Research on the current situation of personnel turnover in small and medium-sized enterprises and countermeasures—take X technology company as an example

Hongkai Wang1,a,* Thitinant Wareewanich1,b

1 Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies, Rajamangala University of Technology Tawan-ok, Bangkok, Thailand
a email: 314328832@qq.com
b email: thitinant_wa@rmutto.ac.th
*corresponding author

Abstract: With the continuous acceleration of economic development, people's living standards continue to improve, the importance of food safety is also increasing, in this opportunity, many third-party testing small and medium-sized type of enterprises developed rapidly, and for this type of enterprise, the level of technical personnel directly determines the level of development of the enterprise, how can attract and retain excellent technical personnel become the key to the development of the management of such enterprises. Therefore, the study of third-party testing of small and medium-sized enterprises on the loss of technical personnel, through the investigation and analysis of research to find out the problems, and to address the problems put forward real-time operational measures, for the stability of the third-party small and medium-sized testing company's talent team and to achieve sustainable development of enterprises is of great significance. In this paper, we take X-Tech, a start-up company with food and Chinese herbal medicine testing as its main business, as an example, and in the process of its growing business and scale, some important problems have emerged that affect the company's development. In this context, this paper analyzes the causes of the company's personnel turnover and proposes targeted solutions for optimization.

Keywords: human resources, staff turnover, management optimization, technology companies

1. Introduction

In today's rapid economic development, the competition of traditional resources among enterprises is replaced by the competition of talents, and the key factor to improve the core competitiveness of enterprises is to introduce excellent talents and retain them. In the environment of China's economy maintaining stable growth in recent years, many small and medium-sized enterprises and private enterprises have sprung up, contributing to the economic development of China and solving the problem of employment to a large extent, and more A number of technology-based SMEs with core technologies and R&D capabilities have gradually emerged to take the leading position in certain industries. However, technology-based SMEs are also facing a difficult problem - serious brain drain and high turnover rate. Unlike large enterprises, SMEs have more unstable factors in organizational structure and development trajectory, and are often less mature in management than large enterprises, and lack a more scientific and comprehensive system in employee management, which, coupled with the youthfulness of employees and industry characteristics, makes the employee turnover problem very easy to emerge and become a major factor plaguing the development and growth of the company. X-Tech is a third-party testing company with food X technology company is a third-party testing enterprise with food inspection and testing qualification, the company is facing a serious problem of loss of basic technical personnel, which seriously affects the long-term development of the company. X technology company's basic technical testing personnel is the key to ensure the quality of the company's data products, is an important backbone of sustainable development of the enterprise, if the problem of continuous loss of technical personnel is not resolved in a timely manner, will not only seriously affect the company's reputation in the industry, but also affect the management of customer relations. It will also affect the management of customer relationships and ultimately determine whether the company can operate normally. Based on the previous
research, this paper analyzes the specific causes of staff turnover in X-technology company through questionnaires and other methods, and proposes strategies to deal with staff turnover in order to ensure the sustainable development of the company.

2. Current status of domestic and international research

2.1 Status of foreign research

Since the priority of economic development in foreign countries is much higher than in our country, foreign scholars have started to study the problem of staff turnover in various enterprises and companies earlier than in our country, since about the end of the 19th century. The American scholar Cook (1995) analyzed that the challenge and novelty of the new employee's first independent task and the degree of recognition of the work environment determine the development of the employee in the company, and if the employee's creativity declines or stagnates in the short term or does not receive sufficient motivation and clear planning, then it is very easy to seek a new work environment [1]. Japanese scholar Yoshiro Nakamatsu (2000) believes that only if the personal goals of employees and the goals of the company are fully aligned, the employees' personal potential will be given full scope, and a company that wants to improve the loyalty of its own employees needs to guide their personal values and personal interests to corporate values [2].

