**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**
**SUMY NATIONAL AGRARIAN UNIVERSITY**
**ECONOMICS AND MANAGEMENT FACULTY**

**Public management and administration Department**

# QUALIFICATION WORK

**Education Degree - Master**

**on: Management of integration processes of human resources at enterprises**

Completed: student of
073 «Management» (EP «Administrative Management»)

***Wu Ping***

Superviser ***Olena Belyaeva***
PhD, Associate Professor

Reviewer ***Lyudmila Ivashyna***

**Sumy - 2025**

# SUMY NATIONAL AGRARIAN UNIVERSITY

**Faculty** Economics and Management
**Department** Public management and administration

**Education degree** *«Master»*
**Field of Study** *073 «Management» (EP «Administrative Management»)*

Approved:
Head of Department
«_____» _____ 20 y.

# TASK

**on qualification work for student**

***Wu Ping***

**1. Theme of Qualification work:** **Management of integration processes of human resources at enterprises**

*Supervisor* _*Olena Belyaeva, PhD., Associate Professor*_____

*approved by the university from* _____

**2. Deadline for student completed project (work)** *March 2025*

**3. Background to the project (work):**
*educational methodical manuals, monographs, textbooks on the subject of research, scientific publications, and economic and financial statements for the period of 2023-2024*

**4. Contents of settlement and explanatory notes (the list of issues to develop):**

*1. Definition of the central concept and the corresponding theoretical base*
*2. Analysis of the Current Situation and Problems of the Use of BOZHON GROUP's Human Resource Management System*
*3. Investigation Design and Implementation*
*4. Summarize the results of the survey*
*5. Integrating the human resources management system of BOZHON GROUP*
*6. Application and Implementation of Human Resource Management System Integration*

**5. Date of assignment:** **December 2023**

# CALENDAR PLAN

| № | Title the stages of the degree project (work) | Date of performance project stages | Note |
|---|---|---|---|
| **1** | Definition and approval of the thesis, preparation of the plan - schedule of work | *April, (2023).* | *Done* |
| **2** | Selection and analysis of literary sources, the preparation of the first theoretical chapter | *Sep,2023* | *Done* |
| **3** | Preparation and presentation of the draft of the first chapter of the thesis | *Sep-Dec, (2023).* | *Done* |
| **4** | Collection and processing of factual material, synthesis analysis of application issues in the enterprise | *Jan, (2024).* | *Done* |
| **5** | Making the theoretical part of the thesis, summarizing the analytical part | *Feb, (2024).* | *Done* |
| **6** | Design options improve the research problem | *Mar- Aug,2024* | *Done* |
| **7** | Completion of the project part of the thesis, design chapters | *Sep,2024* | *Done* |
| **8** | Previous work and its defense review | *Dec,2024* | *Done* |
| **9** | Checking the authenticity of the thesis | *Jan, 2025* | *Done* |
| **10** | The deadline for students to complete the thesis | *Feb, 2025* | *Done* |
| **11** | Defense of the thesis | *March 2025* | *Done* |

Student _____ ***Wu Ping***
(Signature)

Supervisor of science work _____ ***Olena Belyaeva***
(Signature)

Authentication performed _____ ***Nadiia Baranik***
(Signature)

Checking the authenticity conducted.
The thesis allowed for defense. _____ ***Svitlana Lukash***
(Signature)

## SUMMARY

**Wu Ping. Management of integration processes of human resources at enterprises.**

Master's thesis in the specialty 073 «Management,» EP «Administrative Management» SNAU, Sumy-2025 - Manuscript.

Enterprises regard the degree of informatization as an important indicator of enhancing their core competitiveness. This article intends to confirm that optimizing the current human resources workflow in enterprises and integrating existing human resources module systems can significantly improve various aspects of daily human resources work in enterprises. Taking BOZHON GROUP as an example, process optimization starts with the business processes related to human resources work and assists in the optimization and integration of the human resources management system and subsequent reform and innovation, thereby optimizing the organizational structure and significantly improving employee quality and other aspects of the enterprise.

Based on the research of relevant concepts and theories such as human resource systems, employee willingness, and information system integration in enterprises, this article summarizes various factors that lead to the existing problems of human resource management systems. The main reason is the lack of integrated integration. Through a survey questionnaire, the needs of employees for human resource management systems in BOZHON GROUP-related enterprises were investigated and analyzed. It was inferred that there is a common demand for integrating human resource management systems among employees in the enterprise. Combined with the actual situation of BOZHON GROUP, corresponding countermeasures were proposed in terms of demand analysis, system design, construction of the human resource integration portal platform, feasibility, and subsequent work. Implementing these measures can promote the construction of human resource management systems and improve the efficiency and level of human resource management.

**Keywords:** Human Resources, Information System, System Integration

# АНОТАЦІЯ

**У Пін. Керування процесами інтеграції людських ресурсів на підприємствах.**

Кваліфікаційна робота зі спеціальності 073 «Менеджмент» ОП «Адміністративний менеджмент» . СНАУ, Суми-2025 р. – Рукопис.

З розвитком суспільства та інформаційних технологій підприємства стоять перед новою ерою. Вважають, що рівень інформації є важливим індикатором для підвищення своєї основної конкурентності. Наше дослідження має намір підтвердити, що оптимізація поточної роботи з людськими ресурсами на підприємствах і інтеграція існуючих модулів людських ресурсів може значно покращити різні аспекти щоденної роботи з людьми. Як приклад BOZHON GROUP, де оптимізація процесу починається з бізнес-процесів, пов'язаних з роботою людини, і допомагає в оптимізації та інтеграції системи керування людськими ресурсами під час реформ та інновацій.

На основі досліджень відповідних концепцій та теорій, зокрема систем людських ресурсів, готовності працівників та інформаційної системи інтеграції в підприємствах, наше дослідження підсумовує різні фактори, які призведуть до існуючих проблем у системі роботи з людьми на підприємстві.

За допомогою дослідження були проаналізовані потреби працівників у системах керування людськими ресурсами у BOZHON GROUP та на відповідних підприємствах.

Таким чином, існує спільний попит на інтеграцію систем керування людськими ресурсами серед працівників на підприємстві. На прикладі BOZHON GROUP, було пропоновано відповідні рішення з точки зору аналізу попиту, системного дизайну, побудови локальної платформи інтеграції людських ресурсів, доступності та покращення роботи.

**Ключові слова:** людські ресурси, інформаційна система, системна інтеграція

CONTENT

# INTRODUCTION

**Relevance of the topic.** In the current social context, with the development of the information age, enterprises should put forward more convenient and faster requirements for human resource management. However, for most enterprises, the first step is to strengthen and improve the management system of the human resource management system, optimize the allocation of human resources, carry out specific unified control for centralized management, and break the limitations of previous human resource management. The end users of the human resource management system can access it through computers and mobile terminals, making the information exchange of human resources timely and smooth. This can improve the efficiency of enterprises, effectively achieve the established planning and policies of enterprises, promote the development of enterprises in the expected direction, avoid resource waste, and enable employees to exert their subjective initiative fully.

Information technology is mainly applied as a tool in human resource management. As the saying goes, to do a good job, one must first sharpen their tools. To do a good job in human resource management, using a convenient and efficient human resource management system can achieve twice the result with half the effort. The application of information technology in human resource work can significantly improve the work efficiency of human resource departments and significantly reduce the proportion of routine work occupying the time of human resource management personnel. The above points are the primary purposes of many enterprises: building human resource management systems (HRMS), optimizing business processes, and improving service quality.

The human resource management system is based on advanced concepts and optimizes and standardizes business processes more agilely and efficiently. It is also the coordination and unity of human resource management art and information technology.

Given the current economic environment, technological progress and knowledge innovation are essential forces for economic development. Currently, 50% of small and medium-sized enterprises in China have established simple on-the-job personnel information databases, only 11% of small and medium-sized enterprises have applied information technology for human resource management, and about 30% of small and medium-sized enterprises have clearly stated that they have no intention of applying information-based human resource management systems; Compared to other regions such as Taiwan and Hong Kong, some large enterprises and group companies in mainland China have already reached the stage of popularization in this regard. Their human resource management systems have developed to the point where they can control internal human resource-related work. However, compared to other regions such as Taiwan and Hong Kong, the focus of human resource management system informationization construction in some enterprises in mainland China is still only at the primary stage of business personnel operation and information sharing, without an overall plan for human resource management information systems. Some reports also point out that compared with overseas enterprises, the efficiency of human resource management systems in Chinese enterprises is relatively low. Only a few enterprises can attach importance to the overall planning of human resource management systems.

Due to the inability to immediately obtain significant returns after investing large funds, many enterprises do not attach great importance to the informatization construction of human resource management systems. In addition, many personalized service designs have been carried out in the actual application process of the system. However, the system functions quickly and cannot meet actual work needs. These factors affect the construction of human resource management information systems in enterprises.

**The purpose and objectives of the master's work.** Through understanding the process and current situation of enterprise informatization, with a particular focus on the status of human resources-related systems in the enterprise, it is believed that there is a widespread need for information system integration. Based on the current

situation of my work unit, BOZHON GROUP, a problem and requirement analysis is conducted, and an executable implementation plan is formulated. Based on my knowledge of various aspects, taking the current situation of BOZHON GROUP's human resources management system as an example, I want to analyze and sort it out and then propose a solution. The solution can be used as a reference for integrating other business systems within BOZHON GROUP and can also have reference value for system integration projects of different enterprises. Considering all the above factors, it is the original intention of my thesis topic selection.

**According to the purpose, the main objectives of the study were identified:**

1. Definition of the central concept and the corresponding theoretical base

2. Analysis of the Current Situation and Problems of the Use of BOZHON GROUP's Human Resource Management System

3. Investigation Design and Implementation

4. Summarize the results of the survey

5. Integrating the human resources management system of BOZHON GROUP

6. Application and Implementation of Human Resource Management System Integration

**The object of the study is** BOZHON GROUP's human resources management system.

**The subject of the study** is optimizing and integrating human resource management systems for enterprises。

**The author's research mainly includes parts:**

**1. This study has five practical significance:** for some enterprises, the most critical human resources work is to use information technology to improve management efficiency; Companies that have integrated or integrated their human resource management systems have higher efficiency in human resource work and higher employee satisfaction. For enterprises, it is necessary to ensure that the human resource management information system efficiently, accurately, and quickly handles daily human resource matters. It can reduce the human resources department's workload, improve employees' information level, and enhance their abilities through

the human resources department, thereby helping the enterprise achieve more significant benefits and providing reference significance in the overall planning of enterprise information systems, enabling enterprises to develop in a predetermined direction, thereby achieving rational allocation of resources and avoiding waste of people, property, and resources. Efficiently managing human resources work in enterprises through human resource management information systems. Due to a large amount of personal information and human resource-related application processes for each employee, it is crucial for large enterprises with thousands of employees to effectively manage complex employee information and human resource-related workflow information using information technology.

**2. This study has two theoretical significance:** Starting from the overall situation of the enterprise as the background, the research conclusions have universal relevance and have universal reference value for improving system integration. Mastering the current status of human resource management systems in some enterprises can help objectively deal with the integration problems of human resource management systems or other business systems of the same type as BOZHON GROUP and continuously explore and innovate when facing work. Solving the problem of many information systems operating independently in their fields after completion, resulting in numerous "information islands," enables information systems to play their expected roles.

