Entrepreneurial spirit, organizational ethos and employee creativity: Basis for positive organizational climate

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Received: 28 October 2024 Available Online: 6 December 2024 **Revised**: 25 November 2024 **DOI**: 10.5861/ijrsm.2024.1321

Accepted: 6 December 2024

International Journal of Research Studies in Management

Name 1 Journal of April 2012

ISSN: 2243-7770 Online ISSN: 2243-7789

OPEN ACCESS

Abstract

In the highly competitive environment of pharmaceutical enterprises, the coordinated role of innovation drive and organizational ethos is crucial. The entrepreneurial spirit of a company not only affects its market position but also profoundly impacts employee creativity, the harmony of organizational culture, and the company's long-term development. This study focuses on pharmaceutical enterprises, exploring how a company's entrepreneurial spirit, through the multidimensional operations of innovation drive, resource coordination, risk management, and leadership, influences employee creativity. Furthermore, the study analyzes how organizational ethos moderates the relationship between entrepreneurial spirit and employee creativity, aiming to provide an effective management framework that enhances employee efficiency and innovation capacity. The main objective of this research is to analyze the relationship between four core dimensions of entrepreneurial spirit—innovation drive, resource coordination, risk management, and leadership—and various aspects of employee creativity (self-efficacy, identity, and role perception). Additionally, the study examines the moderating effect of organizational ethos, including decision-making processes, shared values, and stakeholder management, on the relationship between entrepreneurial spirit and employee creativity, constructing a theoretical framework of Positive Organizational Climate that effectively enhances employee engagement. This research adopts a quantitative approach, collecting data from 407 employees across five pharmaceutical enterprises in Yunnan Province through a questionnaire survey. The respondents span multiple levels, from frontline employees to management, and come from diverse backgrounds. A total of 50 questions across 10 dimensions of the three variables were quantified, and descriptive statistics, correlation analysis, and regression analysis were employed to process the data, revealing the interrelationships among the various dimensions. Currently, while there is abundant research on the relationship between entrepreneurial spirit and employee creativity, much of it focuses on a single dimension. There is limited literature on the combined effects of multidimensional factors such as innovation drive, leadership, resource coordination, and risk management on employee creativity. Moreover, the moderating role of organizational ethos in the relationship

between entrepreneurial spirit and employee creativity has not been thoroughly explored. To address this gap, this study conducts a systematic analysis to fill the research void and provides suggestions for future research directions. Through descriptive statistics and correlation analysis, the study reveals a significant positive correlation between entrepreneurial spirit, organizational ethos, and employee creativity. In particular, the positive correlation between innovation drive and employee self-efficacy, identity, and role perception is the most prominent. This indicates that when a company has a strong innovation culture, employees are more likely to demonstrate high levels of creativity and enthusiasm. Effective resource coordination and leadership also enhance a company's decision-making processes, shared values, and stakeholder management abilities, further promoting organizational harmony and innovation. The study also finds that organizational ethos plays a key moderating role in the relationship between entrepreneurial spirit and employee creativity. Specifically, the transparency of decision-making processes and the openness of shared values significantly enhance employee creativity. Additionally, stakeholder management fosters employees' trust and sense of belonging, further driving innovation and organizational harmony within the company. Therefore, in the pursuit of innovation, companies must focus on shaping their organizational ethos to ensure that the entrepreneurial spirit can fully exert its positive influence on employee creativity. Based on these findings, the study proposes an innovative Positive Organizational Climate framework to enhance employee creativity. This framework not only provides theoretical support for corporate managers but also offers strategic suggestions for pharmaceutical enterprises in practical management. By strengthening the impact of entrepreneurial spirit and organizational ethos on employee creativity, this framework offers a new pathway for organizations to build a Positive Organizational Climate that effectively boosts employee creativity in the era of Industry 4.0.

Keywords: entrepreneurial spirit, organizational ethos, employee creativity, positive organizational climate

Entrepreneurial spirit, organizational ethos and employee creativity: Basis for positive organizational climate

1. Introduction

In the field of the world's pharmaceutical industry, after more than 40 years of development, China's pharmaceutical industry is currently in the accelerated stage of integration into the world, and has gradually realized the transformation from a follower of the low-end of the global industrial chain to an innovation driver. The achievements were made possible by policy support, rapid breakthroughs in scientific and technological innovation, and deepening international cooperation. In emerging fields such as bio-medicine and gene therapy, Chinese pharmaceutical companies have shown strong development momentum, reshaping and promoting the pattern of the world pharmaceutical market, and China's voice in the world pharmaceutical industry is gradually increasing.

In recent years, the growth momentum of China's pharmaceutical industry has been strong, and the investment in the research and development of new special drugs has continued to increase, and notable progress has been made in the fields of biotechnology and innovative drugs. Government funding and policy reform support has accelerated the research and development of new special drugs and market access cycle, and enterprises have made dual efforts in adapting to market demand and enhancing international competitiveness. Coupled with the application of new technologies and the continuous optimization of the medical system, there will be more and more Chinese pharmaceutical companies on the international stage, and the status of Chinese pharmaceutical companies in the industry will also be improved. Although there is still a certain gap between Chinese pharmaceutical enterprises and Western developed countries in the high-tech field, they have made remarkable achievements in the international market. The lack of corresponding technology accumulation has become a bottleneck for enterprises to enhance their competitiveness, especially in the research and development of innovative drugs and cutting-edge biotechnology. One of the reasons why Chinese companies face many challenges in expanding in the high-end pharmaceutical market is the increasing competition in the global pharmaceutical market. With the improvement of China's pharmaceutical product supply capacity and the increase of the world's demand for Chinese pharmaceutical products, Chinese enterprises have great potential for development. What provides important opportunities for Chinese enterprises is international cooperation, and the introduction of advanced technology and management experience is essential to cooperate with multinational pharmaceutical giants, which can broaden the sales channels and share of products in the global market. The cooperation has enhanced the R&D capabilities of Chinese enterprises and the influence of Chinese brands in the international market.

It can be predicted that policy support and scientific and technological innovation will be the driving force for the development of China's pharmaceutical industry, and Chinese pharmaceutical companies will continue to make major breakthroughs in emerging fields such as bio-medicine, gene editing and artificial intelligence. In addition, Chinese pharmaceutical companies will continue to deepen international cooperation, actively participate in the construction of global pharmaceutical supply chains, industrial chains and market chains, and increase their products' global market share. Chinese pharmaceutical enterprises continue to make efforts in strengthening technological innovation and globalization strategic layout, and are expected to become an important participant in the global pharmaceutical industry. At the same time, in the process of moving toward high-end and globalization, China's pharmaceutical industry will contribute more Chinese wisdom and solutions to the human health community, and we will move forward together.

