Research on New Materials and Sustainable Development—Taking QTKJ as an Example

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Abstract. Sustainable development is a contemporary world issue, and it is of special importance to a big country like China. The coordination between the development of human civilization and economy and the sustainability of the earth's natural environment as well as the development of energy and resources is the key to the realization of sustainable development. New materials are the foundation and precursor of national economic and social development. The research and development of new materials can not only meet the growing needs of human beings, but also make various materials meet environmental load requirements and their processing, manufacturing and recycling technologies.

As the main force of new material research and development, QTKJ company has made important contributions to the national new material field in the development and research of new materials. Through the analysis of QTKJ company, this paper analyzes and evaluates the existing mechanisms, finds the problems, and proposes corresponding countermeasures for the existing problems. Provide a basis for new material enterprises to optimize their human resources strategy and achieve sustainable development.

1. Introduction
With the rapid development of knowledge economy and increasingly fierce market competition, the cornerstone to win the long-term development of enterprises is their products. Nowadays, the demand for products focuses more on energy saving, environmental protection, high quality and low price, all of which are carried by enterprise employees. For new materials companies, the enthusiasm and vitality of employees are the decisive force for sustainable development. A good and scientific incentive mechanism is conducive to improving the enthusiasm of employees, ensuring the stability of the workforce, guiding employees to identify with the corporate culture, making the development direction of employees and enterprises consistent, and accomplishing organizational goals. Enterprises should establish a set of scientific, effective and reasonable incentive mechanism for employees, and use a variety of incentive means to motivate employees to forge ahead continuously and improve enterprise benefits.

As QTKJ continues to grow and develop, the drawbacks of the existing employee incentive model are gradually revealed, hindering the company's operation and further development. Therefore, QTKJ must create a set of incentives suitable for the company based on the actual situation, attract and retain talents through various forms of incentives, improve the enthusiasm of employees, and ultimately achieve organizational goals.
2. **Journal reviewed**

This paper summarizes the research on motivation problems from three aspects: one is the nature and role of incentives; Second, the study of incentives; Third, research on how to motivate employees effectively.

2.1 **Research on the nature and role of incentives**

Jin Landan (2017) concluded that incentives can promote the work level and production enthusiasm of employees, and at the same time improve the cohesion of enterprises through incentives. Lin Lin (2017) proposed that incentives are not only rewards, but also punishments. It is a two-prong policy of "carrot and stick", and both should be strictly implemented to build up the prestige of enterprises.

2.2 **The study of incentives**

Pedro (2016) found the relationship between the dissemination of social norms of working hard (work ethics) in a certain society and the choice of corporate incentives, indicating that work ethics is related to the intensity of corporate incentives. Pauline Drury (2016) pointed out that some national organizations have a strong preference for specific incentive schemes and stressed the importance of institutional background and social norms to determine the incentive salary structure adopted by different countries.

2.3 **Research on how to motivate employees effectively**

Juan M. Elegido (2013) believes that loyal employees are more self-motivated, they pursue self-fulfillment needs, and motivate employees to be self-driven, not just material. Liangtie et al. (2015) found that compared with traditional incentives, corporate incentives have formed a closer relationship between employees and employers. Employees can be both employees and business owners; Owners mean that employees have the right to distribute corporate profits and ultimately improve the effectiveness of incentives.

To sum up, the research on employee motivation should not only learn the incentive theories at home and abroad, but also combine with the reality to conduct in-depth practical research on different industries and different types of enterprises. Specific problems should be analyzed to make the countermeasures targeted and operable.

3. **QTKJ's employee motivation status**

3.1 **Company Profile**

QTKJ Company is located in Changning District, Shanghai. It was approved by the Ministry of Industry and Information Technology and the Ministry of Environmental Protection on November 15, 2012. It has obtained the corresponding business license for new materials, engaged in the research and development of new materials and related products, and has specialized in new materials. The research laboratory is mainly engaged in the research and development, sales and processing of high-performance environmentally-friendly rubber and plastic sponge materials. The main products are chemically crosslinked polyethylene extruded foam (XPE), radiation crosslinked polyethylene extruded foam (IXPE, conductive foam), radiation crosslinked polypropylene extruded foam (IXPP), imported and replaced imported grade Ethylene propylene rubber sponge (EPDM), CR, etc. The management team of the company is mainly composed of senior staff from Hong Kong new materials. Adhering to the excellent management system of new materials research and development and production in Hong Kong, the business model can flexibly meet the needs of customers. No matter R&D, production or environmental monitoring, we are capable of providing solutions and providing the best quality services for customers.
3.2 QTKJ staff status
In order to more accurately understand QTKJ's current incentive status and existing problems, the author designed a questionnaire of employee incentive mechanism and distributed it to all employees of the company. The questionnaire is mainly divided into two parts: personal basic information and employee incentive mechanism. It mainly focuses on employees' opinions on the employee incentive mechanism and requires employees to fill in according to the actual situation. The total number of employees based on the company is 130. In this survey, 130 questionnaires were distributed, and a total of 124 questionnaires were collected, of which 120 were valid questionnaires, the recovery rate was 95%, and the effective rate was 92%.

