Chapter 3

Research Methodology

This research is qualitative research. The details about the research method as follows:

1. Research design
2. Population and sample size
3. Research instruments
4. Data collection
5. Data analysis

Research Design

The goal of this study was to establish a robust digital human resource management platform. Two primary data sources were utilized in this research: main data and secondary data. Main data was acquired through questionnaire surveys and semi-structured interviews conducted to select research samples. The determination of the study sample was accomplished based on the characteristics and outcomes of Xinwang Company, as defined by the study's purpose. Auxiliary data was sourced from prior research, reports, and documents related to Xinwang.

To conduct a comprehensive analysis of Xinwang Company, document research and in-depth interviews with experts were employed to assess the external and internal environment. Subsequent to identifying the key factors influencing the company, Evaluating Evaluation (EFE) and Internal Factors Evaluation (IFE) were executed to evaluate the strengths, weaknesses, opportunities, and threats. The identified factors were then employed in a SWOT analysis to formulate sustainable strategies for digital transformation.

Qualitative research was employed through case studies, specifically in formulating digital transformation strategies for the human resources of Xinwang Company. Ultimately, the study aims to provide a guide for implementing a viable digital transformation strategy.

Population and Sample Size

1. Choose Xinwang Internet Company to conduct a questionnaire survey on its employees.

The Xinwang company was chosen as the subject for a questionnaire survey involving its workforce, consisting of approximately 1000 employees. The survey, employing a questionnaire format, targeted 200 internal employees to assess the current state of digital transformation within the human resources domain. The areas under investigation included organizational and position management, salary and performance, as well as employee training and career development. To enhance the representativeness and validity of the samples, a stratified sampling method was employed, randomly selecting 20% of employees from each production team.

The basic characteristics of the target (potential) interviewees were considered in the survey, encompassing factors such as:

Gender composition of target (potential) consumers

Age composition of the target (potential) consumers

Composition of target (potential) consumers' educational level

The survey results underwent analysis utilizing software, with the overall reliability conclusion of the questionnaire derived through the application of Cronbach's Alpha and the Cronbach Alpha values based on standardized terms.

In the subsequent phase, the researchers employed the Likert-5 method to conduct descriptive statistical analysis on the survey data. In this method, a scale from 1 to 5 was utilized, where 1 represented "The opinion is very low," 2 represented "Opinions are at a low level," 3 represented "Moderate operation," 4 represented "Opinion is at a high level," and 5 represented "Opinion is at the highest level."

Upon analyzing the 200 returned questionnaires, descriptive statistics revealed that the minimum index value for the 12 questions was 1, while the maximum index value was 5. Calculations were performed for the average value, maximum average value, and minimum average value, providing insights into employee evaluations of the digital transformation of human resources.

2. In-depth Interview with Internal Experts of Xinwang Internet Company

The interview data for this study were acquired from ten key experts within the company, and an analysis was conducted on both PESTEL and core competitiveness. Following this, an External Factor Evaluation (EFE) matrix and an Internal Factor Evaluation (IFE) matrix were generated to yield comprehensive factor evaluation scores.

Based on the insights derived from the interviews, a SWOT analysis was performed to formulate the Digital Transformation strategy for human resources. The subsequent step involved the development and implementation of guidelines aligned with the Digital Transformation strategy.

The specific roles of the ten participants in the in-depth interview survey were as follows:

(1) The finance department of the company nominated three individuals for the interview, comprising a finance manager and two financial experts.

(2) The human resources department of the company selected two individuals for the interview, including a manager and a personnel specialist.

(3) The development department of the company enlisted two participants, both serving as product managers.

(4) The marketing department of the company identified three individuals for the interview, including a project manager and two product operators.

Research Instruments

1. Interview forms and questionnaires

The Interview Forms and Questionnaire, also referred to as a questionnaire or inquiry form, constituted a printed document systematically recording survey content through a series of questions. These forms and questionnaires were designed in various formats, including tables, cards, or bookkeeping layouts. The crucial aspect of conducting an inquiry survey rested on the meticulous design of a questionnaire. An ideal questionnaire served two primary functions: effectively conveying questions to respondents and eliciting a willingness to respond.

The survey conducted through interview forms and questionnaires involved the collection of information by posing questions to respondents. This method facilitated the comprehension of interviewees' thoughts, attitudes, behaviors, habits, and needs. The significance of interview forms and questionnaire surveys extended across diverse fields such as marketing, education, and human resource management. The primary objective of these surveys was to gain insights into the needs and attitudes of respondents. The survey results served to identify popular policies or systems and provided insights into the reasons behind individuals' choices.

Furthermore, questionnaire surveys played a predictive role in anticipating future behaviors and needs of respondents, thereby enabling the formulation of improved policies or systems. Additionally, these surveys found utility in research endeavors,

allowing researchers to comprehend people's behavior and attitudes in varying environments. The effectiveness of policies and institutional methods could be evaluated through questionnaire surveys.

