

Research on Comprehensive Compensation Incentive Strategies for R&D Personnel in High-Tech Enterprises

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Abstract

In the knowledge economy era, R&D personnel in high-tech enterprises are the core force for the innovative development of enterprises, and their incentive effects are directly related to the competitiveness and sustainable development of enterprises. Traditional compensation models often focus on economic returns and fail to fully cover the diverse needs of R&D personnel, leading to increasingly prominent problems such as insufficient incentives and brain drain. The comprehensive compensation system, as a modern management model that integrates economic and non-economic, short-term and long-term incentives, provides a systematic solution for the incentives of R&D personnel in high-tech enterprises. This paper explores the suitability and implementation path of the comprehensive compensation system by analyzing the compensation characteristics and management dilemmas of R&D personnel in high-tech enterprises. The research shows that a comprehensive compensation system can effectively respond to the multi-level needs of R&D personnel in terms of compensation equity, career development, work autonomy and spiritual identity, and its successful implementation is based on strategic synergy, dynamic adaptation and institutional guarantee. Finally, this paper presents management insights from aspects such as system design, cultural support and continuous optimization, with the aim of providing theoretical references and practical guidance for high-tech enterprises to build efficient and sustainable incentive mechanisms for R&D personnel.

Keywords

R&D Personnel in High-Tech Enterprises, Full Compensation, Compensation Management, Incentive Strategies

1. Introduction

In the knowledge economy era, high-tech enterprises, as an important force driven by innovation, increasingly rely on the intellectual contributions and innovation efficiency of R&D personnel for their core competitiveness. As the key carrier of technological breakthroughs and product iterations in enterprises, the incentives of R&D personnel are directly related to the sustainable development and market position of enterprises. However, traditional compensation models are often limited to economic returns and fail to fully cover the diverse needs of R&D personnel, resulting in frequent problems such as insufficient incentives and brain drain. The comprehensive compensation system, as a modern management framework that integrates material and spiritual, short-term and long-term incentives, provides new ideas for motivating R&D personnel in high-tech enterprises through the synergy of multiple dimensions such as compensation, benefits, development, recognition and well-being. This report aims to analyze the compensation characteristics, management difficulties and pain points of R&D personnel in high-tech enterprises based on general management practices, and systematically explore the adaptability and operability of the comprehensive compensation system in order to provide theoretical references for the optimization of enterprise management.

R&D personnel in high-tech enterprises typically have characteristics such as high academic qualifications, strong professionalism and innovation orientation, and the nature of their work determines the particularity of the compensation system. On the one hand, research and development activities are highly uncertain, long-term and team-oriented, requiring compensation design to go beyond short-term economic incentives and focus on the long-term value of knowledge capital; On the other hand, R&D personnel have a significantly higher demand for self-actualization, career growth, and job autonomy than ordinary employees, making the compensation system need to take into account both external rewards and internal incentives. At present, high-tech enterprises still have problems such as rigid compensation structures and monotonous incentive methods, which make it difficult to effectively stimulate the innovative potential of R&D personnel. A comprehensive compensation system can make up for the shortcomings of the traditional model by systematically integrating various incentive elements, but its successful implementation depends on a deep fit with the enterprise strategy, personnel characteristics and institutional environment. The following is a layer-by-layer analysis to reveal the practical path of total compensation in high-tech enterprises.

To systematically explore the comprehensive compensation incentive strategies for R&D personnel in high-tech enterprises, this study retrieved domestic and foreign literature on core themes such as “R&D personnel in high-tech enterprises”, “comprehensive compensation”, and “perception of compensation balance” from databases like CNKI and Web of Science. It clarifies the current research status and theoretical gaps. This study focuses on R&D personnel in different high-tech

enterprises to enhance the applicability and distinctiveness of the research conclusions. Through a critical integration of existing research, the analysis of this study will be more systematic and explanatory.

