

Study on Countermeasures and Suggestions for Human Resource Management of Enterprises in the Context of Digital Transformation

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Abstract: Today, digitalization is revolutionizing traditional company internal functions and external connections. Among all activities, human resource management is significantly influenced by digitization. Companies are leveraging digital technologies to aid in HR management. Continuous innovation in HR management is crucial to ensure organizational competitiveness. Over time, traditional HRM has been increasingly affected by the broader digital transformation environment. This paper endeavors to explore the emerging trends of the four crucial aspects of HRM (talent recruitment, performance management, employee training and development, and compensation management) in the context of digital transformation, and accordingly proposes corresponding countermeasures for enterprises.

Keywords: Digital Transformation; Human resources management

1. Introduction

In late December 2019, a widespread outbreak of new coronavirus pneumonia emerged, which has since rapidly spread across the globe. This outbreak, known as COVID-19, has been identified as a significant dual health and economic crisis, demanding immediate action from governments to curb its spread. COVID-19 stands as the most formidable global health challenge to date, given its and constant mutation, thereby leading to unprecedented levels of instability, uncertainty, complexity, and ambiguity for organizations. Consequently, this outbreak presents numerous challenges to businesses, including maintaining business continuity, addressing low employee motivation, implementing remote working measures, and grappling with escalating unemployment rates^{[1][2]}.

In every organization, the workforce plays a crucial role in shaping, advancing, and executing operational strategies. A harmonious and productive collaboration among employees guarantees optimal efficiency, resulting in increased productivity, sales expansion, profitability, and a lower rate of employee attrition^{[3][4]}. Human resource management activities are primarily responsible for recruiting personnel, administering employee performance, payroll and benefits, and also developing and modifying employee classifications, finding innovative, creative, and effective ways to solve employee problems, and maintaining their well-being^[5], and want to support them by creating a reliable management strategy^[6]. The dynamic and unpredictable nature of the current business environment, combined with the ever-evolving economic landscape, necessitates a profound and adaptable approach in human resource management. In light of the ongoing crisis and to proactively mitigate potential future risks, organizations are embracing digitalization in their HR practices. Digital technology is assuming a progressively critical role within employees' professional journeys and the broader domain of human resource management (HRM), influencing various aspects in significant ways^[7]. The advent of digital transformation has brought about a paradigm shift in the modes through which businesses establish external connections, rationalize their operational strategies, craft their business models, and administer their organizational frameworks^[8]. It's about integrating digital technologies such as social, mobile, analytics and the cloud as tools to transform the way businesses work^[9]. Therefore, the integration of digital technologies into business processes has become very important for the survival and competitive advantage of contemporary organisations. Palmer and Dunford (2017) show that human resource management in the digital age is more diverse and people-centred, with diverse and challenging jobs designed to keep younger employees more engaged in their work. Digital transformation questions the traditional way the HR function has operated in organisations^[10].

Based on this, this paper believes that it is meaningful to study in depth the impact of digitalisation on human resource management, and it is obvious that the trend of digitalisation has brought great pressure to enterprises and their employees. Therefore, this paper attempts to carry out enrichment of relevant theoretical and practical knowledge in this regard, and discusses the new trends as well as strategic recommendations for HRM in enterprises in the context of digital transformation from the background of that context.

2. Theoretical foundation

2.1. The meaning of digital transformation

Today's academic definition of digital transformation is not uniform. Back in 2008, White argued that the concept of digital transformation was shaped by the merging of personal and corporate IT environments and included the transformative effects of new digital technologies such as social, mobile, analytics, cloud technologies and the Internet of Things^[11]. In a broader sense, Liu (2011) argues that digital transformation manifests itself as the convergence of digital technologies and business processes in the digital economy^[12]. Westerman (2014) does not have clear boundaries for this concept, and argues that digital transformation is the leveraging of innovations that radically improve the execution or scope of the organisation^[13]. The definition given by Hees (2016) is a bit clearer, and he argues that under the digital transformation implies changes in three organisational aspects: externally, with the improvement of the customer experience and its entire lifecycle; internally, with the impact on business objectives, fundamental leadership and hierarchy; and generally, when all business segments and opportunities are affected, it usually leads to a completely new business model^[14]. Some Chinese scholars summarise and define enterprise digital transformation by combing foreign literature and then synthesising multiple aspects, for example, Wu Jiang (2021) and others summarise the scope and results of digital transformation through textual analysis, and use the structure of "subject-process-result" to view enterprise digital transformation as a process in which an enterprise combines computing, information technology, and business processes in the process of digital transformation, which is a process in which an enterprise combines computing, information technology and business processes. transformation process combines computing, information, communication, and interconnection technologies to reconstruct goods and services, activity processes, organisational structures, and business models, with a view to designing the process of various enterprise activities more rationally and efficiently, thus helping enterprises to create and acquire more value. In short, according to the definitions of these scholars, digitalisation has led to a dramatic change in the internal processes and external connections of enterprises, and consequently to a corresponding change in the various management activities of enterprises^[15].