**The information base** of the research is scientific works and leading foreign experts on the chosen subject, data from official reports of the enterprise, and available statistical information.

**List of publications:**

1.Wu Ping, Olena Bieliaieva. Measures for improving the quality of human resources in enterprises through Cooperation between universities and enterprises. *The 10th International Scientific and Practical Conference "Modern problems of Science, education and Society"* (December 4-6, 2023) Kyiv, Ukraine. 2023. 2800 p. ISBN 978-966-8219-87-0.

2. Wu Ping, Olena Bieliaieva. The impact of the talent cultivation mechanism of school-enterprise cooperation on human resource management in the intelligent manufacturing industry. *The 4th International Scientific and Practical Conference "Current challenges of Science and Education"* (December 11-13, 2023) MDPC Publishing, Berlin, Germany. 2023.

The thesis consists of an introduction, three chapters, and a list of references, including 37 publications, applications, and 10 tables – the entire volume of 71 pages, of which the main text -60 p.

# CHAPTER 1

## APPLICATION THEORY OF HUMAN RESOURCE MANAGEMENT SYSTEM

Human Resource Management System: A human resource management system refers to an information technology project that utilizes the scientific methods and theories of information systems to construct and implement various functional modules of human resources management for enterprises or other groups to improve the level of human resource management in enterprises[1].

The human resource management system utilizes the storage of all data information related to human resources to achieve unified management of various aspects of recruitment, training, performance management, salary and benefits management, labor relations management, attendance management, office management, etc., for enterprises, optimizing personnel workflow, improving personnel management efficiency, and quickly building an efficient and fast human resource management environment. The human resource management system is a product of computer technology used in enterprise human resource management. It is the process of collecting, storing, analyzing, and reporting information related to personnel in the daily work of the enterprise[2].

The human resource management system also integrates information technology and human resource strategy and methods, so it is by no means a simple IT project. Enterprises should utilize information technology to promote the improvement of their human resource management system. Only by starting from the overall perspective of enterprise human resource strategy and information technology strategy can they respond to the needs of enterprise human resource management and changes in the environment, thereby improving the level of the human resource management system.

Relevant theories

The survey questionnaire design used in this study will be based on information system integration theory, employee satisfaction with the enterprise's human resource management system, and feasibility theory.

Information System Integration Theory

Integrating information systems is a very complex task because to achieve information system integration truly, it is necessary to integrate the architecture, data information, workflow, and other aspects of existing applications. It is not just about simply merging the interfaces and functions of some related systems. Therefore, the integration work cannot be done in one step and needs to be gradually integrated according to the actual situation [3].

After investing a large amount of workforce, property, and resources in information system construction, the enterprise found that the initially designed information system could not fully meet the needs of the enterprise. With the development of the enterprise, the requirements for the information system itself are also changing. Therefore, it is required that the information system also change according to demand. After completing most information system construction in the enterprise, it only operates independently within its business scope, which will form many "information islands." Information systems cannot efficiently manage various information of enterprises, cannot fully utilize enterprise data resources, cannot enable collaborative work between information systems, and cannot reasonably allocate and use information resources [4]. Such problems are not uncommon in the construction and development of enterprise informatization. The construction of enterprise information systems mainly aims to solve the problem of electronicization in the daily work of specific staff, focusing on production process automation and management informatization. Therefore, system integration must first solve the most straightforward problem of information system efficiency.

Satisfaction Theory

Expectancy theory (Victor Fromm, 1964) is a process theory proposed in "Work and Motivation." This theory can be expressed as follows: excitation expected

value x valence, and the degree to which a person's motivation is mobilized depends on the product of the expected value and valence [5].

The hierarchy of needs theory (Maslow, 1943) is one of the theories in behavioral science, which states that individuals have hierarchical needs that gradually transition from lower to higher levels. In reality, if a certain level has already been fully reached, it will no longer stimulate action and must pursue higher levels. If only a lower level is reached, there will be a need for a higher level. The reason why people can constantly strive is because of the existence of this pursuit[6].

Probability Theory

Probability theory is based on predicting the relationship between the development and changes of future research objects and the combined effects of internal and external factors. Information systems are moving from decentralization to integration, so the requirements for integration determine the possibility of integration [7].

The Development History and Current Status of BOZHON GROUP's Human Resource Management System

At the beginning of the establishment of BOZHON GROUP, it went from one company to several companies and now has a scale of several thousand people. From the initial application of human resources work through paper processes to the separate procurement of information systems for various modules of human resources, the development process of its human resources management system can be illustrated with the Nolan stage model diagram[8].

The Nolan stage model was formed and proposed in the 1970s and 1980s. The Nolan model summarizes the experience and laws of the development of management information systems and has guiding significance in studying the stage work of management information systems. Nolan divides the development of IT information systems into six stages, and none of these information systems can achieve leapfrog development[9].

The six stages of the Nolan model are the initial stage, popularization stage, control stage, integration stage, data management stage, and maturity stage.

The first stage is the initial stage. In the initial stage of the establishment of BOZHON GROUP, there was only a simple attendance management system and salary calculation was manually calculated by human resources by submitting attendance and performance evaluation data to finance based on basic salary. Gradually, data processing systems such as the Kemi fingerprint clock-in system and salary management were introduced[10].

The second stage is the popularization stage. Through a period of business development, the organizational structure of BOZHON GROUP has rapidly expanded, and the workload of the human resources, finance, and logistics administrative management departments has increased sharply. At this time, the demand for information technology applications has begun to expand continuously.

The third stage is the control phase. At that time, the managers of BOZHON GROUP controlled the application cost of the human resource management system, which led to the establishment of a team composed of business users from different departments. The team took the strategic development plan of the human resource management system as their work, thus controlling the system.

The fourth stage is the integration phase, during which BOZHON GROUP's human resource management system has undergone a significant leap in informatization. It has evolved from simply physically managing the system's software and hardware to managing the overall architecture planning of the information system [11].

The fifth stage is the data management phase, which upgrades the management of the human resource management system from individual support for existing business scenarios to management of business logic and comprehensive data applications.

The sixth stage is the maturity stage, where the support of information systems is incorporated into business plans, and the management of system information resources is an important consideration for managers.

As a daily user of the human resources management system at BOZHON GROUP, I believe that the current status of BOZHON GROUP's human resource

management system is transitioning from the fourth stage to the fifth stage. So it is reasonable to have unresolved issues such as data flow and business logic, which is also the purpose and significance of my research this time.

Analysis of Problems in BOZHON GROUP's Human Resource Management System. Lack of correlation between various module systems. BOZHON GROUP divides human resource management into distinctions of the content covered by enterprise human resource management work based on different module functions. This includes a recruitment module, training module, performance management module, salary and benefits management module, labor relations management module, and attendance management module.

The work of each significant module of human resources has its focus, but they are closely connected, just like the biological chain. The absence of any link will affect the imbalance of the entire system. Therefore, human resources work is an organic whole, and the work of each link must be in place. At the same time, the focus of work must be continuously adjusted according to different situations to ensure the healthy operation of human resources management and support the ultimate achievement of enterprise strategic goals[12].

In the current human resources work of BOZHON GROUP, the modules related to the human resources management system currently in operation include the following parts: (1) recruitment module system, (2) training module system, (3) performance management module system, (4) salary and benefits management module system, (5) labor relations management module system, and (6) attendance management module system[13].

In BOZHON GROUP, the six modules correspond to the following systems: recruitment module: SAP system, recruitment needs, talent pool.

Training Module: Global View Training System. Performance management module: Corresponding to the current performance management system of BOZHON GROUP, user employee self-assessment of quarterly and annual performance, as well as leadership evaluation, serve as a reference for employee performance pay and year-end bonuses.

Salary and benefits management module: BOZHON GROUP's dynamic support system imports attendance system data from human resources, and finance distributes salaries based on the attendance data reviewed by human resources, as well as vacation and performance parameters. A small portion of the work involves reimbursements for human resource outsourcing projects and salaries for outsourced personnel, which need to be prepared by human resources and then handed over to finance for salary distribution[14].

Labor Relations Management Module: Corresponding to a subsystem function of the SAP system, it stores onboarding information. Attendance management module: Existing Kemi fingerprint attendance system and WeChat attendance check-in system.

According to the business processing logic, the information system corresponding to the above human resource management modules has been constructed as the architecture system of BOZHON GROUP's human resource management system, which should enable workflow transfer and data sharing between the systems. However, for the current BOZHON GROUP, the planning of human resource management has not played a guiding role in the human resource management system and has not been able to improve efficiency through information systems in the actual work of BOZHON GROUP's human resource management. In order to ensure that BOZHON GROUP can smoothly achieve the relevant goals of integrating the human resource management system. For human resource planning, the most important part is the organization and analysis of relevant data on the current management situation.

The overall human resource management system is not flexible enough.

In response to the long-standing problems of multiple departments and functions involved in the informationization construction of BOZHON GROUP's human resources, such as "fragmentation, fragmentation, and information silos", it is necessary to clarify the work ideas of "internal and external linkage, point surface combination, and top-down collaboration" in the next integration work. On the one

hand, we need to focus on the long-term and do a good job in top-level design, and on the other hand, we need to focus on current problems and make breakthroughs[15].

Connect the various module systems and establish a human resources management system portal, coordinate the interfaces of various functional modules, unify workflows, and achieve a one-stop solution for online processes involved in human resources work without the need to jump to other systems within the portal, thus solving the increased workload of cross system processing[16].

This article discusses the issue of enterprise information system integration from the reasons for the emergence of isolated systems, the necessity, feasibility, and specific strategies of information system integration[17].

The main reasons for the lack of flexibility in various modules of BOZHON GROUP's human resource management system are: the process of enterprise development determines that the development of the system is gradual and orderly

At the beginning of its establishment, BOZHON GROUP had relatively high requirements for its human resources management system due to insufficient funds. However, as BOZHON GROUP grew and expanded, human resources related work also changed rapidly. At this time, the business needs related to human resources were no longer met in the existing human resources module systems. At this time, the investment in information systems is due to the increasing and frequent development of human resources business needs. Therefore, the development of BOZHON GROUP, its own human resources related businesses also leads to the problem of time lag between the development of human resources information systems and capital investment, resulting in the gradual and isolated development of the system.

The enterprise information system itself determines that isolated systems are inevitable. If the human resource management system of BOZHON GROUP does not rely on business needs, the value of the information system itself will be completely lost. Information systems classify systems into primarily internal systems and primarily external systems based on the sources of business information data. The requirements for BOZHON GROUP's human resource management system and financial system also change with external systems and demands.

In BOZHON GROUP, all information systems are not built in one step, and even if BOZHON GROUP has sufficient funds at the current stage, it is impossible to have a perfect solution from the information system integrator. Because the time, purpose, and target audience of information system requirements are all different, it is unrealistic for enterprises to find a comprehensive solution for all information system requirements at the start-up stage and develop a long-term enterprise information system overall strategic plan.

Risk Analysis of Integration of BOZHON GROUP's Human Resource Management System. The risks of integrating enterprise human resource management systems run through the entire process, but by conducting risk analysis and developing corresponding solutions, the impact of foreseeable risks can be greatly reduced. The risks of integration exist in the following five stages:

Requirement analysis stage. In the requirements analysis stage, the necessity of integrating human resource management systems should be demonstrated from three aspects: technology, cost, and quality. Do not blindly optimistically estimate the feasibility of technological implementation, as underestimating the expected costs during the information system integration process is a special concern at this stage [18].

