

# Analysis of Influencing Factors of Human Resource Salary Based on Anova Analysis

Faye Wang\*

*School of Business, Shandong Normal University, Jinan, China*

*\*Corresponding Author.*

**Abstract:** The main purpose of this report is to explore the key factors affecting the salary level of human resources. Through the analysis of variance (ANOVA) and linear regression analysis, this paper analyzes the influence of enterprise nature, enterprise scale, experience interval, academic requirements and city on the salary level. The results show that the nature of the enterprise, the size of the enterprise, experience, educational requirements and regional factors have a significant impact on wage. Based on this result, enterprises can optimize the salary structure according to these factors and formulate a more fair and competitive salary plan.

**Keywords:** Analysis of Variance; Salary Level; Enterprise Nature; Enterprise Scale; Experience Interval; Academic Requirements

## 1. Preface

With the rapid development of economy and the continuous adjustment of industrial structure, the demand for talents in enterprises is becoming more and more urgent. Especially in the context of globalization and informatization, the importance of human resource management in enterprises[1] has become increasingly prominent. Human resources are not only the most valuable resources of enterprises, but also the core driving force for the sustainable development of enterprises. In this environment, salary, as a key component of human resource management, directly affects the attractiveness of enterprises, the enthusiasm of employees and the competitiveness of organizations.

The determination of the salary level of human resources involves many factors, such as the nature of the enterprise, the characteristics of the industry, the scale of the company, the

experience of the staff, the educational background and the region. In recent years, with the continuous growth of the domestic economy, especially the rise of emerging industries such as information technology and service industry, salary structure and salary management have gradually become part of the strategic management of enterprises. Especially in China, the fairness and incentive of salary has become one of the core factors for enterprises to attract and retain excellent talents.

However, in the study of human resource salary in China, how to effectively reveal the main factors affecting the salary difference, how to formulate a reasonable salary strategy through scientific analysis methods, is still a challenging topic. When setting salary levels, enterprises usually take into account multiple factors such as salary standards in the external market, industry salary levels, and internal fairness, which makes salary management a complex decision-making task.

At present, many scholars and research institutions have carried out preliminary exploration on the influencing factors of human resource salary[2], but most of the research mainly focuses on the relationship between salary and a single factor, lacking systematic and multi-dimensional comprehensive analysis. Therefore, it is particularly important to analyze the influencing factors of salary based on multiple factors.

The purpose of this study is to explore the various factors that affect the salary level of human resources through the analysis of variance (ANOVA) method, including the nature of the enterprise, the size of the company, the experience of the employees, the educational requirements and the region. As a classical statistical analysis method, variance analysis can effectively identify the salary differences between different categories and

reveal the relationship between these factors and salary. Through this study, it aims to provide a scientific basis for the decision-making of enterprises in salary management, help enterprises to formulate more targeted and competitive salary plans, and enhance their talent competitiveness in the market.

## 2. Research Methods

### 2.1 Data Source

The salary data used in this report come from the comprehensive summary of the recruitment information of many domestic industries and enterprises of different sizes and the salary survey of employees within the enterprise. The data mainly comes from the following channels: (1) Recruitment platform data: By analyzing the recruitment information on human resource management positions on mainstream recruitment websites (such as Zhilian Recruitment, Lieyun Network, Future worry-free, etc.), the salary levels of human resource positions in different types, scales and regions are obtained. (2) Enterprise salary survey report: combined with the salary survey report in the industry, especially for the salary distribution data of different industries and different enterprise scales, it provides a more comprehensive reference for salary analysis. (3) Questionnaire survey and interview: In order to deeply understand other potential factors affecting salary, a questionnaire survey was conducted for different industries and regions and interviews were conducted with HR of some enterprises. The data were collected through a combination of online and offline methods to ensure the universality and representativeness of the data. (4) Public data and statistical yearbook: Combined with the annual economic development report and enterprise data released by the National Bureau of Statistics and local governments, the background information such as enterprise scale and industry characteristics is supplemented.

### 2.2 Indicator Design

In this report, the average salary is selected as the dependent variable. After determining the dependent variable of this report, the explanatory variable is considered. This report selects the nature of the enterprise, the size of the enterprise, the experience interval, the

educational requirements, and the city as explanatory variables. The specific explanations are as follows.