Yunnan is located in the multicultural convergence area of South Asia, known as the kingdom of animals and plants. Local pharmaceutical companies have natural advantages based on the use of vast ecological resources and Chinese medicinal materials. Yunnan is rich in medicinal plant resources and has developed into

an important base for the supply of Chinese medicinal materials at home and abroad. Its unique location and ecological environment provide unique conditions for the cultivation and research of Chinese medicinal materials. Yunnan pharmaceutical enterprises make reasonable use of these natural resources to develop traditional Chinese medicine products with unique efficacy, such as Yunyao, Yun37 and Yunhua, and so on, which are very well-known at home and abroad. Relying on traditional culture, Yunnan pharmaceutical enterprises have made a good attempt to combine traditional knowledge with modern science and technology, and high-quality Chinese medicine products have emerged in the international market. Yunnan's pharmaceutical industry is taking advantage of the widespread popularity of traditional Chinese medicine and growing medical demand to expand market share, in Southeast Asia, Europe and North America market influence has begun to emerge. Yunnan pharmaceutical industry is in the process of technological innovation and industrial upgrading and transformation. Under the promotion of the government's "14th Five-Year Plan", enterprises have increased research and development funds, and new special drugs and innovative drugs continue to win the market, highlighting the strong driving force of technological innovation. In order to cope with the fierce international competition and adapt to the change of national pharmaceutical policy, Yunnan pharmaceutical enterprises constantly improve product quality standards to cope with the international market regulation. In deepening the market strategy, optimizing the product structure and promoting the globalization strategy of the development road, Yunnan pharmaceutical enterprises have a long way to go. Fully mobilize all elements conducive to innovation to promote the standardization and globalization of traditional Chinese medicine products, Yunnan pharmaceutical industry has great prospects, and will become a new force that cannot be ignored in China and even the world pharmaceutical industry.

In the new cycle of China's pharmaceutical industry full of opportunities and challenges, as well as one of the important components of the industry, Yunnan pharmaceutical enterprises also have a unique position and advantages in the global pharmaceutical industry. In the wave of actively responding to the reform of the market system and mechanism, the influence of entrepreneurial spirit and organizational ethos should be fully exerted to promote these enterprises to obtain the best economic and social benefits, and contribute wisdom and strength to the sustainable development of China's pharmaceutical industry. Under this unique background, the synergistic play of entrepreneurial spirit and organizational ethos is more important. To a certain extent, the core driving force for the sustainable development of Yunnan's pharmaceutical industry is these unique spirits. Show innovative thinking, risk-taking spirit and forward-looking decision-making ability, which is often reflected in the entrepreneurial spirit of senior managers. Leaders make decisive decisions based on this because they have a keen market insight and accurate prediction of the future direction of the industry. Because of this, leaders need to continuously explore new business models and technological innovation to ensure that they can continuously improve the competitive advantage of enterprises. In an organizational dimension, it is important to cultivate innovation culture and encourage employees to actively participate in innovation. Companies should develop innovation reward programs to encourage employees to come up with new ideas and provide them with training and resources to support innovative activities. To ensure the utilization of knowledge and experience in different fields, collaborative and cross-departmental teams must be established to accelerate the innovation process.

Focus on exploring how entrepreneurial spirit and organizational ethos can work together to enhance employee creativity and how to build a positive organizational climate. In a complex and dynamic business environment, organizations face an increasing number of uncertain challenges and opportunities. In this context, the entrepreneurial spirit is needed not only in new companies, but also as an important driving factor in scale enterprises and other organizations. The organizational ethos - which places great emphasis on open communication, teamwork and shared vision mission- is very important to fully stimulate employee creativity. How the above factors promote each other and how to affect the overall performance and atmosphere of the organization will be deeply discussed and studied in this paper.

In management practice, there are usually three factors related to organizational success and continuous innovation, namely entrepreneurial spirit, organizational ethos and employee creativity. It is crucial for the three variables to cooperate with each other to form a positive organizational climate, in which employees' creative

thinking and behaviors are usually generated. This study focuses on the relationship between entrepreneurial spirit, organizational ethos and employee creativity. Study how the three variables interact with each other to build and maintain a positive organizational climate. The relationship between the three variables is very close and highly complementary, and the output result is to jointly promote organizational innovation and sustainable development, and achieve a positive atmosphere in the organization.

The driving force of organizational reform and innovation is entrepreneurial spirit. The development of strategic direction, encouraging employees to find market opportunities, innovative product solutions, encouraging employees to take the initiative to take responsibility and actively look for breakthroughs, etc., are inseparable from the guidance of entrepreneurial spirit. Innovation drive alone is not enough to sustain the long-term development of an organization. organizational ethos plays a bridging role by embedding innovation practice into organizational culture and integrating enterprise innovation and employee self-value with organizational vision. It is both a key link between entrepreneurial spirit and employee creativity, and an important factor in providing cultural and structural support for innovation.

Self-empowerment enables employees to unlock new potential, and innovation results mainly come from employee creativity. To transform the new thinking of entrepreneurial spirit into actual results and enhance the market adaptability and sustainable competitiveness of enterprises is the concrete manifestation of this kind of creativity. The relationship between the three variables is a dynamic synergistic effect. The entrepreneurial spirit is the driving force for employee creativity, while the organizational ethos is the organizational Ethos that integrates innovation into corporate culture and sustainability, and puts innovative ideas into action and turns them into actual value. organizational ethos plays a regulating, supporting and lubricant role in the three variables, connecting enterprises and employees, and ensuring the long-term stable development of enterprises in the changeable market.

Previous studies have shown that entrepreneurial spirit and organizational ethos play a very important role in stimulating employee creativity and shaping a positive organizational climate. The research of Kuratko et. al., (2020) proposes the irreplaceable role of entrepreneurial spirit in promoting organizational innovation and employee participation. The above findings confirm the need for research to promote a positive, innovative and productive work environment and how these factors play a role in different types of organizations. Through the research of this project, it can provide useful theoretical viewpoints for managers and help organizations find more effective ways to stimulate the potential of employees in sustainable development. New research shows that complex synergistic relationships are characteristic of these three variables. Enhancing employee creativity can be achieved through a positive organizational climate, strengthening the positive organizational climate can still be enhanced by a strong entrepreneurial spirit (Mahbobkhah et al., 2019). The game cultivates a positive organizational climate and promotes employee creativity. The managers' spiritual leadership style has irreplaceable characteristics.

The analysis shows that the three variables, entrepreneurial spirit, organizational ethos and employee creativity, together play different and important roles in a positive organizational climate. In order to effectively stimulate the creative potential of employees to promote organizational innovation and development, it is urgent to sort out the relationship between these three variables. Integrating the above three variables into a framework system, discussing the interaction mechanism of the three variables and exerting mutual influence on organizational climate is the novelty of this study. In order to fill in the gaps of existing research, the research method will adopt a cross-industry approach to investigate the universality and particularity of the three variables in different types of organizations, so as to provide new ideas for future relevant theoretical research. In-depth exploration of the synergistic effect principle between the three key variables, namely entrepreneurial spirit, organizational ethos and employee creativity, combing out and discovering the mechanism of action between them. Summarizing and jointly shaping a positive organizational climate is the core of this research. What has a decisive impact on the success of the organization and the adaptability of the market is the innovative thinking that this atmosphere inspires in the employees. To explore the underlying mechanism of organizational success,

it is inevitable to clarify the complex relationship between three variables.

