EMPLOYEE PERFORMANCE OF HUNAN POWER COMPANY VIA COMPETENCY MODEL

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**Abstract:**

With the rapid development of information technology and the arrival of the knowledge economy era, competition among enterprises is becoming increasingly fierce. To gain better development opportunities and advantages, more and more enterprises realize that a solid human resource base must be ensured for sustainable and stable development. The current performance management system of Chinese power enterprises has simple and rough assessment contents, which do not consider the differences in employee performance achievement as knowledge carriers, cannot fully motivate employees' productivity and creativity, and cannot ensure the achievement of company strategic goals. Based on the theory of competency model, this study constructs a competency model for power company employees based on the situation, deconstructing employees' competency into three dimensions: core ability, professional ability, and leadership ability. Through a questionnaire survey of 398 employees of Hunan Power Company, this study analyzes the impact of the above three dimensions on employee performance.

***Keywords:*** *Competency Model, Employee Performance, Management System, Power enterprise*

# Introduction

* 1. **Overview**

In recent years, electricity reform (Jiqin & Chunyang, 2004) has placed new demands on power companies. It has introduced a series of requirements to promote competition in the electricity market, improve power quality and efficiency, and drive sustainable development. The requirements include marketization and competition, separation and regulation, energy conservation, emission reduction, sustainable development, and the protection of user rights. However, as power companies transition to operate corporately, they must prioritize economic efficiency and investor interests, similar to other businesses. In recent years, influenced by the social environment, power companies have explored and practised performance management (Marrucci et al., 2022). However, due to various factors in practical operation, it has been challenging to achieve the expected results. Businesses need to have a well-functioning workforce with the appropriate skills and competencies to succeed (Marrucci et al., 2022). Competency modelling is a technique that can be utilized to determine the particular abilities, skills, and behaviours required for successful job performance in a given position (Skorková, 2016). This study proposes three dimensions of the competency model for enterprises and analyzes their impact on the performance of employees, which has particular implications for improving performance. Unlike previous studies on large enterprises, this article focuses on a power company in Hunan Province to supplement the research on the competency model. The research questions are:

1. To study the influence of the core ability on the employee performance of Hunan Electric Power Company.
2. To study the influence of professional ability on the employee performance of Hunan Electric Power Company.
3. To study the influence of leadership ability on the employee performance of Hunan Electric Power Company.
	1. **The Conceptual Framework**

 Below is the conceptual framework of this research:



Figure 1.1 Conceptual Framework

* 1. **The Research Hypothesis**

H1 The core ability has a significant impact on the employee performance of Hunan Electric Power Company

H2 The professional ability significantly impacts the employee performance of Hunan Electric Power Company.

H3 The leadership ability significantly impacts the employee performance of Hunan Electric Power Company.

This study explores the significance of researching employee performance based on competency models, using Hunan Electric Power Company as an example. Competency models are essential tools in human resource management that help companies better understand their employees' capabilities and potential, providing a scientific basis for evaluating employee performance. The Hunan Electric Power Company's employee performance will serve as the focal point of this study, which will investigate the implementation of competency modelling in that process. The research will be carried out by reviewing the relevant literature and collecting and analyzing data. Researchers and practitioners working on the subject of competency modelling, as well as managers of human resources and other professionals involved in personnel recruiting at Hunan Electric Power Company, will all find the conclusions of this study to be necessary to their work.

The competency model refers to specific skills, knowledge, and attitudes related to a particular position, role, or occupation(Marrucci et al., 2022). These abilities are reflected through various behaviours and performance, including completing tasks, working with colleagues, problem-solving, and innovation. When building capability models, enterprises should combine their strategic objectives and business needs to ensure that the capabilities of employees match the actual needs of the enterprise. In addition, companies need to develop specific evaluation criteria for different positions and roles to evaluate employees' abilities and performance more accurately. When recruiting and selecting new employees, enterprises should use the capability model as an essential evaluation tool. By assessing the candidates' abilities, companies can better understand whether they have the skills and knowledge needed to complete their work tasks and whether they can adapt to the culture and development needs of the companies (Wong, 2020). This recruitment and selection process helps companies find the most suitable candidates, improving the efficiency and success rate of recruitment while reducing the brain drain rate.

