EFFECTS OF HAINAN FREE TRADE PORT'S TALENT INCENTIVE POLICY ON THE INNOVATIVE PERFORMANCE OF HIGH-TECH EMPLOYEES: THE ROLES OF AN INNOVATIVE CLIMATE AND ORGANIZATIONAL IDENTIFICATION

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Author	Zhangzhong HUANG
Major	Doctor of Philosophy (Management Science)
Advisor	Dr. Shengxiang SHE

DISSERTATION COMMITTEE

……..……...Chairperson
(Associate Professor Dr. Pisit Chanvarasuth)

……..…….Advisor
(Dr. Shengxiang SHE)

…… Committee
(Assistant Professor Dr. Yaoping LIU)

..……..…….……Committee
(Associate Professor Dr. Daranee Pimchangthong)

..……..…… Committee
(Dr. Surachai Traiwannakij)

Approved by the Institute of Science Innovation and Culture
Rajamangala University of Technology Krungthep
in Partial Fulfillment of the Requirements for the
Degree of Doctor of Philosophy in Management Science

……
(Assistant Professor Dr. Yaoping LIU)
Director of the Institute of Science Innovation and Culture
Date…..…Month…..…Year……..

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ABSTRACT

This study examines the impact of talent incentive policies on high-tech employees' innovative performance in dynamic environments. Drawing from motivation theory, social cognitive theory, Maslow's hierarchy of needs, and social identity theory, the study takes a comprehensive approach encompassing theoretical analysis, empirical investigation, and policy recommendations. The study surveyed 1262 employees at the Hainan Free Trade Port. The findings reveal that the perception of talent incentives positively influences employees' innovative performance, and the influence of these policies on the innovative climate is significant. Also, organizational identification moderates the relationship between the perception of talent incentives and innovation performance. Furthermore, the study findings provide valuable insights for policy-making and organizational management, promoting innovation and competitiveness in free trade port environments. The study's outcomes contribute to understanding talent incentive policies and their impact on employee performance.

Keywords: free trade port, talent incentive policy, organizational innovation climate, organizational identification, high-tech employee innovative performance

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Zhangzhong HUANG

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INTRODUCTION

1.1 Background and Statement of Problem

1.1.1 Background and Rationale

The China Free Trade Pilot Zone (FTZ), also known as the "Free Trade Zone," shoulders the dual mission of deepening economic reforms and expanding openness to the outside world. It is essential for creating an integrated domestic and international trade circulation. Since its inception in September 2013, the China FTZ has developed over nine years. From the China (Shanghai) Free Trade Pilot Zone in September 2013 to the most recent establishment of the Beijing, Hunan, and Anhui FTZs in September 2021, the number of China's Free Trade Pilot Zones has reached 21. This network now covers all regions of the country, significantly contributing to China's economic development.

According to data from China's Ministry of Commerce, in the first quarter of 2023, the country's FTZs saw rapid growth in foreign trade and investment. The total import and export value of the 21 FTZs reached 1.8 trillion RMB, with exports amounting to 794.9 billion RMB (an 8.5% increase) and imports totaling 1036.3 billion RMB (a 5.2% increase). The actual circulation of foreign capital was 71.9 billion RMB, a 22.1% year-on-year increase, contributing to the stable development of national foreign trade and investment and further highlighting the pioneering role of the FTZs.

Since establishing the Hainan Free Trade Port (HFTP), China has introduced a series of talent incentive policies aimed at attracting high-level global talent to participate in the construction of the Free Trade Port, especially in the high-tech sector. These policies include the "Master Plan for the China (Hainan) Free Trade Pilot Zone," the "Master Plan for the Construction of Hainan Free Trade Port," and the "Implementation Plan for Supporting Hainan Talent Development System and Mechanisms of Innovation." Additionally, specific policies focusing on high-end and urgently needed talented employees, such as the "Notice on Personal Income Tax Policy

for High-end and Scarce Talent in Hainan Free Trade Port" and the "Hainan Free Trade Port High-Level Talent Classification Standards (2020)," have been implemented to bolster the region's attractiveness to top-tier professionals (Zhang, Pan, & Ji, 2022).