Enterprise nature[3]: the form of ownership of the enterprise, reflecting the economic background and resource capacity of the enterprise. Enterprises with different forms of ownership (such as state-owned enterprises, private enterprises, foreign-funded enterprises, etc.) may provide different compensation levels due to differences in resources and management structures. This is divided into state-owned enterprises, listed companies, foreign-funded enterprises, joint ventures, private companies, the other six categories.

Enterprise scale: the number of employees of the enterprise, representing the scale and resource capacity of the enterprise. The size of an enterprise is usually related to remuneration, and large-scale enterprises may provide more competitive remuneration. This is divided into seven categories: less than 50 people, 50-150 people, 150-500 people, 500-1000 people, 1000-5000 people, 5000-10000 people, and more than 10000 people.

Experience interval: the working years of employees in the current position, reflecting the work experience of employees. Employees with longer experience usually get higher pay, reflecting the positive relationship between experience and pay. It is divided into six categories: 1 year, 2 years, 3-4 years, 5-7 years, 8-9 years, and more than 10 years.

Educational requirements: the educational requirements of enterprises for human resources positions. Higher education positions often require higher salaries to attract high-quality talents. It is divided into three categories: junior college, undergraduate and master.

City: the city where the enterprise is located, reflecting the impact of regional differences on wages. The difference of economic development level and living cost in different regions makes the salary level different. Big cities (such as Beijing and Shanghai) usually have higher salaries. It is divided into Beijing, Shanghai, Nanjing, Chengdu, Hangzhou, Wuhan, Changsha, Shenzhen, Foshan, Guangzhou and other eleven categories.

### 2.3 Analysis Method

In this study, analysis of variance (ANOVA) was used to test the significance of each

variable to the salary level, and regression analysis was used to further explore the relationship between variables. In the analysis of variance, by calculating the mean difference between different groups, it is determined whether the variables such as the nature of the enterprise, the size of the enterprise, the experience interval, the academic requirements and the city have a statistically significant impact on the salary level. The F test is used for the overall significance test to measure whether the regression model is generally statistically significant, and the t test is used to assess whether the impact of individual variables is significant. In addition, this study also calculates the adjusted R2 to measure the goodness of fit of the model, and uses multicollinearity diagnosis (VIF)[4] to test whether there is a strong collinearity between the explanatory variables to ensure the robustness of the regression analysis.

### 3. Research Results

#### 3.1 Descriptive Statistics

First, this report will make the necessary

descriptive statistics for different variables. Firstly, the average salary of the dependent variable is described and the results are shown in Table 1.

**Table 1. Average Salary Description Statistics**

	Average Salary	Number of Effective Cases
N	8228	8228
Minimum Value	.38	
Maximum Value	3.50	
Mean Value	1.0198	
Standard Deviation	.55747	
Variance	.311	

Next, the explanatory variables are described and analyzed respectively. Firstly, considering the nature of the enterprise, the whole sample can be divided into six different groups, and then the dependent variables of each group are described and analyzed as necessary, see Table 2.

Then the Enterprise Scale is described and analyzed, and the results are shown in Table 3.

Then a similar analysis of the experience interval is performed, and the results are shown in Table 4.

**Table 2. Description Analysis of Enterprise Nature**

Enterprise Nature	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Bias Angle	Peak
State-owned Enterprises	.40	3.50	.97	.52	2.08	5.93
Joint Capital	.38	3.50	1.08	.55	1.43	2.32
Private Enterprises	.38	3.50	.99	.55	1.95	4.33
Others	.38	3.50	.99	.56	2.09	5.41
Listed Enterprises	.38	3.50	1.09	.56	1.53	2.63
Foreign-capital Enterprises	.38	3.50	1.17	.62	1.30	1.52
Total	.38	3.50	1.02	.56	1.81	3.71

