Exploratory study on key influencing factors of successful implementation of ERP system based on the perspective of grounded theory

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Abstract. To construct the index system of influencing factors for the successful implementation of ERP system and identify the key influencing factors and their ranking, so as to provide factor reference and policy guidance for the practice process of the implementation of ERP system in the manufacturing industry. In the successful implementation of ERP published five years related text using Nvivo software on the basis of objective data, using qualitative research method of grounded theory to level 3 codes, to build index system of ERP system implementation success factors, and applied to decision making and laboratory (DEMATEL) algorithm to determine important degree of the factors affecting the successful implementation of ERP system. From the four levels of organization, personnel, technology and environment, 13 related indexes were constructed to influence the successful implementation of ERP system, and the key factors were identified: the strength of management support, the level of institutional management, the quality of the system, the strategic literacy level and the strength of education and training. The construction of index system of ERP system implementation success factors from the perspective of exploratory excavation and improve the ERP system online implementation of intrinsic connection between the relevant factors in the process perfects in on-line implementation and maintenance for manufacturing ERP system to provide the reference in the process of theoretical basis, so as to improve the success rate of enterprise implement ERP and provides relevant policy suggestions and reference.

1. Introduction

With the global economic development into the knowledge economy period, in order to ensure the stable development of enterprises, modernization and information construction has become an indispensable and important way of development. ERP system is the key to promote the construction of enterprise information, which helps to improve the level of operation and development of enterprises. ERP system is enterprise resource planning, which refers to the establishment of appropriate information technology, the integration of advanced management ideas, the use of scientific control methods, so as to make the enterprise more competitive auxiliary decision-making tools. At the same time, ERP system provides a good path for streamlining internal and external processes of enterprises, and promotes the qualitative development of enterprises in the process of playing its role [1].

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In recent years, although the on-line application of ERP system has been highly valued, the success rate of its implementation is difficult to meet the expected requirements [2]. However, the poor success rate of ERP implementation will make it difficult for the manufacturing industry to win competitiveness in the complex and changeable market environment. Some enterprises stop at the system selection period and early implementation stage. According to the "28 Management Principles", the successful implementation of ERP management should start from a few key factors to achieve a relatively ideal implementation effect within limited resources. Therefore, it is of great significance to analyze the key factors for the successful implementation of ERP in manufacturing enterprises [3]. This paper aims to explore the key factors that influence the successful implementation of ERP system from an exploratory perspective through the published literature on the network retrieval, news, blogs, text messages, with the aid of Nvivo software, using the grounded theory as the core of the qualitative analysis method to build the successful implementation of ERP system influencing factors index system, and combining the expert decision-making and the laboratory (DEMATEL) algorithm to further identify the key influencing factors of model selection for manufacturing enterprises and launched the implementation of ERP software to provide policy advice and reference.

2. Related researches
At present, relevant foreign scholars try to explore the key factors for the successful implementation of the ERP system from different perspectives. In China, scholars Liu Qingxian et al. [4] adopted a longitudinal case study method and selected a process perspective to analyze the key factors of success in the implementation of ERP, such as strengthening management and control from top to bottom, establishing a fair performance appraisal mechanism, optimizing organizational structure, training for all employees and participation of consulting companies, etc. Gong Jiangang et al. [5] used empirical methods to explore the influence mechanism of management support and corporate absorption on the successful implementation of ERP. Chen Sheng et al. [6] proved through empirical analysis that the quality of project organization members is a key prerequisite for the successful implementation of ERP. Foreign research on ERP systems has always been not uncommon. Shahin et al. [7] explored the impact of organizational factors on the successful implementation of ERP through a questionnaire survey method, emphasizing the support and commitment of the company’s senior management, the company’s good communication and understanding, adequate user training and education for the successful implementation of the ERP system importance. Kevin et al. [8] believe that in order to achieve the expected benefits of ERP system investment, it is necessary to combine technical expertise and functional domain knowledge, and continue to receive expert support after implementation. Rhodes et al. [9] used the structural equation model to study and found that intangible factors (such as strategic alliances and leadership commitments) and corporate culture have a greater impact on the successful implementation of the ERP system, and also have an impact on organizational performance in the follow-up.