Talent is not only a key factor in the rapid development of the Hainan Free Trade Port (hereinafter referred to as the Free Trade Port) but also the primary resource for its competitive advantage. In today's era of rapidly changing information technology, the perception of talent incentive policies plays a crucial role in motivating and impacting the enthusiasm of high-tech professionals. This, in turn, facilitates technologically innovative activities and the transformation of outcomes by high-tech employees within the Free Trade Port.

As a Free Trade Port with "demonstratable standards", it is the first free trade zone in the country and a symbolic project of China's economic reform and opening. On April 14, 2015, with the approval of the State Council of China, the Hainan Free Trade Port officially commenced its construction, marking a new phase in China's economic reform and opening-up.

The Free Trade Port area implements free trade policies, facilitating trade and investment, supporting market mechanisms, and promoting the free flow of capital, technology, and talent. It has policies for investment and trade tax exemptions, trade reductions, tariff reductions, and tax system reforms, aiming to liberalize and facilitate trade, foster market development, and enhance international competitiveness. The Hainan Free Trade Port has attracted attention from domestic and international investors, businesses, and the media. It offers new opportunities for economic reform and opening up in Hainan, driving the development of the local economy and positively contributing to China's broader economic reforms and development. Therefore, constructing the Hainan Free Trade Port requires a substantial talent pool.

In recent years, the Hainan Free Trade Port has introduced a series of talent incentive policies. According to statistics, among these policies, 787 items are related to "innovation" (Mark, 2004). The formulation and implementation of these talent incentive policies play a positive role in enhancing High-Tech Employee Innovative Performance within the Free Trade Zone. However, there is a gap between these policies' expected and actual effects. This indicates that although talent incentive policies have been formulated, the individual's perception of these policies may be

deficient, potentially impacting the effectiveness of their implementation.

1.2 Research Questions

In numerous academic papers, domestically and internationally, researchers increasingly focus on the perception of talent incentive policies as a key subject of study, yet their findings vary. Some researchers specifically highlight the positive influence of incentive policies on the innovative capabilities, enthusiasm, and career development of research personnel. For instance, a study by the scholar Mark in 2014 illustrates the relationship between the perception of the policy beneficiaries and the innovative outcomes of high-tech employees.

This research substantiates the positive effects of talent incentive policies on enhancing high-tech employees' innovative capabilities, positive attitudes, and career advancement (Yang & Wei, 2021). Similarly, in their research conducted in national laboratories, Yang and Wei (2021) found evidence that talent incentive policies effectively promote scientific research outcomes (Zhang & Chen, 2022). Zhang and his colleagues (2022) conducted a study that reveals the pivotal role of financial support, talent programs, and science and technology reward policies in talent development. These initiatives serve as "milestones" in the growth process of talent, effectively stimulating their passion for innovation and significantly benefiting the innovative outcomes of high-tech employees (Liu & Wang, 2021).

However, some scholars argue that certain incentive policies might hinder the innovative contributions of high-tech employees. For instance, Liu and Wang (2021) contend that policies like "research priority promotion" can induce psychological discomfort among the intended beneficiaries, leading to a decline in the enthusiasm of researchers in their academic pursuits (Wang & Cai, 2021). Similarly, Wang and Cai (2021), in their empirical study, observed that while material rewards can effectively motivate researchers to engage in scientific innovation actively, they may also reduce efficient collaboration within teams. This phenomenon occurs as researchers favor research methods likely to yield the most significant rewards, possibly at the expense of teamwork and broader scientific exploration.

In summary, the perception of Talent Incentive Policies can impact individual innovative performance, causing psychological responses in individuals. However, there is no consensus on whether the perception of Talent Incentive Policies triggers positive or negative psychological responses, and the extent of these outcomes remains a subject for further research.

Talent Incentive Policies are essentially a collection of policies covering various motivational factors. According to social cognitive theory, policy perception influences talent engagement in innovation. However, existing research does not provide a clear answer on individuals' psychological reactions to these policy stimuli and the factors involved in these reactions.