In conclusion, interview forms and questionnaire surveys emerged as crucial methods for data collection, offering insights into the needs and attitudes of respondents, facilitating policy and system evaluation, enabling research, and supporting effective decision-making. A comprehensive understanding of the meaning and role of questionnaire surveys was imperative for optimizing this method to enhance business efficiency and address audience needs.

2. PEST analysis form

The PEST analysis has been widely employed as a primary tool for evaluating the external environment within the contemporary strategic development initiatives of enterprises. By systematically examining and analyzing the political, economic, social, and technological dimensions, corporate managers conduct a comprehensive assessment of the external development environment.

Given that the formulation and execution of a digital transformation strategy are not isolated internal processes, due consideration must be given to the prevailing development context. It becomes imperative to develop a forward-looking plan in anticipation of future changes and, consequently, allocate appropriate resources and safeguards. This approach ensures the scientific and efficient execution of the process, enabling organizations to gain a competitive edge in the market and enhance overall competitiveness and development pace.

3. Core Competence Analysis Form

The Value Chain Analysis Method, introduced by Michael Porter, a distinguished strategist from Harvard Business School in the United States, delineated the augmentation of internal and external value in enterprises through the categorization of activities into basic and supportive components. Basic activities encompass enterprise production, sales, inbound logistics, outbound logistics, and after-sales service, while supportive activities encompass personnel, finance, planning, research and development, procurement, among others. These activities collectively constitute the value chain of an enterprise. However, not every link in the value chain contributes to value creation; only specific activities generate genuine value. These value-creating activities are identified as "strategic links" within the value chain.

The sustenance of a competitive advantage for enterprises hinges on their proficiency in specific strategic links of the value chain. Utilizing the value chain analysis method to discern core competitiveness necessitates vigilant monitoring of the

organization's resource status. Moreover, enterprises must focus on cultivating crucial core competitiveness in key links of the value chain to establish and fortify their competitive advantage within the industry. Enterprise advantages may arise from both market scope adjustments within value activities and the optimization benefits derived from the coordination or shared aspects of value chains among enterprises.

This study initiates with a qualitative analysis of the competitive indicators of Xinwang Internet Company. Subsequently, expert scoring methods are employed to solicit comprehensive evaluations from senior industry experts regarding various competitiveness indicators. Based on these assessments, a competitive model is constructed.

4. SWOT analysis form

The SWOT analysis method constructs the SWOT analysis matrix by identifying the strengths, weaknesses, opportunities, and threats facing an enterprise. Through thorough evaluation and analysis, it elucidates the trajectory of the business development strategy, leveraging strengths to mitigate weaknesses, averting risks, and promptly addressing deficiencies. Simultaneously, the approach seeks to capitalize on newfound opportunities, adopting both offensive and defensive measures against threats.

In the course of the research, this study integrated Xinwang Company's development into the SWOT analysis framework. The findings underscored that a digital strategy could enhance Xinwang Company's strengths by systematically analyzing various factors, facilitating the selection of a scientifically sound transformation and development strategy. The formulated strategic approach not only offers theoretical underpinnings but also serves as a strategic foundation for Xinwang Company.

5. Validity and Reliability of research instruments

Reliability, also referred to as dependability, serves as a pivotal tool for assessing and evaluating the trustworthiness of the questionnaire employed in research endeavors. This study utilized an internal consistency reliability test to ascertain the reliability and efficacy of the questionnaire. Cronbach's alpha coefficient, a standard measure in internal consistency reliability tests, found widespread application in Likert scale assessments.

A higher Cronbach's alpha coefficient signifies enhanced internal consistency within the scale, indicative of heightened stability. Nevertheless, scholars present varying perspectives on the significance of high and low values of Cronbach's alpha. According to the viewpoints of numerous scholars, the minimum coefficient at the sub-level should exceed 0.5, preferably surpassing 0.6. Additionally, the coefficient for the overall scale should surpass 0.7, with a preference for values exceeding 0.8.

Data Collection

The selection of an appropriate research methodology constitutes a pivotal factor in attaining research outcomes. This research predominantly employed three distinct research methods.

1. Document Study

By examining pertinent data and literature, this study gained a comprehensive understanding of the contemporary state of digital transformation in the human resources domain of Internet enterprises. Through a review of relevant papers and journals, the research was able to fully comprehend the trajectory of digital transformation. The development of industries and enterprises was analyzed through online data collection, data compilation, and viewpoint acquisition. Secondary data were derived from prior research, reports, and documents associated with Xinwang Internet Co., Ltd.

2. Questionnaire Survey & Interview Method

By carefully choosing appropriate respondents to constitute the primary sample, an exploration of the influential factors in the digital transformation of the personnel system becomes feasible. This facilitates an understanding of the perspectives held by employees, allowing for the formulation of targeted insights regarding the development of Xinwang Internet Company. Drawing upon the survey data, this paper elucidates the pivotal factors associated with the digital transformation of personnel management and advances specific recommendations within the context of EFE (External Factor Evaluation) and IEF (Internal Factor Evaluation) matrices. Subsequently, a strategic analysis is undertaken to assess the digitalization efforts within Xinwang Internet Company in the historical context. Distribution of the survey questionnaire to respondents and subsequent data collection transpires as an integral component of this research endeavor.