2.2. Human resources management

Human resource management (HRM) has been defined in a variety of ways with varying degrees of complexity. In the early days of HRM, Purcell (1993) described it as the rediscovery of managerial prerogatives^[16]. The concept of HRM is largely based on management and business orientated philosophies. Whilst recognising the interests of organisational members, their interests were subordinate to those of the organisation. However, in this area, the theory of HRM is evolving. Whilst there is a clear need for HRM to support the achievement of organisational goals, there is a growing belief that HRM needs to do more. In particular, HR needs to take into account the interests of all stakeholders, as well as the values and standards that society expects to be upheld in the workplace. Subsequently, HRM is seen as a strategic, integrated and coherent approach to the employment, development and well-being of people working in organisations^[17]. HRM is also a process through which managers construct the workforce and attempt to create the human performance required by the organisation^[18]. These definitions all reflect some of the key characteristics of HRM identified by Armstrong (2008): diverse, strategic, commitment orientated, capital, stakeholder, and management driven^[19]. What are the goals of HRM practices? Based on the original theory, Armstrong and Taylor (2020) identified the objectives of HRM as^[20]: i. Supporting the organisation to achieve its objectives by developing and implementing a human resource strategy that is integrated with the business strategy; ii. Fostering the development of a high performance culture; iii. Ensuring that the organisation has the talent, skills and inputs it needs; iv. Creating a positive employment relationships and a climate of mutual trust between management and employees; v. Encourage the application of ethical approaches to people management.

3. New trends in human resources management in the context of digital transformation

The nature of human resources has long since evolved into a strategic function of the organisation that needs to be constantly adapted to the external environment. The role of HR managers in attracting, developing and enabling talent is critical to the success of any organisation. For this reason, HRM inevitably has to be integrated with digitalisation, which has fundamentally changed the way employees and businesses work. Digital technology has revolutionised and enhanced processes and systems across a wide range of functions in all industries, and the HR function is no exception. Over the past decade, digital tools such as online recruitment, applicant tracking systems, and professional social networking sites (i.e. Alibaba, Tencent have significantly changed the HR franchise from job posting or job application, to recruitment and onboarding, employee development, performance management, and finally employee exit). HR is starting to replace manual processes that are repetitive in nature with automation. There is a need to connect all HR processes across the organisation over a period of time to increase transparency and efficiency. The following are four main trends in HRM in the context of digital transformation: recruitment, compensation management, performance management, and employee training and development.

3.1. Personalisation and diversification of recruitment

As the invention of technology is gradually being adopted by organisations, it has had a great impact on the recruitment process. Recruitment is about attracting potential candidates to fill the expected vacancies in authority. And digital platforms, artificial intelligence have improved the recruitment process by providing a variety of ways for recruitment and employment.

Firstly, there is the proliferation of various talent acquisition websites as well as software apps, and in the future the core competency of online recruitment will become the ability to provide personalised services. By organising various thematic events to attract the active participation of target talents, the coverage and influence of recruitment has been expanded. Candidates can already connect with companies on the basis of their target needs of the community operation, which can include career planning, training recruitment information, etc., to enhance the accuracy of the match between job seekers and enterprises. Online interview industry has become today's mainstream, enterprises can according to the candidate's conditions and job characteristics of the flexible arrangements for interviews, the traditional interview process as well as being broken, today's approach is more effective and independent of space, time constraints, in favour of the enterprise to grasp the talent of each interview. The personalisation of online recruitment will continue to influence changes and innovations in the recruitment process and become an increasingly important factor.

Secondly, as AI technology continues to advance and improve, its application to recruitment is becoming deeper and deeper. Artificial Intelligence improves the accuracy of HR matching, collects information on job seekers and is able to build a database of job seeker information based on big data and integrated channels and cloud servers. Through machine learning and data mining to make it closer to HR's mindset, screening out eligible job seeker information; AI also improves recruitment efficiency, and automation of the recruitment process based on AI technology will become an important trend in the future of the recruitment industry, which will save HR's time and cost to a large extent, and also increase the success rate and diversity.