The impact of incentive policies and their perception by High-Tech Employees has been explained from the perspectives of social interaction and self-efficacy, neglecting the organization's innovative climate. The 1971 Nobel laureate in economics, Schultz (1976), pointed out in his research that individual behavioral differences are due to variations in knowledge, skills, and health status. Therefore, individual perceptions of talent incentive policies also differ, as do their responses. Similarly, the renowned American psychologist and the founder of social learning theory, Bandura (1977), believed that individuals, behavior, and environment are interlinked and influence each other, with any change in one element leading to changes in others.

These research findings reveal the complexity of the impact of Talent Incentive Policies perception on individual innovative performance but also highlight the need for in-depth research on this issue. Although existing studies have explored the mechanisms of incentive policy perception on individual innovative performance, most have overlooked the crucial factor of innovative climate. Given this background, this study aims to fill this research gap, focusing on high-tech employees within the Hainan Free Trade Port and exploring the relationship between Talent Incentive Policies, innovative organizational climate, and High-Tech Employee Innovative Performance from the perspective of high-tech employees. By revealing the relationship among these three elements, this study will help better understand and optimize Talent Incentive Policies, thereby enhancing the innovative performance of technology workers.

In the context of the research project, the following specific questions are proposed to understand the dynamics within the Hainan Free Trade Port:

1. What is the perception of high-tech employees of talent incentive policies within the Hainan Free Trade Port?

2. Does the perception of Talent Incentive Policies among high-tech employees in the Hainan Free Trade Port positively influence their innovative performance?

3. What is the mechanism through which the Perception of Talent Incentive Policies impacts innovational performance? Specifically, what role does the organizational climate have in this relationship? Additionally, does identifying high-tech employees with their organization moderate the impact of their perception of Talent Incentive Policies and the innovative organizational climate on their innovative performance?

1.3 Research Hypotheses

This study presents a total of 5 research hypotheses,

Table 1.1 Summary of Research Hypotheses

Hypotheses	Hypotheses Content
H1	Talent incentive policy perception has an impact on high-tech employees' innovative performance.
	H1a: Policy awareness has an impact on high-tech employees' innovative performance.
	H1b: The sense of policy gains impacts high-tech employees' innovative performance.
	H1c: Policy satisfaction has an impact on high-tech employees' innovative performance.
H2	Talent incentive policy perception has an impact on the innovative climate.
	H2a: Policy awareness has an impact on the innovative climate.
	H2b: Sense of policy gain has an impact on the innovative climate.
	H2c: Policy satisfaction has an impact on the innovative climate.
H3	The innovative climate has an impact on high-tech employees' innovative performance.

H4	The innovative climate mediates the relationship between talent incentive policy perception and High-tech employee innovative performance.
H5	Organizational identification plays a moderating role.
	H5a: organizational identification moderates the relationship between talent incentive policy perception and High-tech employee innovative performance.
	H5b: organizational identification moderates the relationship between the innovative climate and High-tech employee innovative performance.

1.4 Research Objectives

Building upon previous studies and relevant materials, this research focuses on the current development status of Free Trade Zones (FTZs) in China and the perception of Talent Incentive Policies within these zones. The study adopts the perception of Talent Incentive Policies as the independent variable, innovative climate as the mediating variable, High-Tech Employee Innovative Performance as the dependent variable, and organizational identification as the moderating variable. Additionally, gender, age, and educational background are included as control variables. Approaching from a social cognitive perspective and using the perception of Talent Incentive Policies as the entry point, this study aims to explore the impact of these perceptions on High-Tech Employee Innovative Performance and the mediating role of an organization's innovative climate, building on the foundation of previous research.

The specific research objectives of this study include:

(1) Examining the Relationship between Perception of Talent Incentive Policies, an Innovative Climate, and High-Tech Employee Innovative Performance: The study aims to synthesize the interactions among these three elements. It constructs a research model where the Perception of Talent Incentive Policies impacts High-Tech Employee Innovative Performance mediated through an Innovative Climate. Empirical analysis was conducted to verify the direct relationships between the Perception of Talent Incentive Policies, Innovative Climate, and High-Tech Employee Innovative Performance.