This research is interested in understanding the mechanism of organizational behavior and employee potential stimulation. Organizations should take the initiative to adapt to the complex and changing market environment. What matters most to organizations is how to maximize employee creativity and motivation through effective management and organizational cultural practices. The direct application and impact exploration of management practice is also one of the attractions of this research. Through in-depth analysis of the interaction between entrepreneurial spirit, organizational ethos and employee creativity, we can provide specific strategies for organizations, promote effective team cooperation, and create stronger innovation ability and higher employee participation. Improve the overall performance of the organization and gain an advantage in the competitive market. In addition, this research focuses on how to promote social and environmental sustainability by enhancing the entrepreneurial spirit and optimizing the organizational climate. In the context of globalization and technological progress, organizations need to not only pursue economic benefits, but also consider their long-term impact on society and the environment. This research provides a perspective to help organizations achieve social responsibility and environmental sustainability while pursuing their economic goals.

Combined with the existing research results, this study has many advantages. In this paper, the relationship between entrepreneurial spirit, organizational ethos and employee creativity is deeply discussed, which fills many shortcomings of existing research. Existing literature is usually limited to the single-dimensional analysis of entrepreneurial spirit (such as innovation or leadership), while this paper adopts a multi-dimensional perspective to systematically study how innovation drive, risk management, resource coordination and leadership work together to promote internal innovation. This diversified analysis makes up for the limitation of the results caused by the single dimension study in the past.

Another important gap is that although the role of organizational ethos in corporate culture has been widely discussed, most studies regard it as a static variable, ignoring its dynamic regulating role between entrepreneurial spirit and employee creativity. This study innovatively reveals how shared values, transparent decision-making, and stakeholder management play a key moderating role in driving employee innovation, deepening our understanding of the dynamic role of organizational culture in business management. In addition, although the existing research focuses on the influence of entrepreneurial spirit on organizational innovation, most of them focus on the enterprise level and lack in-depth discussion on individual creativity of employees. This paper analyzes micro-dimensions such as employee self-efficacy, role cognition and identity, and clarifies how these individual factors interact with entrepreneurial spirit in the organizational environment. Through this analysis, the paper reveals how employee creativity is translated into enterprise innovation results, contributing a new perspective to the research at the individual level.

This study also breaks through the fragmented research on positive organizational climate in the existing literature and proposes a complete management framework. It shows the interactive relationship between entrepreneurial spirit, organizational ethos and employee creativity. This framework not only strengthens the systematization of theoretical model, but also provides strategic guidance for enterprise management practice and makes up for the lack of disconnection between theory and practice. Finally, the research is carried out in the context of pharmaceutical industry, and the research path of cross-industry verification is proposed. This provides inspiration for the expansion of dynamic research in different cultural and industrial environments in the future, and improves the universality and breadth of the research framework. Therefore, this paper not only deepens the existing cognition in theoretical construction, but also provides more comprehensive guidance for the practice of enterprise innovation management. This study stems from a deep insight into the need for corporate innovation and cultural change, as well as the urgent need to build a systematic management framework. With the acceleration of globalization and the increasing uncertainty of the market environment, enterprises not only need to continue to innovate to maintain market competitiveness, but also need to ensure internal coordination and long-term development through cultural construction. Although existing research has explored the roles of entrepreneurial spirit, organizational ethos and employee creativity, however, there is a lack

of comprehensive analysis of how the three work together to build a positive organizational climate. Therefore, this study tries to fill the gap between theory and practice.

These three variables are chosen as the core of the research, not only because of their fundamental role in promoting the innovation and development of enterprises, but also because they are interdependent and inseparable in the dynamic market environment. Entrepreneurial Spirit drives innovation and change, so that enterprises can find new opportunities in the risk; organizational ethos enhances internal cohesion through shared values and transparent decision-making to ensure the implementation of innovation strategies. Employee creativity translates into concrete innovations that drive organizations to remain competitive in a rapidly changing marketplace. The purpose of this paper is to explore how the three interact with each other, form a strong force to promote the development of enterprises, and provide innovative practice paths for enterprises.

The pharmaceutical industry was chosen as the background for the study based on the unique challenges and opportunities it faces in promoting the modernization and internationalization of TCM. With the increasing influence of Chinese pharmaceutical enterprises in domestic and foreign markets, how to integrate traditional knowledge and modern technology through management innovation has become an urgent problem for enterprises to solve. This study not only aims to reveal how these variables function in the innovation practices of pharmaceutical companies, but also hopes to provide a practice paradigm for other industries when facing similar challenges. Another core reason for writing this thesis is to explore the integration of theoretical innovation and practical application. Through the construction of the system framework, this study tries to solve the disconnection between theory and practice, and find the management direction for enterprises in the uncertainty. At the same time, this study aims to provide a scalable model for future research, lay a foundation for future research, and encourage further verification in cross-industry and cross-cultural backgrounds, so as to enhance the universality and application value of research results.

To sum up, this paper not only expands the research boundaries of entrepreneurial spirit, organizational ethos and employee creativity at the theoretical level, but also provides guidance for enterprise managers at the practical level. The goal of this paper is to lay a solid foundation for enterprises to cope with market changes and achieve sustainable development through the triple exploration of innovation theory, practice demonstration and industry application. This systematic research will not only help fill gaps in the existing literature, but will also drive long-term competitiveness and resilience in the more challenging environments of the future.

Objectives of the Study - This study aimed to explore the causal relationship between entrepreneurial spirit, organizational ethos and employee creativity in pharmaceutical enterprise and provide a basis for building a positive organizational climate management framework. Specifically, the study described the entrepreneurial spirit of employees in terms of innovation drive, risk management, resource coordination and leadership; identified their organizational ethos in terms of decision-making process, shared values and stakeholders management; assessed employee creativity in terms of self- efficacy, identity and role perception; tested the significant relationship between entrepreneurial spirit, organizational ethos and employee creativity; and developed an active organizational climate framework.

2. Methods

Research Design - Descriptive investigation method is a general project research method, which conducts investigation and research on the status quo faced with different factors and aspects, systematically collects and records the data, and focuses on the overall description of the static characteristics of objective facts to find the associated factors, but cannot determine the causal relationship of variables, but the research objectives are more clear and the problems are more specific. Questionnaires and interviews are often used. This method aims to objectively and accurately reflect the "what" phenomenon, and is not suitable for explaining the "why" or predicting future results. By focusing on the three key dimensions of entrepreneurial spirit, organizational ethos and employee creativity, the positive organizational climate is systematically evaluated and measured, which is

suitable for descriptive survey methods. Firms shape and influence these variables on the basis of these dimensions to determine, in order to help researchers understand and identify the dynamic key drivers between the three dimensions. Correlation analysis is used to explore the relationship between the three variables in order to improve the accuracy of the analysis. Further discuss how three variables influence positive organizational climate through independent or coordinated movements. The result is a Framework for Positive Organizational Climate for employee engagement and performance.

Participants of the Study - Respondents were recruited from five major pharmaceutical companies registered in the high-tech development Zone of Kunming, Yunnan Province, China, and selected employees who fit the interview survey. Of the 420 interview lists expected to be provided, regular employees, including foreigners, were eligible to participate. However, employees from foreign state institutions and irregular workers were excluded from this study, as their employment status did not align with the focus on stable industrial relations. Ultimately, only 407 valid responses were included in the analysis, resulting in a 96.90% response rate. The missing responses were attributed to some employees being on maternity, paternity, or sick leave, while others declined to participate in the survey. The study participants were drawn from the top five pharmaceutical companies in Yunnan Province. A total of 420 questionnaires were distributed, and 407 valid responses were obtained. The distribution of responses was as follows: 87 responses from Company A (accounting for 21.40%), and 80 responses each from Companies B, C, D, and E (each representing 19.65% of the total responses). Company A is a listed pharmaceutical group with mixed ownership in Yunnan Province. Company B is a private listed pharmaceutical enterprise based in Kunming. Company C operates as a joint-stock pharmaceutical enterprise, also located in Kunming. Company D is a joint-stock listed pharmaceutical group, while Company E is the sole biological pharmaceutical factory in Yunnan Province. The respondents were asked to complete the questionnaire based on their company's business practices in terms of entrepreneurial spirit, organizational ethos, and employee creativity. They were instructed to select answers that reflected the specific conditions and dynamics of their respective organizations, ensuring that their responses accurately matched the degree to which the questions aligned with their company's operational environment.