Based on the literature, the most commonly cited key success factors include the support of senior management, the cooperation and support of partners, the degree of employee participation, the intensity of employee training, and the quality of system information. Although scholars have different views, the decisive scope for the successful implementation of an ERP system is the same: sufficient preliminary preparation, a suitable operating system, and effective and successful implementation. In summary, the domestic and foreign literature on the successful implementation of ERP systems initially focused more on theoretical research and discussion. In recent years, they have gradually combined theoretical research with qualitative analysis, empirical analysis, and case analysis. However, the identification of the key factors for the successful implementation of ERP systems mostly stays at the level of theoretical models, and there are few studies on qualitative analysis at this stage. Therefore, to provide method extensions and references from an exploratory perspective, this study innovatively combines the grounded theory with the DEMATEL algorithm, explores the factors influencing the successful implementation of ERP system and their interaction through data.
interpretation, and identifies the key influencing factors in the system, so as to enhance the scientficity and rigor of the research conclusions.

3. Research design
This research is divided into two parts: the first step is to use the texts related to the "successful implementation of ERP" published in the past five years as the original data, and apply the qualitative analysis research auxiliary software-NVivo software on the basis of data cleaning. According to the research steps of three-level coding based on the grounded theory, the code is gradually coded. After open coding, main axis coding and selective coding, the index system of influencing factors for the successful implementation of ERP system is obtained. The second step is to apply the DEMATEL model to calculate the degree of influence, degree of influence, centrality and cause degree of each factor on the basis of expert scores, so as to rank the key factors of the successful implementation of the ERP system and identify the key influencing factors and provide guidance and suggestions for the online implementation of ERP systems in manufacturing companies.

3.1. Data description
In the implementation process of the ERP system, the restrictive factors are regarded as an extremely critical link. Only by constantly overcoming obstacles in the implementation process can the ERP system exert its maximum effectiveness [10]. However, due to the pressure of the leadership or the influence of their own emotions, it is difficult to obtain effective feedback from users through direct interviews. Therefore, this study selects documents, reviews, news and other texts published on virtual network platforms as data support.

This research uses "ERP successful implementation" as the search keyword and the publication time from December 2015 to December 2020 as the search condition. The text search is carried out through search engines such as CNKI, Baidu News, and Zhihu, and a total of relevant information is obtained. There are 45 texts, and the irrelevant or repetitive texts are manually removed, and 30 original materials are finally obtained. Among them, most of the text raw materials come from CNKI, which is 22 articles; a small amount of text raw materials come from CRM technology forums or Baidu News, a total of 8 articles.

3.2. Research methods
3.2.1. Grounded Theory. Grounded Theory is a qualitative research method, first proposed by American sociologists Glass and Strauss in 1976. In the research process, empirical data is used as the basis for facts, and the initial theory is constructed through the three-level coding of the collected data, and then returned to the original data and actual situation to accept the theoretical saturation test to modify and perfect the construction theory, and form the corresponding thoughts and concepts [11]. At present, domestic researches mostly use this method in the field of management, including the exploration of influencing factors of a phenomenon or behavior and the construction of influencing factor models. The core steps of grounded theory include three coding processes: open coding, main axis coding and selective coding. After the coding is completed, the theoretical saturation test is carried out. The flow of grounded theory is shown in Figure 1.

![Flowchart of grounded theory](image)

Figure 1. Flowchart of grounded theory.

Considering that the data obtained in this research are all open text data, and trying to qualitatively analyze the influencing factors of the successful implementation of the ERP system, this research selects the recognized auxiliary software for qualitative analysis and research—NVivo software as auxiliary research tools. NVivo software is a qualitative analysis software developed by QSR in Australia, which can effectively analyze data in various forms such as text, images, and recordings.
Import the organized network text into the software, open coding and establish generic relationships, from which core themes can be extracted and qualitatively analyzed [12].

At present, there are two common ways to use NVivo software to encode and process data: one is to encode according to the existing reference system or index category, which is a top-down verification coding method; the other is the Traus coding method, first extracts keywords, establishes free nodes, and then further summarizes free nodes to obtain tree nodes. Through continuous correction and improvement, the corresponding node reference system is finally obtained, which is a bottom-up on the exploratory coding method [13]. This study adopts a combination of two data encoding and processing methods. Through browsing the full text, encoding one by one, categorizing and summarizing, and combining other's existing research to further modify the results, the node system of this research is finally obtained.