3.2. Efficient and diversified performance management

Performance management systems are used to measure the efficiency and effectiveness of employees in achieving hierarchical objectives. There are various traditional and modern methods of performance management available. However, traditional performance management has changed dramatically in the context of the current digital transformation, most notably the efficiency of performance management tools and the diversification of performance appraisal objectives.

The application of big data enables the integration and processing of all information, and it is easier for business managers to grasp the changes in the internal and external environments by means of advanced digital technology. These changes include: externally, there is the digitisation of information on the job market, the digitisation of industry trends, and the digitisation of customer information; internally, there is the digitisation of employee information, the digitisation of work scenarios, and the integration of organisational structure and employee information. Enterprises can use advanced digital technology to establish more efficient channels for employees to access information, opportunities and

resources, and eliminate the corresponding structural barriers. For example, the use of Nail and WeChat has improved organisational efficiency by reducing the constraints of business management, increasing flexibility and responsiveness, and enhancing execution. In addition, the use of these tools can help the transfer of information and direct communication between employees and departments, and even cross-functional and cross-departmental decision-making. They give employees a platform to improve their skills and abilities, thereby enhancing their self-efficacy and stimulating their work potential.

Diversification of performance appraisal. Digital makes the performance appraisal not only become the traditional level of wages and complete the job promotion and other personal goals, but also to achieve the individual career direction of the leading role, showing a diversified development direction. Specifically, managers can realise the matching of supply and demand of jobs and personnel through the employee information management system, solving the problem of mismatch between ability and work difficulty. It is conducive to the establishment of the staff's work enthusiasm, mobilise the staff's motivation, and make the staff's comprehensive development to play its greater value. At the same time can also reduce the company's employment costs, streamline the organisational structure.

3.3. Training and development made fun and accessible

Nowadays, most of the learning process is achieved through online learning process. After the 2019 coronavirus disease epidemic, various online learning platforms have emerged in the country such as Tencent Conference, Bibili, Wisdom Tree, and others. Thus, online learning provides valuable opportunities for employees by making learning more interesting and engaging also more accessible. Facility providers use various tools and methods for formal IT learning at the workplace.

By using digital platforms, it helps in providing training content which helps in improving the knowledge and performance of the employees. It includes all types of training tools such as online lectures, webinars, case study discussions and even a part of the training content has been realised with games that incorporate scenarios and content to add a game-like nature to the process of training. Employees can get training feedback through Nail or Enterprise WeChat. As a result, major companies today are beginning to recognise the importance of digitalisation and are embracing online learning for training and development purposes. Online learning is when learning relies on augmentation through electronic or online communication using up-to-date information and appropriate technology.

3.4. Real-time and accurate payroll management

Compensation is a key and complex activity in human resource management. With the changes in the recruitment process, performance management, training and development of these activities, and the increased magnitude and frequency of changes in the external talent market, the original compensation mechanism can not respond quickly, and the enterprise compensation system must also be changed together, and with the help of digitisation, these activities have become easier than before.

Compensation systems in the context of digital transformation need to reflect the timeliness and accuracy of rewards and incentives, and the basis for employees to be paid is no longer the time worked, as it is through the use of digitisation and thumb punches to complete time and attendance at check-in and check-out. Leave their fingerprints in the biometric system and act as their attendance officer. Reports can be completed with a single click on the machine i.e. number of people working on a daily, weekly and monthly basis. This can be generated by any authorised person and it saves businesses a lot of time in maintaining and generating records. The process is faster and more accurate than traditional systems. Employee roles tend to be ambiguous, with work assignments coming from business activities of different nature and compensation sources stacked with multi-task pay. In this case, enterprises are oriented to strategic positioning, combined with changes in the external market environment, and the concept of compensation system design is transformed from a performance-oriented compensation system to a comprehensive, multi-dimensional linear function compensation system, which is conducive to the shaping of a good organisational atmosphere, higher performance output, more effective talent utilisation, the exploration of human resources' self-potential, and a richer working scenario.

Enterprises leap from the era of manual salary calculation to the era of automated, intelligent, accurate and real-time salary calculation. Employee salary calculation cycle is shortened from monthly, quarterly, etc. to real-time payment, adapting to the flexible and changeable market environment and rapid talent market.