**Table 3. Description Analysis of Enterprise Scale**

Enterprise Scale	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Bias Angle	Peak
1000-5000	.38	3.50	1.05	.54	1.63	3.22
More than 10000	.38	3.50	1.04	.66	1.85	2.91
150-500	.38	3.50	.97	.49	1.82	4.29
50-150	.38	3.50	.95	.51	1.97	5.06
500-1000	.38	3.50	1.04	.55	1.69	3.45
5000-10000	.40	3.50	1.15	.62	1.39	1.68
Less than 50	.38	3.50	.99	.60	2.03	4.39
Total	.38	3.50	1.02	.56	1.81	3.71

**Table 4. Description Analysis of Experience Interval**

Experience Interval	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Bias Angle	Peak
Over 10 years	.38	3.50	1.94	.82	.40	-.77
1 year	.38	3.00	.69	.22	2.42	12.16
2 years	.38	3.50	.76	.29	2.65	14.05

3-4 years	.38	3.50	.98	.43	1.73	4.43
5-7 years	.38	3.50	1.40	.62	1.09	1.04
8-9 years	.38	3.50	1.842	.72	.55	-.45
Total	.38	3.50	1.02	.56	1.81	3.71

Next, the academic requirements are described and analyzed, as shown in Table 5.

**Table 5. Description Analysis of Academic Requirements**

Academic Requirements	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Bias Angle	Peak
Undergraduate	.38	3.50	1.16	.61	1.48	2.17
Associate Degree	.38	3.50	.80	.35	2.37	8.82
Master	.55	3.50	1.40	.90	1.12	.01
Total	.38	3.50	1.02	.56	1.81	3.71

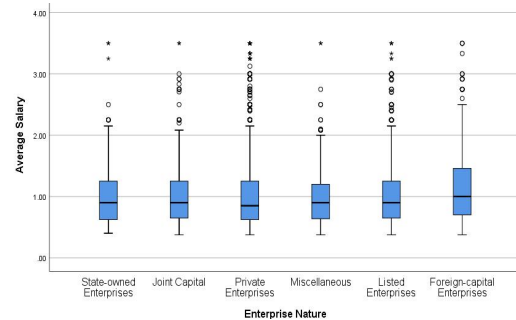
Finally, the city is described and analyzed, as shown in Table 6.

**Table 6. Description Analysis of City**

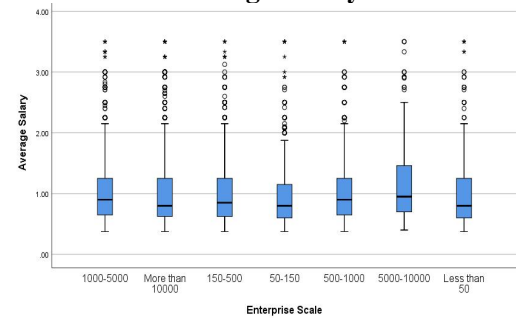
City	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Bias Angle	Peak
Beijing	.40	3.50	1.53	.82	.96	.052
Chengdu	.40	3.00	.93	.51	1.88	3.75
Foshan	.38	2.42	.83	.35	1.56	2.58
Guangzhou	.38	3.50	1.02	.52	1.73	3.34
Hangzhou	.38	3.50	1.05	.51	1.85	4.44
Nanjing	.38	3.25	.98	.53	1.93	4.15
Others	.38	3.50	.89	.48	2.22	6.26
Shanghai	.38	3.50	1.32	.65	1.14	1.03
Shenzhen	.38	3.50	1.066	.51	1.62	3.09
Wuhan	.38	3.50	.90	.55	2.40	6.51
Changsha	.38	3.50	.84	.38	2.82	14.42
Total	.38	3.50	1.02	.56	1.81	3.71

Finally, this report uses the box plot to visualize the correlation between the average salary and each explanatory variable, and the results are shown in Figures 1-5. It can be clearly seen that: (1) the salary level provided by foreign capital and listed companies is generally high, the salary distribution of private companies and state-owned enterprises is low, and there is a large salary gap; (2) The salary level of large-scale enterprises is generally higher, especially in enterprises with more than 1000 people, and the proportion of high-paying jobs is larger. The salary of small-scale enterprises is more concentrated, and there are more low-paid jobs; (3) With the increase of the number of years of experience, the salary level gradually increases, especially for employees with more than 10 years of experience, the salary distribution range is larger, and there are more high-paying positions; (4) With the improvement of academic qualifications, the salary level is gradually improved, and the salary range is getting larger and larger; (5) The salary level of first-tier cities such as Beijing and Shanghai

