Analysis of the Problems and Countermeasures of Innovation Management of Small and Medium-sized Enterprises in China

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Abstract: Small and medium-sized enterprises (SMEs) can promote the development of the national economy and society. In the market, small and medium-sized enterprises can provide jobs, promote technological development and accelerate economic growth. With the development of big data and management information systems, small and medium-sized enterprises are facing severe tests. Innovation management is an implementable way to meet this test. Innovation management is an all-round innovation from the main technology, system and management idea of an enterprise. It not only integrates the external resources of the enterprise but also improves the vitality of the enterprise itself and the ability to deal with risks. Therefore, this paper analyzes the problems and countermeasures of innovation management in SMEs in China. By using the method of a literature review, this paper expounds the requirements, current situation, and solutions of the innovative management of Chinese small and medium-sized enterprises and finally draws the conclusion that SMEs should innovate organization and ideas, widen financing channels, and enhance the ability of independent innovation.

Keywords: innovation management, small and medium-sized enterprises, financing, conceptual and organizational innovation

1. Introduction

At present, innovation management has been applied in reality in some enterprises in China. Innovation management is not only about technology but also about the implementation of innovation at the level of organizational structure and even corporate strategy. Innovation management plays a quite important role in SMEs. Chen Shaojia believes that enterprise innovation management needs to integrate human, financial, material and other resources according to the business environment and market development needs, and improve enterprise management level through changing traditional concepts, integrating enterprise organizational structure, cultivating corporate culture, innovative management and other ways, so as to meet the ever-changing market demands [1]. Xiang Wei believes that innovation management requires SMEs to carry out business reorganization and process redesign within the organization through constant review of their own profit model, resource allocation, work flow and other important aspects, so as to find management methods to adapt to market demand and their own strategic development, and improve their competitiveness [2]. Based

on the existing literature and data, the author analyzes the problems and countermeasures of innovation management of SMEs in China. In terms of structure, this paper first explains the definition of innovation management, and then analyzes the market's two requirements for SMEs in innovation management. According to these two requirements, we find the shortcomings of SMEs in management concept, resource allocation and innovation ability. For these shortcomings, we finally give corresponding solutions.

2. Definition of Innovation Management

Innovation is the process of using relevant knowledge and information to create a new idea, something new or something old in a new form or combined in a new way, and applying this new creation to practice and the resulting new things and results. Innovation management is the management of innovation processes and results. Innovation includes conceptual innovation, institutional innovation, technological innovation, management innovation and organizational innovation. Among them, conceptual innovation is fundamental, institutional innovation is the guarantee, technological innovation and management innovation are the core, and organizational innovation is the lifeblood. Innovation management is the management of the process and results of these forms of innovation [3].

Professor Miao Mingjie pointed out in his book that innovation management is the whole process management that creates a new and more effective resource integration to achieve enterprise goals and responsibilities, and can also be the detailed management of new specific resource integration and goal setting." [4] He believes that the concept of enterprise innovation management can be subdivided into at least five situations: the proposal and effective implementation of new business ideas; the creation and effective operation of new organizational structures; new ways of managing; new management models; and institutional innovation. Innovative business philosophy: mainly enterprises strive to innovate their own business policies, strategies, and tactics, as well as marketing positioning, marketing methods, and capital operations [5].

3. The Requirements of Innovation Management for SMEs

3.1. Choosing Reasonable and Efficient Organizational Structure and Technological Methods

Companies that choose innovation management must first adapt their innovation strategy in the choice of organizational structure. Technological innovation is an effective way for SMEs to achieve independent innovation. At present, the cost control level of China's SMEs is low, and the independent research and development ability is not strong. Virtual flattening of organizations and collaboration between people and things are two innovative ways to adapt to new technologies in organizations [6]. The flexible application of these two innovations in SMEs would effectively improve the flexibility and stability of enterprises.

3.2. Selecting High-quality Talents and Establishing an Innovative Performance Management System

Through the study of enterprise management cases, it can be seen that if SMEs want to obtain core competitive advantages and healthy and sustainable development, then the effective support and key way of enterprises must be competitive products, which is also closely related to product research and development [7]. To achieve good product research and development, there must be a corresponding talent and performance management system. The innovation-oriented incentive mechanism can stimulate the innovation enthusiasm of innovative talents, and by improving the

evaluation and incentive mechanism of innovation performance, the innovation performance can be evaluated based on the comprehensive performance of the team, emphasizing the value creation of the innovation process so as to enhance the creative enthusiasm and cohesion of the innovation team.

