only one technology. In healthcare, most technologies have proximate relevance, are very widely specific, and are tasks they support. The high importance of healthcare technologies supports the areas as discussed in the subsequent paragraphs.

Deep Learning and Neural Networks in Machine Learning
Learning training models with data are a statistic for fitting models to data and constitute machine learning. In 2018, in the survey by Deloitte (2018), machine learning was one of the most common forms of AI. In this survey, approximately 1100 US managers were pursuing AI. In businesses, around 63% of the companies were using AI, and employees were doing surveys in machine learning (Deloitte, 2018). There are many versions of AI; it is a broad technique at the core of many approaches. The most common traditional machine learning application in healthcare is precious medicine - to predict which medicine will be used in which type of patient and will succeed (Lee et al, 2018). A training data set of machine learning and precision medicine applications that are required for outcome variables is called supervised learning. A neural network is a more complex form of machine learning. Since 1960 technology has been set up in healthcare several years and, has been available (Sordo, 2002), and for classification, this application has been used when required to determine the patient disease.

Deep learning or neural network models are involved in machine learning to predict outcomes in many levels of features or variables. In such models, thousands of hidden features uncover faster processing for cloud architectures and graphics processing. Deep learning is commonly used in radiology images in healthcare to recognize potential cancerous lesions (Fakoor et al, 2013). The detection of clinically pertinent characteristics in imaging data and radionics deep learning applications has been applied. For example, they are used to search issues that cannot be detected by the human eye (Vial et al, 2018). In the oncology-oriented image analysis, radionics and deep learning were found. Both combinations give a more significant quality diagnosis than previous machine control tools used for image analysis, which are the detectors of CAD. Nowadays, for speech recognition, deep learning is also used, which is in the form of a natural language process.

Natural Language Processing
Since the 1950s, AI researchers' goal has been to make sense of human language. Related language NLP applications include text analysis, speech recognition, translations, and other goals (Hung et all, 2022). Statistical and semantic NLP are two basic approaches to it. To increase the accuracy of recognition, statistical NLP-based machine learning has contributed. NLP's dominant application in healthcare involves creating, publishing research, grouping clinical documentation, and perception. For example, the NLP system can analyze, prepare, conduct informal AI, and transcribe patient interactions for ambiguous clinical notes on patients.

Rule-based Expert Systems

In the 1980s, "if-then" rules were the dominant technology for AI on the expert system based on collections. In a later period, it was used commercially widely. For clinical decision support in healthcare, they are employed widely. Still, in wide use is the purpose over the last couple of decades (Vial et al, 2018). Today, many electronic health records (EHR) suppliers provide a set of rules with their systems (Davenport & Kalakota, 2019).

Human experts must construct a series of rules in a particular knowledge domain for the expert system. They will understand quickly and work up-to-point sometimes when many rules are ample, and, if there are conflicts they are inclined to break down. Changing the rules will be complex and time-consuming if the knowledge domain changes. With more approaches based on data and machines, learning algorithms

(Davenport & Kalakota, 2019), AI is slowly replacing health care.

Physical Robots
Around the world, more than 200,000 industrial robots are installed each year. They perform predefined tasks like welding or assembling objects in places like factories and warehouses, lifting, repositioning, and delivering supplies in hospitals. Recently, human robots have become more collaborative and are more easily trained to move them through the desired task. AI capabilities are being integrated with their "brains" and they are becoming more intelligent. For example, in 2000, the surgical robot was initially approved by USA. This gives doctors a superpower to enhance their capacity to make exact and incredibly aggressive incisions, stitchery wounds, etc. (Davenport & Glaser, 2002). However, still, human surgeons make crucial decisions. Robotic surgery is for standard procedures in prostate, head and neck surgery, and gynecology (Davenport & Kalakota, 2019).

Robotic Process Automation
For administrative purposes, this technology performs structured digital tasks, i.e., those affecting information systems, as if they were a human user following a dramatic work or concept. If we compare it with AI applications, it is inexpensive, and it is easy to transport. Robotic process automation does not pertain to robots; it is only the computer programs on servers. It combines the presentation layer, workflow business rules, and integration with information systems. They are used for repetitive tasks like billing and keeping records updated in healthcare. When combined with image recognition, other technologies used to work in extra data, such as faxed images to input into multinational systems (Hussain et al, 2014).

Diagnosis and Treatment Applications
Since at least the 1970s AI diagnosis and treatment of disease has been a focus. At Stanford, MYCIN was developed to diagnose blood-borne bacterial infections (Bush, 2018). More recently, in the media, IBM's Watson has received appreciable attention in its direction on exactitude medicine, especially cancer diagnosis and treatment. Machine learning and NLP capabilities are a combination Watson's employs. For this application, the enthusiasm for Watson decreased because technology had failed, and customers accomplished the difficulty of teaching it into the care processes and systems on how to address special types of cancer (Buchanan & Shortliffe, 1984) and how to take group action to diagnosis. (Ross & Swetlitz, 2017).

Administrative Applications
There are numerous administrative applications in healthcare. In this field, group action with AI has less potential than patient care. Substantial efficiencies can be provided by it. This application is needed in healthcare because of regular activity. 25% of the nurse's working hours are spent on administrative tasks (Berg, 2018). Of this objective, Robotic Process Automation is most likely relevant technology. In healthcare, a variety of applications can be used for the claim process, clinical documentation, medical records management, and revenue cycle management (Commins, 2010).