3. SWOT analysis by in-depth interview

The SWOT analysis employed in this study constituted a qualitative analytical method. In the pursuit of an impartial decision for Xinwang Internet Company's overarching digital transformation strategy, the focus of this paper involved engaging respondents through thorough surveys. Through in-depth investigations, the researchers gathered statistical data, engaged in statistical discussions on the outcomes, identified the digital transformation strategy for Xinwang Internet Company, and furnished guidance for the implementation of said strategy.

Data Analysis

1. Content analysis in document research

Content analysis serves as a method for scrutinizing written or visual materials through an examination of their content and contextual elements. In the context of the "Xinwang Internet Company's Digital Transformation Strategy," content analysis proves valuable in assessing the information presented within the document, enabling the identification of key themes and models pertaining to the company's competitive digital transformation.

Researcher undertook the task of identifying pivotal themes and patterns inherent in the materials. This involved the encoding process, which entailed breaking down the data into smaller analytical units and subsequently categorizing them based on similarities and differences. Noteworthy themes that may emerge from the examination and analysis of Xinwang Internet Company's human resources digital transformation strategy document encompass innovation, technological advancement, sustainability, and cost-effectiveness. The document study might shed light on how Xinwang Internet Company leverages digital transformation technology to enhance its human resources management system.

Furthermore, the study may expound on how the company places emphasis on the sustainability and cost-effectiveness aspects of digital transformation, recognizing them as pivotal drivers of its competitive advantage. The research articulated in this document could elaborate on the benefits accrued to Xinwang through the digital transformation, elucidating the positive impact on the company.

2. Questionnaire & Interview Data Analysis

The overall survey was determined by assessing a total of 200 internal employees. The sampling methodology involved selecting samples using a simple random sampling method, both online and offline, for Xinwang Internet Company. Consequently, the sampling framework for this survey remained relatively abstract.

Sample data was collected, and indicators were calculated through random sample selection. The survey results were analyzed to draw a comprehensive reliability conclusion for the questionnaire. In order to validate our hypothesis, a descriptive statistical analysis was conducted on the 200 collected questionnaires.

The inference of overall survey indicators was made, with attention given to sampling precautions. Due to the absence of a fixed sampling frame, the questionnaire distribution specialist could randomly identify samples, i.e., respondents for investigation.

However, personal preference factors could not be added during the sampling process. The selection was made based on the principles of objectivity and fairness.

The analysis included an evaluation matrix analysis process, beginning with External Factor Analysis (EFA). The method for establishing an external factor evaluation matrix involved listing external factors affecting the enterprise, evaluating their importance for Xinwang Internet Company, and assigning weights between 0.00 (unimportant) and 1.0 (very important). The effective response score for each key external factor was determined based on the current enterprise strategy.

Internal Factor Analysis (IFA) followed, with steps including listing key factors contributing to the strengths and weaknesses of the human resources department. Weight values were assigned based on the degree of influence of each internal factor, ranging from 0.00 (unimportant) to 1.0 (very important). Factors were rated, and the evaluation score was set to 1 and 2 for important and secondary weaknesses, and 3 and 4 for secondary and important advantages, respectively. The total weighted score was obtained by adding the weighted scores.

In determining the weights of opportunities and threats, an expert group comprising 10 middle-level and core employees of Xinwang Company was invited. The sum of weights for each factor was set to 1. During the scoring process, 100 senior, middle, and grassroots personnel from the company rated all elements, and scores were aggregated to calculate the draw value. Ultimately, the evaluation score result was obtained.

3. Content analysis of data obtained for SWOT analysis by in-depth interview

The research method employed in this study is in-depth interview analysis, which entails a systematic examination of data to identify patterns and themes within a given set of information. In the context of interviews conducted with Xinwang Internet Company and data acquired through SWOT analysis, content analysis proves to be a valuable tool for evaluating the qualitative data garnered during the seminar.

Qualitative data analysis is a procedural endeavor involving the scrutiny and interpretation of non-digital data, such as interview notes or on-site observations, to attain a profound comprehension of the research question or topic under investigation. The initial step in content analysis entails delineating the research question or objective. In this scenario, the aim is to comprehend the strengths, weaknesses, opportunities, and challenges of Xinwang Internet Company. Subsequently, the selection of the data source and the gathering of pertinent materials transpire. In this instance, the data source comprises qualitative data procured during the in-depth interview seminar. Once the data is amassed, the subsequent step involves transcribing the information

and subjecting it to content analysis. This process is accomplished through encoding, which dissects the data into smaller analytical units and subsequently categorizes them based on shared characteristics and distinctions.

The qualitative data analysis of in-depth interviews serves to provide a nuanced and contextualized understanding of intricate problems and phenomena. Furthermore, it offers practical suggestions and solutions for real-world predicaments. Consequently, the experiences and solutions derived from in-depth interviews hold the potential to enhance the efficiency of Xinwang's digital transformation, address current challenges, and formulate an effective human resources digital transformation strategy for Xinwang.