4. Current Status of Innovation Management in SMEs

4.1. Lacking the Concepts of Management Appropriately

SMEs are limited by their own access to resources, simple organizational structures and a single knowledge background, and therefore lack a management concept [3]. This is mainly reflected in two aspects: First, SMEs put capital efficiency in a more important position than human resources, and modern OA, ERP and other management technologies are not fully utilized in enterprises. Second, the management decision-making system of SMEs is relatively single, which is seriously affected by personal orientation.

4.2. Lack of Resources

Key resources such as human resources, key funds, and social resources affect the development of the enterprise, and even play a milestone role in the entire lifeline of the enterprise. Some SMEs faced a lack of critical resources in the early stages of their establishment. Relatively large enterprises have obtained sufficient key resources through primitive accumulation, and SMEs need to use new methods and technologies to compete with these resources [8]. In terms of financing, many SMEs lack long-term development goals in the process of financing management and only want to rely on financing to obtain more development funds but lack the management of financing conditions. SMEs are often subject to conditions such as company scale, technical strength, capital, human resources, etc., and often lack good credit qualifications if they want to obtain loan financing from banks and other financial institutions, which makes it difficult to obtain loans. In addition, the financing model of SMEs is relatively simple. Due to the lack of advanced operation and management models, SMEs are less likely to choose to use commercial credit, the stock market, or financial leasing businesses for financing, and their analysis of various economic environments is less effective, according to investment funds. Moreover, China's commercial banks have high requirements for SMEs loan targets, and the prerequisite for successfully obtaining bank loans is not the project itself but the business owner's own ability to resist risks, so it is more difficult for SMEs to obtain loans [9].

4.3. Lack of Innovation Capabilities

In the process of development, some enterprises may recognize their shortcomings, but for more critical problems, they cannot innovatively find solutions that are more suitable for the development of their own enterprises. For example, at present, SMEs mainly have the business unit structure as the main organizational structure, but due to the interweaving of interpersonal networks, there may be dual leadership problems. In response to this problem, SMEs with relatively backward resources and technology may not be able to merge and integrate leadership power and work content in a short period of time.

5. Solutions and Responses to Innovation Management in SMEs

5.1. Innovating the Conceptual and Organizational Level

The basic point of the innovation concept layer is that SMEs should quickly try and make mistakes in the speed economy, and fundamentally realize the importance of strengthening the review of organizational decision-making. At the same time, it is necessary to quickly adjust corporate strategies according to the market and actively promote enterprise transformation. When the new crown epidemic broke out, some SMEs were on the verge of bankruptcy because they did not quickly change their business concepts and actively adjust their marketing strategies. This also shows that our SMEs should further promote innovation, accurately determine their target user groups, use the integration of resource advantages and the transformation of market value to innovate products, and make products and markets specialized, refined and expanded. In addition to the independent research and development of products, we should also adopt the introduction and grafting of corresponding means to promote innovation, meet the needs of the target market, and improve the core competitiveness of SMEs [2]. At the organizational level, SMEs should adopt a flexible and dynamic organizational structure. Specifically, it can integrate the responsibilities of the original departments and greatly reduce the number of departments, establish a professional working group, and establish a project team working mechanism [10].

5.2. Broadening Financing Channels and Establishing a Long-term Cooperation Mechanism Between Industry, Education and Research

Financing difficulties are a big problem faced by most SMEs. Companies should broaden their access to financing as much as possible and not just focus on banking and equity financing. Attending more project promotion meetings and conducting project roadshows will be of great help to SMEs in finding partners and financing. Production-university-research cooperative education is a mode of talent training that utilizes the educational resources and environment of school and society, integrates theoretical and practical teaching, and aims to cultivate innovative, application-oriented, and compound talents to meet the needs of social development [11]. This talent training mode will enable enterprises to introduce high-quality talents at a lower cost so as to achieve high-quality products.