2.2 Current status of domestic research

The research on corporate turnover in China has been gradually developed by the attention of enterprises and academics only at the beginning of the reform and opening up. Based on some theories that have been developed in foreign countries on the study of corporate turnover, scholars in China began to study the problem of corporate turnover in China. Jiang Qiuxiang (2019) pointed out through a series of studies on personnel turnover in company A that the core of modern business management is the management of personnel, and if a company loses employees too fast, it affects not only the problem of the need to recruit new employees to hand over the job, but also directly affects the normal production and operation of an enterprise in serious cases [3]. Through analysis, Huang Wei (2021) argues that only a more complete performance management system can be constructed to manage technical employees scientifically and effectively, and to correctly assess the value of technical employees' contribution to the development of the enterprise, in order to stimulate the initiative, enthusiasm and creativity of technical employees [4].

2.3 A brief review of domestic and international studies

To sum up, many domestic and foreign experts and scholars have done a lot of analysis and research on the causes and countermeasures of personnel turnover in enterprises, and the research on human resource management and development is very broad in scope and different in perspective, and the research results are fruitful. Only in terms of the study of personnel turnover in small and medium-sized enterprises, the current research is mostly focused on the loss of middle and senior talents in enterprises, and there is less research on the technical personnel engaged in basic work in small and medium-sized enterprises. The author believes that with the increasing support for small and medium-sized technology enterprises, technology-intensive small and medium-sized enterprises can not only drive local economic development, but also provide strong technical support for the development of science and technology in China, and the basic technical employees of small and medium-sized enterprises are the key to the good operation, sustainable development and transformation and upgrading of these small and medium-sized enterprises, and how to retain the employees is the current How to retain the staff is the most urgent task facing the micro and small enterprises in China.

3. Research Methodology

This paper is mainly guided by the relevant theories in human resource management, through three methods: literature research, practical research and questionnaire survey, combined with work practice, using X technology company as a model, to continuously understand the causes of staff turnover in technology-based enterprises in depth, and put forward relevant solution strategies and safeguards.

Literature research method: The data literature analysis method is to select excellent papers, journals
and newspapers on laboratory management at home and abroad, use them as the theoretical basis, closely combine them with the actual situation of X Technology Company, put forward the problems, analyze the causes, develop effective ways, and give solutions with practical significance.

Interview method: Based on existing scientific theories and practical needs, we designed an outline and visited X-technology company's departing staff to conduct interviews, to understand the reasons why these departing staff chose to leave X-technology company, and to investigate the direction of their employment after leaving, so as to provide interview research data with reference value for analyzing the reasons of staff turnover in X-technology company.

Questionnaire survey method: The questionnaire survey method mainly refers to the design of relevant questionnaires to specifically investigate the research subjects, so as to obtain relevant research data and information. Specifically, according to the required research data, the current management status and the current core problems are grasped by distributing and collecting anonymous questionnaires to the laboratory technicians of X Technology Company, and by organizing and analyzing the data of the questionnaires.

4. X-Tech Company Profile

X Technologies was established in September 2019, and the company is located in W. It is the only third-party testing enterprise with food inspection and testing qualification in W. The company successfully passed the CMA (China Metrology Accreditation) review and obtained the CMA qualification in January 2020. At present, the company can test food, non-food and important material parameters up to more than 1,000, much higher than the same industry with the same scale of enterprises, for the company's market expansion increased a strong competitive edge. At this stage, X company laboratory area of about 3,000 square feet, a new ion chromatograph, atomic fluorescence and gas chromatography triple quadrupole tandem mass spectrometer, a total of more than 200 sets of various equipment and instruments. There are 23 technicians in the company, 6 of them are intermediate engineers or equivalent, and all of them have education level of college or above. The business covers food, water, wine, fertilizer and Chinese herbal medicine, etc. In order to further enhance the company's technical level and influence in the industry, the company successfully passed the CNAS on-site assessment in May 2021 and obtained the CNAS certificate in August 2021, formally entering the CNAS club, which upgraded the company's rank and influence by another ladder. The company has thus become a food testing organization that combines CMA, CATL and CNAS certifications in one. In general, the development of the company in the past two years is still in the period of survival and development, which is basically a technical accumulation and pavement for the company's business expansion. From the analysis of the above development process, the level of the company's business ability is basically moving forward steadily, and the company's market development is constantly injected with a strong heart.