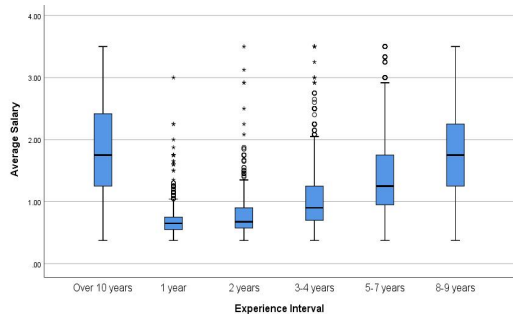
is significantly higher than that of other second-tier and third-tier cities.



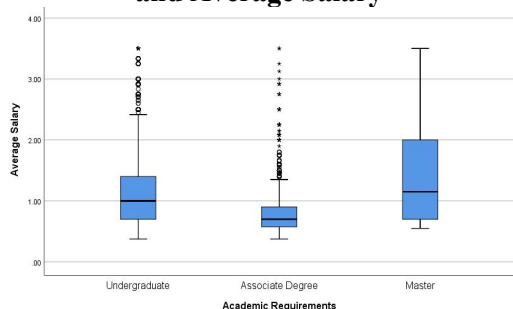
**Figure 1. Boxplot of Enterprise Nature and Average Salary**



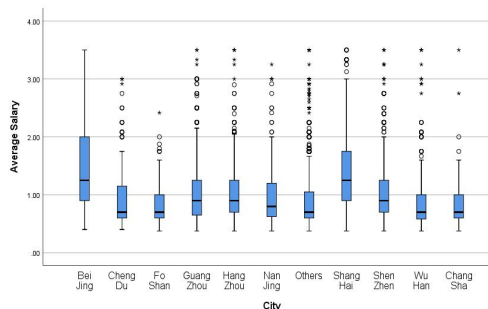
**Figure 2. Boxplot of Enterprise Scale and Average Salary**



**Figure 3. Boxplot of Experience Interval and Average Salary**



**Figure 4. Boxplot of Academic Requirements and Average Salary**



**Figure 5. Boxplot of City and Average Salary**

**3.2 Variance Analysis**

On the basis of descriptive analysis, this report will further analyze the relationship between average salary and each explanatory variable. Firstly, a simple multiple linear regression model is established for the data[5], and the relevant parameter estimation and test results are shown in Tables 7 and 8.

**Table 7. ANOVA**

Model	Squares	Degree of Freedom	Mean Square	F	Significant
Regression	1143.051	28	40.823	236.763	.000 <sup>b</sup>
Residual	1413.693	8199	.172		
Total	2556.744	8227			

**Table 8. Regression Model Results**

Model	Beta	t	Significant	Remark
Constant		19.913	.000	Benchmark: Private Enterprises
Listed Enterprises	-.005	-.555	.579	
Others	-.009	-1.070	.285	
Joint Capital	-.006	-.664	.506	
State-owned Enterprises	-.024	-2.838	.005	
Foreign-capital Enterprises	-.012	-1.470	.142	
1000-5000	.018	1.051	.293	Benchmark: Less than 50
More than 10000	.111	6.930	.000	
150-500	-.010	-.632	.527	
50-150	-.023	-1.492	.136	
500-1000	.021	1.421	.155	
5000-10000	.058	4.898	.000	Benchmark: 8-9 years
Over 10 years	.030	2.940	.003	
1 year	-.813	-39.310	.000	
2 years	-.683	-35.820	.000	
3-4 years	-.657	-29.609	.000	
5-7 years	-.319	-15.546	.000	Benchmark: Master
Associate Degree	-.342	-4.577	.000	
Undergraduate	-.199	-2.664	.008	
Shanghai	.201	10.510	.000	Benchmark: ChangSha
Foshan	.007	.585	.558	
Others	.016	.624	.532	
Beijing	.162	12.592	.000	

Nanjing	.027	2.222	.026
Guangzhou	.097	4.886	.000
Chengdu	.017	1.306	.192
Hangzhou	.095	6.085	.000
Wuhan	.012	.919	.358
Shenzhen	.135	6.729	.000