Performance evaluation is an essential link in the ability model of employee performance. Through regular evaluation of their performance, enterprises can comprehensively understand their work performance and development potential. When conducting performance evaluations, enterprises should combine the capability model with specific work tasks and responsibilities to more accurately evaluate employees' actual performance (Torrington, 2021). In addition, enterprises also need to establish a fair and transparent evaluation mechanism to ensure that the evaluation results are objective and fair and to provide targeted feedback and improvement opinions for employees. Training and development opportunities based on competency models are key to improving employee performance and competency level. Enterprises should provide employees with targeted training and career development opportunities according to their shortcomings. This training can include skills training, leadership training, communication skills training and other aspects so that employees can constantly improve their ability and quality. In addition, enterprises can also provide employees with practical opportunities through the tutor system, internal mentor plan and other ways, and help them apply theoretical knowledge to valuable work.

To continuously motivate employees to improve their ability and performance, enterprises should establish an incentive mechanism matching the ability model. For those who do well at work, incentives can be given, including promotions, raises, bonuses or other incentives. These rewards can motivate employees to engage more actively in their work and improve their efficiency and contribution (Alshurideh et al., 2022). At the same time, for those employees with insufficient ability, the enterprise can provide corresponding help and support so that they can constantly improve their ability and level to make more significant contributions to the development of the enterprise.

1. **Literature Reviews**
	1. **Conceptual Theories Related to the Competency Model**

Harvard University psychology professor David McLean first proposed the concept of competence in his 1973 article *"Testing Competence, Not Intelligence".* He argued that using IQ tests to predict job performance or career success was less accurate and had severe biases. McClelland's (1973) theory was first used to address the selection of diplomats. He used the Behavioural (1991) Events Interview to analyse what factors would make a diplomat more successful. To justify the conclusion that there were relevant competencies required, McClelland used these competencies to measure a separate group of officers who were considered high performers and a group of average performers and found that the high performers did quite well on these tests, while the average performers did poorly, thus clearly demonstrating that some of the competencies they found were indeed related to job performance.

The study on competency-based frameworks is built on several theories. Despite the widespread usage of competency models, there hasn't been much research on their effectiveness (Stone et al., 2013). After thorough consideration of the literature, the researcher accepts this analogy. Even though many organizations use such a framework, which indicates its advantages and downsides, there isn't much documented about quantifying the benefits of competencies to a company. Almatrooshi, Singh, and Farouk (2016) discuss theoretical competency frameworks and organizational performance. Their study highlighted the necessity of leadership as a skill for the future development of any company, and they went further than other studies by providing a way to assess the impact of skills on production. Rangriz and Soltanieh used quantitative methodologies in their 2015 research study to investigate the relationship between managerial and organizational competencies and an organization's effectiveness. Although the term "effectiveness" is not defined directly in the study, the authors cite other studies (such as Boyatzis (2008) and Zaim, Ysar, and Unal (2013)) that found comparable strong connections between skills and organizational performance (Rangriz & Soltanieh, 2015).

* 1. **Type of Competency Model**

The competence Model is based on the iceberg model as the theoretical foundation. It is a competency structure that combines the outstanding performance requirements for a specific position and is an essential basis for a series of human resource management and development practices. McClelland Professor defines the competency model as the sum of your characteristics for a specific position. It is a group of competency characteristics combined for the job requirements. The iceberg and onion models are two relatively representative theoretical models of competence. The competency model is the collection of various traits that drive individuals to produce excellent work performance. Each competency model is specifically described from competency to competency behaviour and finally embodies the abstract competency into a perceptible and measurable behaviour, which is convenient to understand and apply in work. In enterprise practice, the concepts of competency and competency models are used more. A standard classification method divides the competency model into three categories according to the nature and level of competence: Core, leadership, and professional ability.

*Core ability*: The essential behavioural performance that every employee needs to have concerning values. It reflects the business strategy, management philosophy, and cultural characteristics of the enterprise, as well as the personnel quality that the enterprise needs to achieve its strategic goals.

H1 The core ability has a significant impact on the employee performance of Hunan Electric Power Company

*Leadership ability*: The behavioural quality people with management and leadership responsibilities should have. It involves influencing, motivating, and developing oneself, others, and the organization. It is also necessary to improve personnel quality to improve organizational performance and competitive advantage.

H2 The professional ability significantly impacts the employee performance of Hunan Electric Power Company.