2. Literature Review

2.1. R&D Personnel in High-Tech Enterprises

High-tech enterprise R&D personnel refer to the holders of core intellectual capital who engage in creative activities such as basic research, application development and technology transformation based on the enterprise's innovation platform. This group is distinct from traditional production or administrative personnel, and its essential feature is the high degree of unity of knowledge intensity and innovation initiative. From the perspective of human capital, they usually have a master's degree or higher, master cutting-edge technologies in fields such as artificial intelligence, biomedicine, and integrated circuits, and their professional skills are deeply coupled with the core technological assets of enterprises, forming a highly specialized human capital barrier. R&D personnel generally have three core demands: First, achievement-driven, pursuing the self-actualized value of technological breakthroughs; Second, there is a strong need for autonomous decision-making, a desire to have a say in the selection of technical routes and the allocation of R&D resources, and a dislike for bureaucratic control; Third, there is a long-term value binding tendency, with a greater focus on sustainable returns such as equity incentives and technology inheritance mechanisms rather than short-term salaries. This trait leads to a "bimodal distribution" in their perception of compensation—less sensitive to the base salary, but extremely sensitive to the fairness of long-term incentives and development resources. Yang et al. pointed out that compensation, as an important factor influencing employee behavior, is an important tool for enterprises to attract, retain talent and stimulate their enthusiasm (Yang & Ji, 2025). R&D personnel in high-tech enterprises not only need short-term economic returns, but also attach great importance to long-term development space, opportunities for ability growth and spiritual identification. This demand is highly consistent with the multi-dimensional attributes of comprehensive compensation.

2.2. Comprehensive Compensation

The theory of total compensation originated in the 1970s and evolved as companies gained a deeper understanding of their need to motivate employees. Tan et al. pointed out that total compensation includes extrinsic compensation incentives and intrinsic compensation incentives (Tan, 2009). Extrinsic compensation incentives are mainly used to motivate employees through compensation systems and benefits, while intrinsic compensation incentives are used to motivate employees through social and psychological rewards. The theory of total compensation emphasizes that companies should design comprehensive compensation systems based on the diverse needs of employees to achieve the best incentive effect.

Tan et al. systematically summarized the origin, constituent elements, theoretical basis and existing research of total compensation (Tan, Jing, & An, 2019). They believe that the components of total compensation include two major categories: extrinsic compensation and intrinsic compensation, among which extrinsic compensation can be further divided into direct economic compensation and indirect economic compensation; Intrinsic compensation includes the sense of satisfaction, achievement and responsibility that comes with the work itself.

The subjective evaluation and cognitive judgment of R&D personnel in high-tech enterprises on the fairness, rationality and relative balance of the various compensation elements provided by the organization. In the context of the high-tech industry, total compensation not only involves employees' perception of material compensation, but also includes the evaluation of non-material compensation, thereby reflecting the multi-dimensionality and integrity of compensation balance. Specifically, it refers to the state of coordination and balance among the five compensation dimensions of basic salary, performance-based compensation, welfare and security, development opportunities and working environment for R&D personnel. Hu Ning explored the relationship between compensation structure and employee work behavior through an empirical study of the relationship between employee compensation structure and employee loyalty and engagement (Hu, 2012). The study found an inverted U-curve relationship between the proportion of flexible pay and the loyalty and engagement of employees, that is, a moderate proportion of flexible pay is the most appropriate. This conclusion suggests that the design of the compensation structure needs to take into account both employee stability and incentives to achieve the best incentive effect. Dong et al. from the perspective of multi-case studies in grounded theory, this helps organizational managers understand from the employees' perspective how comprehensive salary incentives actually affect employees' psychology (Dong & Huang, 2025). When formulating a comprehensive salary balance and incentive system, the organization should not simply combine various comprehensive salary incentive methods mechanically. Instead, it should, based on the comprehensive and diverse needs of employees and their composition, in combination with organizational strategies, culture, internal and external environments, etc., select specific rewards in aspects such as monetary compensation, welfare benefits, working environment, and work value to form a suitable combination strategy. Moreover, it is necessary to balance the relationships between various incentive rewards and establish a balanced incentive system composed of multiple complementary and coordinated comprehensive salary incentive methods, and make dynamic adjustments and optimizations.