Instruments of the Study - This study is based on a case study of five pharmaceutical companies in Yunnan Province, China aiming to explore the impact of entrepreneurial spirit, organizational ethos, and employee creativity on the positive organizational climate. The content of the questionnaires was integrated and adjusted according to the characteristics of the pharmaceutical industry and the actual management practices, ensuring better alignment with the participants' characteristics and the operational realities of the industry.

The questionnaire consists of three parts. Part 1 is about entrepreneurial spirit which includes four subcategories: Innovation drive, risk management, resource coordination, and leadership, with a total of 20 questions. The purpose is to identify key factors affecting entrepreneurial spirit and explore how it drives innovation within enterprises. Part 2 is about organizational ethos which is divided into three subcategories, decision-making process, shared values, and stakeholder management, comprising 15 questions. The purpose is to collect data on factors influencing organizational ethos and analyze how organizational culture enhances employee engagement and cohesion. Part 3 is about Employee creativity which contains three subcategories: self-efficacy, identity, and role perception, with 15 questions in total purpose to evaluate the factors influencing employee creativity and analyze their contribution to innovation outcomes. Each question is assigned weights from 1 to 4, based on importance, with corresponding verbal descriptions provided to help participants understand the meaning of each option. The scoring system is as follows: (4)Strongly Agree, (3)Agree, (2)Disagree, and (1)Strongly Disagree.

To enhance the reliability, consistency, and stability of the data, a combination of online and offline survey methods was employed, with a total of 27 valid respondents. The questionnaire was designed under the theme 'Entrepreneurial Spirit, Organizational Ethos, and Employee Creativity: Basis for Positive Organizational Climate' to ensure the accuracy and scientific validity of the data through reliability testing:

Table AEntrepreneurial Spirit, Organizational Ethos and Employee Creativity: Basis for Positive Organizational Climate

Variable	Cronbach Alpha	Remarks
1A. Innovation Drive	0.777	Acceptable
1B. Risk Management	0.743	Acceptable
1C. Resource Coordination	0.738	Acceptable
1D. Leadership	0.709	Acceptable
2A. Decision Making Process	0.715	Acceptable
2B. Shared Values	0.772	Acceptable
2C. Stakeholder's Management	0.731	Acceptable
3A. Self-Efficacy	0.748	Acceptable
3B. Identity	0.739	Acceptable
3C. Role Perception	0.731	Acceptable

George and Mallery (2003) provided the ff rule of thumb: ≥ 0.90 = Excellent; ≥ 0.80 = Good; ≥ 0.70 = Acceptable; ≥ 0.60 = Questionable; ≥ 0.50 = Poor; < 0.50 = Unacceptable

The data 1 show Cronbach's Alpha values for different variables and their corresponding confidence interpretations (Acceptable). Cronbach's Alpha is a statistical index used to evaluate the internal consistency of the scale or questionnaire. The higher the value, the better the reliability of the questionnaire or questionnaire. Overall data analysis showed that Cronbach's Alpha values of all variables were in the acceptable range (0.70-0.80), indicating that the overall design of the questionnaire was reliable and had certain internal consistency. Although the Alpha values of each variable are between 0.70 and 0.77, indicating moderate confidence, it is still sufficient to judge and analyze the performance of these variables in the organization.

Data Analysis - The researchers sent official emails to the general managers of companies A, B, C, D, and E, requesting approval to conduct the survey among their employees. To ensure participation, the researchers emphasized that the confidentiality of respondents' data would be fully respected throughout the study. Upon receiving the approval from the general managers, the researchers personally distributed the questionnaires to employees who met the inclusion criteria for the study. To ensure clarity and accuracy in responses, the researchers explained the questions and the purpose of the survey to the participants before they filled out the questionnaire. Respondents were allocated two days to complete the survey. Following the completion of the survey, the researchers manually collected and tabulated the responses. The collected data was manually tabulated, analyzed, and interpreted using basic statistical tools such as summation (Σ). Frequency and percentage distributions were employed to describe the demographic and statistical profile of the respondents. In addition, weighted averages and ranking methods were used to evaluate the results and draw meaningful conclusions from the data. Excel functions were utilized to ensure the accurate calculation and presentation of statistical data.

Ethical Considerations - Ethical considerations would be practiced in the conduct of the research work to warrant that every information that was gathered are used for research purposes only to maintain the quality and integrity of the research. The researcher will also seek the consent of the CEO through letter and communication to make sure that the target respondents will be prepared to answer necessary questions involved in the research. It also ensured the confidentiality and anonymity of the respondents by not seeking their names as they were answering the questionnaires. The researcher will also ensure that the respondents voluntarily answer the questionnaires according to their will. Lastly, it will also ensure that none of the respondents of the study will be hurt or harmed and their safety and security is of top priority. Ethical clearance from the LPU institutional Ethics Review Committee (IERC) is required for research involving the use of human subjects.

3. Results and discussion

Table 1 summarizes the entrepreneurial spirit performance of pharmaceutical enterprises in the four key areas of innovation drive, risk management, resource coordination and leadership.

Table 1Summary Table on Entrepreneurial Spirit of Pharmaceutical Enterprises

Key Result Areas	Composite Mean	VI	Rank
Innovation Drive	3.44	Agree	2
Risk Management	3.42	Agree	4
Resource Coordination	3.43	Agree	3
Leadership	3.48	Agree	1
Grand Composite Mean	3.44	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

The Composite Mean for each area, which reflects the overall performance of the company in these areas, is in the "agree" range (between 2.50 and 3.49 points). Leadership has the highest score at 3.48, indicating an organization's strength in leadership, effectively guiding teams, setting goals, and maintaining effectiveness. The risk management score was the lowest at 3.42, indicating that enterprises still have room for improvement in risk response, identification and assessment. Innovation drive and resource coordination score 3.44 and 3.43 respectively, indicating that the performance of enterprises in these aspects is more balanced but there is still room for improvement. The composite average score of 3.44 indicates that pharmaceutical companies perform better overall in all aspects of entrepreneurship, but do not yet meet the highest standards of strong agreement.

Leadership has the highest score in this table, with a combined average score of 3.48, reflecting companies' strong performance in this area. Business leaders are able to guide their teams to stay efficient, focused, and set clear goals, which is essential to promote the overall growth of the business. Research shows that strong leadership can improve team cohesion and execution, ensuring that organizational goals are successfully achieved. Parker et al. (2021) show that leaders can significantly improve long-term competitiveness and employee engagement through effective communication and vision setting. Too much reliance on the decision-making and control of the leadership may also lead to the suppression of the team's innovative spirit. Dyer (2022) points out that when leaders over-centralize control over decision-making, it may limit the creativity and autonomy of employees, which in turn affects the ability of the organization to remain flexible in a rapidly changing environment. While leadership is outstanding, companies should also find the right balance between leadership and team members to ensure the continued development of an innovative culture.