4. Suggestion

In terms of talent recruitment, nowadays, the recruitment activities of most enterprises have been combined with APP software platforms, such as MileagePlus and BOSS Direct Recruitment, and this type of recruitment method is the same as the traditional manual recruitment, which is purely screening information and processing information, but only improves the efficiency. On this basis, enterprises should pay attention to the development of data mining technology, artificial intelligence, blockchain, increase the research and development of these technologies and experiments or actively cooperate with technology companies to flexibly combine these technologies with APP software, so that the value of talent can be more reflected in a comprehensive collection of information of all kinds, to achieve accurate matching and delivery, to ensure the validity of the information, and to be able to rapidly Complete the collection and analysis of data and information to present visual results. Secondly, in order to comply with the development of the times, in the face of today's many uncertainties, the establishment of a flexible and efficient talent introduction mechanism, enterprises can take the flexibility of the recruitment system, according to the demand for jobs and the talent market, the implementation of unscheduled recruitment, to broaden the recruitment channels, such as public recruitment, recruitment within the ecosystem of the industry, individual self-nomination. Finally, in order to ensure the convenience and safety of archive management work, it is necessary to build a functionally sound archive management system, reasonably design the layout of the archive system, and simplify each function. It is conducive to avoiding problems such as file loss or data misalignment, and reducing the negative impact on the future work of the enterprise. At present, there are already many enterprises specialising in the construction of digital file management such as digital service providers, such as in the Boao, Fangtian, etc., enterprises need to strengthen cooperation with such service providers to reduce the cost of pre-exploration.

In terms of performance management, it is necessary to realise the intelligence of performance appraisal, to provide a good working environment for employees, to ensure their job satisfaction, so that they can better complete their due responsibilities. Enterprises can build a cloud performance management platform or choose to cooperate with private cloud vendors. This not only facilitates the centralised processing of appraisal work, but also makes it easier to set appraisal objectives and communicate them to the corresponding employees. Employees can view their appraisal standards, current progress, and achievements on the cloud to meet their needs for performance appraisal. However, it should be noted that the transformation of intelligent performance appraisal is not an overnight process, as it requires high capital and time costs, and the new appraisal method may be rejected by employees. In order to prevent this phenomenon, enterprises should take a "shallow to deep" approach to the steady transformation, and gradually realise the application of intelligence in performance management. In building a cloud performance management platform, attention should be paid to the principle of "demand-oriented and practical". From a practical point of view, the trend of today's online office industry into the performance management, the transformation should be done to truly change the traditional manual mode of operation, to achieve full automation, intelligence, to protect the authenticity of the data, accuracy, and improve the efficiency of the assessment work.

In the development of staff training, most companies today because of the need for business activities to carry out training activities, which will lead to knowledge is fragmented, messy, so that employees lack of effective use of knowledge and sharing, so that the effect of training activities is relatively poor, can not be achieved systematically and holistically precipitation. For future training activities, enterprises should shift from business-driven to strategy-driven, using digital platforms to provide employees with clear training paths based on job planning, personal development planning and the overall organisational goal system. Secondly, the current online training into offline capacity is still missing the use of scenarios compared to traditional training. Using gamification thinking for online training, companies can use gamification thinking to make the training more interesting while transforming the effect through the ability of online training for employees. By setting up some small games such as knowledge competition, operation model training, role scenario play, etc. to let employees have a certain sense of experience and participation, deepen their impression of the training content, and meet the multi-faceted needs of the new era of employee training.

In terms of salary management, salary management is linked to performance management, so the electronic system of salary management should be combined with the performance management cloud platform. In the context of the new era, employees tend to manage and operate autonomously, and enterprises should form the main elements of salary assignment based on employees' role positioning, skill level, situation in performance management, and value contribution, etc. Therefore, the new-generation payroll management system also needs to be closely linked with the customer service

system, and use big data, cloud computing, and AI calculations to calculate salaries in real-time and accurately. In addition, enterprises can make use of blockchain technology's P2P network decentralisation, data information traceability and other features to combine with payroll management activities to provide a more authentic and reliable database, which is conducive to reducing the financial risks of enterprises.

5. Conclusions of study

Under the background of digital transformation, enterprises face the VUCA environment, the traditional human resource management has lagged behind, and importantly, human resource management is a very important part of the strategic transformation of enterprises. This paper mainly discusses the countermeasures of enterprises based on the new trends of enterprise human resources in talent recruitment, performance management, employee training and development, and compensation management in the context of digital transformation. Specifically, talent recruitment tends to be personalised and diversified; performance management tends to be efficient and diversified; employee training and development becomes interesting and convenient; compensation management becomes real-time and accurate. The countermeasures of enterprises are mainly as follows: combining big data technology and setting up flexible recruitment system; connecting the cloud platform of performance management, visualising the performance and practicalising the evaluation standard; establishing digital archive training routes and enriching the way of training process; and taking multiple elements into consideration in the basis of salary assignment and actively using blockchain technology.

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