2.3. Compensation Characteristics of R&D Personnel in High-Tech Enterprises

Dong et al. found that when employees have a higher perception of overall pay balance, they typically exhibit positive work attitudes and behaviors, such as

higher work engagement and lower turnover tendencies; On the contrary, negative work attitudes and behaviors may be shown (Dong & Huang, 2021). This suggests that the perception of overall pay balance is a key factor influencing the effectiveness of incentives. In addition, other scholars have explored the impact of compensation incentives on employee behavior from different perspectives. Ma et al. explored the impact of performance-based compensation incentives on employees' creativity through theoretical analysis and empirical research (Ma, Zhu, & Yan, 2025). The study found that performance-based compensation may suppress employee creativity in the short term, but may promote it in the long term. This finding reveals the complexity of the effect of compensation incentives and highlights the time factor that companies need to take into account when designing compensation systems.

The compensation system for R&D personnel in high-tech enterprises shows a distinct knowledge-intensive feature, which includes not only economic elements such as basic salary and performance bonus, but also non-economic rewards such as welfare security, career development and working environment. In terms of economic compensation, the income of R&D personnel is often closely linked to the market level, and enterprises often adopt competitive compensation strategies to attract top talents. Due to the high value-added nature of R&D work, the salary level is generally higher than the industry average, and the proportion of floating parts (such as project bonuses, innovation achievement shares) is relatively high to reflect performance orientation. In addition, long-term incentive tools such as equity options and profit-sharing plans are becoming increasingly popular, aiming to bind personal interests to the long-term development of the enterprise and alleviate the input-output lag in R&D activities.

At the level of non-economic compensation, the demand for work autonomy, learning opportunities and an innovative atmosphere is particularly prominent among R&D personnel. high-tech enterprises give R&D personnel more decision-making space through flexible working hours and technology licensing mechanisms, while providing regular training and academic exchange resources to support knowledge renewal. Another major feature is the differentiation in salary structure: junior R&D personnel may focus more on the stability of cash income and skill accumulation platforms, while senior experts pay more attention to resource control, academic reputation and industry influence. This stratification of demands requires a flexible compensation system that can tailor incentive packages for different career stages. It is notable that the collaborative nature of R&D work makes team rewards an important component, but the identification of individual contributions remains a challenge, with a need to strike a balance between collective and individual incentives.

From the perspective of the salary determination mechanism, the value assessment of R&D personnel is not only based on job responsibilities, but also emphasizes their ability qualifications and the value of their achievements. The competency-based compensation model is widely applied, linking compensation to in-

dicators such as professional skills and innovation output, rather than relying solely on job grade or length of service. However, due to the difficulty in quantifying research and development results, compensation distribution often requires a combination of subjective evaluations and objective indicators such as the number of patents and the impact of technological breakthroughs. This trait requires companies to establish a scientific performance measurement system to avoid internal unfairness caused by ambiguous standards. In general, the compensation system for R&D personnel in high-tech enterprises is a complex combination of economic and non-economic, individual and team, short-term and long-term elements, and its design needs to precisely conform to the inherent laws of R&D activities.