3.2.2. Decision and Laboratory Method (DEMATEL). The Decision and Laboratory Method (DEMATEL) was proposed by scholars at the Battelle Memorial Institute in the United States in 1971. It is a research method that analyzes the complex relationships between system factors through modeling methods. It is widely used in factor identification, relationship evaluation and other fields [14]. Different from analytic hierarchy process, factor analysis, gray theory and other methods, it does not require the factors to be independent of each other. Instead, it describes the internal influence relationship between each factor in the system, and then determines the key influence factors by measuring the influence degree, influence degree, centrality degree and cause degree of each factor [15]. The DEMATEL algorithm includes the following key definitions:

(1) Define the influencing factor set $S = \{S_1, S_2, \ldots, S_n\}$  

(2) Define the direct influence matrix $Z$

$Z = (Z_{ij})_{n \times n} = \begin{bmatrix} 0 & Z_{12} & \cdots & Z_{1j} \\ Z_{21} & 0 & \cdots & Z_{2j} \\ \vdots & \vdots & \ddots & \vdots \\ Z_{i1} & Z_{i2} & \cdots & 0 \end{bmatrix}$  

Among them, $Z_{ij}$ represents the direct influence degree of factor $i$ on factor $j$, $i, j = 1, 2, 3...n$.

(3) Define the standardized influence matrix $N$

$N = (n_{ij})_{n \times n} = \frac{z}{\text{max}(\sum_{j=1}^{n} z_{ij})}$  

Among them, $\text{max}(\sum_{j=1}^{n} z_{ij})$ is the maximum value of the factors that directly affect each row of the matrix.

(4) Define the comprehensive influence matrix $T$

$T = \lim_{k \to \infty} (N + N^2 + \cdots + N^k) = N(I - N)^{-1}$  

Among them, $I$ represents the identity matrix, and $(I - N)^{-1}$ represents the inverse of $(I - N)$.

(5) Define the degree of influence and degree of influence of each factor

Adding the elements in the comprehensive influence matrix by rows, the influence degree of the corresponding factor can be obtained as

$f_i = \sum_{j=1}^{n} t_{ij} (i = 1, 2, \ldots, n)$  

Adding the elements in the comprehensive influence matrix by column, the degree of influence of the corresponding factor can be obtained as

$e_i = \sum_{j=1}^{n} t_{ji} (i = 1, 2, \ldots, n)$  

(6) Define the centrality and cause degree of each factor

The centrality of the corresponding factor can be obtained by adding the calculated degree of influence and the degree of influence to be

$r_i = f_i + e_i$  

Subtracting the obtained degree of influence and the degree of influence, the cause degree of the corresponding factor can be obtained as
Through the steps of the above DEMATEL algorithm, a comprehensive influence matrix can be obtained and the centrality and cause degree of each influencing factor can be calculated. Among them, centrality indicates the importance of the factor in the system, and causality indicates the relationship between the factor and other factors. Through the measurement and analysis of centrality and cause degree, the importance of factor Si in all influencing factors can be clarified, and then the key influencing factors can be identified.

4. Data analysis

4.1. The establishment of an index system of influencing factors for the successful implementation of ERP system based on grounded theory

4.1.1. Open coding. Open coding is a process of completely breaking and decomposing text data, abstracting the data information into conceptualization and categorization, which is the basis for subsequent main axis coding and selective coding work [16]. After importing the original text material by using NVivo software, and browsing the full text, manually coding one by one, setting the keywords as nodes, and we can obtain 45 initial nodes. Among them, some nodes have the same or similar meanings, and they are sorted into one node after the reference of specialized terms, and finally 13 free nodes are obtained. For example, merge nodes with similar meanings such as "first-hand project" and "senior leadership's guidance and participation" to form a free node "management support".

4.1.2. Axial coding. Axial coding is a process of categorizing the categories obtained in the preceding paragraphs according to the logical relationship and interrelationships between the categories and forming the main categories [17]. This article has obtained a preliminary coding scheme through open coding, and then it is necessary to further summarize and classify the 13 free nodes obtained through open coding, and finally obtain 4 categories including "organizational factors". By continuously geo-clearing the hierarchical relationship between codes, the coding results of this article are more comprehensive and generalized. For example, "suppliers", "partners", "external personnel" and other free nodes are extracted and merged into the concept of "external cooperation support", and "external cooperation support" and "external risk hindrances" are grouped together into the “environmental factors” category.