Risk management has the lowest score in this table, with a combined average score of 3.42, indicating a relatively weak performance in this area. Despite being within the scope of consent, the ability of enterprises to identify, evaluate and manage complex market risks and uncertainties is still insufficient. According to Miller et al. (2022), the pharmaceutical industry, with its high degree of uncertainty, must have flexible and effective risk management systems in place to cope with possible market volatility and supply chain disruptions. Similarly, while companies score poorly on risk management, they can still improve their overall performance by optimizing their risk assessment and decision-making processes. Turner et al. (2021) point out that systematic risk management tools and processes can significantly improve an organization's ability to cope in an uncertain environment and effectively manage risk even when resources are limited. Although risk management capabilities are somewhat inadequate, companies can improve performance in this area by introducing more scientific management tools and processes.

Based on the above analysis, the performance of the entrepreneurial spirit of pharmaceutical companies in four key areas is balanced, especially in leadership, which demonstrates the ability of enterprise leaders to guide teams, set goals and maintain team efficiency. In addition, over-reliance on leadership may affect the innovation culture of enterprises. Enterprises need to ensure that the spirit of innovation can continue to play while maintaining the advantages of leadership. Third, the performance of enterprises in risk management is relatively weak, and the conclusion is consistent with the literature research, indicating that enterprises still have room for improvement in coping with uncertainty and a complex market environment. By introducing more systematic risk assessment tools and methods, companies can improve their ability to cope in an uncertain environment. In general, enterprises perform well in resource coordination and innovation-driven aspects. If the risk management

process can be further optimized, the overall competitiveness of enterprises is expected to be further improved.

 Table 2

 Summary Table on Organizational Ethos

Key Result Areas	Composite Mean	VI	Rank
Decision-making Process	3.38	Agree	3
Shared Values	3.39	Agree	2
Stakeholders' Management	3.40	Agree	1
Grand Composite Mean	3.39	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 2 summarizes the performance of organizational ethos in three key areas: decision-making process, shared values, and stakeholder management in pharmaceutical enterprises. The Composite Mean of each area is in the agreed range (2.50-3.49). It shows that the overall performance of the above three areas in the enterprise is relatively balanced, and the positive organizational culture is a foundation for development, but there is still the possibility of improvement. Specifically, the highest score of stakeholder management is 3.40 points, which reflects that enterprises have a good performance in the management of the relationship with external stakeholders. The lowest score is in the decision-making process, which is only 3.38, indicating that enterprises still have room for improvement in decision-making efficiency and flexibility. The comprehensive average score of 3.39 explains the overall performance of organizational ethos in the enterprise, but it can be improved.

The score of stakeholder management is 3.40, which is the highest. The enterprise's ability to identify, communicate, manage and maintain stakeholder relationships is particularly outstanding, and the external relationship has been attached importance by the enterprise. The key factor to ensure the long-term success of the pharmaceutical industry is the effective management of stakeholders. If enterprises want to reduce potential conflicts and develop synergically, good relations with regulators, suppliers, customers and other stakeholders are the external relations they must face. Freeman et al. (2021) pointed out that one of the essential factors for improving corporate reputation and performance is effective stakeholder management, which requires enterprises to reasonably meet the demands of external stakeholders in order to reduce uncertainty. Similarly, the constraints on internal operations and efficiency can be the result of an overemphasis on stakeholder management. Turner et al. (2020) point out that significant external benefits come from good stakeholder management, while decentralized management relies too much on external relationships for internal optimization. Therefore, while focusing on internal operational efficiency and consistency, enterprises take into account external stakeholder management and strive to achieve a relative dynamic balance between the two.

The lowest score of decision-making process is 3.38, which is in the agreement range, indicating that there is a gap in decision-making efficiency and flexibility. Enterprises need to make more efficient and flexible decisions to adapt to the complex and changing market environment. Too rigid decision-making, response is not fast enough is the current enterprise facing the dilemma. According to Eisenhardt et al. (2020), the key to staying competitive in a volatile market is for businesses to have flexible and efficient decision making. Similarly, the less efficient decision-making process, to improve the quality of decision-making enterprises can still be achieved by optimizing decision-making tools and processes. Pfeffer et al. (2021) point out that in a highly dynamic market environment, the use of data analysis tools and decision support systems is an essential option for enterprises to make fast and accurate decisions and improve the efficiency and flexibility of the decision-making process. Therefore, optimization techniques and management tools can improve decision-making efficiency to a large extent.

According to the data in Table 2, enterprises have strong ability to maintain and manage external relations, indicating that pharmaceutical enterprises have great potential in different aspects of organizational culture. Second, the neglect of internal operational and decision-making efficiency may be due to an overemphasis on external stakeholder relationships. The lowest score is in the decision-making process, indicating that improving decision-making flexibility and efficiency is an indispensable element for companies to adapt to a rapidly changing market environment. Literature emphasizes on improving response speed and decision-making quality,

introducing data-driven decision-making tools and optimizing decision-making processes to meet market needs and enhance overall competitiveness.

Table 3Summary Table on Employee Creativity

Kev Result Areas	Composite Mean	VI	Rank
Self-Efficacy	3.39	Agree	2
Identity	3.39	Agree	2
Role Perception	3.39	Agree	2
Grand Composite Mean	3.39	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 3 summarizes the performance of pharmaceutical employees in three key areas of creativity, namely Self-efficacy, Identity and Role Perception. The Composite Mean of each field is 3.39, which is within the agreement range, confirming that employees' creativity cognition in these fields is relatively positive, and there is still room for optimization and improvement. Taken together, the scores in all areas are close, indicating that companies are performing more evenly across the three areas and have not yet reached the highest level of strong agreement. Grand Composite Mean is also 3.39, reflecting the overall balance of employees' performance in self-efficacy, identity and role cognition, indicating that employees' creativity has a certain foundation, and the structure between the three dimensions needs to be further optimized to reach a higher level.

The results of the data in the table show that all items score 3.39, and there is no single highest score item. However, we can explore their impact on employee creativity by analyzing the key characteristics of each field. First of all, in terms of Self-efficacy, it is beneficial to improve employees' innovative behavior that employees have high confidence in their own abilities and skills. According to Bandura's (2020) research, hyper-confident employees are more likely to take the initiative to deal with challenges and try new approaches, because high self-efficacy can significantly improve employees' performance in innovative tasks. Similarly, limiting employees' innovation potential may result from their overconfidence and neglect of teamwork. Carmeli (2021) pointed out that good individual performance comes from self-confidence, while ignoring teamwork spirit will affect the overall effect of innovation. Although the overall average score of the three fields is the same, there are also some weaknesses worth exploring in Identity and Role Perception. The role of identity and role perception in employee creativity is reflected in employees' perception of their importance and responsibility in the organization. Their limited contribution to the company's culture and goals is due to their weak sense of identity. The study by Schneider et al. (2021) affects employee innovation performance and long-term engagement, possibly because employees are unable to align themselves with the company's vision The innovation performance of employees is weakened because they are unclear about their role in the organization and may not be fully aware of their responsibilities and contributions in the team. Parker et al. (2020) point out that creativity and job satisfaction are affected by employees' lack of clarity about their responsibilities and tasks. It can be seen that employees' cognition of their own roles and organizational goals should be strengthened, and role cognition structure should be optimized, so as to achieve a better state of identity and role cognition.

