# Research on the Concept Transformation of Digital Personnel Management in the Public Department

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**Abstract.** After entering the era of big data, China based on the "Internet +" action plan, put forward a number of preferential policies to promote the development of big data, and the information construction will rise to the national strategy. According to digital public sector personnel management in recent years, in building the system framework and function framework, comb to comprehensive business process, clear the operation steps of the overall system architecture, using the software design method is introduced into the classic design patterns, and combined with the data mining algorithm, in the personnel management association rules and deep discussion system contains potential information, In order to improve the public sector digital personnel management efficiency. In this paper, based on the understanding of the status quo of public sector digital transformation, according to the requirements of digital personnel management, in-depth discussion of the overall framework and application functions of digital personnel management system. The final experimental results prove that it is very important to transform the basic concept of digital personnel management in public departments and build personnel management system

Keywords: public sector; Digital; Personnel management; "Internet Plus"

### 1. Introduction

Digital transformation was first developed in the field of enterprise management, and has attracted the attention of researchers and scholars. It is mainly used to summarize a series of problems concerning the production and supply of products and services in the digital technology environment. [1.2.3]In the development of public administration reform, with the application of digital technology is more and more widely, scholars have started to use technical management, digital government, electronic management, e-government, such as academic research on the concept, not only in the transformation practice exploration, get more experience theory, also deepened our understanding to the government of the digital age change. From the conceptual point of view, the digital transformation of public sector can be divided into three parts: first, as the subject of the transformation, the public is the value basis of the digital transformation, in other words, the digital transformation must help realize the public value, not simply increase profits or improve efficiency; Secondly, digitalization refers to the means and technical background of transformation. The digital transformation of public sector is the management reform caused by the fourth industrial Revolution. The actual reform content is closely related to the characteristics of technological development, and its purpose is to guide the government to transform to the digital space form in the era of big data. Finally, transformation puts more emphasis on the content of change. The digital transformation of public sector not only changes the service process, but also comprehensively adjusts the value, culture, structure and other aspects of the government sector.[4.5]

From the dynamic point of view, the emphasis of digital transformation is different in different periods. In its early days, UNESCO saw e-government as the use of the Internet by governments to provide information and services to the public. At the same time, the United States also proposed in the e-government Act that e-government is a process to better provide government information and improve services, and to use the Internet and other information technologies. After 2010, the discussion on e-government began to shift towards e-governance, which is not limited to the application of technological tools, but pays more attention to civic participation and interaction. At

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ISSN:2790-1688 DOI: 10.56028/aetr.2.1.256 present, the digital transformation of China's public sector mainly starts from internal office automation. After several rounds of government Internet access, big data and large system construction, the overall development trend is similar to foreign countries, from information disclosure to service provision and intelligent decision-making. The correlation analysis with the development trend of digital technology shows that the digital transformation of public sector focuses more on the transformation from content supply transformation to supply-demand interaction, diversified cooperation and overall intelligent governance. The specific structure is shown in Figure 1 below:

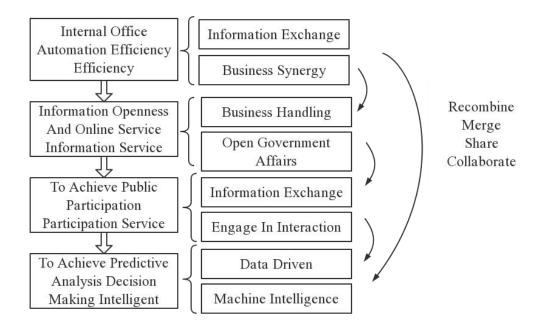


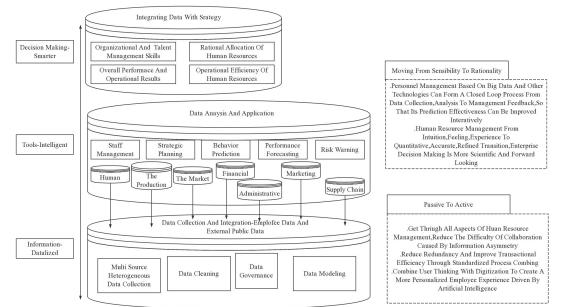
Fig. 1 Evolution structure of digital transformation of public sector

Based on the understanding of the current status of digital personnel management in public departments, this paper deeply discusses the application value of digital management system in the transformation of the public sector concept according to the overall structure and system design, so as to improve the level of personnel management in public departments and ensure the full use of human resources.