How to adapt to the development and changes of enterprises through the integration of human resource management systems is an important risk at this stage. The overall IT strategy needs to be clarified at this stage, so that the strategic benefits of integrating human resource management systems can be obtained at the information technology level.

Planning Stage. Develop a schedule for integrating human resource management systems. The integration of human resource management systems requires coordination among various departments and cannot be treated as a separate task completed by an independent department. A dedicated project team should be established for integrating the system, and a schedule for system integration should be set. The project team should have a full understanding of the schedule for

integrating the system, otherwise it may lead to risks caused by unclear project completion time.

Development of integration plan for human resource management system. The integration project of human resource management system should develop emergency plans and alternative solutions for the integration system. The purpose of the emergency plan is to respond to unexpected issues during the integration period. The alternative plan for integration is a second feasible plan developed when encountering force majeure factors during the implementation of the original plan that prevent it from proceeding according to the original plan. There should be some differences from the original plan. When developing the above plan, attention should be paid to the rationality of the integration system architecture and the use of appropriate development languages [19].

Implementation phase of system integration. As a substantive stage of integrating human resource management systems, the main tasks include the following aspects: before integrating the system, enterprises should first clarify the integration of the end users, administrators, and maintenance personnel of the integrated system. This work should be carried out before the integration of hardware and software used in the existing human resource management system.

Enterprises first need to consider whether the hardware devices of the integrated system can support the software used. At different stages of the construction of enterprise human resource management systems, due to the issue of time span, there were significant differences in the hardware used by the enterprise at that time. This hardware integration needs to be forward-looking and able to support the architecture, technology, and software versions used in the integrated system. Enterprises must make sufficient preparations and detailed plans during this stage of hardware integration. The potential risks when integrating hardware include: excessive hardware costs, inability to support the integrated software, and hardware damage leading to the loss of important data.

In the software integration stage of human resource management systems, enterprises will definitely face many unpredictable technical problems, because the

development language and interface specifications of previously self-developed or purchased software are incompatible, which is a problem that will definitely be encountered during this system integration. Because software products from different suppliers can increase the difficulty of software integration; Even if several software products provided by the same supplier were previously used, there may still be issues of incomplete compatibility between systems due to secondary development caused by the company's own needs. And once the existing information systems of various modules related to human resources in the enterprise cannot be integrated through software development, it will mean that the enterprise must redevelop, which will result in the integration of the enterprise's human resource management system exceeding the original budget. This stage is the most crucial step in the integration of enterprise human resource management systems, so it is important to pay attention to the possible risks that may exist in this step.

Testing and Delivery Phase. After the implementation phase of integrating the human resource management system is completed, internal testing of the integrated system's code will be conducted first. Testers first test the basic functions of the system. The purpose of this internal testing phase is to identify system defects caused by code issues in the integrated system. It is only implemented internally by information system integration technicians. At this stage, the technical personnel of the system integration project team should fix the hidden code errors and design defects in the integrated system exposed during the internal testing phase, and then fix the existing bugs. The main risks that will exist during this internal testing phase are: incomplete design of test cases by testers that are prone to exposing program errors, resulting in frequent system code problems caused by test case issues after the integrated system runs; Defects caused by basic hardware issues are also mistaken for code errors.

Business testing of human resource management. This stage is the testing phase of the system trial operation after the integration of the human resources department's business. The main goal of this stage is to discover whether the integrated information system can improve management efficiency as expected,

optimize logical structure, achieve unified workflow flow and data sharing of various functional modules, and test whether the integrated system can support continuous services for enterprise users. The risks at this stage include: the quality of the integrated system delivered may not meet project expectations; The integrated new system cannot support the overall development of human resources business in the enterprise; Business service continuity has been interrupted.

Evaluation stage. If the integration project of the human resource management system is considered successful during the testing and delivery phase, considering that the testing work cannot detect all errors, it is necessary to ensure the service continuity of the integrated system and monitor in real-time to achieve rapid response to sudden system crashes at this stage; Evaluate the reasonableness of costs incurred during the integration process; The change in evaluating IT strategy occurred during the integration process; Evaluate various performance indicators of the integrated system.

Risk control of integrated projects. One is time management, the integration of various modules and systems related to human resource management. The project team should formulate the project schedule and control the progress according to the established schedule plan. The second is cost management, which refers to the budget cost management of integrating various resources of the human resource management system to prepare budgets. The third aspect is quality management. The prerequisite for integrating the human resource management system is to establish an actual quality standard system and conduct comprehensive quality control over all aspects of the project. The fourth is the technical management of the integrated system. In the investigation and evaluation stage, it is necessary to roughly select the technologies used, and in the planning and organization stage, it is necessary to plan the direction of the technologies and analyze existing and upcoming plans.

The continuity risk control of system services can be considered in two stages: firstly, during the integration plan and organization of the human resource management system, a service continuity framework should be developed to assist in determining the necessary recovery capabilities of the infrastructure and facilitate the

development of disaster recovery and emergency plans. Secondly, the risk control of service continuity after the integration of the human resource management system is completed. Once the information system integration is completed, selecting an appropriate system switching method can help control service continuity risks. Direct switching carries a high risk, and both parallel switching and segmented switching can help reduce service continuity risks.

From a security perspective, the main risk is due to the personnel involved in the integration of information systems. Due to the large number of issues, it is necessary to strengthen the control of information asset access authorization. Only authorized personnel can access the corresponding level of data. Integrity and availability are often related, and only complete information assets are usable. From a purely integrity perspective, it should be ensured that important information assets are fully preserved during the integration of information systems. Backing up data is a common and ideal practice. Availability refers to ensuring that the integrated information assets can be accessed normally to support the company's business activities. The disruption of information system availability occurs within the risk of information assets, but is manifested in service continuity, which in turn affects the entire M&A integration business by exporting the risk to the outside of the information system.

Historical data migration. Based on the analysis of most information systems implemented before, in order to truly achieve data structure optimization after integration, the integration of human resource management systems must start with the integration of databases. This is because business workflows are stored in databases in the form of data, and queries and reports are based on data. Currently, mainstream databases in the market include relational databases such as ORACLE, MySQL, and SQLServer, which are widely used in enterprise information systems. The high proportion of use in enterprise information systems means that in enterprises that need to integrate human resource management systems, there is a high probability that there may be multiple relational databases. On the other hand, based on the requirements of the overall IT informationization strategy, the unified

demand for informationization within the enterprise will also require the unified integration of databases [20].

Technical implementation issues. The technical difficulties in integrating enterprise information systems, and the current challenges in integrating business application systems into enterprise information systems

The process of integrating information systems by effectively sorting and integrating functional modules, business logic, system functions, code and interfaces, server and network hardware resources according to the overall requirements of the business, in order to help enterprises achieve the sharing of business application data information. Therefore, the difficulties in integrating enterprise information systems at present mainly come from inconsistent standards in the development of existing information systems, inconsistent data information types, inconsistent structural specifications, and inconsistent system architectures. A brief analysis is as follows:

Structure and specification: As the most important core resource of information systems, data information requires the establishment of a unified structure and specification within a system. The data information transmitted between systems needs to have a unified standard. Currently, there are differences in the structure and specification of information technology between domestic and international industries, and the structure and specification used in data information between systems developed by different manufacturers at different times may not be completely unified within enterprises [21].

The system architecture, due to the differences in the development language environment and hardware based systems that need to be integrated, requires full attention to the issues of different types of system architectures when designing the integrated information system during integration. For the integration of information systems, there are varying degrees of difficulties due to the need to integrate different system architectures according to different logics, involving different development methods and technical requirements. The systems that need to be integrated now may be deployed in hardware environments with different operating systems, networks,

and infrastructure, which have a considerable degree of complexity and must overcome the obstacles posed by operating systems and infrastructure hardware [22].

Acceptance of integrated system usage

The application of human resource management information systems needs to move from local to overall. The human resource work of enterprises is no longer satisfied with simply retrieving raw information through information systems, but requires the system to provide comprehensive integration and deep processing of information, which is an information integration service. However, any independent human resource management information system cannot meet the high-level information needs of enterprise management.

The inconvenience caused by the lack of integration of human resource management systems in current practical work is objectively present, and through survey questionnaires and interviews, we have collected real needs from more enterprise employees and feedback on their satisfaction with the current human resource management system. The demand for integrating human resource management systems is universal. After the above research, I will take BOZHON BOZHON GROUPs an example, combine actual needs and problems, and after reasonable requirement analysis, system design and development, and passing business testing and end-user testing, all achieve the expected results. It can be foreseen that the integration of human resource management systems, that is, the unified platform (portal web version and APP version) of the online human resource management system will be recognized by employees. The, And it can truly be accepted by everyone in daily use, but it requires organizing relevant training before the system goes live, and doing a good job in subsequent operation and maintenance to solve the problems encountered by everyone in the new unified platform of the human resources management system [23].

# CHAPTER 2

# INVESTIGATION, DESIGN, AND IMPLEMENTATION OF BOZHON GROUP'S HUMAN RESOURCE MANAGEMENT SYSTEM

## 2.1 Approach to Survey Design

Background and purpose of investigation

The survey conducted this time targets employees of BOZHON GROUP other related enterprises who are currently employed. The survey focuses on ordinary employees, human resources department employees, and information technology related employees. This survey aims to confirm that there is indeed a need for integration of human resource management systems within some companies[24].

Methods of Investigation.

The form of the questionnaire is easier to collect and conduct quantitative analysis afterwards. The question design in this survey questionnaire is determined based on the characteristics of the human resource management system, requiring respondents to independently answer corresponding questions according to their true thoughts. This method helps to collect more comprehensive information as much as possible in a short period of time. At the same time, through the method of assisted interviews, the author also conducted brief face-to-face interviews with employees of some companies, with the aim of using this intuitive conversation with the respondents to obtain more authentic information. This method can to some extent compensate for the lack of semantic ambiguity in questionnaire surveys (such as evaluation terms like "satisfied, dissatisfied, average", and varying evaluation criteria among respondents). By analyzing their answers and inferring some conclusions from behind, we can discover solutions while conducting investigations. Due to limited conditions, the number of interviewees is not very large.

Design of Survey Scale.

The preliminary design of the satisfaction survey questionnaire for the company's human resource management system was based on reference to relevant literature and appropriate adjustments made in combination with the actual situation of the enterprise. The questionnaire used in this study on employee satisfaction with the human resource system was obtained. Considering the busy work schedule and level of understanding of employees, the content of the questionnaire is easy to understand. The employee satisfaction survey questionnaire of the enterprise human resource management system used in this article consists of three main parts[25].

The first part mainly investigates the job type and company type of the respondents, and designs four questions including work experience, company nature, job type, and company size.The second part summarizes the current situation of the use of the company's human resource management system in three aspects through the review of relevant literature.The results are shown in the following table 2.1.

Table 2.1 - Survey on the Current Status of Employee Human Resource Management System Usage in the Company (the years of the study 2024)

| Subject | one | two | three | four | five | six |
|---|---|---|---|---|---|---|
| How long has your company's human resources management system been in use? | Within one year | 1-3 years | 3-5years | More than 5 years | Not clear | |
| The functions of the human resources information system you use on a daily basis | Salary Management | Attendance management | Issue a certificat | performance management | budget management | other |
| The frequency of your daily use of human resource management related systems | Multiple times a week | Once a week | Multiple times a month | Once every several months | Once a month | |

Sourse: [1,2]

Part Three: Mainly investigate whether the functions of the human resource management system are integrated, and investigate the satisfaction level of employees with the three core indicators of the integrated human resource

management system under the integration of the system. The results are shown in the following table 2.2.