3. Challenges and Dilemmas of Compensation Management for R&D Personnel in High-Tech Enterprises

3.1. Multi-Dimensional Challenges in Compensation Management

Compensation management for R&D personnel in high-tech enterprises faces multiple challenges, with the primary difficulty being the complexity and ambiguity of performance evaluation. The research and development work is mostly creative labor, and the process is difficult to standardize and monitor. The results are often lagging and team-related. For example, basic research projects may not show visible returns for several years but require continuous investment during that period; While application development projects have shorter cycles, they are disrupted by multiple factors such as the market and collaborative resources, making it difficult to separate and assess individual contributions. High-tech enterprises try to measure performance through quantifiable metrics such as lines of code and document output, but this approach can lead to short-sighted behavior of “quantity over quality” and dampen enthusiasm for innovation. What’s more troublesome is that the realization of the value of research and development depends on the coordination of subsequent production and marketing links, and the assessment of a single link may disrupt the entire value chain and cause misplacement of incentives.

Another major challenge is the lack of dynamic adaptation of the compensation system. High-tech enterprises are in a rapidly evolving technological and market environment, and their strategic focus often changes with the competitive situation, but their compensation structure often lags behind. For example, when a company shifts from technology following to originality leading, the original incentive model based on short-term project bonuses may not be able to support the demand for long-term technological accumulation. At the same time, there is strong heterogeneity within the R&D team: the logic of value creation varies among different positions such as algorithm engineers, hardware developers, and system architects, but companies often apply a uniform compensation framework, ignoring professional characteristics. Regional differences further increase management difficulty: The cost of living and career opportunities for R&D personnel

in first-tier and non-first-tier cities are vastly different, and if companies simply replicate salary standards, it is likely to raise questions about internal fairness or talent suction effects.

Compensation communication and transparency management are also difficult areas. R&D personnel, as a highly educated group, have high demands for rationality and participation in compensation decisions, but high-tech enterprises lack effective communication mechanisms due to a culture of secrecy or management practices. The lack of public disclosure of salary standards and the basis for adjustments can lead to speculation and distrust, weakening the incentive effect. Especially in high-intensity R&D Settings, if employees are not clear about the logic of the connection between performance and rewards, they may view challenging tasks as “exploitation” rather than opportunities. In addition, the lack of synergy between the compensation system and other management modules, such as the difficulty in fulfilling the promised promotion channels during recruitment due to institutional barriers in actual implementation, or the disconnection between the allocation of training resources and compensation growth, can all reduce system consistency. These difficulties require companies to coordinate compensation management from a strategic perspective rather than seeing it as an isolated human resources function.

3.2. The Dilemma of Ineffective Compensation Incentives

The pain points of compensation incentives for R&D personnel in high-tech enterprises are rooted in the mismatch between demand and supply, which is manifested as “incentive failure” and “value disregard”. In terms of economic incentives, high-tech enterprises’ salary growth mechanisms lack clear logic, such as seniority replacing performance as the dominant factor, or bonus distribution tending to be equalized, leading to the negative sentiment that “it makes no difference whether you work more or less”. R&D personnel invest a lot of effort in innovation attempts, but if the failed results are not recognized, or if there is an imbalance between successful rewards and contributions, it will seriously dampen enthusiasm. What’s worse, some companies, in an effort to control costs, cut the proportion of performance-based pay, causing compensation to lose its incentive nature and degenerate into a health factor. This diminishing marginal utility of economic returns is particularly pronounced among high-pay groups, where a single increase is difficult to sustain innovative behavior.

The absence of non-economic incentives constitutes a deep-seated pain point. R&D personnel are generally eager to enhance their knowledge and capabilities through work, but companies often neglect the construction of career development systems. For instance, there is a single promotion path, with the management path being the only option for advancement, leaving technical experts in the predicament of “promotion and abandonment of skills”; The lack of training resources or their disconnection from practical needs makes employees feel stagnant in their growth. Another pain point is the lack of autonomy at work: mi-

management, rigid processes deprive R&D of the fun of exploration, and the lack of decision-making participation weakens a sense of belonging. It has been observed that many departing R&D personnel refer to “no say” as the key factor rather than just salary issues. The weakness of the recognition mechanism also stands out: companies overly rely on material rewards and neglect spiritual incentives such as honor recognition and achievement display, making employees feel that the value of innovation is not truly “seen”.