# 2. Method

# 2.1 Core Values

From the perspective of enterprises, the core value of digital personnel management in public departments is reflected in three aspects based on the analysis of the structure chart shown in Figure 2 below: First, digitalization of enterprise management. After the popularization of intelligent terminal, big data, database and other advanced technologies in the public sector, it can provide effective basis for storing, analyzing and applying massive human resource information. Secondly, enterprise management tools are intelligent. After the comprehensive promotion of personnel management digital tools, the overall module, function and technology application will become more rich and mature, flexible and configurable characteristics, so that the public sector personnel data analysis becomes more intuitive and efficient; Finally, the enterprise strategic decision intelligence. In the traditional sense, enterprise personnel management relies more on the intuition of the leader, employee psychology, employee behavior, salary, performance evaluation and other data. After timely analysis, it can provide effective basis for the management decision of the senior management department[6.7].



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Figure 2. Digital value at the enterprise level

At the department level, digital personnel management can break data islands, deeply excavate and store diverse and heterogeneous data, and lay a good foundation for upper-layer applications. At the same time, human resource managers can use digital tools to get rid of the traditional working mode and make the processing process of daily affairs more accurate and perfect. The specific structure is shown in Figure 3 below:

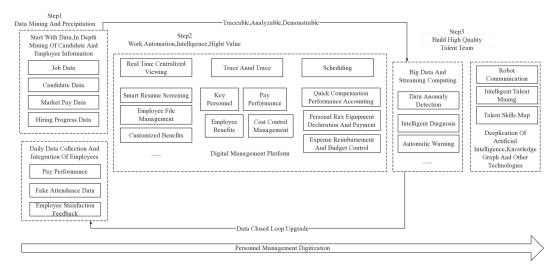


Figure 3. Digital value at the department level

Has been used widely in knowledge, map, and advanced technology such as artificial intelligence, big data, public sector personnel management digital tools, can be recommended according to the specific scene required tools, such as risk early warning, real-time tracking, data mining, information and recommend, and human resource managers are no longer limited to the functions of professional processing business, but will play its value in the depth of thinking.

From the perspective of digital transformation, there is a great difference between digitalization of personnel management and digitalization of production in the public sector. It is necessary to follow the people-oriented principle to build a management model, and only in this way can employees feel their unique value. The specific structure is shown in Figure 4 below:

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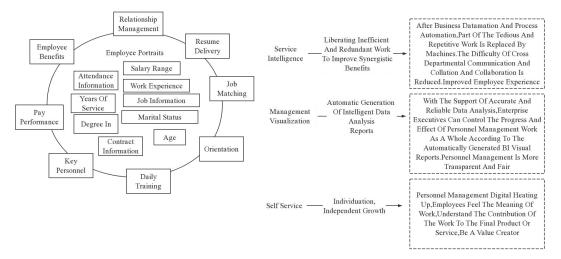


Figure 4. Digital value at the employee level

### 2.2 Scenario Construction

First, core personnel. As an important part of human resource management in public sector, this module is also the first step to realize the transformation of digital personnel management. However, from the perspective of actual construction and innovation, as core personnel management cannot do without data collection, data statistics, data analysis, report presentation and other links, the digitalized core personnel module as shown in Figure 5 below should be constructed:

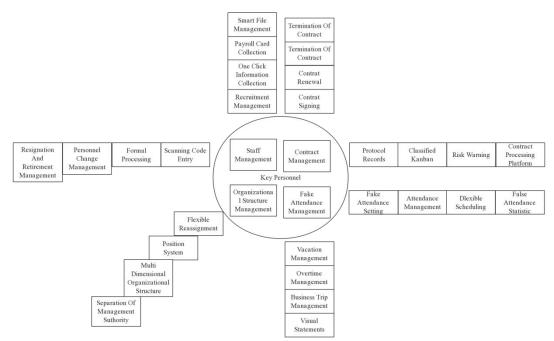


Figure 5 Digital core personnel module structure diagram

Combined with the above analysis, it can be seen that in the core personnel module, digital tools and functions involved in price management, contract management, full life cycle management, enterprise organizational structure management, etc. Digital tools can optimize the personnel management workflow at the same time, improve the work efficiency of each link, reduce unnecessary costs, visualize the data to the personnel management team, and provide effective basis for the management of public departments.

Second, pay performance. The specific digital transformation is shown in Figure 6 below:

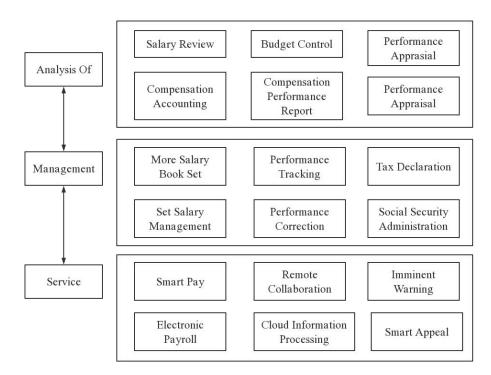


Fig. 6 Structure chart of digital transformation of compensation performance

Combined with the digital transformation analysis of salary performance as shown in the figure above, it can be seen that in the public sector, salary performance accounting and payment are an important link of human resource management. Nowadays, with the continuous increase of the number of employees and the continuous expansion of the business scope of enterprises, the requirements of personnel performance and target assessment are getting higher and higher. The traditional single performance evaluation model and analysis indicators can no longer achieve the efficient goal. Therefore, the digital transformation model as shown in the above 6 figures should be optimized. The digital application of compensation performance includes analysis, management, service and so on. Managers can use relevant tools to quickly collect and analyze performance evaluation data of department employees, shorten the path of collaboration between departments and systems, and improve the operational efficiency of practical work. At the same time, managers can also, under the guidance of digital tools, reduce the pressure of practical work, adjust relevant policies and regulations in time, and ensure effective personnel management standards in public departments.

Third, employee welfare. This module as the core content of enterprise compensation management, is also an effective means to attract high-quality talents and control the employee turnover rate. From the current public sector employee welfare management problems, first of all, the department staff size is large, internal demand presents diversified characteristics, welfare management is difficult; Secondly, there is a great contradiction between cost control and meeting the needs of employees. Secondly, the effectiveness of welfare implementation is not fully evaluated, so it is difficult to form a virtuous circle. Therefore, in the digital transformation of personnel management, the rational use of advanced technology tools can not only help public departments create a full-process closed-loop system and efficiently solve various problems of employee welfare, but also improve the sense of mission and cohesion of employees in the department and gradually enhance the development vitality of the organization.

Combined with the analysis of the structure chart of digital transformation of employee welfare shown in Figure 7 below, the overall design can be seen from three aspects: for employees, the public sector can fully meet their personalized needs after designing employee welfare schemes; For the human resources department, the employee welfare platform can reduce the pressure of

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practice management, simplify the execution of tasks, and improve the operation efficiency; For the public sector, it can further enhance the sense of belonging and cohesion of its employees.

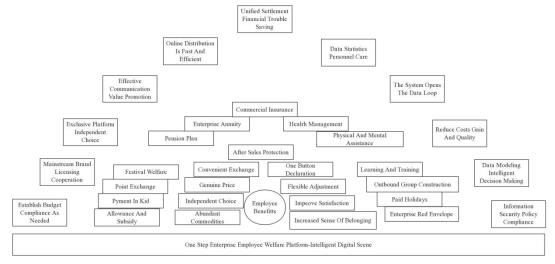


Fig. 7 Structure chart of digital transformation of employee benefits

# 3. Result analysis

According to the analysis of the transformation content of digital personnel management in the public sector in the above study, the overall system architecture is shown in Figure 8 below:

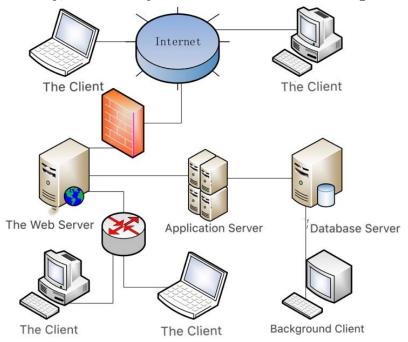


Figure 8 system architecture diagram

In this paper, the personnel management digital system of the public sector needs to deploy the database server, application server, Web server and other devices, among which the database server is used to store system data, the application server is used to exchange data and execute scripts, and the server is used to transmit and provide network data services.[9.10]

As the transformation of digital personnel management in China's public sector is a long-term task, not only theoretical analysis from multiple perspectives, but also combined with their own development needs, put forward a new point of view. Combined with the digital system structure analysis proposed in this paper, it can be seen that the continuous optimization of various systems of human resource management combined with specific functions can guarantee the digital

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personnel management model and better meet the transformation needs of modern public sectors. From the perspective of management system, the specific work involves the following points: First, to demonstrate the basic concepts of human resource management and strategic human resource management, such as performance management, strategic alliance, humanism, etc. Secondly, we should focus on the construction and play a leading role of the backbone system, including position design, compensation, performance management, the three aspects of mutual influence is different; Finally, all individual systems should form an interactive and harmonious system to avoid the problem of individual systems acting independently or restricting each other, so as to ensure higher efficiency of the human resource management system during operation.

## 4. Conclusion

To sum up, according to the public sector in recent years, the digitized transformation situation analysis shows that the personnel management as a foundation for the overall operation of the link, the reasonable use of inside and outside the organization based on the digital transformation of human resources, can not only meet the demand of current public sector management, members can also guarantee organization goals and maximize innovation development. Therefore, to strengthen the public sector in our country digital transformation of research at the same time, to combining with the experience accumulated in recent years, applying advanced foreign research results, the deep exploring how to reasonable use of artificial intelligence, big data, cloud computing and other advanced technology, speed up the innovation of the personnel management, only in this way can guarantee the human resources reasonable use.

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