*Professional ability*: The knowledge, skills and behaviours needed to complete a specific work activity. It reflects the professional level and technical proficiency required by the position or professional sequence and is the personnel quality necessary to ensure work quality and efficiency.

H3 The leadership ability significantly impacts the employee performance of Hunan Electric Power Company.

* 1. **Conceptual Theories Related to Employee Performance**

Employee performance is a multidimensional concept that includes various aspects such as job outcomes, work behaviour, and work attitude. According to literature reviews, employee performance can be roughly divided into two categories: results-oriented, referring to the work outcomes achieved by employees within a certain period, and behaviour-oriented, referring to the specific behaviours exhibited by employees at work. The company's performance level can be effectively predicted by evaluating employees' work outcomes, behaviour, and attitude. For example, research has found that high-performance companies have employees who perform better in innovation, teamwork, and problem-solving, which positively impact the company's productivity, quality, and profits, among other aspects. In addition, employee performance level is closely related to employee satisfaction, loyalty, and organizational commitment, which substantially impact company performance.

Employee performance plays a vital role in enterprise management and human resource management. Understanding the classification of employee performance helps companies better develop employee performance management strategies and improve employee work performance and business results. Scholars have conducted extensive research on the classification of employee performance and proposed various classification methods. This article will review these research results and explore the classification methods of employee performance, the characteristics of each type of performance, and their applications. This study collected a large number of literature on the classification of employee performance, including academic papers, research reports, and practical cases. Through sorting and evaluating pieces of literature, it was found that the classification methods of employee performance mainly include the following:

Classification based on performance dimensions: dividing employee performance into different sizes, such as work outcomes, work behaviour, attitude, etc. Employee performance elements refer to various factors that affect employee work performance, including skills, abilities, and behaviour. These elements are significant for evaluating employee performance and formulating corresponding performance management strategies. According to existing research, employee performance elements can be divided into the following categories(Santos et al., 2020):

*Skills*: Refers to the knowledge, skills, and experience that employees possess, which are the foundation for employees to perform their jobs.

*Abilities*: Refers to the leadership, innovation, teamwork, and other skills that employees demonstrate in their work, which are the key to outstanding job performance.

*Behaviour*: Refers to the work attitude, style, and work habits that employees demonstrate in their work, which are essential guarantees for employees to achieve sustained excellent performance.

* 1. **Electric Power Company**

Hunan Electric Power Company was established in May 1979 as a large power supply enterprise of the state Grid Corporation. It is mainly responsible for the power supply of three counties, one city, three districts and Hunan High-tech Zone under the jurisdiction of Hunan High-tech Zone. It has 11 functional departments, six business support agencies, six county power bureaus under its authority, and 53 rural power supply business offices. The power supply area covers an area of more than 12,000 square kilometres, with a population of about 4.78 million people(Hunan, 2023).  Hunan Electric Power Company has recently broken the tradition and built a new management mechanism. Since 2018, the company has adopted a combination of knowledge and knowledge, changing the inherent mode of relying only on the results of the safety regulations as the selection basis of "three kinds of people".The form is novel, creating the first of the whole province. This qualification certification should be part of the innovative use of network university computer examination mode, opening the province's power system first. The content of the examination covers the two parts of safety part and professional knowledge, focusing on the safety regulations of each major, the accident report of state Grid Corporation in the past two years, the spirit of relevant meetings of 2018 provincial and municipal safety work, various essential documents and professional standards and regulations and norms. The system with the unit ensures the maximum extent of fairness and justice and eliminates fraud(Hunan, 2023).

The rate of change in the labour market has dramatically accelerated since the start of the economic downturn. Many businesses have been thrust back into a world of growth and high-volume recruitment in just a few short years, which contrasts sharply with the atmosphere of the economic slump. In HR literature, expansion has taken precedence over rationalization as the central theme. According to Hays and the Chartered Institute of Personnel and Development (CIPD), this is the "most optimistic employment market observed in some time." Due to this buoyancy and the fact that many firms have gone worldwide, companies are looking for creative ways to attract and retain employees to compete successfully. Today, it's believed that a company's most valuable asset is its human capital. Companies must now confront the reality of employee engagement and feedback to tackle the ever-deteriorating problem of workforce retention. This chapter will discuss the literature on competencies, contrasting various points of view, evaluating the benefits and drawbacks of competency frameworks, and doing all of this while keeping the current situation in mind. It is crucial to understand the origins of the competency construct to achieve the ultimate goal, which is to comprehend why Organization X uses such a framework and what the perceived benefits of using such a framework are to the Organization.