#### 4. Analysis and Discussion

##### 4.1 Descriptive Statistical Analysis

It can be seen from Table 1 that the total sample size is 8228, indicating that a total of 8228 valid samples are used for calculation. The minimum value of the average salary is 0.38 million yuan, and the maximum value is 3.5 million yuan, indicating that the salary distribution is wide and there are obvious differences. The average value is 101.98 million yuan, which indicates that the salary of most positions is concentrated at about 10,000 yuan; the standard deviation is 0.55747, and the variance is 0.311, indicating that the distribution of salary data is more dispersed. Most data points are near the average value, but there are still some differences.

From Table 2, it can be seen that the average salary of state-owned enterprises is 0.9705 million yuan, the standard deviation is 0.5205, the skewness is 2.082, the skewness is large, indicating that the salary distribution of state-owned enterprises is relatively low, and the kurtosis is high (5.925), indicating that the data are concentrated in a smaller salary range; the average salary of the joint venture is 107.8 million yuan, with a small skewness (1.430), indicating that the salary distribution is relatively balanced and the salary is relatively high. Private enterprises are the largest sample of enterprises (5840), with an average salary of 99,230,000 yuan, a large skewness (1.948) and a high kurtosis (4.329), indicating that low-paid positions are more common in private enterprises; the average salary of listed companies is 109.02 million yuan, the standard deviation is 0.55918, the skewness (1.525) and kurtosis (2.634) are relatively normal, and the salary distribution is relatively uniform. The salary of foreign-funded enterprises is the highest, with an average salary of 117.26 million yuan, standard deviation of 0.61863, skewness of 1.296, kurtosis of 1.516, and the overall salary is higher.

It can be seen from Table 3 that the salary of

enterprises with 1000-5000 people and more than 10,000 people is relatively high, with the average value of 105.24 million yuan and 104.39 million yuan respectively, and the skewness and kurtosis are also relatively normal. The salaries of enterprises with 150-500 people and 50-150 people are relatively low, with average salaries of 97,060,000 yuan and 95,010,000 yuan respectively, and the skewness is large (1.817 and 1.96), indicating that low-paid positions are more common in these enterprises. The salary of enterprises with less than 50 people fluctuates greatly, the standard deviation is 0.6039, and the skewness is large (2.029), indicating that the proportion of low-paid positions is also high.

From Table 4, it can be seen that the salary of positions with 1 year experience is the lowest, with an average of 68.87 million yuan, and the skewness is high (2.421), indicating that the salary of these positions is concentrated at a lower level; the salary of positions with 5-7 years of experience is higher, with an average of 140.29 million yuan, and the skewness is smaller (1.088), indicating that the salary level of these positions is more balanced; the salary of positions with more than 10 years of experience is the highest, with an average of 193.71 million yuan, but the sample size is small (147), and the skewness is small (0.402), indicating that the salary level of highly experienced positions is more concentrated.

The results of Table 5 show that the average salary required by the undergraduate is 115.86 million yuan, and the skewness (1.475) and kurtosis (2.169) are relatively normal. The average salary of the positions required by the junior college is relatively low, which is 79.93 million yuan, with a large skewness (2.373), indicating that the salary distribution of these positions is low; the master's degree requires a small number of job samples (24), the average salary is CNY 140.1 million, and the skewness and kurtosis are small.

It can be seen from Table 6 that the average salary of Beijing is the highest, which is 152.59 million yuan, indicating that Beijing's

salary level is ahead of other cities. The standard deviation is 0.81557, which shows that the salary gap is large, the skewness is 0.956, and the kurtosis is 0.052. The salary distribution is relatively balanced and close to the normal distribution. The average salary of Chengdu is 0.927 million yuan, which is lower than the national average of 1.0198 million yuan, the standard deviation is 0.51358, the salary fluctuation is small, the skewness is 1.883, the kurtosis is 3.750, the salary distribution is low, and the low salary position is more; the average salary of Foshan is 82.66 million yuan, which is the lowest among all cities. The standard deviation is 0.34791, indicating that the salary distribution is more concentrated, with a skewness of 1.556 and a kurtosis of 2.575. The overall salary is low, but the distribution is concentrated; the rest of the city analysis is similar to the above, no longer listed one by one.