4.1.3. Selective coding. Selective coding is an in-depth condensing of the results of the main axis coding, which connects the main category and the corresponding category in a "story line" way of expression, and finally forms a new substantive theoretical framework [18]. Through continuous analysis and comparison of 4 main categories and 13 corresponding categories, using "ERP successful implementation" as the core category of this research, around the core categories, the typical relationship structure of the main categories of this research is obtained as shown in Table 1:
Table 1. Typical relationship structure of the main category.

| Canonical relational structure | Connotation of relational structure |
|-------------------------------|-------------------------------------|
| organizational factors → ERP implementation success | Organizational factors have an impact on the successful implementation of ERP |
| technical factors → ERP implementation success | Technical factors have an impact on the successful implementation of ERP |
| human factor → organizational factors → ERP implementation success | Human factors play an intermediate role in the process of organizational factors influencing the successful implementation of ERP |
| environmental factors | Environmental factors play a moderating role in the process of organizational factors influencing the successful implementation of ERP |
| organizational factors → ERP implementation success | |

The story line unfolded through grounded theory is: organizational factors, technical factors, human factors, and environmental factors will affect the successful implementation of ERP. Human factors play an intermediate role in the process of organizational factors affecting the successful implementation of ERP. Environmental factors play a moderating role in the process of organizational factors influencing the successful implementation of ERP.

4.1.4. Construction of an indicator system for factors affecting the successful implementation of ERP. Based on the grounded theoretical three-level coding, this paper initially constructs an index system of influencing factors for the successful implementation of ERP. The final coding analysis results and their probability diagrams are shown in Table 2 and Figure 2. Table 2 shows the 4 categories and 13 theme concepts of this article and their corresponding frequency statistics, while Fig. 2 visually shows the node hierarchy diagram visually analyzed according to the number of coding reference points, in which the darker color category indicates that the factor occupies more proportion. It can be seen from Table 2 that the category of organizational factors has the most frequency, accounting for 44.52%, followed by human factors and technical factors, and the category with the lowest frequency is environmental factors, accounting for 9.54%. This shows that from the perspective of scope, organizational factors have the greatest impact on the successful implementation of an enterprise's ERP system. In terms of concepts, the most frequent occurrence is the level of system management, accounting for 13.18%. This shows that a reasonable system is conducive to the formation of good norms, and the implementation of a supervision system is conducive to improving the effectiveness of the implementation of enterprise resource plans. The second is management support and system quality, which shows that the ERP system's own system function perfection and data quality, as well as the participation and support investment of the senior management in the enterprise, are conducive to the successful implementation of the ERP system. In addition, the external risk hindering factors account for a small proportion, but considering the long implementation time of the ERP system and the large changes in the environment, this article adopts a retention strategy for this concept.
Table 2. Coding results of the index system of factors affecting the successful implementation of ERP.

| First level indicators       | Second level indicators                  | Quantity | Frequency (%) |
|-----------------------------|------------------------------------------|----------|---------------|
| Organizational factors      | Management support level                 | 26       | 11.81         |
|                             | Strategic literacy level                 | 17       | 7.72          |
|                             | System management level                  | 29       | 13.18         |
|                             | Financial management level               | 7        | 3.18          |
|                             | Project management level                 | 19       | 8.63          |
|                             | Employee Participation                   | 15       | 6.81          |
| Human factors               | Knowledge and skill level                | 16       | 7.27          |
|                             | Investment in education and training     | 17       | 7.72          |
|                             | Communication and cooperation level      | 9        | 4.09          |
| Technical factors           | System quality                           | 26       | 11.81         |
|                             | Information quality                      | 18       | 8.18          |
| Environmental factors       | External cooperation support             | 16       | 7.27          |
|                             | External risk barrier                    | 5        | 2.27          |

Figure 2. Node hierarchy diagram of reference points by code.

4.2. Application of DEMATEL method in the identification of key influencing factors for the successful implementation of ERP system

According to the foregoing, this paper uses grounded theoretical methods to identify management support (S1), strategic cultural level (S2), system management level (S3), financial management level (S4), project management level (S5), and employee participation degree (S6), knowledge and skill level (S7), education and training investment (S8), communication and cooperation level (S9), system quality (S10), information quality (S11), external cooperation support (S12), external risk hindrance (S13). These 13 indicators that affect the successful implementation of the ERP system are judged by experts and scholars from related research fields on the influence relationship between the factors. The evaluation degree of the influence relationship is set as: stronger = 4, strong = 3, general = 2, Weak=1, none=0. Using the DEMATEL method to obtain the direct impact matrix of integrated expert opinions is:
According to the traditional DEMATEL method, \(1/\sum_{i=1}^{n} z_{ij} = 1/44\) is obtained, and then the standardized direct influence matrix is obtained, and finally according to the formula 
\[
T = \lim_{k \to \infty} (N + N^2 + \cdots + N^K) = N(I - N)^{-1}.
\]
The comprehensive influence matrix \(T\) is calculated as:

\[
\begin{pmatrix}
0.1064 & 0.1439 & 0.1776 & 0.1946 & 0.1821 & 0.1764 & 0.1331 & 0.1539 & 0.2140 & 0.2050 & 0.1490 & 0.0348 \\
0.1488 & 0.0470 & 0.1366 & 0.1359 & 0.1025 & 0.1204 & 0.1404 & 0.1648 & 0.1579 & 0.1146 & 0.0694 \\
0.1423 & 0.1080 & 0.0694 & 0.1366 & 0.1359 & 0.1025 & 0.1204 & 0.1404 & 0.1648 & 0.1579 & 0.1146 & 0.0694 \\
0.0667 & 0.0141 & 0.0236 & 0.0287 & 0.0643 & 0.0232 & 0.0136 & 0.0590 & 0.0261 & 0.0765 & 0.0733 & 0.0130 \\
0.0651 & 0.0188 & 0.0396 & 0.0878 & 0.0336 & 0.0976 & 0.0355 & 0.0448 & 0.0823 & 0.1387 & 0.1329 & 0.0432 \\
0.1139 & 0.0290 & 0.1092 & 0.0770 & 0.1095 & 0.0446 & 0.0235 & 0.0548 & 0.0920 & 0.1290 & 0.1236 & 0.0750 \\
0.1402 & 0.1070 & 0.1321 & 0.1447 & 0.1350 & 0.1316 & 0.0355 & 0.0940 & 0.1360 & 0.1591 & 0.1525 & 0.0913 \\
0.1388 & 0.1074 & 0.1326 & 0.1452 & 0.1347 & 0.1331 & 0.1006 & 0.0495 & 0.1374 & 0.1597 & 0.1531 & 0.0489 \\
0.0942 & 0.0677 & 0.0880 & 0.0969 & 0.1095 & 0.1076 & 0.0220 & 0.0338 & 0.0473 & 0.1290 & 0.1237 & 0.0752 \\
0.0772 & 0.0210 & 0.0945 & 0.1020 & 0.0333 & 0.0520 & 0.0151 & 0.0236 & 0.0963 & 0.0434 & 0.0833 & 0.0231 \\
0.0808 & 0.0191 & 0.0746 & 0.1024 & 0.0306 & 0.0502 & 0.0144 & 0.0252 & 0.0760 & 0.1274 & 0.0387 & 0.0208 \\
0.1020 & 0.0440 & 0.0530 & 0.0600 & 0.0760 & 0.0327 & 0.0213 & 0.0720 & 0.0345 & 0.0654 & 0.0627 & 0.0216 \\
0.0817 & 0.0147 & 0.0181 & 0.0199 & 0.0185 & 0.0181 & 0.0136 & 0.0582 & 0.0187 & 0.0218 & 0.0209 & 0.0124
\end{pmatrix}
\]

According to the comprehensive influence matrix, formulas (5) ~ (8) can be used to obtain the degree of influence \(f_i\), degree of influence \(e_i\), centrality \(r_i\), and cause degree \(z_i\) of each influencing factor index system in the successful implementation of the ERP system, due to the Nvivo software through data support, the degree of influence of each indicator on the successful implementation of ERP is more objectively given, while decision-making and laboratory methods take a more comprehensive consideration of the interaction relationship between various indicators, so the proportion of coding reference points obtained by Nvivo software is regarded as important. Using the weighted average method to calculate the weighted centrality of the comprehensive importance and centrality results, and sort them from largest to smallest. The larger the value, the greater the influence of the factor on the system. The calculation results are shown in Table 3.