4.1 Company personnel and structure composition

4.1.1 Company Organization

X technology company implements a flat organizational structure, under the management of the general manager set up relevant functions and business departments responsible for the implementation of the corresponding business promotion, the general manager is responsible for the overall control of the company's development strategy, unified coordination of the company's overall business work, under the sales department, finance department, testing center, technology department, comprehensive department a total of five functional departments, the coordination of all departments to complete the implementation of the company's business. (The organization chart of X Technologies is shown in Fig.1 below)
5. Analysis of the causes of technical staff turnover in X Technology Company

5.1 Analysis of external causes of the company

Industry-related companies or increased competitive pressure from peers is the most important company external reason for the problem of employee exodus at X Technologies. The entry of peer companies in the same area of business has had some impact on the development of X Technologies, for example, around the end of 2020, GT Testing has started to lay out the Fanchang District of W City to design the testing business of food and environment; and for Bozhou, the main business area of X Technologies' Chinese herbal medicine business, with the promulgation of the new version of the Pharmacopoeia, more and more institutions are competing to take the qualification of Chinese herbal medicine business, among which there is more X-Tech is a recently established company, and the source of business is not specific and stable, resulting in the income of technicians in corresponding positions is also unstable, and even sometimes cannot reach the average level of the same industry, as known from Herzberg's two-factor theory, when the salary level of employees, working environment, etc. Health care factors even when the state is excellent will not necessarily make employees particularly satisfied, may only make employees feel no dissatisfaction, but when these factors are missing, will certainly cause dissatisfaction of employees, resulting in the continuous loss of personnel of X technology company.

5.2 Analysis of internal causes

5.2.1 Unclear recruiter needs

Due to the company's cost control requirements, only when the business volume surges, the existing staff in a saturated state cannot complete the business volume received, or when there are personnel leaving the job vacancies will pass the staffing needs, which leads to the hasty recruitment of personnel, sometimes just to solve the problem at the time and hastily recruit personnel to the post, ignoring the applicability of the recruitment of personnel. From the Price model analysis, it is known that among the five factors that affect employee turnover, integration and basic communication environment will affect employee satisfaction, and recruitment without considering these factors will also bring instability for the normal development of subsequent employees [5]. For example, fresh graduates who have never had work experience cannot adapt to the pressure of testing positions after arrival, are not familiar with the process of testing positions, cannot work overtime to complete the system tasks, etc., and will automatically leave the job after about 1 month, and then need to recruit personnel, resulting in a huge waste of time and economic costs; in addition, only after the in-service personnel propose to leave the job before the recruitment, it does not guarantee that the in-service personnel will leave before Can be in place, but also cannot guarantee the recruitment of staff with the appropriate experience in the position, no skilled technical staff cannot guarantee the completion of the corresponding tasks within the specified time frame [6].

5.2.2 There are deficiencies in the compensation, benefits and performance appraisal system

After a three-month trial in 2020, X-Tech developed a performance system for laboratory personnel. The performance appraisal system includes performance appraisal calculation methods and quality appraisal methods, but after understanding the whole appraisal system, it is found that it does not include incentive methods for employees, which also explains the reason for low employee satisfaction in one aspect. At the same time, although the system mentions the need for expedited samples, but the performance of expedited samples is not explained, because expedited samples do not bring increased costs for testing, which on the one hand will lead to some customers will gradually increase the frequency
of urgent samples, but will not bring an increase in the income of the laboratory staff, which will lead to
the resistance of laboratory staff to expedited samples, and over time will cause the staff sales staff The
company’s satisfaction with the company is reduced. In terms of employee benefits, the basic salary given
to the technical staff is only at the middle level of the industry in the region, and compared with other
salaries in the same industry, even compared with other industries in the region, the grassroots positions
are not competitive, while the company gives a monthly subsidy of 400 yuan for foreign employees
living in rented accommodation in W, but there is no corresponding subsidy for local employees, no
time pay for overtime work, and no annual salary adjustment. There is no overtime pay for overtime
work, no annual salary adjustment, etc. The system is also a long-standing complaint.