In general, Beijing (152.59 million yuan) and Shanghai (131.57 million yuan) have the highest average salary, which is closely related to the level of economic development, the cost of living and the distribution of enterprise nature in the two places; Changsha (84,130,000 yuan) and Foshan (82,660,000 yuan) have the lowest average salary and a higher proportion of low-paid jobs, which may be related to the local economic development level and industry structure. The salary distribution in first-tier cities such as Beijing, Shanghai and Shenzhen is relatively balanced and fluctuates greatly, indicating that the proportion of high-paying jobs is relatively high. The salary distribution of second-tier and third-tier cities such as Changsha, Foshan and Wuhan is low, the proportion of low-paid jobs is high, and the concentration is strong.

#### 4.2 Analysis of Variance Results

The overall F-test of the model is highly significant ( $P\text{-value} < 0.05$ ), indicating that at least one of the factors considered has a significant impact on the average salary. The adjusted  $R^2$  of the model is 0.445, indicating that the model explains about 44.5 % of the salary change. Although this  $R^2$  value is not very high, it is a reasonable result considering that the salary level is affected by many factors (including region, enterprise nature, experience, etc.).

Next, check and analyze the t-test results of

each explanatory variable. The t-test results in Table 9 show that there are only 'state-owned enterprises' in the nature of the enterprise, 'more than 10,000 people' and '2000-10000 people' in the scale of the number, all the classification of experience interval and academic requirements, and 'Shanghai', 'Beijing', 'Guangzhou', 'Shenzhen' and 'Hangzhou' in the city are significantly not 0 at the 5 % level. Therefore, the following conclusions can be drawn:

Under the condition of controlling other variables unchanged: (1) Compared with other enterprises, the salary level of state-owned enterprises is significantly lower; (2) The number of enterprises with 5000 people and above has a significant positive impact on the salary level; (3) The variables of all experience intervals (1 year, 2 years, 3-4 years, 5-7 years, 10 years or more) have a significant impact on salary, especially 1 year experience and 2 years experience, the salary is significantly lower, indicating that experience has a significant impact on salary; (4) There is a significant negative relationship between the degree requirements and salaries of junior college and undergraduate. The salary of junior college degree is significantly lower than that of undergraduate and above. (5) The wage levels of Shanghai, Beijing, Guangzhou, Shenzhen and Hangzhou are significantly higher than those of other cities, especially Shanghai and Beijing, which are at a higher level.

#### 5. Research Deficiencies and Future Prospects

Although this report reveals the key factors affecting human resources salary and provides useful management suggestions, there are still many directions worthy of in-depth discussion and research in the field of salary analysis. Future research can be expanded from the following aspects:

1. Extending research variables [6]: This study mainly considers the factors such as the nature, scale, experience, academic requirements and cities of the enterprise, but the salary level is affected by many factors, such as the professional skills, performance evaluation, work intensity and so on. Therefore, future research can further increase these factors and combine them with other internal factors (such as employee satisfaction, corporate culture,

etc.) for comprehensive analysis.

2. Application of multivariate data analysis methods[7]: Regression analysis and analysis of variance are used in this report, but the complexity of pay levels may require more flexible and powerful analytical tools. For example, machine learning methods[8](such as random forest, gradient boosting tree, etc.) can better deal with nonlinear relationships and interaction effects, and can be optimized in the future with machine learning methods. In addition, the structural equation model (SEM) can further explore the causal relationship between multiple factors, especially the change mechanism of salary under the interaction of multiple factors.

3. The expansion and refinement of data samples: This study is based on the analysis of existing data samples. In the future, the broad applicability of the research conclusions can be further verified by expanding the sample size and cross-industry and cross-regional data collection. At the same time, we can conduct in-depth research on the salary differences of different industries and different types of companies, further refine the reasons for the salary differences, and form a more targeted salary management strategy.