The hidden pain points stem from the conflict between the compensation system and the organizational culture. The R&D culture emphasizes trial and error, collaboration and long-termism, but if performance-based compensation over-emphasizes individual short-term output, it will foster technical barriers, data concealment and other behaviors, eroding team spirit. Especially in high-pressure projects, if compensation distribution fails to balance process effort and outcome benefits, it can lead to overconsumption of personnel and depletion of creativity. In addition, the one-size-fits-all approach to compensation incentives fails to respond to individual differences: young employees may value cash income and quick promotion, while married people are more concerned about benefits and work-life balance. This contradiction between standardized supply and personalized demand makes it difficult for companies to achieve precise incentives despite investing a lot of resources. The accumulation of pain points not only leads to the loss of talent, but also may suppress the organizational innovation atmosphere, creating a vicious cycle of “high input and low output”.

4. Adaptability and Operational Strategies of Comprehensive Compensation

4.1. An Analysis of the Fit of Full Compensation

The comprehensive compensation system, through multi-dimensional integration, is highly tailored to the demand characteristics and work logic of R&D personnel in high-tech enterprises. Its fit is first and foremost reflected in strategic synergy. Research and development activities, as the core of corporate innovation, require a compensation system that supports long-termism and technological accumulation rather than short-term monetization. Comprehensive compensation combines economic incentives, such as base salary and bonuses, with non-economic incentives, such as development opportunities and recognition mechanisms, aligning individual goals with organizational strategy. Equity plans, for example, bind R&D personnel to the long-term value of the enterprise, and training investment helps update knowledge and address the risks of technological iteration. This “combination punch” model is particularly suitable for the R&D field: basic research positions can guarantee exploration freedom through stable compensation, while application development positions can stimulate efficiency through performance rewards, thereby achieving differentiated incentives.

At the demand matching level, the comprehensive compensation covers the diverse value demands of R&D personnel. Economic compensation meets survival

and safety needs, while welfare programs (such as health management, child education support) relieve life stress and unleash innovation energy. The development dimension directly responds to growth anxiety: The dual-track career design gives technical talents a parallel status and reward to management positions, while the supply of learning resources alleviates the fear of ability devaluation. The recognition and well-being dimension hit the spiritual needs of developers: Public recognition, innovation naming rights, etc. give a sense of achievement, flexible working hours, team atmosphere enhance work experience. It is notable that developers attach great importance to the “meaning of work”, and full compensation enhances value recognition by emphasizing the connection between individual contribution and the organization’s mission. This intrinsic motivation is often more lasting than material rewards.

The flexible characteristics of total compensation are well-suited to the dynamics of R&D management. Enterprises can adjust their compensation packages according to the strategic stage: during the establishment stage, equity incentives are emphasized to share risks; subsequently, performance bonuses should be increased to stimulate output; finally, benefits and happiness should be strengthened to retain key talents. At the same time, the flexible benefit menu allows employees to choose as needed, such as younger employees preferring training subsidies, and senior employees focusing on retirement plans, thereby enhancing satisfaction. The adaptability is also reflected in the crisis buffering capacity: when the economy is in a downturn, if the enterprise needs to postpone salary increases, it can maintain morale through non-economic means such as enhancing development opportunities and optimizing the working environment. This flexibility makes total compensation not only an incentive tool but also an integral part of organizational resilience, helping the enterprise maintain talent stability in a fluctuating environment.

