

Analysis on the Establishment and Application of Quantitative Assessment and Assessment System of Enterprise Salary Management

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Keywords: Salary Management; Quantitative Assessment; Assessment System; Index Design

Abstract: With the intensification of market competition, enterprise salary management is becoming more and more critical to attract and motivate talents. This article focuses on the quantitative assessment and assessment system of enterprise salary management, and deeply discusses its establishment and application. Through literature research, this article combs the related theories of salary management and quantitative assessment and assessment, and analyzes the relationship between the elements of the system by using system analysis method to build a scientific, reasonable and practical quantitative assessment and assessment system. The system covers following the principles of strategic orientation, scientificity, fairness and feasibility, carefully selecting performance, ability and attitude indicators, determining the weight with the help of analytic hierarchy process (AHP) and Delphi method, and defining the assessment grade and scoring interval of each indicator. In application, the process from assessment preparation to result feedback is elaborated in detail, and the close connection with salary system and effect assessment are emphasized. This system is helpful to optimize enterprise salary management, improve the efficiency of human resource management, provide strong support for enterprises to achieve strategic goals, and is of great significance to the sustainable development of enterprises.

1. Introduction

In today's competitive business environment, enterprises are facing unprecedented challenges and opportunities. Talent is the key element of enterprise's core competitiveness, and its attraction, retention and motivation have become the top priority of enterprise development [1]. Salary management, as an important part of human resource management, is not only related to the vital interests of employees, but also an important means for enterprises to achieve strategic goals [2]. In enterprise salary management, salary should first meet the low-level needs of employees such as physiology and safety, and give employees basic living security [3]. With the improvement of employees' demand level, the incentive methods of salary should be more diversified, such as performance bonus and honor reward to meet employees' demand for respect and self-realization [4]. A reasonable salary management system can effectively stimulate the enthusiasm and creativity

of employees, and then enhance the overall performance and market competitiveness of enterprises [5]. However, the traditional salary management method generally lacks scientific quantitative assessment and assessment, and it is difficult to accurately measure the contribution and value of employees, which leads to unfair and unreasonable salary distribution and affects employees' job satisfaction and loyalty [6]. Therefore, it is urgent to establish a scientific and reasonable quantitative assessment and assessment system for enterprise salary management.

The purpose of this article is to deeply discuss the establishment and application of quantitative assessment and assessment system of enterprise salary management. Through the research, it is expected to provide enterprises with a set of feasible quantitative assessment and assessment schemes for salary management, help enterprises optimize salary management, improve the level of human resource management and achieve sustainable development. From a practical point of view, this can help enterprises solve practical problems in salary management and improve the scientificity and effectiveness of salary management. This article uses the system analysis method to analyze the internal relations and logical relations among the elements of the quantitative assessment and assessment system, and strives to build a scientific, reasonable and practical quantitative assessment and assessment system for enterprise salary management.

2. The establishment of quantitative assessment and assessment system of enterprise salary management

Table 1: Performance Indicators for Different Positions

Position	Performance Indicator	Indicator Description	Data Acquisition Method	Assessment Cycle
Sales Position	Sales Revenue	The total sales amount completed by an employee within a certain period, a core indicator for measuring sales performance	Sales system data statistics	Monthly/Quarterly/Annually
Sales Position	Sales Growth Rate	(Current period sales revenue - Previous period sales revenue) / Previous period sales revenue $\times 100\%$, reflecting the growth of sales performance and the market expansion ability of sales staff	Comparison of sales system data from different periods	Monthly/Quarterly/Annually
Sales Position	Number of New Clients Developed	The number of new clients successfully developed within a certain period, reflecting the market development ability of sales staff	Customer relationship management system records	Monthly/Quarterly
Sales Position	Customer Complaint Rate	The ratio of customer complaint times to the total number of sales orders, reflecting the quality of sales services	Customer complaint records and order data statistics	Monthly/Quarterly
Production Position	Output	The quantity of products produced within a certain time, directly reflecting production efficiency	Production record ledger statistics	Daily/Weekly/Monthly
Production Position	Product Pass Rate	(Number of qualified products / Total number of products) $\times 100\%$, reflecting production quality, a key indicator for measuring the production process	Product quality inspection records	Batch/Daily/Weekly
Production Position	Raw Material Loss Rate	(Quantity of raw materials issued - Quantity of raw materials actually used) / Quantity of raw materials issued $\times 100\%$, reflecting the rationality and economy of raw material usage	Raw material in-out records and actual usage statistics	Daily/Weekly/Monthly
Production Position	Equipment Failure Rate	The ratio of equipment downtime due to failures to planned production time, affecting production progress and efficiency	Equipment operation records and failure maintenance records	Weekly/Monthly

To establish a scientific and reasonable quantitative assessment and assessment system of enterprise salary management, we need to follow a series of principles, carefully design indicators,

determine weights and formulate assessment standards.