4. Salary forecast and proposal: Future research can further apply the analysis results to the salary prediction model to provide more accurate salary budget and planning for enterprises. Using the analysis results, enterprises can formulate salary policies more scientifically and optimize the salary structure. For low-paid positions (such as positions with less experience and lower academic qualifications), enterprises can improve their salary level, stimulate the enthusiasm of employees and improve work efficiency through training, performance incentives and other methods.

5. Transnational and cross-cultural research: With the process of globalization, wage differentials in multinational corporations and cross-cultural contexts are becoming increasingly important. Future research can combine cross-country data to explore the differences in salary levels between different cultural backgrounds and regions, and help multinational companies formulate global salary policies.

6. Salary fairness and incentive mechanism[9]: Future research can combine the relevant

theories of salary fairness and incentive mechanism, and deeply explore how to realize the internal fairness and external competitiveness of enterprises through salary management, so as to further improve the job satisfaction and loyalty of employees.

## 6. Conclusion

Based on analysis of variance (ANOVA) and linear regression analysis, this report explores the important factors that affect the salary level of human resources. Through the analysis of multiple variables such as the nature of the enterprise, the scale of the enterprise, the experience interval, the academic requirements and the city, the following main conclusions are drawn:

The nature of the enterprise has a significant impact on salary, especially the salary of state-owned enterprises is generally lower than that of other types of enterprises. Other enterprise nature (such as foreign capital, listed companies, joint ventures, etc.) has less impact on wages. Larger enterprises (especially those with more than 10000 people and 5000-10000 people) provide higher salaries. The larger the size of the enterprise, the higher the salary level is usually. The salary level of positions with less experience is lower, especially the salary of employees with 1 year experience is significantly lower than that of other experience intervals. Employees with more than 10 years of experience have relatively high salaries. The salary of junior college degree is lower, while the salary of bachelor degree or above is higher, and the degree has a significant impact on the salary level. Shanghai, Beijing, Guangzhou, Shenzhen and other first-tier cities and some second-tier cities (such as Hangzhou) have higher wage levels, showing the significant impact of geographical factors on wage levels.

This study obtained satisfactory results by establishing a regression model. The adjusted judgment coefficient is 0.445, indicating that the model can explain about 44.5 % of salary changes. Although there is still room for improvement, it has provided important insights into the factors affecting salary. The results of F test and t test show that the selected explanatory variables have a significant impact on salary, especially experience, education and prefecture-level cities. These variables have a greater impact on



salary level.

### References

- [1] Yang Fan. Analysis on the Construction of Enterprise Human Resource Management Information System. *China Market*, 2025, (01): 102-105. DOI: 10.13939 / j. cnki. zgsc. 2025.01.025.
- [2] He Ouxiang. Enterprise human resources salary management problems and countermeasures. *China management informatization*, 2024,27 (18): 158-160.
- [3] Zhang Liuqing. Research on the effectiveness of enterprise salary inchworm effect. *Southwest University of Finance and Economics*, 2021. DOI: 10.27412 / d. cnki. gxncu.2021.001423.
- [4] Liu Fang, Dong Fenyi. Research on the diagnosis and treatment of multicollinearity in econometrics. *Journal of Zhongyuan University of Technology*, 2020, 31 (01): 44-48 + 55.
- [5] Liang Ying, Zhang Yuhai. Correct application and expression of multiple linear regression method. *Chinese Journal of Child Health*, 2020, 28 (02): 230-232.
- [6] Wang Zhuo, Zeng Pingtao, Yao Xiangxiu. Research on the demand characteristics and salary influencing factors of data research and development posts. *Modern Marketing (Late Edition)*, 2023, (08): 124-126. DOI: 10.19932 / j. cnki.22-1256 / F.2023.08.124.
- [7] Yu Wanlu, Zhang Sijie. Analysis of the influencing factors of data analysis post salary under the penalty GLM algorithm. *Industry and Technology Forum*, 2023, 22 (17): 49-51.
- [8] Yu Yue, Zhang Ge, Yue Xiaojing, et al. Research on human salary management and performance optimization system based on machine learning. *Information technology*, 2024, (10): 111-119. DOI: 10.13274 / j. cnki. hdzj.2024.10.017.
- [9] Lin Wei, Han Wenhui. Analysis of the application of salary management in enterprise human resource management. *China Electronic Business*, 2025, (01): 70-72.