Table 2.2 - Survey on System Satisfaction during the Integration of Human Resource Management System in the Company (the years of the study 2024)

| Subject | one | two | three | four | five |
|---|---|---|---|---|---|
| Do you currently have multiple human resource management systems in your company? | yes | no | | | |
| Are you satisfied with the functionality of the company's human resource management | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |
| Are you satisfied with the company's human resource management process | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |
| Are you satisfied with the human resource management system you use on a daily basis to make your work more convenient | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |

Source: [1,2]

In addition to investigating the three core indicators of satisfaction, the reasons for the complexity of the system and whether it causes inconvenience to employees, issues with the company's existing human resource management system, and whether it is necessary to integrate relevant systems.The results are shown in the following table 2.3.

Table 2.3 - Survey on System Satisfaction of Companies Without Integrating Human Resource Management Systems (the years of the study 2024)

| Subject | one | two | three | four | five |
|---|---|---|---|---|---|
| Do you currently have multiple human resource management systems in your company? | yes | no | | | |
| Reasons for the complexity of the company's human resources related systems | Poor information technology capability of the company | Lack of planning in human resources work | Difficulty in system integration | The historical legacy issues of repairing and patching up | |
| Will multiple human resources related systems cause inconvenience to you | yes | no | | | |
| Are you satisfied with the functionality of the company's human resource management | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |
| Are you satisfied with the company's human resource management process | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |
| Are you satisfied with using human resource management systems to make daily work more convenient | Very satisfied | satisfied | general | Dissatisfied | Extremely dissatisfied |
| What do you think are the problems with the company's human resources information system | Multiple systems need to be logged in | The process cannot be integrated and converted in the system | The data of each system is not synchronized | | |
| Do you think it is necessary to organize the existing human resources related systems | be necessary | Not necessary | indifferent | | |

Source: [1,2]

Implementation of Investigation

Questionnaire distribution and collection

This survey was conducted through the online survey platform "Wenjuanxing" to conduct a survey on the satisfaction of company employees with the human resources management system through convenient sampling. Due to the need to

extensively collect data on employees of BOZHON GROUP related companies of different types, the questionnaire method mainly focuses on convenient sampling. After the questionnaire is collected, it is summarized and analyzed one by one based on the questions answered by the respondents. As the questionnaire is distributed and collected by "Wenjuanxing", a total of 163 valid questionnaires were collected.

Reliability and Validity Testing

Extract 82 valid questionnaires from 163, input the extracted data into statistical software to verify the rationality and effectiveness of the survey questionnaire design, and assign values to the employee's company situation, work experience, type, and current use of the company's human resources information system. For example, for work experience, 1 is within one year, and 2 is 1-3 years, 3 is 3-5 years, 4 is more than 5 years; For the nature of the company, private enterprises, state-owned enterprises, public institutions, listed companies, foreign-funded enterprises, and others are assigned values of 1, 2, 3, 4, 5, and 6 respectively; Assign 1, 2, 3, 4, 5, 6, and 7 to job types: sales, administration, human resources, IT, business, and others respectively; Assign values of 1, 2, 3, 4, and 5 to the size of the company: below 200 people, 200-500 people, 500-1000 people, 1000-3000 people, and above 3000 people, respectively. After converting all the results, enter them into SPSS for statistical analysis.

The internal consistency coefficient is used to analyze the reliability of the questionnaire, with Cronbach α coefficient as the main detection indicator. If the α coefficient is above 0.8, it indicates that the reliability of the questionnaire is acceptable.The results of the satisfaction reliability analysis are shown in Table 2.4.

Table 2.4 - Reliability Analysis of Human Resource Management System Satisfaction (the years of the study 2024)

| Essential factor | Item | Cronbach α coefficient |
|---|---|---|
| Employee satisfaction with the human resource management system | 3 | 0.89 |

Source: own research

From Table 2.4, it can be seen that the questionnaire coefficient is above 0.8, indicating good reliability of the questionnaire.

The structural validity test of the questionnaire was conducted using Pearson coefficient, and the test results are shown in the following table: Firstly, the cumulative variance contribution rate of the common factors reached 82.32%, far exceeding the critical value of 40%, and the factor loadings of each item exceeded 0.4.The results of satisfaction validity analysis are shown in Table 2.5.

Table 2.5 - Analysis of Satisfaction Validity of Human Resource Management System (the years of the study 2024)

| Essential factor | Overall questionnaire |
|---|---|
| Satisfaction with the functionality of the human resource management system | 0.90 |
| Satisfaction with the fluency of the human resource management system | 0.93 |
| Satisfaction with the convenience brought by human resource management | 0.89 |

Source: own research

Overall, the reliability and validity of this questionnaire regarding satisfaction with the human resource management system are good.

## 2.2 Distribution of Survey Samples

After confirming the stability and validity of the questionnaire, summarize the collected valid questionnaires. The summary table of work experience, company nature, job type, and company size is shown in 2.6.

Distribution of working years of the sample

There are 24 people with less than 1 year of work experience, accounting for 14.72% of the total sample; There are 56 people who have worked for 1-3 years,

accounting for 34.36% of the sample; There are a total of 22 people with 3-5 years of work experience, accounting for 13.50% of the sample; There are 61 people who have worked for more than 5 years, accounting for 37.42% of the total sample.

Table 2.6 - Sample Distribution of Employee Satisfaction with the Human Resource Management System of the Company (the years of the study 2024)

| Fundamental problems | | Number of people | Proportion of people |
|---|---|---|---|
| Years of service | Within 1 year | 24 | 14.72% |
| | 1-3 years | 56 | 34.36% |
| | 3-5 years | 22 | 13.50% |
| | More than 5 years | 61 | 37.42% |
| Nature of the company | private enterprise | 70 | 42.94% |
| | state owned enterprise | 41 | 25.15% |
| | Public institution units | 7 | 4.29% |
| | listed company | 21 | 12.86% |
| | foreign capital enterprise | 19 | 11.66% |
| | other | 5 | 3.07% |
| Job type | Sales category | 23 | 14.11% |
| | Administrative category | 17 | 10.43% |
| | Management category | 21 | 12.89% |
| | Human Resources | 11 | 6.75% |
| | IT category | 49 | 30.06% |
| | Business category | 20 | 12.27% |
| | Other | 22 | 13.50% |
| Company size | below 200 people | 26 | 15.95% |
| | 200-500 people | 32 | 19.63% |
| | 500-1000 people | 12 | 7.36% |
| | 1000-300 people | 21 | 12.88% |
| | More than 3000 people | 72 | 44.17% |

Source: own research

Distribution of the nature of the company where the sample is located

There are 70 people working in private enterprises in the sample, accounting for 42.94%; 41 people working in state-owned enterprises, accounting for 25.15% of the sample; There are 7 people working in public institutions, accounting for 4.29% of the sample; There are 21 people working in listed companies, accounting for 12.86%; There are 19 people working in foreign-funded enterprises, accounting for 11.66%; There are 5 people in other jobs, accounting for 3.07%.

Distribution of types of work performed by the sample

There are 23 people engaged in sales work in the sample, accounting for 14.11% of the sample; 17 people are engaged in administrative work, accounting for 10.43% of the sample; 21 individuals engaged in management, accounting for 12.89% of the sample; There are 11 people engaged in human resources, accounting for 6.75% of the sample; 49 people engaged in IT, accounting for 30.06% of the sample; 20 people engaged in business, accounting for 12.27% of the sample; There are 22 people engaged in other jobs, accounting for 13.50% of the sample.

Size distribution of companies where the sample is located

There are 26 companies with a scale of less than 200 employees, accounting for 15.95% of the total number of employees; There are 32 employees in the company with a scale between 200-500 people, accounting for 19.63% of the total number of employees; There are 12 employees in the company with a scale of 500-1000 people, accounting for 7.36% of the total number of employees; There are 21 employees in the company with a workforce of 1000-3000, accounting for 12.88% of the total workforce; There are 72 employees in the company with a workforce of over 3000, accounting for 44.17%.

## 2.3 Analysis of the current situation of the use of the company's human resource management system

Survey on the service life of the company's human resources system

A survey was conducted on the service life of the company's human resources, Within 1 year is 15 people,1-3 years is 22 people,3-5 years is 23 people, More than 5 years is 37 people, not clear is 66 people.

The research results indicate that the majority of employees are unclear about the service life of the company's human resource management system.

Survey on the Current Status of the Use of Human Resource Management System Functions by Sample Employees

A survey was conducted on the current status of the human resource management system functions used by employees, Salary Management is 101 people, Attendacne management is 122 people, Issue a certificat is 72 people, performance management is 85 people, budget management is 74 people, other is 46 people. The research results indicate that the most commonly used human resource management system function by employees is attendance management, followed by salary management, budget reimbursement, certificate issuance, and other functions.

Survey on the Current Status of Frequency of Human Resource Management System Usage

The statistical analysis of the frequency of use of the human resource management system, Research shows that the frequency of employee use of human resource systems is relatively high, with 54 respondents using the human resource management system multiple times a week; 32 respondents use the human resources management system once a week; 44 respondents used the human resources management system multiple times a month; 22 respondents use the human resource management system once a few months, and 11 respondents use the system once a month.

Analysis of Integration Status of Human Resource Management System

An analysis was conducted on whether the human resource management system of the surveyed company is integrated, Not integrated is 125 people, integrated is 38 people. The research results indicate that most of the current internal human resource management systems in companies have not been effectively integrated, which can lead to a series of problems such as poor convenience.

Investigation into the Current Situation of Complex Reasons for Unintegrated Human Resource Management Systems

The investigation on the current situation of complex reasons for the lack of integrated human resource management system. The historical legacy issues of repairing and patching up is 21 people, Difficulty in system integration is 51 people, Lack of planning for human resource drift work is 32 people, The company's information technology capability is constrained is 22 people. The research results

show that people believe that the main reason for the complexity of unintegrated human resource management systems is due to the system itself, that is, the difficulty of system integration is too high. In addition, the lack of planning in human resources work is also one of the important reasons for its complex use.

Analysis of User Convenience of Unintegrated Human Resource Management System

A survey was conducted on the usability of the non integrated human resources management system. Among the respondents who worked for companies integrating human resource management systems, 91 believed that multiple human resource management systems would cause inconvenience in their use, 35 people believe that multiple human resource management systems will bring convenience to their use

Is it necessary to integrate the current status of the non integrated human resource management system

A survey and analysis were conducted on whether it is necessary to integrate the non integrated human resource management system, The research results indicate that 100 respondents working in companies without integrated human resource management systems believe that the system needs to be integrated,7 people think it's unnecessary, 19 people don't care about the integration of the human resources system.

Investigation on whether integrating human resource management system improves efficiency

A survey was conducted on whether the integration of relevant human resource management systems would improve efficiency, and the results are as follows: 101 people believe that it will improve the efficiency of related work,8 people believe that it will not improve the efficiency of related work, and 17 people do not know if it can improve efficiency.