The system construction should follow the principle of strategic orientation, and the quantitative assessment and assessment system of enterprise salary management must closely focus on the strategic objectives of the enterprise. Salary incentives need to guide employees' behavior to conform to the strategic direction of the enterprise and ensure that employees' efforts are unified with the long-term development of the enterprise. The scientific principle is also very important, the selection of indicators should be based on solid theory and in-depth insight into the actual situation of enterprises, and the determination of weights should use scientific methods to ensure the accuracy and reliability of the system [7]. The principle of fairness requires giving consideration to both internal fairness and external fairness, rationally distributing salaries according to post value and employee performance internally, and ensuring the competitiveness of enterprise salary externally to avoid employees' dissatisfaction due to injustice. The feasibility principle emphasizes that the system should conform to the reality of the enterprise, the data acquisition and operation are simple and feasible, and the enterprise resources and management ability should be considered.

Index selection and design are related to the effectiveness of the system. Performance indicators reflect employees' work achievements and are set according to the differences between enterprises' business and posts. Competency indicators measure employees' professional skills and potential development ability, professional and technical positions focus on mastering professional knowledge and innovation ability, and management positions focus on leadership and decision-making ability [8]. Attitude indicators reflect employees' working attitudes, such as work initiative, responsibility and teamwork spirit, which are quantified through behavior observation and assessment. The performance indicators of different positions are shown in Table 1.

Table 2: Weighting Table for Quantitative Assessment and Assessment Indicators of the Sales Position

Indicator Category	Specific Indicator	Brief Description of Weight Determination Method	Weight	Impact on Salary (1-5 levels, 5 being the highest)
Performance Indicators	Sales Revenue	Determined through the AHP, considering corporate strategic objectives and sales business priorities, and comparing the importance of various performance indicators	35%	5
Performance Indicators	Sales Growth Rate	Determined based on the corporate market expansion plan, using AHP to establish its relative importance against other indicators	25%	4
Performance Indicators	Number of New Clients Developed	Considered based on the corporate market share growth needs, with weights determined through AHP in relation to other indicators	15%	3
Performance Indicators	Customer Complaint Rate	Determined according to the impact of customer satisfaction on the long-term development of the company, using AHP to establish the weight	10%	3
Competence Indicators	Market Expansion Ability	Determined by experts through multiple rounds of discussions using the Delphi method, based on the characteristics of sales work and future market trends	8%	2
Competence Indicators	Sales Negotiation Ability	Determined by experts through the Delphi method, considering sales business scenarios and their impact on sales results	4%	2
Attitude Indicators	Work Responsibility	Determined by integrating expert opinions through the Delphi method, based on daily work performance and team collaboration feedback	2%	1
Attitude Indicators	Customer Service Attitude	Determined by experts through the Delphi method, based on customer feedback and sales service norms	1%	1

Weight determination is the key link of quantitative assessment and assessment system. AHP decomposes complex problems by building a hierarchical structure model, compares the elements of each level with each other to form a judgment matrix, calculates the weight vector and tests the consistency, and scientifically determines the weight of each index. Delphi method, with the help of experts' experience and wisdom, collected experts' opinions through several rounds of questionnaire consultation, and reached a consensus through summary feedback, which made the determination of weights more scientific and reasonable. Taking the quantitative assessment system of sales posts in an enterprise as an example, the weight of each index is determined by AHP, forming Table 2.

The formulation of quantitative assessment criteria needs to clarify the assessment grades of each index, such as excellent, good, qualified and unqualified, and give each grade a clear description and quantitative criteria. Performance indicators can be set as excellent when sales reach the target of 120% or above, and good when sales reach 100%-120%. Ability and attitude indicators match specific behavior performance for different grades through behavior anchoring method. The performance assessment system sets the scoring range to correspond to the scoring range of each assessment level, accurately measuring employee performance and providing objective basis for salary distribution decisions, ensuring the effective implementation of the quantitative assessment system.