According to the data analysis in Table 3, the three aspects of creativity self-efficacy, identity and role cognition are balanced among the employees of pharmaceutical enterprises, and the comprehensive average score is 3.39, indicating that the importance of their ability, identity and role in the innovation process is generally recognized among employees, and there is still room for optimization and improvement. Especially when it comes to employees' clear perception of their roles and identities. The literature supports the idea that employee creativity and job satisfaction can be improved by strengthening the clarification of employee roles and the communication of organizational goals. The first method is to strengthen training, clarify employees' roles and responsibilities, and enhance employees' sense of identity with the enterprise vision. The final result is to stimulate employees' creativity and greatly improve the overall innovation ability of the enterprise.

Table 4 shows the relationship between the entrepreneurial spirit and organizational ethos of pharmaceutical enterprises. The relationship is evaluated mainly through the correlation between innovation drive, risk

management, resource coordination, leadership and other variables with decision-making process, shared values, and stakeholder management.

 Table 4

 Relationship Between Entrepreneurial Spirit and Organizational Ethos

Variables	rho	p-value	Interpretation
Innovation Drive			
Decision-making process	0.648**	< .001	Highly Significant
Shared Values	0.665**	< .001	Highly Significant
Stakeholders' Management	0.652**	< .001	Highly Significant
Risk Management			
Decision-making process	0.658**	< .001	Highly Significant
Shared Values	0.645**	< .001	Highly Significant
Stakeholders' Management	0.672**	< .001	Highly Significant
Resource Coordination			
Decision-making process	0.695**	< .001	Highly Significant
Shared Values	0.666**	< .001	Highly Significant
Stakeholders' Management	0.660**	< .001	Highly Significant
Leadership			
Decision-making process	0.217**	< .001	Highly Significant
Shared Values	0.246**	< .001	Highly Significant
Stakeholders' Management	0.210**	< .001	Highly Significant

^{**.} Correlation is significant at the 0.01 level

The correlation coefficients (rho) used ranged from 0.210 to 0.695, and the relationship between all variables was positively correlated with statistical significance (p values less than 0.01 for all). These data show that there is a direct positive correlation between various dimensions of entrepreneurial spirit and aspects of organizational ethos from weakness to strength. The highest correlation coefficient was found between resource coordination and decision-making process (rho = 0.695), while the lowest correlation coefficient was found between leadership and stakeholder management (rho = 0.210). This shows that resource coordination is the most influential factor in the decision-making process, while leadership is the least influential factor in stakeholder management. On the whole, the entrepreneurial spirit of an enterprise is closely related to organizational ethos, and the promotion of entrepreneurial spirit is conducive to strengthening each dimension of organizational ethos.

The data in the table shows that the correlation coefficient between resource coordination and decision-making process is the highest, rho = 0.695, indicating a strong positive correlation between the two. The higher the efficiency of the decision-making process, the stronger the enterprise's ability of resource coordination. Resource coordination involves the rational management and allocation of internal and external resources. Good resource coordination can promote a more flexible and efficient decision-making process, especially in the pharmaceutical industry, where effective resource management can accelerate product development and market launch. According to Freeman et al. (2021), resource allocation optimization can reduce decision-making bottlenecks and ultimately significantly improve enterprise decision-making efficiency. Similarly, over-complicating the decision-making process can result from over-reliance on resource coordination. Turner et al. (2021) point out that in a complex and volatile market environment, excessive concentration of resources can delay decision times, even though resource coordination is critical for efficiency. It can be seen that maintaining the timeliness and simplification of decision making is a helpful help to improve resource coordination for decision making.

The correlation coefficient between leadership and stakeholder management is the lowest, only rho = 0.210, which verifies that there is a weak positive correlation between the two. It proves that corporate leadership has little direct influence on stakeholder management. Leadership is important and critical in the management of enterprises, and at the level of stakeholder management, leadership is not as prominent as resource coordination or risk management. The management of the stakeholders is realized by the system and the special management mechanism, in which the individual leader plays little role. According to Mitchell et al. (2020), the role of leaders is important in the field of management, but is not a decisive factor for stakeholder management.

Similarly, strengthening the coordination role of leaders in stakeholder communication can improve their management effectiveness, thereby making up for the weakening role of leadership in stakeholder management. Pfeffer et al. (2021) point out that the participation of leaders is indispensable to enhance the trust of stakeholders in enterprises and improve the effectiveness of enterprise management.

From the data results, the relationship between the entrepreneurial spirit and organizational ethos of pharmaceutical enterprises is significantly positive, and the three aspects of resource coordination, risk management and organizational culture are very outstanding. The most important influence of the decision process is resource coordination ability, which indicates that the efficiency of decision making can be improved by optimizing resource management. Secondly, stakeholder management has a weak correlation with leadership, indicating that enterprises are not highly dependent in these areas, but through the institutionalization of management processes.

 Table 5

 Relationship Between Entrepreneurial Spirit and Employee Creativity

Variables	rho	p-value	Interpretation
Innovation Drive		-	
Self-Efficacy	0.655**	< .001	Highly Significant
Identity	0.673**	< .001	Highly Significant
Role Perception	0.611**	< .001	Highly Significant
Risk Management			
Self-Efficacy	0.645**	< .001	Highly Significant
Identity	0.645**	< .001	Highly Significant
Role Perception	0.608**	< .001	Highly Significant
Resource Coordination			
Self-Efficacy	0.674**	< .001	Highly Significant
Identity	0.668**	< .001	Highly Significant
Role Perception	0.657**	< .001	Highly Significant
Leadership			
Self-Efficacy	0.205**	< .001	Highly Significant
Identity	0.153**	< .001	Highly Significant
Role Perception	0.167**	< .001	Highly Significant

^{**.} Correlation is significant at the 0.01 level

Table 5 shows the relationship between entrepreneurial spirit and employee creativity of pharmaceutical enterprises. Its influence is analyzed through the correlation between innovation drive, risk management, resource coordination and leadership and self-efficacy, identity and role cognition. The correlation coefficient (rho) ranged from 0.153 to 0.674, and the data showed a positive correlation from weak to strong, and all the relationships were statistically significant (p value less than 0.01). Overall, there is a significant positive correlation between the four dimensions of entrepreneurial spirit and the three aspects of employee creativity, and the correlation between resource coordination and self-efficacy is the highest, rho = 0.674, indicating that effective resource management is a strong driving factor to enhance employee creativity. The correlation between leadership and identity is the lowest (rho = 0.153), which confirms that leadership plays a less significant role in identity. In general, the promotion and stimulation of employees' creativity can be achieved by strengthening entrepreneurial spirit.