5.2.3 Employee personal reasons

Of course, in addition to the company's reasons, a small number of X Tech's technical staff left the
company for personal reasons. For example, when conducting interviews with departing employees,
eight people chose to join the company because of its location. After the company moved from Mirror
Lake District to Eagle River District, certain employees changed their original commute because of the
change of the company's address, which increased a lot of transportation costs and time costs. Of course
there are more other factors leading to the departure, from the results of the interview on the reasons for
leaving, four people chose to leave because of marriage and childbirth or further study, such as fresh
graduates who have just stepped into the workplace, or colleagues with fewer years of experience, some
because of work-related discomfort, or in order to learn more professional knowledge, master more
professional skills, and look for better development, thus choosing to take off Further study, which is a
more positive factor leading to the loss of personnel.

6. Countermeasures to prevent personnel turnover

6.1 Improvement goals and principles of turnover countermeasures

6.1.1 Improvement Goals

On the basis of the analysis of the current human resources situation of X-Tech, we use in-depth
interviews, questionnaires and other methods to investigate the loss of personnel, current employees,
department heads and executives, collect their views and suggestions on the loss of professional and
technical personnel, and find the reasons from internal and external and individual employees, and
propose comprehensive, targeted and developmental measures to deal with the loss of professional and
technical personnel. We hope to effectively and quickly solve the problem of serious loss of professional
and technical personnel, maintain the stability and professionalism of the company's human resources,
improve the professionalism and high quality of product quality testing, maintain the corporate brand
image, and achieve sustainable development of the company.

6.1.2 Improvement Principles

Based on the improvement objectives and corporate strategy, this chapter proposes three major
principles for improvement of professional and technical personnel turnover, namely applicability,
feasibility and extensibility.

(1) Applicability principle. In order to quickly and accurately alleviate the loss of professional and
technical personnel in X-technology company, the development of countermeasures for improvement
should be combined with the actual situation of the company, combining the causes of loss with the actual
problem, and proposing targeted.

(2) The principle of feasibility. The improvement countermeasures for professional and technical
personnel turnover should be considered from two dimensions: enterprise and individual employees,
fully integrating individual career development goals with the strategic development goals of the
enterprise, and seeking the intersection of the two to design improvement programs [7]. The improvement
program should come from the actual problem and return to solving the actual problem, be strongly
operable, and be able to get the support of technical staff, and also meet the vision of the company
management.

(3) Principle of extensibility. The development of enterprises is in the unpredictable business
environment, business management is a long process of change, and human resources management in
this process of change in the problem of staff turnover is also a dynamic process of change, the problems
that arise are also numerous and changing, but basically grasp a major direction, therefore, the design of
improvement strategies to meet a basic principle, that is, both to consider. Therefore, the design of the improvement strategy should satisfy a basic principle, that is, it should consider both the present and the future, and the solution should have a certain extensibility to meet the development direction and strategy of the enterprise in the next few years, so as to keep up with the times [8].