The Future of AI in Healthcare
In healthcare, offerings for future AI are playing an important role. Machine learning is the key capability driving medical advancement, universally acknowledged to be a basic necessity for care improvement. It has been difficult to provide diagnosis and therapy recommendations from earlier efforts. After coming to AI, we expect that AI will work at long last to master that domain. An exact place will be there helping a machine to do imaging analysis on radiology and pathology images. It provides quick advancements in AI. For connecting with patients and collecting clinical notes, speech and text recognition are used, and their use will rise.

AI systems are entering healthcare very rapidly to care for the patient. However, it won't be largely supplanted by human medical professionals. It has become necessary for humans to understand AI tools

and applications and how they work; otherwise, those who cannot work with AI will lose their jobs.

Role of Leadership in Transformed Culture in the Health Sector

As Covid-19 emerged, employees started adopting new practices according to the changed circumstances. A new definition was given to culture that existed within the walls before the pandemic; it started to exist within people no matter where they sat. So, this new culture was built through people. Hofstede (1980, p. 13) defined culture as "The collective programming of the mind which distinguishes the members of one human group from another." In simple words, we can call it the software of the mind.

Key Findings During The Pandemic

There has been a shortage of medical specialists built up over the years that was discovered during pandemic days. As a result, there was a shortage of ventilators and beds and professionals in the medical industry, leading to inpatient care deterioration. Due to reduced staff, there were increased workloads and time pressure on inpatient care. As a result, there was a risk of treatment errors accompanied by deterioration in working conditions. Due to the deteriorating working conditions, more workload with less pay according to the performance levels, and increased accountability, staff's motivation was less. As a result, staff members started looking for alternate jobs, reducing the young talent.

Role of a Leader

The Corona pandemic has taught us that a leader has to be more accountable, especially in the health sector. He is bound by the medical ethical maxims of "patient well-being," "patient autonomy," and "patient dignity," and must make all decisions towards the betterment of the patient requiring care (Wiesing, 2020; von Eiff, 2014). Another lesson learned from the pandemic was the reliability of statements of the leaders with clear communication. "Walking the talk" and "identity of talk and action" (von Eiff, 2000) are indispensable for effective leadership. Overall, in a nutshell, we can say:

- • The requirement for a strong leader to motivate the staff in such jeopardizing conditions.

- • There is an urgent need for transformational leadership, especially in the post-pandemic condition which the people do not want to join this profession because the number of challenges are reduced.

- • He can only look into the demands of those employees who are directly working on the patients so that the work can be done smoothly.

  - • A leader can work on the attractive working conditions, which are considered a factor of achievement in the "battle for talent" especially with regard to hospitals.

  - • A work-life balance can also be created, which is the need of the hour.

  - • A revision of salary is also another major factor to consider.

- • A revision in the recruitment and selection of new employees is also required so that problems of short retention periods can be dealt with carefully; especially cases of migration from medical professions to varied administrative professions can be taken care of.

  - • Regular seminars and workshops should be conducted to enhance employees' skills.
  - • Yoga and meditation sessions can be conducted so that the employees remain stress-free.

- A change in the organizational structure and corporate culture is required where the leader himself can set an example and provide a conducive environment for the medical employees.

Only with transformational leadership can a strong culture be built in which there is mutual trust and fairness in relationships with employees. These leaders can renovate the organizational culture even in a virtual-only world.

Suggestions

- Every country should increase investment in healthcare.

- Many people died due to service delays, so service delivery must be enhanced to make a strong health system.

- There was an urgent requirement for the face masks, testing kits, ventilators, oxygen cylinders, and concentrators. Though many countries managed this scarcity, still the health department must take the necessary action to manage all this.

- Due to lock down and the rising cases of Covid patients, health facilities were focused on covid patients, and patients suffering from other health problems, maybe chronic, were neglected.

- Healthcare service integration should be there. The patients must be segregated according to the level of services they require. The patients who urgently need the service must be referred to a hospital with an advanced health care system.

- Use of AI and other advanced technology to deal with the pandemic. There can be more telemedicine clinics to deal with patients requiring urgent care.

- There can be a follow-up groups on WhatsApp for all those neglected patients who were not given medical care.

- AI can be used for administrative tasks also so that the work pressure can be reduced.

- A transformational leader can create a difference with advanced communication with the employees who are directly connected with patient care, and the leader can increase employee engagement even in a crisis in which the motivational level of the employees is very low.

- It is never too late to start implementing good health policies to deal with a crisis.

Above all, an enhanced feedback system should be used for open communication with the front–line staff dealing directly with patient care.

Conclusion

For managing talent, artificial intelligence has to play a key role in helping the staff. When AI can help in diagnosing diseases, predicting the type of medicine according to the patient, (all those things which cannot be detected by the human eye), transcribing patient interactions and the use of robotic surgery for doing standard surgeries. Then, the applications of artificial intelligence can be incorporated for managing talent. It can really reduce the workload of the front-line workers including doctors also. Its applications can be used for medical records management, claim processes and other processes that require a lot of documentation. On the other hand, due to the pandemic, many patients got neglected, and AI can help suggest the type of ailment they are facing so that before it turns into a serious aliment,

it can be treated. Thus, the talent would need to cater to those only who seriously requires the treatment. Above all, the transformational leadership has still some role to play too. This way, hospitals would be able to manage their talent once again with the new challenges given by the pandemic.

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