(2) Exploring the Pathway of High-Tech Employees' Perception of Talent Incentive Policies on High-Tech Employee Innovative Performance: The study seeks

to understand how the Perception of Talent Incentive Policies among high-tech employees influences High-Tech Employee Innovative Performance, with the Innovative Climate acting as a mediating variable. It explores the mediating role of an Innovative Climate in the relationship between high-tech employees' Perception of Talent Incentive Policies and their Innovative Performance.

(3) Proposing Recommendations from the Perspectives of Perception of Talent Incentive Policies and Innovative Climate: The study aims to provide suggestions on how talent policies can be more effectively utilized to enhance the Innovative Performance of high-tech employees. This, in turn, contributes to the improved quality of China's economic development.

1.5 Scope of the Study

1.5.1 Hainan Free Trade Port

Hainan Island, located in the northwest of the South China Sea, faces the Leizhou Peninsula of Guangdong Province across the Qiongzhou Strait to the north and faces the city of Qinzhou in the Guangxi Zhuang Autonomous Region of China and Vietnam across the Beibu Gulf to the west. With an area of 33,900 square kilometers, it is the second-largest island in China after Taiwan. Its coastline stretches for 1,944 kilometers (excluding the shoreline of the islands), with a natural shoreline length of 1,272.61 kilometers. There are 68 ports along its coast, and major ports such as Haikou Port, Sanya Port, Yangpu Port, Basuo Port, and Qinglan Port have been established. In 2022, the major ports handled a cargo throughput of 192 million tons. The Hainan Free Trade Port (Hainan Free Trade Port) is a free trade zone established by the state across the whole island of Hainan, also known as the 'Hainan Free Trade Port'. General Secretary Xi Jinping officially announced it at the 30th anniversary of Hainan Province and the Hainan Special Economic Zone in 2018.

On April 14, 2018, the 'Guiding Opinions on Supporting Hainan's Comprehensive Deepening of Reform and Opening Up,' issued by the Central Committee of the Communist Party of China and the State Council, specified that the Hainan Free Trade Pilot Zone should be built based on the existing pilot of free trade zones, combined with the characteristics of Hainan, covering the entire island.

According to the plan of Hainan Province, the Hainan Free Trade Port is focused on developing tourism, modern services, and high-tech industries. It sets up special customs supervision areas as needed for development, carries out institutional innovations involving investment and trade facilitation, and engages in international investment and trade, bonded logistics, bonded maintenance, and other businesses.

The Hainan Free Trade Port has built an international free trade zone, implementing free trade policies, facilitating policies, promoting trade and market development, stimulating investment vitality, enhancing economic efficiency, and strengthening international competitiveness. It enhances China's economic development while creating a favorable environment for Hainan's economic and social development. It is an essential part of China's economic reform and opening and a significant measure of China's economic and social development. It will not only provide new opportunities for the economic reform and opening of Hainan but also inject new momentum into the economic development of Hainan(Wang, 2022).In summary, the Hainan Free Trade Port refers to the free trade zone established by China on the entire island of Hainan to promote the development of Hainan Island and the national economy.

1.5.2 Talent Incentive Policies

Talent incentive policies refer to policies that can stimulate, guide, and retain employees' commitment. In detail, the government can regulate the quantity and quality of talent through talent incentive policies, compensating for deficiencies in available employees. On a macro scale, these policies continually enhance the quality and capabilities of local talent, promoting the development of the national economy, science and technology, culture, education, and management. For the Hainan Free Trade Zone, talent incentive policies are key policies implemented to support and motivate innovative and entrepreneurial talent within the port, driving high-quality development of the Free Trade Zone, fostering innovation and entrepreneurship both inside and outside the zone, and enhancing the overall competitiveness, innovation, and entrepreneurship.