6.2 Dynamic optimization of the recruitment management system according to the company’s needs

According to the company's development strategy and job demand dynamic adjustment and optimization of technical personnel recruitment management for X technology companies to effectively solve the problem of professional and technical personnel turnover is the first priority. The specific steps can be divided into the following steps. The first step is to establish a sense of professional talent reserve. The company should look inward, sort out the current situation of internal professional and technical talents, establish and improve the information database of professional and technical talents at all levels according to the industry and profession, grasp the surplus and shortage in a timely and dynamic manner, revitalize the existing talent reserves, build an exchange platform with the outside, collect and release relevant information in a timely manner, and promote the optimal allocation and reasonable flow of talents within the enterprise [9]. In the second step, before the recruitment of professional and technical personnel, the enterprise should train the recruiting personnel in the company, clarify the requirements of the positions for professional and technical personnel, specify what kind of talents are needed for each position, and develop a detailed system of personnel requirements and responsibilities for the positions. The third step is to establish a long-term mechanism for school-enterprise cooperation. In addition to social recruitment, should also actively carry out campus recruitment, and in carrying out campus recruitment should pay attention to in addition to meet the individual professional colleges and universities and the company's job counterparts, recruiters should also take into account the objective conditions of the X-technology company, the choice of target institutions to be careful, do not overly pursue the famous schools and give up some of the more development potential of the school. The fourth step, in addition to social recruitment and campus recruitment, can also refer to the recruitment methods of other companies, such as increasing the recruitment of veterans, due to the long-term experience of veterans in the army training, compared to ordinary people with outstanding team awareness and personal execution, personal psychological quality is also very superior, while for the organization has a strong recognition and loyalty [10].

6.3 Establishing a combined compensation and benefits system

The arrival of aging, high housing prices and children’s education make young technicians face great pressure of life, and their demands for work compensation will be higher and higher, and the simple salary system can hardly sustain them to face the pressure of life. X Tech urgently needs to establish a combined incentive salary and adopt various means to stimulate employees' work motivation. (1) In addition to providing technical staff with statutory benefits such as five insurance and one pension, consideration should also be given to providing young employees with additional incentive means such as family travel at public expense, child education allowance and house purchase subsidy. For the development of welfare policy, the company should consult and investigate with technical staff in advance, deeply understand the needs and hobbies of employees, and develop appropriate welfare policy according to the needs and preferences of most personnel so that this policy can be truly implemented to the ground [11]. (2) Enrich the spare time of technicians. The company can increase the funds to establish stress-reducing rooms and indoor activity rooms within the company to reduce the stress of employees and improve their overall quality through various sports. (3) Regularly organize group activities to increase the stickiness of employees with the company. For example, day trips are held in tourist attractions around the company to carry out various leisure and entertainment activities to meet the young people’s pursuit of happy hours [12]. Companies can choose to participate in a variety of welfare associations according to their local financial budgets, and they can even form their own welfare associations exclusively for their own companies.

6.4 Planning and improving the promotion mechanism oriented to value realization

There is an urgent need for X-Tech to expand promotion channels according to the characteristics of technicians in a targeted manner to maximize the needs of technicians. First, strengthen the construction of promotion positions within the company. According to the characteristics of the post settings in the professional and technical staff team, according to the growth of business to appropriately increase the team leadership positions, increase the number of professional and technical positions of the leadership
post, these positions for professional and technical staff is both fully competent and their inner expectations, the incentive effect of the post settings is much higher than the administrative section positions. Secondly, set up a professional targeted growth system to solve the problem of limited job development. For professional and technical personnel to set up position promotion mechanism according to working years, business ability, special contribution, etc., and at the same time, wages and benefits should also be improved with position promotion [13]. For the new technical employees can be based on the different working years of employees and the degree of professional skills mastery, after passing the assessment, the ranking is evaluated and given the corresponding ranking allowance according to the corresponding ranking sequence. Finally, the process management of competing for jobs is strictly fair and transparent, and the competing conditions and results are timely and accurately disclosed to maintain the fair right to know of employees. Optimize the evaluation time in the promotion system.