It can be seen from the calculation results of the degree of influence and the degree of influence of each indicator in Table 3 that the indicators with higher degree of influence include management support, strategic cultural level, system management level, knowledge and skill level, education and training level, and communication and cooperation level. These factors have a relatively high degree of influence on other factors, and belong to the "origin type" factors. At the same time, the factors with a high degree of influence are mainly concentrated in the category of organizational factors. This is the formulation and improvement of the strategic culture, business processes and related systems within the organization that point out the direction for the implementation of the ERP system. From the perspective of the degree of influence, the indicators with a higher degree of influence include system quality, information quality, management support, financial management level, communication and cooperation level, and project management level. These influencing factors are affected by other factors to a greater extent and belong to "resulting" factors. Different from the "originating" factor, the "resulting" factor has a more direct effect on the implementation of the ERP implementation process. Among them, the factors under the technical category are the most important "resulting" factors in the index system for the successful implementation of ERP.
The centrality of each factor in a complex system is positively correlated with the importance of the factor in the system, reflecting its importance in the system. It can be seen from Table 3 that the relatively important factors in the 13 ERP system's successful implementation of the influencing factor indicators include management support, system management level, system quality, strategic cultural level, and education and training efforts. They have a significant impact on the indicator system. A higher level of attention should be given to the implementation of the ERP system online. At the same time, according to the cause degree of each indicator, the factors that affect the successful implementation of the ERP system can be divided into 5 cause factors (cause degree> 0) and 8 result factors (cause degree <0). The larger reasons are strategic cultural level, knowledge and skill level, and management support, indicating that the degree of influence of these factors is far greater than the degree of influence, and they are not easily affected by other factors in the system, but they can actively influence other factors. The factors with larger resultant factors are mainly concentrated in the technical category, indicating that the internal factors of the system are very susceptible to other factors and should be taken seriously during the system launch.

5. Research conclusions and discussions
This paper collects and sorts out relevant text data on successful implementation of ERP published in the past five years, and uses NVivo software on the basis of objective data to use grounded theoretical qualitative research methods for three-level coding, thereby constructing an indicator system of influencing factors for the successful implementation of the ERP system. And apply the decision and laboratory (DEMATEL) algorithm to determine the order of the importance of the influencing factors for the successful implementation of the ERP system, dig deeper into the interaction between the factors and identify the key influencing factors in the index system: management support, system management level, System quality, strategic cultural level and intensity of education and training. The establishment of an index system for the factors affecting the successful implementation of the ERP system can explore the internal relationships among the relevant factors that affect the implementation of the ERP system from an exploratory perspective, and provide a reference theoretical basis for the implementation and maintenance of the ERP system for the enterprise, thereby improving the success rate of ERP implementation and increase competitiveness. Based on the above research results and analysis, this article proposes the following policy recommendations for the implementation of ERP systems by related companies:

(1) Practically insist in and implement the principle of “first-hand project” to increase the participation and support of management personnel. According to the research in this article, the management support is the key factor in the successful implementation of the ERP system, and can greatly affect the practice of other factors in the indicator system. During the on-line implementation of the ERP system, it is necessary to obtain the firm support of senior leaders to realize the cross-departmental communication of management concepts and models, and to eliminate the resistance and obstacles caused by the reengineering of business processes.

(2) Establish and improve a process-oriented and systematic system to achieve fine management of related businesses. According to this research, the level of system management is a key factor in the successful implementation of the ERP system and can affect the practice of other factors in the index system. The implementation of the ERP system will inevitably integrate the organizational structure and management style of the enterprise. Therefore, the institutional management system of each business process within the enterprise will greatly affect the cumbersome degree of integration and the degree of communication during the implementation of the system. Through the improvement and adaptation of various parts of the system, it can help manufacturing enterprises to gradually realize the full implementation of the ERP system.

(3) Adopt accurate data and conversion and interface, and continuously improve the operating capability and quality of the system itself. According to this research, the quality level of the system itself is the key influencing factor for the successful implementation of the ERP system. Therefore, the basic data of the enterprise should be complete and the conversion and interface must be prepared in
time. Good data quality and information quality and other infrastructure can guarantee the complete level of functions and operational capabilities of the ERP system, to ensure the stable operation and flexible compatibility of the system in the implementation of the system.

(4) Clearly understand and clearly define the company's strategic goals and shape a good corporate cultural environment. According to this research, the strategic cultural level is the key factor for the successful implementation of the ERP system. It is not easily affected by other factors in the system, but can actively influence other factors. Therefore, the implementation of ERP requires the main managers of the entire enterprise to clearly define strategic goals such as the enterprise's target expectations and ability to pay. At the same time, it is necessary to clarify the specific implementation phase strategies and related influencing factors of these goals.

(5) Develop an extensive and effective knowledge education and application training system to improve the practical ability of employees in the process of launching the system. According to this research, the intensity of education and training are the key factors influencing the successful implementation of the ERP system. Since the implementation of the ERP system requires the application of a large number of critical knowledges to enable relevant personnel to solve problems within the system framework. Extensive and effective education and training strategies should be adopted before implementation, and continuous contact with all system users should be maintained so as to monitor the usage and existing problems of the new system.

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