The Hainan Free Trade Port has introduced several talent incentive policies. First, a comprehensive human resource policy system was established. In May 2018, the 'Million Talent into Hainan Action Plan (2018-2025)' was formulated to attract about 200,000 workers by 2020. Strict implementation of recruitment, allocation,

rewards, and selection policies have been conducted, allied with establishing and improving talent pools and broadening talent selection channels. Second, efforts to attract talent were intensified, expanding channels for external hiring, secondment, and temporary appointments, encouraging enterprises to recruit foreign employees actively, and implementing talent exchange and cooperation within and outside the port, promoting shared talent resources in the Free Trade Port.

Additionally, as the governing body of the Hainan Free Trade Port, the Hainan Provincial Government has launched the 'South China Sea Scholars' training program, focusing on cultivating about 100 individuals with the potential to grow into a national-level talent project, in line with the needs of key areas such as education, healthcare, science and technology, culture, and major innovation projects, key laboratories, critical disciplines, and specialized platforms.

Third, innovative entrepreneurship incentive policies and measures were implemented to promote innovative and entrepreneurial activities among employees, accelerating the marketization and industrialization of innovative and entrepreneurial projects and driving the development of the innovative entrepreneurship industry.

Fourth, public service and policy support were enhanced, providing various public services, including tax incentives, financial services, commercial real estate, and innovative technology support, offering policy support and services to innovative and entrepreneurial talents.

Fifth, the talent evaluation system was improved, and a talent recognition system was established. It implemented a talent recognition and evaluation incentive and honor system, motivating innovative and entrepreneurial employees to strive and enhance their capabilities continuously.

Sixth, restrictions on employee settlement were relaxed, allowing employees with a full-time college education or above, intermediate or higher professional technical titles, technician, or higher vocational qualifications, or practical qualifications to settle in their workplace or residence in Hainan Province.

1.5.3 High-Tech Enterprise

High-tech refers to cutting-edge technologies that significantly impact the progress of the world's economy and society. The China National Office for Science and Technology has defined high-tech as forefront technologies based on scientific

research essential in driving economic development and social progress. In January 2016, the Ministry of Science and Technology, the Ministry of Finance, and the Taxation Bureau of China revised the 'Management Measures for the Recognition of High-Tech Enterprises,' defining high-tech enterprises as those within the 'National Key Supported High-Tech Fields,' that continuously conduct research and development, as well as technological transformation, form core independent intellectual property rights within the enterprise, and carry out business activities based on these rights, registered as resident enterprises within China (excluding Hong Kong, Macau, and Taiwan regions). Technological enterprises typically use advanced technologies to develop, manufacture, and sell competitive high-tech products using innovative processes, materials, and equipment to meet consumer needs. High-tech products of these enterprises generally have higher performance, lower consumption, and more functions.

High-tech enterprises can develop more advanced equipment and provide better services, reduce production costs, improve production efficiency, meet consumer needs, and offer safer, more convenient, and intelligent services. With the development of modern society, high-tech enterprises play an important role in economic growth. They improve the socio-economic structure, enhancing enterprises' comprehensive competitiveness and productivity. They contribute to national and social development by providing more advanced technologies for national and economic development, thereby driving social progress and raising society's overall level. High-tech enterprises use technology to improve people's lives, provide more comprehensive services to society, bring more possibilities for social development, and promote cultural advancement.

As of December 31, 2022, the Hainan Free Trade Port had a total of 1,493 high-tech enterprises covering industries such as information technology, high-end equipment, new materials, biomedicine, big data, cloud computing, artificial intelligence, and manufacturing, with a wide range of high-tech talent. In the first half of 2023, the number of high-tech enterprises in the province increased to 1,527, with the value-added of the high-tech manufacturing industry above growing by 15.2% year-on-year.

1.5.4 High-Tech Employee

In recent years, China's high-tech industry has achieved remarkable development results. China is leading in the global manufacturing sector and has cultivated many high-tech companies and outstanding talent in information technology, artificial intelligence, and biotechnology. These high-tech employees have significantly contributed to China's rapid economic growth and shaped the country's contemporary social and cultural landscape. High-tech employees work in research and development, design, production, and management. They possess solid professional knowledge and skills, can solve complex technical problems using advanced scientific methods, and continuously innovate and progress.