Satisfaction Status of Human Resources Systems for Company Employees with Different Years of Work Experience

For the survey on employees' satisfaction with the human resource management system, they can choose from 5 answers: very satisfied, average,

dissatisfied, extremely dissatisfied; Very satisfied earns 1 point, satisfied earns 2 points, average earns 3 points, dissatisfied earns 4 points, and extremely dissatisfied earns 5 points. Generally speaking, a score of 3 is used as the critical value, which indicates that the respondents are more satisfied with the human resource management system than a score of 3. If it is greater than 3, it means that the satisfaction is clearly low and corresponding measures need to be taken to improve. According to this method, the specific situation of employee satisfaction with the human resource management system is statistically analyzed, and the statistical results are shown in Table 2.7.

It can be seen that employees with different years of work experience have a relatively high level of satisfaction with the human resource management system (all less than 3 points). Employees with less than one year of work experience have the highest overall satisfaction with the human resource management system (the lowest average), and the highest level of satisfaction with the human resource management system processes.

Table 2.7 - Summary of Satisfaction Surveys with Different Work Years (the years of the study 2024)

| Work experience | average scores for each question | | | |
|---|---|---|---|---|
| | Satisfaction with the functionality | Satisfaction with the process | Satisfaction with Convenience | average score |
| Within 1 year | 2.13 | 2.17 | 2.50 | 2.27 |
| 1-3 years | 2.61 | 2.48 | 2.50 | 2.53 |
| 3-5 years | 2.5 | 2.55 | 2.41 | 2.49 |
| Over 5 years | 2.64 | 2.54 | 2.49 | 2.56 |

Source: [1,2]

Employees from different types of companies where the sample is located answered correctly about the satisfaction status of the human resources management system

Statistics will be conducted on the specific satisfaction level of the human resources management system surveyed based on the nature of the employee's company. The statistical results are shown in Table 2.8. According to the results, among all types of companies, employees of foreign-funded enterprises have the highest satisfaction with the human resource management system (with the lowest average satisfaction score), which may be related to the higher level of human resource management in foreign-funded enterprises. However, employees in public institutions have the lowest satisfaction with the human resource management system, which may be due to the relatively short establishment time of the human resource department in public institutions and the low level of human resource management, resulting in lower employee satisfaction with the human resource management system.

Table 2.8 - The Impact of Company Type on Employee Satisfaction with the Human Resource Management System (the years of the study 2024)

| The nature of the company | average scores for each question | | | |
|---|---|---|---|---|
| | Satisfaction with the functionality | Satisfaction with the process | Satisfaction with Convenience | average score |
| private enterprise | 2.44 | 2.4 | 2.34 | 2.4 |
| state owned enterprise | 2.76 | 2.61 | 2.73 | 2.7 |
| Public institution units | 2.86 | 2.71 | 2.86 | 2.81 |
| listed company | 2.48 | 2.43 | 2.62 | 2.51 |
| foreign capital enterprise | 2.26 | 2.26 | 2.11 | 2.21 |
| other | 2.8 | 2.8 | 2.8 | 2.8 |

Source: own research

The impact of employee job types on employee human resource management systems

Statistics will be conducted on the specific satisfaction of employees with the human resource management system based on the type of work they are engaged in. The specific statistical results are shown in Table 2.9. It can be seen that sales employees have the highest satisfaction level (lowest score) with the human resource

management system among all job categories, while administrative staff have the lowest satisfaction level with the human resource management system.

Table 2.9 - The Impact of Job Types on Human Resource Management System Satisfaction (the years of the study 2024)

| Job Types | average scores for each question | | | |
|---|---|---|---|---|
| | Satisfaction with the functionality | Satisfaction with the process | Satisfaction with Convenience | average score |
| Sales category | 2.26 | 1.96 | 2.35 | 2.19 |
| Administrative category | 2.76 | 2.59 | 2.71 | 2.69 |
| manage category | 2.67 | 2.76 | 2.62 | 2.68 |
| Human Resources category | 2.45 | 2.73 | 2.64 | 2.61 |
| IT category | 2.39 | 2.29 | 2.27 | 2.31 |
| Business category | 2.75 | 2.65 | 2.55 | 2.65 |
| other | 2.68 | 2.73 | 2.68 | 2.7 |

Source: own research

Satisfaction Status of Human Resource Management Systems for Employees of Different Company Sizes

Statistics will be conducted on the specific satisfaction of employees with the human resource management system based on the size of the company they are in. The specific statistical results are shown in Table 2.10. The research results indicate that employees of companies with a scale of 1000-3000 people have the highest satisfaction (lowest score) with the human resource management system.

Whether the human resource management system is integrated and its impact on the human resource management system

Table 2.10 - The Impact of Company Size on Human Resource Management System Satisfaction (the years of the study 2024)

| The Impact of Company Size | average scores for each question | | | |
|---|---|---|---|---|
| | Satisfaction with the functionality | Satisfaction with the process | Satisfaction with Convenience | average score |
| Less than 200 people | 2.5 | 2.35 | 2.5 | 2.45 |
| 200-500 people | 2.53 | 2.47 | 2.5 | 2.5 |
| 500-1000 people | 2.33 | 2.67 | 2.67 | 2.56 |
| 1000-3000 people | 2.24 | 2.19 | 2.14 | 2.19 |
| More than 3000 people | 2,67 | 2.56 | 2.54 | 2.59 |

Source: own research

Examining the impact of integrating the human resource management system on satisfaction with the system, statistical software was used for analysis and processing. The research results show that there is a certain difference in the satisfaction of respondents with integrated and non integrated human resource management systems, specifically manifested in employees' satisfaction with the functionality, convenience, and overall average satisfaction of the non integrated human resource management system being higher than that of the non integrated system (the lower the score, the higher the satisfaction). This suggests that we need to further strengthen the integration of human resource management systems to improve employee satisfaction.

# CHAPTER 3

# APPLICATION AND IMPLEMENTATION OF HUMAN RESOURCE MANAGEMENT SYSTEM INTEGRATION

## 3.1 Set goals for the integration of human resource management systems

After the previous investigation, demand analysis and theoretical research, I will develop a targeted integration platform separately according to the characteristics of BOZHON GROUP the needs of human resources management. It is required that the integration of BOZHON GROUP's human resources management system should be reasonably designed in terms of ease of use, security, reliability, economy and other aspects of the system so as to truly achieve a clear implementation. Because currently, although many software companies have developed corresponding platform software in areas such as system integration, workflow, data integration, and information utilization, they have also proposed many solutions. However, overall, these plans are not yet mature and tend to be experimental in information technology.

The next step is to integrate the various modules and systems of human resource management, with the goal of meeting the needs of enterprise management, providing convenient operations and more user-friendly functions for business management, and improving work efficiency. To determine the principles and goals of system integration, adopt a unified development language, and organize data types, in order to achieve effective integration of the human resource management system, coordinate and unify various modules, and integrate the workflow completely[24].

Developing an independent system integration platform can achieve the majority of information system integration, integrating various module systems into the integration platform of BOZHON GROUP's human resources management system. In the network environment of the company's intranet, users of the

integration platform access the existing module systems through the platform during actual business processing, and perform unified system permission and security management based on each user's business scenario and role. Developing various data information and business application system pages for different organizations on the integrated platform, providing users with a unified information access channel for business processing. The entire platform provides users with a unified interface and the same operating method.

Establish an integrated platform for the human resource management system, realizing the integration of various modules and systems of BOZHON GROUP's human resource management, and achieving the integration of the logical functions of the original modules and systems. And develop a unified portal and APP client version for the integration platform of the human resources management system. Users can access the integrated platform of the human resources management system by logging in to the unified portal or portal APP information, thereby realizing the conversion between the original functions. After logging in to the portal once, they can enter the human resources management system integration platform and enter each original module system without having to re-enter the password, achieving the integrated single sign on function. Solved the problem of different functional systems in the original module systems being unable to achieve workflow and data transmission and sharing[5].

The integration platform solves the problems caused by the previous data coming from multiple module systems, and further improves the data organization and reporting functions of the human resource management system integration platform itself; It is possible to integrate commonly used files and reports in human resources work and store them in the same pattern, which is beneficial for future business scenarios Inquire, analyze, and export to achieve unified management and sharing of expected basic data and reports[11].

## 3.2 BOZHON GROUP's internal demand analysis for the integration of human resource management systems

Analyze the overall requirements for system integration, determine the principles and goals of system integration

The principle of integrating the human resources management system of BOZHON GROUP should adhere to the principle that BOZHON GROUP has always emphasized, pay attention to the practicality and progressiveness of the project, and conform to the economic principle of cost control. The clear goal is to plan the overall system of the existing decentralized human resource management modules, integrate the logic of the current system through information technology, connect the interfaces between various systems, and use the integration platform to process business workflows, in order to meet the needs of providing convenient operation and humanized functions for BOZHON GROUP's human resource management[1].

Analyze the current status of the operating environment, functional design, and data foundation of each module system

At present, the integration of BOZHON GROUP's human resource management system requires a thorough analysis of the operating systems and development languages of the existing module system operating environment, the functional design of the internal logic of each module, and the data stored in each system database. Next, the project team integrating the system needs to comprehensively organize the situation of the existing system according to the unified norms and standards of system development, and then write a special report on the current status of the human resource management system in the following work.

Developers evaluate integration requirements and conduct technical implementation analysis

Firstly, after understanding the current status of the existing system, utilizing the system development experience within BOZHON GROUP drawing on other mature system development and design experiences, we have determined that the

development and design concept for integrating the human resources management system is to use information technology to assist HR department business personnel and ordinary employees who use the HR information system to apply for related affairs on a daily basis. In the complex environment of various module systems in BOZHON GROUP, it can provide everyone with a convenient and integrated system experience for informationization.

Ensure data uniqueness and enable sharing among various modules in the integrated platform. By utilizing information technology, ensure the uniqueness and sharing of data entering the system integration platform through the data information portal. For example, the only channel for the attendance data source of the integrated human resources management information system is the attendance module of the integration platform, which can then achieve data sharing between the two modules when calculating salaries in the salary module[26].

By streamlining business processes, standardized integration of human resource management work can be achieved in the integrated human resource management system of BOZHON GROUP. Standardize the business process of human resource management and comprehensively streamline the process from personnel recruitment to employee resignation in the system. The human resource management system should cover various functional modules such as attendance, performance, compensation, and training[27].

In the design of the integrated system, developers strive to meet the needs of human resource management for the future development of the enterprise in terms of functional design, introducing advanced information technology into the integrated system. At the same time, in order to better meet the needs of each business role in actual work after the system is put into operation. The end users of the integrated system should be added to the project team within BOZHON GROUP to participate in the analysis, design, and development of the entire system. This will enable the integration of the human resources management system with other related systems through corresponding interfaces. In future work, data analysis, comparison, and

processing of the two systems related to the human resources management system can be carried out.

Build a system integration platform with comprehensive customization capabilities. Enable IT personnel responsible for subsequent system operation and maintenance work to make adjustments on the system page based on actual business needs, without the need to modify system code that only developers are familiar with, making it easier to maintain functional points that need to be easily expanded. For example: exporting report customization items, workflow management tools, data maintenance management tools, menu settings, user permission management, data maintenance modules, etc.[12]

In order to enable the integration platform of the human resources management system to support mainstream database systems in the market, such as the following relational databases: Oracle, My SQL, SQL Server, etc[28].