4.2. Strategies for Operating Comprehensive Compensation

The comprehensive compensation management system should serve as the core support for the implementation of the enterprise strategy, rather than merely a simple human resources operation tool. The management team needs to establish a “value creation and benefit sharing” compensation philosophy, shifting the compensation decision-making from a cost control mindset to an investment logic for human capital. This strategic compensation planning requires the CEO, HR director, and technical director to form a decision-making loop to ensure that the compensation system is dynamically matched with the enterprise’s innovation strategy. The implementation guarantee relies on collaborative promotion. At the organizational level, senior management should lead cultural and institutional changes, while middle and lower-level managers should be responsible for the implementation of incentives. At the technical level, digital tools can be used to achieve salary transparency and personalized customization. The process should be gradual: start with a pilot core team, then gradually expand, to avoid sudden

changes causing resistance. Finally, continuous evaluation is indispensable: monitor the effectiveness through indicators such as turnover rate and innovation output, and dynamically adjust. The comprehensive compensation is not a one-time solution; its success depends on the enterprise regarding it as a continuous iterative strategic investment.

The implementation of the comprehensive compensation system requires a systematic approach. The first step is diagnosis and planning. The enterprise should conduct a comprehensive survey of the needs of R&D personnel, combined with strategic goals to determine compensation principles and priorities. For example, if the enterprise is in a critical period of technological breakthrough, it can strengthen the rewards for innovative achievements; if it focuses on team collaboration, it can increase the weight of project dividends. The planning stage should clearly define the total compensation and the proportion of the structure: the economic compensation usually accounts for no less than 60% to ensure basic incentives, and the non-economic part is dynamically allocated based on the enterprise's resources. The key is to establish cross-departmental mechanisms such as compensation committees to ensure that the decision-making takes into account both financial sustainability and the demands of talents, avoiding isolated operation of the HR department.

The optimization of economic compensation lies in structured design. Basic salary should be based on ability qualifications and market benchmarking, adopting a broad-based compensation system, allowing reasonable gaps within the same job level due to skill differences. Performance-based compensation should be linked to clear indicators: it can quantify contributions by combining KPIs (such as patent output) and OKRs (such as technical milestones), while setting team rewards to prevent excessive individualization. Long-term incentives such as options and profit-sharing should cover core R&D personnel, and be bound by a stepwise unlocking mechanism to tie the service period. The welfare module should go beyond the legal base and introduce flexible schemes: such as health management, children's education support, etc., and establish a weak correlation between welfare and performance (such as additional vacation for outstanding employees), enhancing the sense of incentive.

The implementation of non-economic compensation focuses on institutional embedding. In terms of career development, a "management + technology" dual-channel system should be constructed, clearly defining the ability standards and promotion conditions at each level, and providing mentorship systems and rotation plans to accelerate growth. The recognition system should be diversified: including formal awards (such as innovation awards), as well as encouraging immediate praise, peer recognition, and other informal forms. Happiness improvement can be achieved through work redesign: such as granting project leadership rights, establishing innovation incubators, and paying attention to mental health support and work-life balance. An important but often overlooked aspect is the communication mechanism: the enterprise should regularly interpret compensation pol-

icies, conduct satisfaction feedback, and optimize the system through interaction.

The successful implementation of an efficient compensation system cannot be separated from the nourishment of supportive organizational culture. The enterprise should focus on building a “tolerant of failure, valuing innovation” R&D culture, providing flexible space for performance evaluation. Specifically, an innovation trial error resource pool can be established, providing basic performance guarantees for exploratory failed R&D projects; at the same time, a knowledge sharing community can be created, strengthening spiritual incentives through forms such as technical salons and patent walls. At the leadership level, technical managers need to transform into “enabling leaders”, being good at using non-monetary incentive methods, such as granting technical naming rights and providing academic exchange opportunities. Moreover, the optimization of work design cannot be ignored, through implementing flexible working systems and delegating R&D autonomy, to enhance the perceived value of intrinsic compensation.