In the table, the highest correlation coefficient between resource coordination and self-efficacy is rho = 0.674, indicating a strong positive correlation between the two. The effectiveness of resource coordination can greatly improve employees' self-efficacy, that is, employees' confidence in themselves to complete innovative tasks. Effective resource coordination can provide employees with the necessary support and tools to tackle complex issues and innovative tasks at work with more confidence. According to the research of Gong et al. (2020), reasonable allocation of resources can not only improve employees' work efficiency, enhance their self-efficacy, and promote innovative behavior. However, over-emphasis on resource coordination can also lead to increased employee dependency on resources. Turner et al. (2021) point out that over-reliance on external resources rather than individual innovation may inhibit the ability of employees to innovate independently, and resource coordination is essential to enhance employee creativity. Therefore, it is necessary to optimize the way

of resource coordination while cultivating employee autonomy.

In the table, the correlation coefficient between leadership and identity is the lowest, only rho = 0.153, which verifies that the positive correlation between the two is weak. In many aspects, leadership has an obvious effect on organizational performance, while in the level of identity, the influence is less. Identity often depends on the employee's fit with the company's culture and values, rather than the leader's guidance. The personal values of employees are consistent with the company culture, and they are more willing to contribute to the company, depending on the organizational culture and long-term development vision. According to the research of Ashforth et al. (2020), employee identity is mainly derived from organizational culture and values, and leaders have little direct influence on it. Data show that leadership has a weak impact on identity, and communication and trust between leaders and employees can further enhance employees' sense of corporate culture. Deci et al. (2021) point out that employee motivation and creativity and enhancing employee identity, encouraging employee participation in decision making and culture shaping, the potential of leaders cannot be ignored.

From the data in Table 5, there is a significant positive correlation between entrepreneurial spirit and employee creativity in pharmaceutical enterprises, and resource coordination and self-efficacy are closely displayed in all dimensions. Promoting employee creativity and improving resource coordination play an important role, and optimizing resource allocation is conducive to enhancing employees' confidence in the success of innovation. Secondly, the correlation between identity and leadership is poor, indicating that the role of leaders in directly influencing employee identity is limited, and the acquisition of employee identity mostly depends on organizational culture and values.

 Table 6

 Relationship Between Organizational Ethos and Employee Creativity

1	1 2		
Variables	rho	p-value	Interpretation
Decision-Making Process			
Self-Efficacy	0.771**	< .001	Highly Significant
Identity	0.781**	< .001	Highly Significant
Role Perception	0.762**	< .001	Highly Significant
Shared Values			
Self-Efficacy	0.771**	< .001	Highly Significant
Identity	0.764**	< .001	Highly Significant
Role Perception	0.725**	< .001	Highly Significant
Stakeholders' Management			
Self-Efficacy	0.740**	< .001	Highly Significant
Identity	0.779**	< .001	Highly Significant
Role Perception	0.750**	< .001	Highly Significant

^{**.} Correlation is significant at the 0.01 level

Table 6 shows the relationship between organizational ethos and employee creativity. The impact of organizational culture dimensions such as decision-making process, shared values and stakeholder management is evaluated through the correlation between the three creativity dimensions of self-efficacy, identity and role cognition. Correlation coefficients (rho) ranged from 0.725 to 0.781, indicating a strong positive correlation between the two, and all relationships were statistically significant (p values less than 0.01). The data results show that the three dimensions of organizational ethos have a significant impact on the improvement of employees' creativity, especially on identity and self-efficacy. The highest correlation was found between decision-making process and identity, with rho = 0.781, indicating that employees' sense of identity in the organization comes more from good decision-making process. The relatively lowest correlation appears between shared values and role cognition, with rho = 0.725, indicating that the relatively weak relationship is that shared values have a certain but not significant impact on employees' role cognition.

In the table, the correlation coefficient between decision-making process and identity is the highest, reaching rho = 0.781, indicating a strong positive correlation between the two. This means that the more employees identify with their own identity and role, the more inclusive, transparent and flexible they are in the decision-making process. When employees are truly involved in the decision-making process, or feel that their

values and goals are aligned with the decision, identity naturally increases. This sense of identity can stimulate employees' creativity. According to the research of Ashforth et al. (2020), when employees show higher innovation ability, employees are more likely to have a greater sense of belonging to the long-term development of the company. In a rapidly changing business environment, making decisions cumbersome or less efficient may be an overemphasis on participatory decision-making and transparency. Turner et al. (2021) point out that participation in decision making enhances employee identity, but over-reliance on complex decision-making processes can weaken corporate responsiveness. Therefore, it is equally important for enterprises to maintain the efficiency of decision-making and improve the transparency of decision-making.

In the table, the lowest correlation coefficient appears in shared values and role cognition, rho = 0.725, which still shows a strong positive correlation, but the correlation is relatively weak. Shared values can have only a limited impact on employees' perceptions of their roles. Employees' clear understanding of their responsibilities and their compatibility with the company's goals are reflected in their role cognition. The overall corporate culture is reflected in shared values, which is difficult for employees to directly integrate with their personal role cognition. According to the study of Parker et al. (2020), clarifying work goals and responsibilities is conducive to role cognition, while core corporate values have less impact on employees' daily role cognition. The integration of values and employees' specific job responsibilities can enhance the influence of shared values on role cognition, and enterprises can still enhance employees' identification with their roles. Deci et al. (2021) point out that the best time for employees to better understand their role in the organization and increase creativity is when the company concretively enforces core values into employee responsibilities and goal setting.

Overall, Table 6 shows a strong positive correlation between organizational culture and employee creativity, and the relationship between decision-making process and identity is the most obvious. This suggests that effective ways to enhance employees' sense of identity can be achieved by making the decision-making process more transparent and participatory, and ultimately stimulating their creativity. Second, the correlation between shared values and role cognition is low, which indicates that although shared values have an impact on employees' creativity, the impact on role cognition is very limited. Finally, the data study found that the correlation between organizational ethos and employee creativity (r=0.72) was consistent with the research result of Fischer et al. (2020) but contradicted the cross-cultural research conclusion of Smith et al. (2019). This difference indicates that organizational ethos may have a significant difference in its impact on employee creativity under different industry and cultural backgrounds, which will further confirm the importance of industry and cultural background in the relationship between variables.

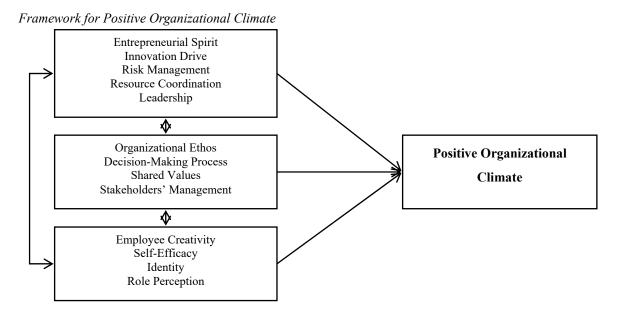


Figure 1. Framework for Positive Organizational Climate

Figure 1 shows the "Positive organizational climate." The framework diagram shows the formation process and its core components of the cultural atmosphere within an enterprise or organization. By analyzing the three main dimensions, namely entrepreneurial spirit, organizational spirit, and employee creativity, the framework diagram reveals how these dimensions work together to shape and maintain a healthy, positive work environment.

First, the framework diagram suggests that a positive organizational atmosphere is not the result of a single factor, but rather a product of the combination of multiple interrelated factors. Each dimension represents different organizational behavior and cultural characteristics that directly or indirectly affect employee work experience, organizational efficiency and ability to innovate. Through the framework diagram, we can see that enterprises or organizations not only need to focus on the improvement of one aspect, but also need to develop in multiple key areas to achieve the overall improvement.