Improve the performance of system data processing through buffering components. By adding a data caching plugin similar to Redis to the system architecture, the unique data of the integrated platform can be processed in a centralized manner. Then, according to pre-set algorithms, the data can be written to the official database of the human resources management system in a load balanced form. When users query, the query results can be returned in Redis cache first, which is a second level improvement in query optimization compared to querying and returning query requests after connecting to the database.

Strengthen the data security management of the integrated platform. Efforts should be made to ensure data security management as much as possible when handling data transmission, process transfer, and process protection between various modules and application systems of the integrated platform, in order to achieve the ultimate uniqueness, accuracy, and completeness of data. In order to effectively prevent network attacks and intrusions both inside and outside the system, the WAF system and network firewall are integrated. Through established security mechanisms, access to the system database is restricted, user roles and corresponding management are assigned, and the above functions, which facilitate auditing of IT personnel

operations, are deployed in the application layer system of the system integration platform. While reducing database security risks, the root cause of problems can be traced when stored information data is damaged.

The easy to maintain features and scalability of mature architecture. When developing an integrated platform for human resource management systems, modular segmentation is achieved for the subsequent use of end-users. Business function modules can be opened based on user roles and permissions, and custom module functions can be opened for administrator permissions. Simple training or explanation is required to operate, without the need for repeated confirmation by system developers. The system integration platform uses a mature J2EE development architecture, and the system developed using this architecture has good scalability and compatibility. Mature technology also serves as a superior prerequisite for subsequent system operation and maintenance[32].

Enhance the adaptability of the system integration platform within a certain range. The design and development of the integrated platform are based on the original development of each module system, and the interfaces of each module application system are sorted out. The unified integration of the platform provides technical guarantees for the adaptability of the system integration platform. In the future, the pipeline technology of the J2EE development platform can also be used to achieve special business requirements for the subsequent development of the system. It is also possible to redevelop components that can replace the original module functions for similar requirements to achieve new system functions.

Open principle based on Internet technology. In the actual development of the integration platform of BOZHON GROUP's human resources management system, most of the function module interfaces should be developed by using the development design of Internet thinking. In the subsequent secondary development of the system, developers can easily integrate the newly developed function modules into the existing system in the existing system integration platform.

The overall architecture of the integrated human resource management system has been modeled as a three-layer architecture. The human resource management

business has high requirements for the overall performance, stability, and continuity of the application information system. After the integration of the human resource management system is completed, it is a relatively complex architecture and logic, but requires usability as a whole enterprise level application system. Its main characteristics are: daily attendance has a large amount of data and requires sharing, and the system users include the entire enterprise, so there are many users involved, involving six major functional modules, resulting in complex business scenarios[29].

The development of an integrated human resource management system for BOZHON GROUP should be based on JAVA and JSP development languages, utilizing the J2EE platform to provide a method based on functional module components for designing, developing, assembling, and deploying enterprise applications. The J2EE platform provides a multi-layered distributed application model, component reuse, a consistent security model, and flexible transaction control. At the same time, it ensures that platform independent, component-based J2EE solutions are not constrained by any vendor's products and APIs[31].

Evaluate the operation, maintenance, and technical support of the integrated online system

After entering the online stage, the integrated human resources management system will undergo routine settings, adjustments and optimizations, as well as verification based on the business of human resources management, to ensure the system's plan during adjustments. It will also cooperate with development and business personnel to conduct functional testing on the officially launched human resources management system after relevant adjustments[30].

After the integration and launch of the human resource management system, it is necessary to continuously optimize and refine the management process in order to improve enterprise management and increase market response speed using the integrated human resource management system.

Ensure the accuracy of data information after the integrated human resources management system is launched and operated, and comply with the overall data management standard system of BOZHON GROUP in the system operation and

maintenance work. The group's database administrator needs to participate in the development of daily database inspection plans and formulate various risks of database service downtime

The emergency plan and maintenance of data and database services related to the system require a significant amount of effort.

From the daily running time of the system, operation and maintenance personnel need to write operation and maintenance manual documents, record the problems encountered, accumulate knowledge base for dealing with repeated problems in the system, describe the system phenomena and log error information at the time of the problem, discuss solutions with developers, use past experience to accelerate the localization of system problems in future system operation and maintenance, and be familiar with problem-solving solutions and methods for finding problems[37].

Feedback on new business function requirements and existing problem repair needs. System or business problems cannot be avoided during the operation of the system. The sources of problems include the system's own program reasons, as well as the business department's requirements for new system function requirements, which may lead to the system needing to configure, release, repair problems or update code to release new function requirements proposed by the business. This work requires the implementation of the change operation plan and time point through relevant standard processes and documents, and after review and approval.

The formulation of backup strategies is necessary for the daily backup of software and configuration information of the system. It is necessary to develop backup strategies based on actual situations, and regularly check and update the strategies and resource situation[33].

To enhance the capabilities of operation and maintenance personnel, it is necessary to continuously innovate the integrated human resource management system in daily work, analyze the performance trends of the operating system environment, and take preventive measures[34].

After the implementation of the integrated human resources management system is completed and officially handed over, the operation and maintenance of the human resources management system, such as business system management operations, maintenance of role permissions, and finer business processes, should be undertaken by employees from different functional departments. The IT department's operations personnel are responsible for maintaining the normal operation of the integrated human resources management system and assigning corresponding management permissions; Employees with different business management functions are granted corresponding permissions based on their roles to perform business maintenance on certain functions of the corresponding system modules. During the handover period of the integrated human resources management system, relevant training is provided during the handover, and the handover period is a parallel process for system developers and subsequent maintenance personnel to handle maintenance affairs. This enables subsequent system maintenance personnel to smoothly accept system maintenance work, and retain and maintain training documents for system operation and maintenance, ensuring that personnel turnover does not affect system maintenance.

The longer the integrated human resources management system is officially launched, the more the maintenance of the system will encounter corresponding operations and the launch of new functions with the development of the enterprise and new business needs. In order to ensure the continuous stability of the system, it is necessary to first control the quality of the code and manage the baseline and version of the code; For operations carried out on the integrated system in operation, do not be careless. Repetitive work also needs to be taken seriously, and the practical operational ability of maintenance personnel should be strengthened through scenario exercises; For new operating methods and steps, they should be practiced in the review and testing environment, and then approved for actual operation before proceeding to the production and operation system for operation; After the system enters the online operation and maintenance phase, in order to avoid issuing certificates that do not match the actual business and system, it is necessary for

business personnel, operation and maintenance personnel, demand personnel, and development personnel to have good communication. If BOZHON GROUP completes the integration of its human resource management system, the subsequent maintenance work will be carried out[16].

Inadequate implementation does not necessarily mean successful implementation and application of the system. The continuous optimization of system functions and business processes determines the ultimate value of the system.

Overall, after the integration of the human resources management system and the implementation of subsequent online operation and maintenance, I believe it is reasonable to arrange the work of system maintenance and management operations, and based on this, evaluate the performance of maintenance personnel. It is one of the most effective methods to ensure that information systems function as expected[35].

A system architecture was designed for BOZHON GROUP based on its human resources management workflow as the basic requirement. By designing a unified login portal in front of the human resources system, login requests are sent to the application layer of the integration platform for user role and corresponding permission allocation during personnel login. In order to logically develop the expected functions within the integration platform and form an integrated application system program, a unified coding format must be adopted to improve the efficiency of data transmission for business requests, thereby achieving complete system integration and forming a new system, achieving the final system unification and meeting the system integration requirements pre-set by the business.

The integrated system should conduct necessary verification and analysis of the basic situation of existing information systems, and propose the requirements of the integrated system based on the business. The development can first make some necessary interface modifications, which are in sequence, and then gradually merge the remaining functional modules and interfaces that need to be modified into the overall system[36].

The overall design of the integrated system should adopt a horizontal system design to adapt to the business needs of human resource management because the

system architecture determined in this integrated system design relies entirely on requirement analysis to drive it, making the overall design of the integrated system one of the key steps in this system integration.

The integrated design of the human resource management system is divided into the following:

The first layer is the portal layer of the human resources management system. As the system's front-end display system, it centrally processes user request operations, displays system functions and user permission information in the front-end display window, and can provide processed data information returned by the application layer. The development of portal systems is the least complex and labor-intensive system because it does not involve the development of logic between functional module systems. Developers' principles for portal systems are lightweight code and faster response speed.

The second layer is the application layer of the integrated platform. The functional modules of business processing at the application layer and the overall functional modules of the integrated system can be developed separately. The former's main task is to integrate the logic of existing functional modules and, through the flow of interfaces, enable the integration platform to flow workflows in the functions of each module. The latter is the separate management of the integrated system, including essential management work such as personnel permission process formulation[21].

The third layer is the database layer after integrating the entire human resources management system. When designing the database of the human resources management system, the first consideration is to use data caching applications such as Redis to assist in processing operations such as adding, deleting, and querying data directly to the database layer. Then, the corresponding database types and storage devices for the system data are designed. The final database implementation plan selection should consider the accuracy of the data required by the human resources management system and ensure the consistency and completeness of the data.

Characteristics that an integrated human resource management system should possess

User-friendly system usability: Compared with the various modules related to human resource management before integration, it is best not to have too much of a difference in page style after integration. The query page's navigation bar and directory hierarchy can maintain the original logic so that users can operate according to their familiar habits[33].

Standardization of unified standards: To achieve the transmission and sharing of integrated data, after sorting out the existing system code situation, new code specifications and management mechanisms should be created for the integrated system, and subsequent development work should be carried out according to the latest standard specifications.

The integrated system is scalable due to its modular design. Based on the original functional module system, it is divided into different functional aggregates according to the concept of microservice architecture and is easy to expand in subsequent module systems.

Satisfy the practicality of business functions, such as user system permission management. In order to ensure the security of system data, business personnel can design according to real-life scenarios, and actual management can be carried out by business personnel—for example, attendance management and salary management before human resources work. After integration, the system provides practical queries and powerful import and export functions, enhancing the practicality of the business system.

### 3.3 BOZHON GROUP Information System Integration Plan and Implementation Steps

The information system integration of BOZHON GROUP's human resource management system is centered on developing and constructing a system integration platform. At the same time, a human resource management portal system is

developed in the front end, which is placed on the upper level of the human resource management system integration platform. The portal system integrates the entry points of various functional module systems. After integration, the data of the human resource management system is unified through the application layer of the integration platform and linked to the database layer. The end user of the integrated system logs in through the portal system, and according to their different roles and permissions, the portal system interface displayed is personalized for the user. When each system module is integrated and operated, users with different permissions will be arranged in different links of the same process, making the processing efficiency of the process significantly improved compared to previously isolated systems; this is a brief description of several key points in the integration plan.

The implementation steps first organize the existing software and hardware resource information and sort out each system's development languages, interface rules, operating environment, and configuration information. Then, during the development process, the interfaces between each module system should be connected first, and the data transmission between each functional module should be developed. After completing this step, each functional module can be integrated into the integration platform in the corresponding order. The system integration implementation can be gradually carried out in the following aspects[35].

When analyzing the software and hardware information of various modules in the existing human resources management system, it is necessary to use stable versions of Linux operating system servers or virtual machines for the integration platform and reserve the space and resources required for the growth trend of the application system in various aspects for some time in advance. As mentioned earlier, this is very convenient for employees in BOZHON GROUP who work through computers, significantly reducing the workload of system maintenance. Therefore, software developed in B/S mode should be used for new system procurement and system renovation, and the integration platform server software should also be implemented in B/S mode so that users only need to log in to the system integration platform with a browser. At the same time, with the popularity of mobile terminals, it

is necessary to consider the demand for mobile offices and develop mobile apps to meet the requirements of mobile offices at any time.