5. Management Insights

A comprehensive compensation management system should be the core support for the implementation of the enterprise strategy, rather than a simple human resources operation tool. Management should establish a compensation philosophy of “value co-creation and benefit sharing”, and shift compensation decisions from cost control thinking to human capital investment logic. Specifically, the company needs to build a dynamic adaptive compensation adjustment mechanism, and when the strategic focus shifts from technology following to originality leading, the compensation structure should promptly increase the proportion of long-term incentives; When the organizational structure shifts from vertical management to matrix teams, a joint assessment and distribution mechanism for cross-departmental collaboration should be designed simultaneously. This strategic compensation planning requires CEO, HR director and technical director to form a decision-making loop to ensure that the compensation system is dynamically matched with the enterprise’s innovation strategy.

In response to the diverse needs of R&D personnel, companies need to break away from the “one-size-fits-all” compensation model and build a multi-dimensional and precise incentive system. At the basic level, a dual-track system of “broadband pay + competency certification” can be established to achieve differentiated incentives of different pay for the same position through technical grade assessment; At the performance level, a combination of short-term project bonuses and medium- to long-term achievement dividends should be designed, taking into account the cyclical nature of R&D work; At the development level, it is necessary to open up a dual-track promotion path of “management sequence + technical sequence” so that technical experts can obtain the same status and rewards as managers. It is particularly important to note that transparency and participation in compensation communication are crucial. A regular compensation interpretation mechanism should be established to enable R&D personnel to

clearly understand the value evaluation criteria and reward logic.

The implementation of an efficient compensation system cannot do without the nourishment of a supportive organizational culture. Enterprises should strive to build a research and development culture that “tolerates failure and values innovation” to provide flexibility for performance evaluation. Specifically, an innovation trial-and-error resource pool can be established to provide basic performance guarantees for exploratory failed R&D projects; At the same time, build knowledge-sharing communities and strengthen spiritual incentives through forms such as technology salons and patent walls. At the leadership level, tech managers need to transform into “empowering leaders” and be adept at using non-monetary incentives such as giving technology naming rights and providing academic exchange opportunities. In addition, the optimization of job design should not be overlooked. By implementing flexible working hours and decentralizing R&D autonomy, the perceived value of intrinsic compensation can be enhanced.

The implementation of a comprehensive compensation system requires the establishment of a scientific monitoring and adjustment mechanism. Enterprises should establish an evaluation system that includes key indicators such as attrition rate, patent output, project conversion rate, etc., to regularly assess the effectiveness of compensation. At the same time, establish a salary risk early warning mechanism, closely monitor changes in the salary competitiveness of core technical personnel, and prevent the risk of key talent loss. In terms of digital empowerment, a big data analysis platform for compensation can be introduced to track market compensation trends and internal equity status in real time. More importantly, establish a continuous optimization mechanism to collect feedback through employee satisfaction surveys, in-depth departure interviews, etc., to keep the compensation system capable of dynamic iteration. This spiral upward optimization cycle ensures that compensation management is always strategically coordinated with the organization’s development stage.

6. Conclusion

The incentive management of R&D personnel in high-tech enterprises is a systematic project involving economy, psychology and culture. The traditional salary model, due to its fragmentation and short-sightedness, has been unable to meet the demands of innovation-driven development. A comprehensive compensation system provides a framework solution to the incentive dilemma by integrating material and spiritual, individual and organizational, current and future elements. The analysis in this report indicates that the characteristics of compensation for R&D personnel require a system that is both competitive, flexible and growth-oriented; Management challenges call for scientific assessment and dynamic adaptation; Pain points should be addressed directly to demand mismatch and value recognition. The fit of total compensation is rooted in its systems thinking, while its operability depends on the closed-loop management of diagnosis, design, implementation, and optimization.

In the future, high-tech enterprises need to abandon the old notion that “compensation is cost” and instead view it as a core investment in their talent strategy. The key to success lies not only in technical design, but also in fostering an organizational ecosystem that supports innovation and tolerates failure. Only when the compensation system resonates with the R&D logic can enterprises truly unleash the surging energy of intellectual capital and move steadily and far in the wave of the knowledge economy.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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