# Research Method

The analysis of 398 responses to the questionnaire is described, focusing on the characteristics of the respondents and discussing the core competencies, professional competencies, and leadership competencies affecting employee performance in electric utilities. Before distributing the questionnaire, measurements from the reliability test were used to assess consistency between measurements of multiple variables. The survey answers were collected data from the Questionnaire Star website. The statistical software SPSS.25 was used to analyze the data for this study. Descriptive statistics were used to analyze the demographic information.

* 1. **Descriptive Statistics**

A total of 400 questionnaire samples were collected through questionnaire distribution. The first part of this chapter details the general information of the respondents, descriptive statistics, and the reliability and correlation of variables. The main objective of this study is to demonstrate the relationship between core competencies, professional competencies, leadership competencies and employee performance. This chapter also illustrates the results of the multiple regression analysis based on the primary data collected. The demographics of the respondents are given below:

**Table 1** descriptive statistical analysis of samples

|  |  |  |  |
| --- | --- | --- | --- |
| Particular | Variables | Frequency | Percentage(%) |
| Gender | Male | 182 | 44.8 |
|  | Female | 216 | 53.2 |
| Age(years) | Less than 30  | 179 | 44.1 |
|  | 30-40  | 146 | 36.0 |
|  | 41-50  | 45 | 11.1 |
|  | Above 50  | 28 | 6.9 |
| Education | Undergraduate | 238 | 58.6 |
|  | Master Degree | 146 | 36.0 |
|  | Doctoral Degree | 14 | 3.4 |
| Status | Single | 179 | 44.1 |
|  | Married | 191 | 47.0 |
|  | Divorce | 28 | 6.9 |
| Income (RMB) | Less than 5000  | 179 | 44.1 |
|  | 5000-7000 | 146 | 36.0 |
|  | More than 9000  | 73 | 18.0 |
| Position | Less than 5 years | 193 | 47.5 |
|  | 5-10 years | 191 | 47.0 |
|  | More than 20 years | 14 | 3.4 |

Note: N=398

The results of the survey show that 44.8% of the respondents are male, with 182 respondents, and 216 are female, accounting for 53.2%; most of the respondents are under 30 years old, with 179 respondents accounting for 44.1% of the survey population; Most of the respondents have bachelor's degree, accounting for 58.6%, and very few are doctoral degree, accounting for 3.4%; most of the respondents have a monthly income of less than 5,000, accounting for 44.1%, of which 179 respondents; most of the respondents are married. They accounted for 47% of the total population in this survey; most of the respondents have been engaged in the Hunan Electric Power Company industry for less than 5 years, accounting for 47.5% of the respondents, with 193.

* 1. **Testing of Reliability Statistics**

Table 2 shows Cronbach's alpha. The pretest and validated questionnaire were tested with Cronbach's alpha. In the pre-test, there were 30 respondents; the Cronbach's alpha values for the pre-test ranged from 0.702 to 0.936 (N=30), while the actual Cronbach's alpha values for all the variables ranged from 0.897 to 0.983 (N=398), which were all greater than 0.7 This proves that the questionnaire of the scale is consistent (Cronbach, 1951). Therefore, all the variables are as follows:

**Table 2** Cronbach’s Alpha Scale Reliability Results

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | Item No. | Pretest Cronbach’s Alpha N=30 | Cronbach’s AlphaN=398 |
| Core Ability | 5 | 0.936 | 0.931 |
| Professional Ability | 5 | 0.702 | 0.897 |
| Leadership Ability | 5 | 0.915 | 0.928 |
| Employee performance | 5 | 0.881 | 0.983 |

* 1. **Testing of Validity Statistics**

(1) KMO and Bartlett's test

KMO was used to test the correlation and bias correlation between variables, taking values between 0 and 1. The closer the KMO statistic is to 1, the stronger the correlation between variables and the weaker the bias correlation, the better the effect of factor analysis. When the KMO statistic is below 0.5, applying factor analysis is unsuitable. After KMO and Bartlett's test, KOM=0.892 and Bartlett's sphericity test passed the test level of significance P < 0.001, indicating suitability for factor analysis. See the table below:

**Table 3** KMO and Bartlett's test

Note: N=398

|  |  |
| --- | --- |
| KMO | Bartlett Sphericity Test |
| Approximate chi-square | Freedom | Significance |
| 0.892 | 11417.974 | 190 | 0.000 |

2) Total variance explained

The total variance interpretation table shows the proportion of extraction factors interpreting the questionnaire data. The feature value of extraction is greater than 1, and the first four are more significant than 1, so the top four factors are extracted. The proportion of the overall questionnaire data was 83.193%, higher than the 60% acceptable. See the table below：

**Table 4** Total variance interpretation

|  |  |  |
| --- | --- | --- |
| Ingredients | Initial Eigenvalue | The sum of squared rotating loads |
| Total |  variance percentage  | accumulate% | Total |  variance percentage  | accumulate% |
| 1 | 9.963 | 49.814 | 49.814 | 9.963 | 49.814 | 49.814 |
| 2 | 2.824 | 14.121 | 63.935 | 2.824 | 14.121 | 63.935 |
| 3 | 2.446 | 12.229 | 76.164 | 2.446 | 12.229 | 76.164 |
| 4 | 1.406 | 7.030 | 83.193 | 1.406 | 7.030 | 83.193 |

Note: N=398

**Correlation Analysis**

When the correlation coefficient is between 1 and 0, it indicates a negative correlation between variables; when the correlation coefficient is between 0 and 1, it indicates a positive correlation between variables; when the correlation coefficient is 0.

Table 4. shows the correlation analysis of the variables. The correlation coefficient between the three variables and employee performance is greater than 0, so there is a positive correlation between the variables. See the table below：

**Table 5** Correlation Analysis of Variables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Core Ability | Professional Ability | Leadership Ability | Employee Performance |
| Core ability | 1 | .489\*\* | .344\*\* | .382\*\* |
| Professional ability |  | 1 | .617\*\* | .476\*\* |
| Leadership ability |  |  | 1 | .523\*\* |
| Employee performance |  |  |  | 1 |

Note: N=398 \*\*. At the 0.01 level (two-tailed), the correlation was significant.

\*. At the 0.05 level (two-tailed), the correlation was significant.

* 1. **Hypothesis Testing**

Correlation analysis describes whether there is a relationship between the analysis items, regression analysis studies the influence relationship, and regression analysis is essentially the study of the influence of independent variables on the dependent variables. The correlation does not necessarily have a regression influence relationship. Therefore, this study used linear regression to analyze the relationship between professional ability, core ability, leadership ability and employee performance.

* 1. **Core Ability Towards Employee Performance**

**Table 6** Linear regression of core ability and employee performance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Non-standardized coefficients | Standardization coefficient | t | significance | Collinearity statistics |
| B | Standard error | Beta | tolerance | VIF |
| (constant) | 2.243 | .227 |  | 9.894 | .000 |  |  |
| Core ability |  .464 | .056 | .382 | 8.225 | .000 | 1.000 | 1.000 |
| R² .146 |
| Adjusted R² .144 |
| F 67.652 |
| D-W value 2.057 |

a. dependent variable： employee performance

Note: N=398

According to Table 4.6, core ability was used as the independent variable and professional ability was used as the dependent variable for linear regression analysis. The model formula is: professional ability=2.243 + 0.464 \* core ability and the R² value of the model was 0.146, which means that core ability can explain 14.6% of the change in professional ability. In the F test of the model, the model was found to pass the F test (F=67.652, p=0.000 <0.05). That is, core ability must have an impact on core ability. According to the final specific analysis, the regression coefficient value of core ability is 0.464 (t=8.225, p=0.000 <0.01), which means that core ability will significantly positively affect employee performance, so H1 is accepted.

* + 1. **Professional Ability Towards Employee Performance**

**Table 7** Linear regression of professional ability and employee performance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Non-standardized coefficients | Standardization coefficient | t | significance | Collinearity statistics |
| B | Standard error | Beta | tolerance | VIF |
| (constant) | 1.666 | .227 |  | 7.345 | .000 |  |  |
| Professional ability | .602 | .056 | .476 | 10.761 | .000 | 1.000 | 1.000 |
| R² .146 |
| Adjusted R² .224 |
| F 115.806 |
| D-W value 2.047 |

a. dependent variable： employee performance

Note: N=398

According to Table 4.7, professional ability was used as the independent variable and employee performance was used as the dependent variable for linear regression analysis. The model formula is: employee performance=1.666 + 0.602 \* professional ability, and the R² value of the model was 0.146, which means that professional ability can explain 14.6% of the change in employee performance. In the F test of the model, the model was found to pass the F test (F=115.806, p=0.000 <0.05). That is, professional ability must have an impact on professional ability. According to the final specific analysis, the regression coefficient value of professional ability is 0.602 (t=10.761, p=0.000 <0.01), meaning that professional ability will significantly positively affect employee performance, so H2 is accepted.