The integration platform of the integrated human resources management system utilizes system management functions to call the interfaces of corresponding functional modules to securely manage the accounts and passwords of all users in the system. After users log in to the integration platform, they use the company's internal domain account and password information to log in to the platform and specify permissions.

The architecture design for this system integration will transform the training system's original client/server architecture pattern, such as the WEB module, into a unified architecture for the integrated system. Next, the development language will be JAVA and JSP through the integrated front-end portal system, which was previously confirmed as J2EE architecture. This will make the overall architecture of the integrated human resources management system developed according to a unified standard, making it easy to maintain and update subsequent functions[34].

Evaluation of the effectiveness of the integrated human resource management system

Operating costs of information systems in the human resources department

One of the important matters for cost control in BOZHON GROUP is controlling the total cost of human resource management work. In order to develop more efficiently, human resource management work must use information technology to optimize and integrate the existing human resource management system and organizational structure. In order to fully utilize the advantages of the human resource management system and save costs related to BOZHON GROUP's human resource work, it is necessary to formulate human resource management goals that promote the long-term stable and healthy development of BOZHON GROUP, as well as strategic goals for information technology.

The total cost of various systems involved in the original human resources management of BOZHON GROUP, including the operating expenses of the information system itself and the labor costs of the human resources department

personnel, the reduced workload of the human resources department, HR, and ordinary employees after the integration of the human resources management system, as well as some cost savings brought by the information system that are not easily identified, should be included in the cost control brought about by the system integration.

The human resources department of BOZHON GROUP currently consists of more than 120 people, including the group's human resources, the human resources of each business entity's headquarters, and the human resources of branch offices. The daily workload is approaching saturation, but some of the energy is used for the use of the existing integrated human resources management information system. Due to the low work efficiency caused by the integration of the system, the existing human resources department can be further liberated through the integration of the system, allowing them to efficiently handle the daily human resources work of the entire BOZHON GROUP and to propose more accurate requirements for the subsequent development of the system, providing a decisive prerequisite for the innovation of human resources work.

The existing personnel responsible for the development, testing, and operation of various modules and systems related to human resources are all directly under the IT department of BOZHON GROUP. Five development, three testing, and four operation and maintenance colleagues are responsible for their work. Due to the differentiation of module functions and the unsmooth flow of processes between systems, the workload is currently saturated, and due to the loose system logic, there are specific difficulties in developing and maintaining the overall system requirements[25].

The servers used in each system module now involve the development and testing environment, quasi-production environment, and production environment of the system, involving 20 web servers, 53 application servers, and 35 database servers.

Technical Assurance

The personnel directly manage human resources-related systems in BOZHON GROUP IT personnel from the group's headquarters, with dozens of people. If it is

established as a project team for the integration of human resources in the entire group, the following personnel need to be selected:

Project Manager, Project Developer, Database Administrator (DBA), Test Engineer;

The newly built portal integrates the human resources management system and requires the establishment of various environmental servers. The required servers can be directly allocated resources by the group's infrastructure department or shared with the environment of existing systems[21].

The relevant development and testing personnel all have experience in information technology-related work in BOZHON GROUP, and it is relatively easy to master the integration of human resources information in the future, which is highly relevant to daily work and does not require new recruitment.

Alternatively, outsourcing and vendor personnel can be hired to participate in the integration system project using some existing personnel currently developing and testing the relevant human resources module system.

Service Guarantee

The IT personnel of BOZHON GROUP are divided according to the BOZHON GROUP and its subsidiary companies. The human resources currently has various module systems, and the IT department directly under the group is responsible for daily maintenance, development testing of new requirements, and update and release work.

The subsequent integration into the new human resources system only added a B/S web portal as a unified entrance, connecting the existing module systems to the backend of the human resources management system for logical processing, data storage, and other backend processing. Therefore, the existing service personnel can undertake the integrated human resources management system's services and system stability-related work well.

Comparison of Cost Calculation After Integration

Human Resources Department Employees: Each business entity company under BOZHON GROUP has an HRBP department. Generally, the headquarters is

equipped with a team of 5 to 10 people, and each branch has a team of 3-5 people. Information system issues cause some of the workload to be heavy. If the system is integrated, the workflow is reasonable and approved quickly. The data flow can be efficiently processed in a closed loop in each system; it can significantly reduce the HR work of the human resources department, thereby reducing employee labor costs by 20%.

System users: Ordinary employees do not frequently use the human resources system in their daily work and are not very clear about the process. If multiple systems are involved, employees must go through much trouble and consult the relevant human resources department HR multiple times to complete a small task. At the same time, they will also have to wait for the approval flow of processes between systems, which involves time and experience. Through the integrated human resources system, the unified login entrance is the portal system, and the processes and information between systems are connected, which can reduce the energy involved in handling affairs and labor costs. Some employees who have much intersection with the human resources management information system in their work can intuitively feel the convenience brought by integrating the human resources management information system and can participate in system requirement management in the future. At work, constructive and innovative suggestions for the system's design should be provided [11].

IT department: After integration, the total number of servers used in each environment can be reduced to 16 web servers, 45 application servers, and 30 database servers. Now, all server costs are bome by the group's IT department. When applying through the cloud platform, it can be seen that the cost of each server is 320 yuan/month. After system integration, server expenses are saved by 5440 yuan/month compared to before.

It is worth noting that the system's overall investment and annual maintenance costs have also been significantly reduced. Server integration, personnel integration, smoother and clearer business processes, and reduced daily workload can save the workforce.

# CONCLUSIONS

The research of this paper has completed the expected six main research objectives and tasks. Based on a systematic study of enterprise informatization, system integration, system integration and implementation plans for information systems, as well as a survey of the current status of the enterprise's human resource management system, a questionnaire survey was conducted to reflect the demand for human resource management system integration among employees of BOZHON GROUP and some enterprises. The survey results indicate that in practical work, the end users of human resource-related management systems, namely the human resources department and ordinary employees, have an urgent need for system integration, which led to the emergence of this study. After investigation and analysis, the following results and two conclusions were drawn:

After confirming through a questionnaire survey that the demand for integrated systems in enterprises, including BOZHON GROUP, is universal, I designed a system development and implementation plan in this article to ensure the implementation of subsequent design and implementation plans. Taking BOZHON GROUP as an example, I designed an integrated plan and provided clear instructions on implementing and maintaining the plan based on existing resources and actual conditions. I also evaluated the feasibility of implementing the integrated system plan, providing a theoretical basis for future research in BOZHON GROUP's integration work. The plan can also be a reference for integrating other business systems in BOZHON GROUP or human resource management systems and other systems in other enterprises.

On the one hand, the demand for system integration is determined by the enterprise's scale and level of informatization, including factors such as the coverage of existing system functions on human resources work scenarios and the time of online operation. On the other hand, employees are delighted with the integrated human resources management information system or a complete system when using

the human resources system. Employees have a strong desire for integration for enterprises that have not integrated their human resources management information systems.

With the rapid development of information technology, the human resource management information system and its management have become the key to the operation and business development of BOZHON GROUP and other group companies. Improving the integrated human resource management information system has become an urgent need for these enterprises.

The importance of integrating human resource management information systems is self-evident for BOZHON GROUP. The human resource management information system requires agile response, timely response, and processing of business processes, which is of great significance for developing information systems and human resource management work. It requires more accurate and rapid information processing. The degree of information sharing between functional modules in the human resource management information system of BOZHON GROUP is a key factor affecting the efficiency of human resource-related work. The higher the degree of information sharing, the smoother the information exchange and communication between various functions of the human resource management information system, which is more conducive to the synergistic effect of various functional modules of the human resource management information system and promotes the orderly development of the entire human resource management information system. Establish a comprehensive human resources information collection, processing, transmission, and front-end system to meet the comprehensive needs of BOZHON GROUP's human resources management for informatization, adapt to the company's development and industry progress, and provide substantial information technology support.

Integrating the human resources management information system of BOZHON GROUP can enhance the business processing capabilities of human resources, expand the information space related to human resources, improve the performance and resource utilization of human resources, and enhance the operational efficiency

of BOZHON GROUP. By building a unified integration platform for human resource management information systems, rapid transmission, and utilization of information can be achieved, resource scaling can be achieved to obtain optimal economies of scale, and real-time tracking and feedback of human resource work processes can be provided. At the same time, operations research and models can be effectively utilized to integrate and optimize the business workflow and information flow of the entire human resource management information system, improve the efficiency of the entire BOZHON GROUP, and facilitate the expansion of other service businesses, as well as the improvement of information platform construction and operational efficiency.

After conducting a comprehensive investigation and analysis of the current status and integration requirements of human resource management systems in some enterprises, including BOZHON GROUP, and combining with a series of problems encountered by BOZHON GROUP in its human resource management system, this study further grasped the problem status of BOZHON GROUP's human resource management system at present. It formulated corresponding development and implementation plans for system integration. The information technology integration plan for the human resource management system in this article can be implemented within BOZHON GROUP. After the re-integrated human resource management system was put into operation, I believe that it has highlighted the goals and principles of the construction of BOZHON GROUP's human resource management system, providing a scientific basis for leaders at all levels when facing decisions related to BOZHON GROUP's human resources. While integrating the system, BOZHON GROUP has further improved its concept of human resource management at the current stage, and human resource management remains an important component of the overall strategic development of BOZHON GROUP. After integrating the human resource management system, the efficiency and overall management level of BOZHON GROUP's daily human resource work have been improved, leading BOZHON GROUP's human resource management system towards maturity.

With the continuous development and upgrading of information technology, human resources management in enterprises should also steadily develop and improve in all aspects. In this situation, taking BOZHON GROUP as an example, by integrating the various module systems involved in the existing complex and decentralized human resource management, or establishing a set of as complete a human resource management system as possible, the efficiency of human resource related work can be improved, which reduces the investment of the enterprise in this area. Make full use of the existing information technology foundation of BOZHON GROUP, enable the system to facilitate the subjective initiative of employees in information technology through the two portal paths of mobile terminals and computer terminals, and enjoy the convenience of integrating the system. After integrating the business process of the human resources management system and connecting the interfaces between various modules, employees can smoothly flow between the functional applications of various modules in the integration platform when handling human resources-related matters.

# REFERENCES

1. Wu Ping, Bieliaieva O. Measures for improving the quality of human resources in enterprises through Cooperation between universities and enterprises. *The 10th International Scientific and Practical Conference "Modern problems of Science, education and Society"* (December 4-6, 2023) SPC "Sci-conf.com.ua," Kyiv, Ukraine. 2023. 2800 p. ISBN 978-966-8219-87-0.URL: https://sci-conf.com.ua/wp-content/uploads/2023/12/MODERN-PROBLEMS-OF-SCIENCE-EDUCATION-AND-SOCIETY-4-6.12.2023.pdf P.1612-P1614.

2. Wu Ping, Bieliaieva O. The impact of the talent cultivation mechanism of school-enterprise cooperation on human resource management in the intelligent manufacturing industry. *The 4th International Scientific and Practical Conference "Current challenges of Science and Education"* (December 11-13, 2023) MDPC Publishing, Berlin, Germany. 2023. 826 p.ISBN 978-3-954753-05-5. URL: https://sci-conf.com.ua/wp-content/uploads/2023/12/CURRENT-CHALLENGES-OF-SCIENCE-AND-EDUCATION-11-13.12.23.pdf P617-P621.