6.5 Build a corporate culture with humanistic care

6.5.1 Remodeling the concept of corporate culture with humanistic care

X Tech must pay attention to corporate culture, and should reshape the concept of corporate culture with humanistic care through various means to create a good atmosphere for personnel development. First of all, pay attention to the spiritual motivation of professional and technical personnel. Because of their diversified and high-level demand characteristics, professional and technical personnel value spiritual motivation more than pure material motivation in the selection of motivation factors. Enterprise managers should care more about and respect technical personnel, not only pay attention to the material security, promotion channels and their own development needs of old workers, but also pay close attention to the work adaptability, life needs, work pressure and growth needs of new employees. Secondly, establish and improve regular and long-lasting communication mechanism. x technology company should establish and implement formal and informal communication mechanisms, formal ones include regular work meetings, staff meetings, mass seminars, etc., while informal ones include various rich and diverse cultural, sports and recreational activities. Finally, establish an early warning mechanism for employees to leave. When employees put forward the demand for leaving, companies should pay more attention to the reasons for employees to leave, and truly understand the real reasons for employees to leave and their needs, and if the expectations of the departing employees can be met after assessment, they will try to retain the employees as much as possible, and if they cannot be retained, they should understand whether the employees are leaving because of their own reasons or because of the company's shortcomings, and if they are produced because of the company's shortcomings, they will be in the company If it is due to the company's shortcomings, the company should make up for it in time in the subsequent development to avoid causing employees to leave again due to these problems [14]

6.5.2 Strengthen the humanistic care for technicians

First of all, enhance the participation of technical staff in the major decisions of the company. When the company is making future development plans and strategic directions, various management rules and regulations, it should convene the staff representative assembly in advance and in time, and organize the election of technical staff representatives, so that they can really participate in the major decisions of the company on behalf of technical staff, so that they can feel the respect and trust of the company for themselves, and feel their master role in this enterprise, which will naturally promote their development in the enterprise motivation [15]. Second, give special technical personnel more care. Strengthen the care of special technical personnel, every holiday can be carried out on the technical personnel condolence activities, usually more to help the technical personnel with difficulties in life, regular organization of physical examination activities [16], active care for the health of technical personnel, for some people suffering from chronic diseases should be combined with the actual company to rationalize their positions, not to reduce their salary standards, to enhance their sense of well-being and sense of belonging. Finally, create a relaxed and good working environment. The technical testing environment of X-Tech should be re-optimized, and various green plants can be added in the working area to improve the air quality and ornamental degree of the office area, so as to enjoy the physical and mental health of the technicians. Emphasis on the work area safety hazards investigation, timely replacement of some of the aging products and equipment, especially the timely inspection and replacement of power plugs and drains, to create a safe working environment.
7. Conclusion

This paper discusses the problem of excessive staff turnover in X technology company and puts forward some suggestions for improvement, expecting similar domestic technology-based startups to strengthen the importance of technical employees in the early stage of company operation, establish a people-oriented corporate culture, provide reasonable development paths for technical employees to grow, strengthen employee communication, and enhance employees' sense of belonging to the company, with a view to employees taking the development in the company as On the other hand, there are also more shortcomings, mainly: first, the sample of interviews and questionnaires is limited, only within the scope of the company, which may cause imperfect information, resulting in the limitations of the analysis and conclusions; second, due to personal level and time constraints, not a professional researcher in human resource management, basic and theoretical knowledge accumulation Insufficient, the study of the problem only used a part of the research method, the research conclusions may not be comprehensive, later will apply the theory to practice, in practice continue to improve; at the same time, because most of the testing companies in the industry are small and medium-sized enterprises, the company is also more representative, while the development of the industry is in a period of vigorous rise, I hope that the study of this paper can cause the industry of this type of enterprises to pay attention to human resources management, for everyone's stable development. Third, because X technology company was established not long ago, for the development of the whole enterprise, it is still in the early stage of growth, and the flow of personnel may change after the company grows and expands, so the reference significance of the management of this enterprise after the maturity stage is yet to be studied, in which the views and countermeasures may need further improvement, I hope that in the process of further growth along with the company, we can continue the later research, for this kind of I hope that in the process of further growth with the company, we can continue the study, and conduct an in-depth discussion on the management of personnel and other issues in the stable development stage of the enterprise, and provide some reference for the management of other enterprises.

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