* + 1. **Leadership Ability Towards Employee Performance**

**Table 8** Linear regression of leadership ability and employee performance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Non-standardized coefficients | Standardization coefficient | t | significance | Collinearity statistics |
| B | Standard error | Beta | tolerance | VIF |
| (constant) | 1.638 | .202 |  | 8.101 | .000 |  |  |
| Leadership ability | .603 | .049 | .523 | 12.217 | .000 | 1.000 | 1.000 |
| R² .274 |
| Adjusted R² .272 |
| F 149.267 |
| D-W value 1.894 |

a. dependent variable： employee performance

Note: N=398

According to Table 4.8, leadership ability was used as the independent variable and employee performance was used as the dependent variable for linear regression analysis. The model formula is: employee performance=1.638 + 0.603 \* leadership ability, and the R² value of the model was 0.274, which means that leadership ability can explain 27.4% of the change in employee performance. In the F test of the model, the model was found to pass the F test (F=149.267, p=0.000 <0.05). That is, leadership ability must have an impact on leadership ability. According to the final specific analysis, the regression coefficient value of leadership ability is 0.603 (t=8.101, p=0.000 <0.01), meaning that leadership ability will significantly positively affect employee performance, so H3 is accepted.

The hypothesis was tested using the feasibility of the reliability validity analysis scale and the feasibility of regression analysis by studying and analyzing the factors that influence employee performance.

RQ 1 refers to whether the core ability significantly impacts the employee performance of Hunan Electric Power Company.

RQ 2 refers to whether the professional ability significantly impacts the employee performance of Hunan Electric Power Company.

RQ 3 refers to whether leadership ability significantly impacts the employee performance of Hunan Electric Power Company.

This study explores three dimensions of the competency model for enterprises and analyzes their impact on the performance of employees, which has particular implications for improving performance. This article focuses on a power company in Hunan Province to supplement the research on the competency model. Finally, as an essential component of the Chinese economy, power companies are the foundation of social prosperity and stability. The contribution of improving the performance of power companies to the Chinese economy is immeasurable. Studying factors influencing corporate performance enriches our understanding and provides references for further research on employee performance.

 In Hypothesis 1: The core ability significantly impacts the employee performance of Hunan Electric Power Company. Based on the provided output, the correlation between variables "co-co" (core ability) and "em-pe" (employee performance) can be analyzed and hypothesized as follows: correlation analysis shows a strong positive correlation between "co-co" and "em-pe", with a Pearson correlation coefficient of 0.382(r=0.382, p<0.001). The correlation is significant at the 0.01 level (double-tailed), as shown by the significance value of 0.000. Based on the linear regression analysis was used that the regression coefficient value of core ability is 0.464 (t=8.225, p=0.000 <0.01), correlation coefficient and significance level, core ability will have a significant positive effect on employee performance, which means that core ability will have a significant positive impact on employee performance, this study accepted hypothesis H1.

In Hypothesis 2: Professional ability has a significant impact on the employee performance of Hunan Electric Power Company, based on the provided output, the correlation between the variables "pr\_co" (professional ability) and "em\_pe" (employee performance) provides the following analysis and hypothesis: correlation analysis shows a strong positive correlation between "pr\_co" and "em\_pe", with a Pearson correlation coefficient of 0.476(r=0.476, p<0.001). The correlation is significant at the 0.01 level (double-tailed), as shown by the significance value of 0.000. We can conclude a strong and significant positive correlation between professional ability and employee performance based on the correlation coefficient and significance level. This means that a greater emphasis on professional ability is related to a greater focus on employee performance. Linear regression analysis was used, and the results showed that the regression coefficient value of professional ability is 0.602 (t=10.761, p=0.000 <0.01), meaning that professional ability will significantly positively affect employee performance. This study accepted hypothesis H2.