5.3. Enhancing the Ability of Independent Innovation

Technological innovation is an effective way for SMEs to achieve independent innovation, at present, the cost control level of China's SMEs is low, independent research and development capabilities are not strong. Therefore, SMEs need to increase their investment in scientific and technological research and development, and cooperate with institutions with strong scientific research capabilities to develop products with independent intellectual property rights. Through the establishment of a long-term cooperation mechanism, we will jointly develop automated and intelligent production equipment through industry-university-research cooperation such as scientific research projects, improve raw material utilization and production efficiency, jointly develop new technologies and new products, and accelerate the transformation of scientific and technological achievements [12]. Huawei, for example, has previously partnered with the China Institute of Science and Technology to establish a Π Lab, which creates innovations in chip algorithms, control, AI, and big data. If they succeed, it will result in a very big technological breakthrough and huge profits for Huawei.

6. Conclusion

In the face of an increasingly complex market environment, SMEs want to occupy a place in the fierce competition; it is necessary to formulate corresponding countermeasures for the problems in management and constantly innovate the management mode to optimize the management effect. Only in this way is it conducive to the long-term stable development of enterprises. As for our country, when choosing innovation management, SMEs must first choose a reasonable, efficient, and adaptable organizational structure, then choose high-quality personnel to establish an innovative performance management system. However, the current SMEs cannot meet these two requirements. Their problems are a lack of appropriate management concepts, a lack of resources, and a lack of

independent innovation ability. The solutions are: First of all, SMEs should innovate at the concept and organization levels. This requires that the decision-makers of enterprises have certain innovative thinking and innovative ability. Second, they should expand financing channels and establish longterm cooperation mechanisms between enterprises, universities, and research institutes. Finally, they should cooperate more with independent innovation teams to enhance their own innovation abilities. According to the above research, this paper still has some shortcomings. Although this article lists the common problems and solutions of most SMEs, it is not precise to the industry and enterprise. In future research, the author will first take the industry as the standard, select typical enterprises in specific industries, and further study the problems and solutions in various industries and enterprises.

Acknowledgement

First of all, I would like to thank my advisors for their hard work, which really helped me a lot on my academic path. Secondly, I would like to sincerely thank my classmates and friends for their support and encouragement along the way, which have brought me confidence and joy. In the days to come, I will continue to work hard to help my classmates, the community, and devote myself to academics.

References

- [1] Chen Shaojia. Innovative strategies and future development trends of SME management under the new normal [J]. Chinese & Foreign Corporate Culture, (10):90-92. (2022).
- [2] Xiang Wei, Su Fajin . Talking about the innovation management of small and medium-sized enterprises [J]. Chinese Foreign Entrepreneurs, (36):15. (2019).
- [3] Peng Jin. Discussion on innovation management of small and medium-sized enterprises [J]. Modern Business Trade Industry, 23(19):37. (2011).
- [4] Miao Mingjie. Wisdom beyond the best: Innovation in modern business management. Shanghai Translation Publishing House. (1994).
- [5] Pan Aihua. Research on the management innovation ability of small and medium-sized enterprises [J]. China Business & Trade, (25):143-144. (2011).
- [6] Guo Xiaofang, Liu Rong, Ma Xiaoyu. Research on organizational structure optimization in the era of "big data"[J]. China Market, (02):115-116. (2019).
- [7] Mengbin, Li Dandan, Yan Shuailing, Liwei, Xvebin, Zhang Limin. Research on the mechanism of innovation management capability elements of small and medium-sized enterprises on product research and development [J]. Sci-Tech & Development of Enterprise, (11):27-29. (2020).
- [8] Ma Dechao, Fu Keli, Tian Yongzhen, Explore the problems and countermeasures of innovation management of small and medium-sized enterprises in China [J]. Modern Business, (11):151-152. (2020).
- [9] Fan Weijun. Analysis of innovation management of small and medium-sized enterprises [J]. Marketing Management Review (Late issue), (04):16. (2017).
- [10] Yang Quanwen. Reform of performance evaluation system based on organizational structure optimization [J]. Commercial Accounting, (03):80-82. (2023).
- [11] Wang Genjie. Exploration and practice of the construction of long-term mechanism of industry-university-research cooperative education take Anhui Sanlian College as an example [J]. The Guide of Science & Education (Late issue), (18):1-2. (2019).
- [12] Zhai Hongyu, Ren Lin. Research on innovation management optimization of SMEs under the background of digital transformation [J]. Market Weekly, 34(08):18-19+49. (2021).