From the age point of view, there are 76 people under the age of 25, accounting for 63%. It can be seen that the distribution of QTKJ employees is mostly under 25 years old. From the academic point of view, secondary school and below account for 7%, and junior colleges account for 50%. The undergraduate accounted for 35%, and the master's degree and above accounted for 8%. It can be seen that the employees with college degree and undergraduate degree have become the main force of the company's human resources team; from the perspective of service age, the number of people within 3 years is 81, accounting for 68%, this indicates that the employee's working age is mostly concentrated within 3 years; from the post point of view, the company's technical position has the largest proportion of personnel, accounting for 69%, indicating that the technical staff is the main component of QTKJ.

3.3 Current situation of employee motivation in QTKJ Company
With the development of QTKJ company, the disadvantages of the existing employee incentive mechanism are gradually revealed, especially the salary incentive, promotion incentive, cultural incentive and training incentive, which are difficult to play an effective incentive role. Therefore, the author will introduce the current incentive situation of the company from these four aspects.

In terms of salary incentive, QTKJ company mainly motivates its employees by implementing the post wage system. The total compensation is divided into basic salary, performance salary and welfare. Performance-related pay is paid according to the completion of the employee's work performance in that month. The higher the performance appraisal result is, the higher the performance-related pay will be. In terms of employee benefits, the company pays "five social insurance and one housing fund" for employees, and also sets supplementary benefits such as festival subsidies and birthday gifts. In terms of promotion incentive, QTKJ company mainly adopts the form of post promotion to motivate employees. Job promotion refers to the promotion of employees through job changes. However, the promotion opportunities within the company are not enough and there is a lack of scientific and reasonable standards. Promotion mainly relies on seniority and interpersonal relationship; In terms of cultural incentives, the company pays less attention to corporate culture. Employees do not agree with corporate culture and values, and they do not have a sense of belonging. In terms of training incentive, the staff training of QTKJ company is divided into pre-job training and in-job training. Pre-job training is mainly aimed at the new employees who have just entered the job, providing them with professional skills training. In-service training is aimed at regular employees, and the content of the training is mainly related to the company's professional knowledge, new rules and regulations, etc. The main purpose of training is to help employees master the knowledge and skills required by the post, so that employees can work efficiently on the post and achieve organizational goals. The training work is responsible by the training lecturer of the human resources department, who mainly trains the staff through lecturing. After the training is completed, a simple examination paper will be conducted. Assessment does not pass can continue to make up an examination, difficulty coefficient is not high.
4. QTKJ’s employee motivation problems

4.1 Low salary level
QTKJ company is located in Shanghai, salary and treatment in the same area of the competitiveness of the weak. Employees' efforts to the company are not properly rewarded, which leads to a negative sense of unfairness, which discourages employees' enthusiasm and triggers their sense of unfairness to the salary and welfare system, thus greatly reducing the effect of salary incentive. Low-paid employees may cut back on their investment, stay on the job, or even move to another company to gain a sense of fairness. The welfare incentives of QTKJ company are universal. In addition to the five social insurance and one housing fund stipulated by law, the occasional travel party is also universal. However, as a factor of corporate identity, universal welfare is difficult to play an incentive role.

4.2 Cultural incentives are weak
The incomplete construction of corporate culture, on the one hand, makes it difficult for the company to form an overall cohesive force; on the other hand, it makes it difficult for the organizational target and individual target to fit together. Employees are lack of work enthusiasm and their work enthusiasm is greatly reduced. QTKJ company has deficiencies in the construction of corporate culture, weak cultural incentives, and fails to form a common vision with employees. Some employees simply don't understand corporate culture and values, let alone identify with them. It is difficult for employees to feel love and belonging in the company, and they lack the sense of identity to the enterprise. They only work for personal rewards. In the long run, employees will not hesitate to leave as long as other companies offer higher salaries.