3. Enterprise compensation management quantitative assessment and assessment system application

Table 3: Quantitative Assessment and Assessment Scoring Table for the Sales Position

Assessment Indicator	Weight	Scoring Criteria	Scoring Range	Employee A Score	Employee B Score
Sales Revenue	35%	Achieving 120% or more of the target sales revenue: 85-100 points; 100%-120%: 70-84 points; 80%-100%: 55-69 points; Below 80%: 0-54 points	0-100 points	80	75
Sales Growth Rate	25%	Growth rate of 20% or more: 85-100 points; 10%-20%: 70-84 points; 5%-10%: 55-69 points; Below 5%: 0-54 points	0-100 points	78	72
Number of New Clients Developed	15%	Developing 10 or more new clients: 85-100 points; 8-9: 70-84 points; 6-7: 55-69 points; Below 6: 0-54 points	0-100 points	70	65
Customer Complaint Rate	10%	Complaint rate below 1%: 85-100 points; 1%-2%: 70-84 points; 2%-3%: 55-69 points; Above 3%: 0-54 points	0-100 points	82	78
Market Expansion Ability	8%	Outstanding ability, 85-100 points for successfully opening up new market areas; 70-84 points for certain expansion achievements; Ability is generally 55-69 points; Weak ability 0-54 points	0-100 points	75	70
Sales Negotiation Ability	4%	High negotiation skills, multiple successful major transactions: 85-100 points; Strong negotiation ability: 70-84 points; Average performance: 55-69 points; Insufficient ability: 0-54 points	0-100 points	72	68
Work Responsibility	2%	Always maintaining a high level of responsibility, with very few mistakes: 85-100 points; Relatively strong responsibility: 70-84 points; Basically fulfilling duties: 55-69 points; Weak responsibility: 0-54 points	0-100 points	80	75
Customer Service Attitude	1%	Excellent customer feedback, enthusiastic and considerate service attitude: 85-100 points; Good customer assessments: 70-84 points; No obvious complaints: 55-69 points; Customer complaints: 0-54 points	0-100 points	88	82

The application process of quantitative assessment and assessment system of enterprise salary management includes three main stages. The first is the preparation stage of assessment, and

enterprises need to define the assessment cycle, such as monthly, quarterly or annual assessment, which depends on job characteristics and business needs. Furthermore, a professional assessment team should be set up, including department heads, human resources experts and backbones in related fields to ensure the professionalism and impartiality of the assessment. In addition, it is necessary to prepare comprehensive assessment materials, such as employee work records and performance data. Then there is the implementation stage of assessment, in which employees are objectively assessed and scored in strict accordance with established indicators, weights and standards. Among them, the assessment of sales positions needs to be carried out in accordance with the scoring rules listed in Table 3.

The performance assessment process ultimately enters the stage of result feedback and communication, which requires managers to provide timely and accurate feedback on assessment results to employees and conduct one-on-one performance interviews. This step can help employees comprehensively understand their own work performance, recognize their strengths while pointing out their shortcomings, and jointly develop improvement plans and clarify future development directions.

The connection with the salary system is the core of the application of quantitative assessment and assessment system. On the one hand, companies should adjust their salary structure based on performance assessment results. For employees who perform outstandingly on performance indicators, the salary system can appropriately increase the proportion of their performance-based pay, thereby effectively enhancing the effectiveness of salary incentives. On the other hand, the salary level is determined according to the assessment score. Employees with high scores get higher salaries, such as employees with 90 points or above, which can be given a salary increase of 15%-20%; For employees with 80-89 points, the increase is 10%-15%, which fully reflects the incentive effect of salary.

The assessment of application effect can not be ignored. Through employee satisfaction survey, we can understand employees' views on the application effect of quantitative assessment and assessment system of salary management and collect suggestions for improvement. Enterprises should accurately evaluate the actual contribution of management systems to the improvement of enterprise performance by comparing performance indicator data before and after system application, and continuously optimize and improve system functions based on this.

4. Conclusions

This article focuses on the establishment and application of quantitative assessment and assessment system of enterprise salary management, and has achieved a series of results. On the theoretical level, the related theories of salary management and quantitative assessment and assessment are systematically combed, which lays a solid foundation for the system construction. Incentive theory, fairness theory and other salary management theories make it clear that salary plays an important role in motivating employees and ensuring fairness; Performance management theory and statistics and mathematical model theory provide scientific methods and ideas for quantitative assessment and assessment. In the establishment of the system, we strictly follow the principles of strategic orientation, scientificity, fairness and feasibility, and design comprehensive and targeted performance, ability and attitude indicators. Furthermore, scientific methods such as AHP and Delphi method are used to determine the index weight, and detailed quantitative assessment criteria are formulated to ensure the scientific rationality of the system. In the application link, the process from assessment preparation and implementation to result feedback communication is standardized in detail. Through close connection with the salary system, the salary structure and level are adjusted according to the assessment results, giving full play to the

incentive function of the system. Furthermore, through employee satisfaction survey and enterprise performance improvement analysis, the effect is evaluated, which provides the basis for continuous optimization of the system.

Generally speaking, the establishment and effective application of quantitative assessment and assessment system of enterprise salary management can optimize salary distribution, stimulate employees' enthusiasm and creativity, improve the level of enterprise human resource management, and then promote the realization of enterprise strategic objectives and help enterprises to develop continuously in the fierce market competition.

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