3. Fu Shurong.Practical Analysis of Informationization in Human Resource Management: Taking the Human Resource Information Management System as an Example [J] Human Resources, 2024(08): 141-142.

4. Hua Xiuping. Research on the Function Expansion and Trend of Human Resource Management Information System [J] Modern Information Technology, 2021,2 (07): 124-125+128.

5. Huang Jia. Research on the Application of Enterprise Human Resource Management Informatization [J] Modernization of Shopping Malls, 2024(10): 96-97.

6. Sun Yanyan.Analysis of Implementation Strategies for Human Resource Informatization Management [J] Modernization of Shopping Malls, 2023(07): 118-119.

7. Zou Xiaolan.A Brief Analysis of the Informationization Construction of Modern Human Resource Management [J] Theoretical Research on Urban Construction (Electronic Version), 2020(10): 178.

8. Zhou Quan.Analysis of the Application of Informatization in Enterprise Human Resource Management [J] Modern Marketing (Next Issue), 2024 (02): 160.

9. Li Shusheng, Yu Minquan, Liu Yuanyuan, Zhang Jing. A Brief Analysis of Human Resource Management in Information System Projects [J] China Management Informatization, 2023 21 (04): 50-51.

10. Wu Junxian.A Brief Discussion on the Construction of Enterprise Human Resource Management Information System [J] China International Finance (Chinese and English), 2023 (24): 147-148.

11. He Lang.Research on Comprehensive Human Resource Information Management System for Enterprises [J] Shandong Industrial Technology, 2023 (24): 209.

12.Yan Wei, Pan Tong. Construction of a unified and integrated human resource management information platform [J] China Management Informatization, 2024, 20 (24): 49-50.

13.Liu Jing, Tan Yanhua. A Preliminary Study on the Transformation Strategy of Human Resource Management Mode under the Background of the Great Development of Information Technology [J] Journal of Suzhou University, 2023, 32 (12): 43-47.

15. Qiu Yue. Analyzing the Informationization Construction of Human Resource Management from Enterprise Examples [J] Architectural Design Management, 2023, 34 (11): 6-8.

16. Li Li.On the Construction of Enterprise Human Resource Management Information System [J] Human Resource Management, 2024 (11): 97-98.

17.Wu Yuhan, Peng Yaling .The Current Status and Trends of Informationization in Small and Medium-sized Enterprises in China: A Survey and Research Mainly in the Southwest Region [J] Economic Forum, 2023 (10): 117-121.

18. Jiang Chuan.Research on Implementing Human Resource Management Information System in Enterprises [J] Modern State-owned Enterprise Research, 2022 (18): 8.

19.Wang Zhengying, Liu Desheng, Pei Guangjun .Reconstruction of e-HR System under the Background of Large Group Company Restructuring: Based on the Construction of Human Resource Management System of China Electric Power Construction Group [J] Enterprise Reform and Management, 2023 (17): 49-50.

20. Feng Xiuqing.Construction of Human Resource Information System Based on Computer Network [J] Chinese market, 2019 (24): 132+134.

21.Liu Fucheng, Zhang Shuyu .Research on the Design of Data Warehouse Platform in Human Resource Decision Support System [J] Microcomputer Applications, 2021,33 (08): 40-42+61.

22. Liu Chunyan. Construction and Use of Human Resource Information Management System [J] China High tech Zone, 2023 (15): 198.

23. Yang Hui.Application Analysis of Enterprise Human Resource Management Information System [J] Technology and Innovation, 2022 (15): 95-96.

24. Fang lu.Design and Development of Enterprise Human Resource Management Information System [J] Electronic Technology and Software Engineering, 2023(15): 51-52.

25. Lu Keqiang. Several suggestions on constructing enterprise human resources information system [J] Human Resource Management, 2022 (05): 73-74.

26. Ma Chunyan.Analysis of the Problems and Countermeasures of Enterprise Human Resource Management Information System Construction [J] China Business Review, 2022 (08): 91-92.

27. Ding Jizhong. Discussion on the Application of Enterprise Human Resource Management Information System [J] Human Resource Management, 2023(04): 142-144.

28. Tian Jing.Exploration of Modern Enterprise Human Resource Management Information System [J] Modern State-owned Enterprise Research, 2022 (06): 63.

29.Huang Zhiwei, Huang Wenjing. Research on the Construction of Enterprise Human Resource Management Information System [J] Journal of Jilin Engineering and Technology Normal University, 2020, 33 (01): 1-3.

30. Zhang Hairong. The current situation and development strategies of human resource management informatization in domestic enterprises [J] Journal of Beijing Vocational College of Labor and Social Security, 2023,10 (04): 20-23.

31. Wang Bo. Analysis of the Human Resource Management Information System Development in Large State-owned Enterprises [J] Information Systems Engineering, 2022 (12): 152.

32. Zhang Bo. Design and Implementation of Human Resource Management Information System [D] Beijing Institute of Technology, 2024.

33. Zhan Bin. Research on the Functional Design of Human Resource Management Information System [J] Computer enthusiast, 2023 (10): 27.

34. Li Hong.Discussion on Improving Data Quality Management of Human Resource Information System [J] Guizhou Electric Power Technology, 2023,19 (07): 32-33.

35. Wang Linlin.Process Analysis of Building Enterprise Human Resource Management Information System [J] Modern Economic Information, 2023 (13): 81-83.

36. Liu Jiawei. Research on the Application of Enterprise Human Resource Information System [J] Hebei Enterprise, 2022 (06): 121-122.

37. Shen Liya.The Impact of Modern Information Technology Application on Human Resource Management [J] Knowledge Economy, 2023 (05): 139.

# APPENDIXS

Survey Questionnaire on Employee Satisfaction with Human Resource Management Systems in Enterprises

Dear Sir/Madam

Hello! Thank you for taking the time to fill out the questionnaire. Please fill out the questionnaire truthfully based on your actual feelings and opinions. This questionnaire is anonymous; all data is for academic research and analysis purposes only.

Wishing you good health and all the best!

Question 1: How long have you been working in your current company? Single Choice Question

Subtotal proportion of options

A. Within 1 year 25 14.79%

B. 1-3 years 59 34.91%

C. 3-5 years 22 13.02%

D. Over 5 years 63 37.28%

Question 2: What is the nature of your current company? Single Choice Question

Subtotal proportion of options

A. Private enterprises 72 42.6%

B. State-owned enterprises 41 24.26%

C. Public institutions 7 4.14%

D. Listed company 25 14.79%

E. Foreign-funded enterprises 19 11.24%

F. Other 5 2.96%

Question 3 Your work type: [Single choice question]

Subtotal proportion of options

A. Sales category 25 14.79%

B. Administrative category 17 10.06%

C. Management category 22 13.02%

D. Human Resources 11 6.51%

E. IT 52 30.77%

F. Business category 20 11.83%

G. Other 22 13.02%

Question 4: What is the size of your company? Single Choice Question

Subtotal proportion of options

A. Less than 200 people 27 15.98%

B. 200-500 people 32 18.93%

C. 500-1000 people 13 7.69%

D. 1000-3000 people 22 13.02%

E. Over 3000 people 75 44.38%

Question 5: How long has your company's artificial source management system been used? Single Choice Question

Subtotal proportion of options

A. Within 1 year 14 8.28%

B. 1-3 years 22 13.02%

C. 3-5 years 23 13.61%

D. Over 5 years 38 22.49%

E. Not sure 72 42.6%

Which of the human resources information system functions do you use daily? [Multiple Choice]

Question:

Subtotal proportion of options

A. Salary Management 104 61.54%

B. Attendance management 127 75.15%

C. Certificate issued 68 40.24%

D. Performance Management 86 50.89%

E. Budget reimbursement 81 47.93%

F. Other 46 27.22%

Question 7: How often do you use human resource management-related systems daily? Single Choice Question

Subtotal proportion of options

A. Multiple times a week 56 33.14%

B. Once a week 33 19.53%

C. Multiple times a month 45 26.63%

D. Once a few months 23 13.61%

E. Once a month 12 7.1%

Question 8: Does your current company have multiple human resources-related systems?

Single Choice Question

Subtotal proportion of options

A is 127 75.15%

B No 42 24.85%

Question 9: Are you satisfied with the functionality of the current company's human resources management system? Single Choice Question

Subtotal proportion of options

A is very satisfied with 4 9.52%

B satisfaction 15 35.71%

C is generally 23 54.76%

D dissatisfied 0%

Extremely dissatisfied with E 0%

Question 10: Are you satisfied with the process of the company's human resources management system? Single Choice Question

Subtotal proportion of options

A is very satisfied with 4 9.52%

B Satisfaction 13 30.95%

C is generally 25 59.52%

D dissatisfied 0%

Extremely dissatisfied with E 0%

Question 11: Are you satisfied with the company's human resource management system, which makes daily work more convenient, such as attendance management? Single Choice Question

Subtotal proportion of options

A is very satisfied with 5 11.9%

B satisfaction 17 40.48%

C is generally 19 45.24%

D dissatisfied 1 2.38%

Extremely dissatisfied with E 0%

What do you think is the reason for the complexity of the company's existing human resources-related systems? [Single Choice]

Question:

Subtotal proportion of options

Company A has weak information technology capabilities, accounting for 17.19%

B Lack of planning in human resources work 32 25%

Difficulty in integrating the C system 52 40.63%

The historical legacy issues that have been patched up by D 22 17.19%

Question 13: Do you think multiple human resources-related systems will cause inconvenience to your use?

Single Choice Question

Subtotal proportion of options

A is 92 71.88%

B No 36 28.13%

Question 14: Are you satisfied with the functionality of the current company's human resources management system? [Single Choice]

Question:

Subtotal proportion of options

A is very satisfied 19 14.84%

B satisfaction 37 28.91%

C is generally 57 44.53%

D dissatisfied 12 9.38%

Extremely dissatisfied with E 3 2.34%

Question 15: Are you satisfied with the processes of the company's human resources management system? Single Choice Question

Subtotal proportion of options

A is very satisfied with 24 18.75%

B satisfaction 39 30.47%

C is generally 51 39.84%

D dissatisfied 11 8.59%

Extremely dissatisfied with E 3 2.34%

Question 16: Are you satisfied with the company's human resource management system making daily work more convenient, such as attendance management? Single Choice Question

Subtotal proportion of options

A is very satisfied 19 14.84%

B satisfaction 43 33.59%

C is generally 52 40.63%

D dissatisfied 9 7.03%

Extremely dissatisfied with E 5 3.91%

Which of the following problems do you think currently exist in our company's human resources information system? [Single Choice]

Question:

Subtotal proportion of options

A. Need to log in to multiple systems 49 38.28%

B. Process cannot be integrated and transferred in various systems 53 41.41%

C. The data of each system is not synchronized 26 20.31%

Do you think it is necessary for the company to integrate its existing human resources related systems? Single Choice Question

Subtotal proportion of options

A is necessary 102 79.69%

B is not necessary 7 5.47%

C doesn't matter 19 14.84%

Do you think that integrating the human resource management system will improve the efficiency of related work?

Single Choice Question

Subtotal proportion of options

A will 103 80.47%

B won't be 8 6.25%

C doesn't know 17 13.28%

Question 20: Your suggestions and opinions on the current human resource management system of the company: [fill in the blank]

slightly