4.3 The training system is not sound
For new employees, training is the only way to get on the job. However, companies often only focus on the quantity and content of training, and after spoon-feeding education and training, ignore the actual effect of training. For old employees, the training does not fully understand the needs of employees, nor is it designed from the perspective of career development. It only focuses on improving the work skills of employees, ignores the needs of career development of employees, and does not fully play the role of training and incentive.

5. Countermeasure analysis of QTKJ company's employee incentive problem
By combining the current status of QTKJ's incentives and in-depth analysis of existing problems in the existing incentive mechanism, the author believes that the following measures can be used to optimize QTKJ’s employee incentive mechanism.

First of all, corporate social responsibility is reflected not only in the performance of shareholders, employees, consumers, communities, etc., but also in the protection of the environment, efficient use of resources and other important embodiment of social responsibility, and is also the core power of corporate sustainable development; Secondly, not only the enterprise itself, its stakeholders, and the government should organically combine to work together from the external environment to the internal root and then to the future of the enterprise, so as to jointly contribute to the implementation of corporate social responsibility and sustainable development.

5.1 Enhance the effectiveness of the compensation system
The establishment and improvement of salary incentive system is the key to improve employee satisfaction and employee work enthusiasm. From the external perspective, the company's compensation level should be compared with the industry, in the same industry to form a certain competitiveness. From the internal perspective, the company should establish a flexible salary structure, change the inherent salary structure with the same basic salary on the same post, and link the salary of employees on the same post with their contribution to the company. Performance is linked to income, so that each employee has a thorough understanding of the composition of performance pay,
improve the performance appraisal system, do a good job in the supervision of performance appraisal, and ensure that the results are fair and reasonable; Improve welfare treatment, design a variety of welfare projects. By enhancing the effectiveness of the compensation system and giving full play to the incentive role of compensation, the loyalty of employees can be improved, which is conducive to attracting and retaining talents.

5.2 Attach importance to cultural motivation
The existing corporate culture of QTKJ company fails to give full play to its incentive effect, and there is much room for improvement. Management should fully realize the importance of soft power of culture and strengthen the construction of corporate culture. The company should fully understand the needs of employees, create a corporate culture that meets the needs of employees, let the corporate values subtly influence the behavior of employees, let every employee from the heart recognize and integrate into the corporate culture, follow the corporate values, and keep moving forward to the development direction of the company. On the one hand, positive corporate culture can stimulate employees' work initiative, enthusiasm and creativity; on the other hand, it can also promote the operation and development of enterprises, which is crucial for the growth of enterprises.

5.3 Improve the training system
Talent is the most valuable resource for enterprises, and QTKJ should look at training in the long run. The difference between a person's special resources and other resources lies in the realization of people's concern for self-worth. Employees do not complete the scheduled work like a machine at work. Most employees pay more attention to personal development and hope to improve their abilities through training. There are many unreasonable places in the company's existing training system, ignoring the training needs of employees. The company shall, in light of the needs of its employees, formulate a scientific and reasonable training system based on the requirements of the posts and the actual conditions of the employees. After the training, feedback and evaluation of the training results should be made. On the one hand, training can improve the quality and ability of employees, and transform employees from general to qualified, from qualified to excellent. On the other hand, training, as a way of value dissemination, can deepen the corporate values into the hearts of employees, thus discovering that employees are deep. Hierarchical work potential to promote the improvement of corporate efficiency.

6. Conclusion
Economic globalization has brought new challenges and opportunities to enterprises' human resource management. Enterprises must adapt to the requirements of development, make changes based on actual conditions, and establish a scientific and reasonable employee incentive system. Human resources are the most precious resources of all resources. Enterprises must fully realize the role of talents, win talents, and retain talents. Scientific and reasonable employee incentive mechanism plays an extremely important role in the long-term sustainable development of enterprises and the development and allocation of human resources. Based on the survey data, this paper refers to a large number of documents, analyzes the current situation and problems of QTKJ's incentives, points out the shortcomings of the company's current employee incentive system, and proposes measures to optimize the employee incentive mechanism as follows: enhance the effectiveness of the compensation system; improve the promotion system; pay attention to cultural incentives; improve the training system. In the future employee incentive process, QTKJ should adhere to the principle of combining material incentives and spiritual incentives, and have an objective and rational understanding of employee incentive needs, and propose targeted and based on the complexity and practicality of the company's own employee incentives.
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