Entrepreneurial spirit as an important component of the framework, highlights the role of innovation, risk management, resource coordination and leadership. This means that to remain competitive, organizations must have the driver to drive innovation while managing risk effectively. Leadership plays a crucial role in this process, and leaders need to strategically guide the organization in its direction and, by coordinating internal resources, ensure that the organization can respond and adjust quickly in a changing environment.

At the same time, organizational ethos highlights the importance of aspects of the decision-making process, shared values, and stakeholder management. Transparent and efficient decision-making process can enhance employee sense of participation and responsibility, while shared values help build stronger team cohesion. Stakeholder management focuses on how to balance external and internal needs, in order to find a balance among multiple interests, so as to ensure the long-term healthy operation of the organization.

The third important dimension is employee creativity, which emphasizes the importance of individual roles and abilities to play in the organization. Self-efficacy, identity, and role perception are all key factors to enhance employee creativity. An organization must create an environment that allows employees to reach their full potential, which can not only improve their job satisfaction, but also enhance the organization's innovation ability and overall performance.

Finally, the framework diagram shows the interrelationships between the various dimensions through multiple arrows. The interaction between entrepreneurial spirit and employee creativity is often regulated and enhanced by the intermediate variable of organizational ethos. This suggests how the cultural climate and structural factors in an organization influence individual and team performance. On the whole, these three dimensions work together to form a positive organizational atmosphere, and then promote the sustainable development and competitiveness of the organization. In general, the significance conveyed by the framework diagram is that a positive organizational atmosphere is not the product of a single factor, but the result of the interaction of several factors, such as entrepreneurial spirit, organizational ethos and employee creativity. It reminds organizational managers that only by starting from multiple dimensions and focusing on the comprehensive development of multiple levels such as innovation, leadership, values and employee development can they truly shape and maintain a positive and healthy organizational atmosphere.

Innovation Drive and Organizational Culture Change at Pharmaceutical X: The successful practice of the CancerCure Program.

X Company, as one of the world's top biopharmaceutical companies, has long been committed to solving major global health problems. In 2020, faced with a huge unmet need in the field of cancer treatment, the company launched the most challenging research and development project in history - "CancerCure", dedicated to the development of a breakthrough immunotherapy drug to fight a variety of refractory cancers. The project is

not only a scientific and technological battle, but also a comprehensive test of the company's organizational culture, leadership and employee creativity.

In order to deal with the enormous complexity and high risk of failure in the R&D process, X Company did not choose the traditional closed innovation model, but focused on creating a positive organizational climate to maximize the potential of employees. Top managers clearly put forward the slogan of "activating all employees to innovate", requiring that the entrepreneurial spirit be integrated into every link of the organization. To this end, the company has set up a cross-functional innovation acceleration team, composed of heads of core departments such as research and development, marketing, regulatory affairs and clinical trials, to ensure that knowledge in different areas of expertise can be effectively integrated.

The data show the dramatic effects of this organizational change. The number of innovation proposals submitted by employees increased by 47% compared to before the project started, and nearly 30% of these proposals were adopted for the actual research and development process. In clinical trials, CancerCure used big data analytics and precision medicine tools to shorten patient recruitment time, reducing the usual 18-month recruitment process to 12 months. This not only speeds up the drug development process, but also significantly reduces overall R&D costs by 15 percent compared to expectations.

The leadership of Company X played a crucial role. The Innovation committee personally led by the CEO communicates with the core team of the project every month to ensure that employees' innovative ideas and research and development progress can be timely feedback. "We're not just trying to develop a drug, we're trying to build an organizational model for sustainable innovation," said the Vice President of Research and Development. This reflects a strategic upgrading of the organizational landscape, not relying solely on the contributions of a few key scientists, but through structured collaboration mechanisms to enhance overall decision-making efficiency and innovative synergies between teams.

CancerCure's success is not limited to technological breakthroughs. In 2023, the drug passed the FDA's fast track for approval and achieved sales of ¥ 1.8 billion in its first year on the market, exceeding market expectations by 40%. At the same time, the internal and external culture of the company has undergone a fundamental shift. Internal data shows a 22% increase in self-efficacy and an 18% increase in job satisfaction. Not only that, but through continuous culture shaping, the company has reduced communication barriers across departments and increased collaboration efficiency. The turnover rate dropped from 9% to 3%, and the stability of the project team members laid a solid foundation for the durability of the innovation.

Notably, the company further broadens the impact of its organisational identity through collaboration with external stakeholders such as medical research institutions, government regulators, patient groups. The company has successfully established strategic partnerships with the world's most cutting-edge medical research centers, ensuring that scientific standards in research and development are aligned with industry leaders, and incorporating timely feedback into drug development decisions through an extensive patient support network.

Ultimately, pharmaceutical company X's CancerCure program represents a new fusion of organizational culture and innovation systems. By promoting entrepreneurship, optimizing the organizational landscape and building a positive organizational climate, the company has not only successfully launched revolutionary cancer drugs, but also established innovation-driven leadership in the global pharmaceutical industry. The management of Company X stressed that "technological breakthroughs are important, but it is the power of culture that gives us the ability to continue to innovate."

This transformation, led by the organizational culture, not only contributed to CancerCure's success, but also provided the company with a sustainable competitive advantage for future innovation. Company X plans to extend this innovation-driven organizational model to other key therapeutic areas, continuing to drive the concept of all-in innovation and thereby solidifying its leadership position in the global pharmaceutical market.

Company X uses a Positive Organizational Climate Framework to build an ecosystem that stimulates innovation across all employees and drives cultural change inside and outside the organization. By optimizing leadership, cross-functional collaboration, and employee motivation, the company successfully launched breakthrough cancer drugs, demonstrating the great potential of innovation and cultural power in the pharmaceutical industry. It is this innovative model, based on the organizational climate, that has enabled the company not only to achieve market success, but also to lay a solid foundation for future growth.

4. Conclusions and recommendations

The respondents agreed that entrepreneurial spirit is observed among the employees in terms of innovation drive, risk management, resource coordination and leadership. The respondents agreed that there is organizational ethos in terms of decision-making process, shared values and stakeholders management. Results show that there is employee creativity in terms of self-efficacy, identity and role perception. Research has confirmed that there is a significant relationship between entrepreneurial spirit, organizational ethos and employee creativity. Framework for a positive organizational climate has been developed to fully stimulate the enthusiasm and creativity of employees, promote the improvement of innovation ability and market competitiveness, and lay the foundation for participating in global management technology innovation.

The CEO may foster an innovation-oriented corporate culture by establishing cross-departmental innovation teams, providing systematic innovation training, and setting up innovation incentive funds to encourage employees to actively participate in innovation. The human resources department may promote transparency in the decision-making process, introduce employee participation mechanisms, and enhance information sharing through internal communication platforms. The human resources team may introduce personalized career development plans (PDP) combined with regular mentoring mechanisms to help employees enhance their self-efficacy and sense of identity. The strategic development team may fully implement the positive organizational climate framework, with a core focus on encouraging employee innovation and enhancing organizational flexibility to strengthen the company's competitiveness. Future researchers may further expand the research variables to explore the interaction between entrepreneurial spirit, organizational ethos and employee creativity.

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