In Hypothesis 3: The leadership ability has a significant impact on the employee performance of Hunan Electric Power Company, based on the output you provided for the correlation between the variables "le\_co" (leadership ability) and "em\_pe" (employee performance), the following analysis and hypothesis can be drawn: The correlation analysis shows a strong positive correlation between "le\_co" and "em\_pe" with a correlation coefficient of 0.523(r=0.523, p<0.001). Based on the correlation coefficient and significance level, linear regression analysis was used, and the results showed that the regression coefficient value of leadership ability is 0.603 (t=8.101, p=0.000 <0.01), which means that leadership ability will have a significant positive effect on employee performance, this study accepted hypothesis H3.

In the competitive business environment, the importance of human resources is becoming increasingly prominent. For Hunan electric power companies, the competence and performance of employees are key factors that determine success. As an effective tool to evaluate employee capabilities and performance, competency models can help enterprises better understand employees, provide targeted training and development opportunities, and improve employee productivity and contribution.

# Conclusion

This study was published through the Questionnaire Star website and collected and screened 398 valid surveys. After data collection, data analysis will be used to analyze respondents' answers, including percentages, mean, and frequency. The statistical software used a descriptive statistical analysis to examine the proportion of demographic information, such as sex, age, monthly income, and purchase frequency. There were 182 males and 216 females, accounting for 53.2%. The proportion of the Male sample was 44.8%. Among the respondents, the age group with the highest proportion was Less than 30 years samples was 44.10%，31-40 years old was 36.0%, followed by 41-50 years old was 11.1%, above 50 was 6.9%. From the Education, more than 50%(58.6%) of the samples are "Undergraduate". Also, the proportion of Master's Degree samples was 36.0%. Doctoral Degree was 3.4%. The proportion of "Married" was 47.0%, and the proportion of Single samples was 44.1%. And divorce was 6.9%. From the Income, more than 40% (44.1%)of the samples are "Less than 5000 RMB", and the proportion of the other 5000-7000 RMB samples is 36.00%. More than 9000 was 18%. The proportion of "5-10 years" was 47.00%. The proportion of the Less than 5-year sample was 47.50%. More than 20, only 3.4%.

The competency model refers to specific skills, knowledge, and attitudes related to a particular position, role, or occupation(Marrucci et al., 2022). These abilities are reflected through various behaviours and performance, including completing tasks, working with colleagues, problem-solving, and innovation. When building capability models, enterprises should combine their strategic objectives and business needs to ensure that the capabilities of employees match the actual needs of the enterprise. In addition, companies need to develop specific evaluation criteria for different positions and roles to evaluate employees' abilities and performance more accurately. When recruiting and selecting new employees, enterprises should use the capability model as an essential evaluation tool. By assessing the candidates' abilities, companies can better understand whether they have the skills and knowledge needed to complete their work tasks and whether they can adapt to the culture and development needs of the companies (Wong, 2020). This recruitment and selection process helps companies find the most suitable candidates, improving the efficiency and success rate of recruitment while reducing the brain drain rate.

Performance evaluation is an essential link in the ability model of employee performance. Through regular evaluation of their performance, enterprises can comprehensively understand their work performance and development potential. When conducting performance evaluations, enterprises should combine the capability model with specific work tasks and responsibilities to more accurately evaluate employees' actual performance (Torrington, 2021). In addition, enterprises also need to establish a fair and transparent evaluation mechanism to ensure that the evaluation results are objective and fair and to provide targeted feedback and improvement opinions for employees. Training and development opportunities based on competency models are key to improving employee performance and competency level. Enterprises should provide employees with targeted training and career development opportunities according to their shortcomings. This training can include skills training, leadership training, communication skills training and other aspects so that employees can constantly improve their ability and quality. In addition, enterprises can also provide employees with practical opportunities through the tutor system, internal mentor plan and other ways, and help them apply theoretical knowledge to valuable work.

To continuously motivate employees to improve their ability and performance, enterprises should establish an incentive mechanism matching the ability model. For those who do well at work, incentives can be given, including promotions, raises, bonuses or other incentives. These rewards can motivate employees to engage more actively in their work and improve their efficiency and contribution (Alshurideh et al., 2022). At the same time, for those employees with insufficient ability, the enterprise can provide corresponding help and support so that they can constantly improve their ability and level to make more significant contributions to the development of the enterprise.

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