High-tech employees exhibit the following capabilities:

1. Technical and Professional Competence: Solid professional knowledge and technical capabilities. They have mastered advanced scientific theories and methods, can skillfully use relevant technologies and tools for R&D, design, and production, and can analyze problems, formulate solutions, solve technical difficulties, and ensure the smooth progress of projects.

2. Innovative Ability: These employees are good at thinking and have innovative thinking capabilities. They actively explore new frontiers in technology and propose innovative ideas and solutions.

3. Teamwork Ability: High-tech employees can effectively communicate and listen to others' suggestions and opinions. They have good teamwork skills and can collaborate and learn with others to solve problems.

4. Learning Ability: They have a strong desire to learn and the ability to update their knowledge and skills continuously. They engage in live extended learning, keeping up with technological developments and undergoing relevant training to enhance their competitiveness and professional level.

5. High Sense of Responsibility: High-tech employees take their work and projects seriously, adhere to discipline and management regulations, and ensure project progress.

High-tech employees must meet stringent requirements regarding education, expertise, and experience. They typically need a bachelor's degree or higher in related science and engineering fields or computer science and technology. They

must have solid technical abilities, be proficient in relevant tools and software, and be adept at using technological means to solve problems. Work experience, especially in related field projects, is also crucial, particularly for R&D and design positions, as it demonstrates their practical capabilities and achievements. Furthermore, they should have innovative capabilities, excellent team collaboration skills, strong learning abilities, and comprehensive qualities, including good communication, problem-solving skills, a high sense of responsibility, and professionalism.

1.5.5 Limitation

Although this research strives for scientific rigor throughout the study process, several limitations are acknowledged due to the complex and deep theoretical framework, multiple perspectives, and the researcher's theoretical and professional knowledge constraints. Despite efforts to ensure a structurally coherent and tightly argued study, various limitations inevitably arise due to disciplinary knowledge, resource mobilization, time, and geography constraints. These limitations include:

1. Literature Review: The literature review process, while extensive, is recognized as still having room for improvement. A more comprehensive and in-depth exploration of existing literature would enhance the study's theoretical grounding and contextual understanding.

2. Survey Questionnaire: Although validated by numerous scholars and experts in their research, the questionnaire used in the study requires further refinement. Especially when surveying key variables, there is a need for further research to ensure accuracy, rationality, and scientific validity.

3. Scope and Methodology of the Survey: Due to time and geographical constraints, the survey was limited to a subset of high-tech employees in the Hainan Free Trade Port, restricting the richness of the survey sources. This limitation affects the comprehensiveness of the research findings. Additionally, the study did not track the survey respondents long-term, limiting the sample collection's scope and range. This limitation is particularly evident in the sample collection's scope and subjects, affecting the findings' generalizability.

1.6 Research Framework

In this study, we have formulated five hypotheses and built the framework, detailed as follows:

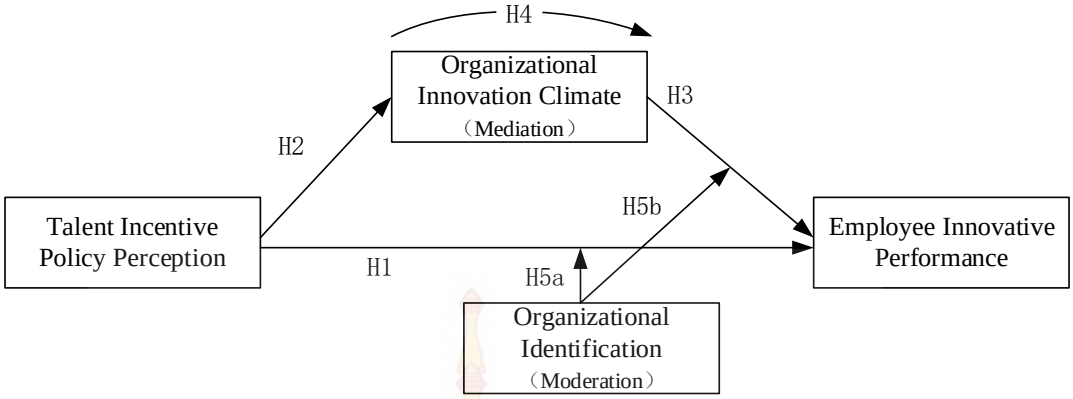

Figure 1.1 Research Framework

1.7 Definition of Key Terms

1.7.1 Perception of Talent Incentive Policies

Regarding the structure of "talent incentive policies," there are three perspectives. First, the *process perspective* holds that talent incentive policies originate from an individual's understanding, awareness, recognition, support, application, and other key activities related to talent incentive policies. Second, the *characteristic perspective* describes policy perception as arising from typical features of talent incentive policies, such as policy usability and usefulness. Third, the *content perspective* believes that the content of talent incentive policies is the foundation of policy perception, and the two have structural consistency. This paper integrates the above viewpoints and holds that the talent incentive policy perception is the subjective feeling of the intended beneficiaries towards the policy tools after the implementation of the talent incentive policies towards the intended beneficiaries, reflecting the impact of the talent incentive policy measures on the policy intended beneficiaries own condition and environment.

1.7.2 High-tech Employee Innovative Performance

High-Tech Employee Innovative Performance evaluates the efficiency and

effectiveness of an organization's or individual's innovation activities. It is a specific form of High-Tech Employee Innovation Performance. In High-Tech Employee Innovation Performance, the effectiveness of innovation activities is defined as efficiency, which depends on whether the innovation activities are adopted beneficially. The measure of innovation is effectiveness, which refers to the value of the products produced in the innovative activities. Both efficiency and effectiveness are factors that test the High-Tech Employee Innovation Performance.

1.7.3 Innovative Climate

The innovative climate is a cultural environment that encourages and promotes innovative activities within enterprises, organizations, and regions. It is fostered through the ecological environment, policy landscape, and cultural milieu. This climate is characterized by an open, free, inclusive, proactive, and forward-looking social environment, often accompanied by a flattened organizational structure.

1.7.4 Organizational Identification

Organizational identification refers to the closeness, commonality, and identification that high-tech employees feel toward their organization. It is the overall perception high-tech employees have for the organization based on values, cultural characteristics, work climate, and workplace. Organizational identification promotes the loyalty and commitment of high-tech employees to the organization. It strengthens mutual trust between high-tech employees and the organization. However, it also enhances collaboration and team spirit and stimulates high-tech employees' positive work attitude and creativity. Organizational identification can be divided into four levels: job positioning, branding, work environment, and organizational culture. The extent to which high-tech employees identify with these four levels can impact their overall identification with the organization. Therefore, organizations need to provide as many opportunities as possible for high-tech employees to establish a sense of identification with the organization.

1.7.5 Control Variables

Control variables affect an experiment's outcome other than the research variables. Therefore, these variables are not the experiment's focus and are also known as irrelevant, irrelevant, non-experimental, or non-experimental. Introducing control variables effectively enhances the explanatory power of the research variables on the

variables under study. Only by controlling all variables that cause changes in the dependent variable, other than the experimental variables, can the causal relationships in the experiment be clarified. To determine the impact of the perception of talent incentive policies more accurately on high-tech employees' innovative performance, this paper controls other factors that affect high-tech employees' innovative performance. In line with research needs and standards, this paper introduces 3 control variables that may affect the relationship between the perception of talent incentive policies and high-tech employee innovative performance, namely gender, age, and educational level.

1. Gender

Women of the same age tend to have more meticulous minds and thinking abilities than men. They are also more mature and mentally stable, allowing women to make more accurate and realistic major decisions and calmly propose more reasonable solutions. This ultimately promotes the enhancement of high-tech employees' innovative performance. Although gender differences lead to diverse opinions and decision-making conflicts, often manifesting as 'constructive conflicts,' they still impact high-tech employees' innovative performance. Therefore, this paper sets gender as a control variable.

2. Age

Undeniably, an individual's life experiences and characteristics displayed in interpersonal relationships become more mature with age. Younger workers do not exhibit the same level of maturity as their older counterparts. However, highly talented employees have their unique advantages. They are not complacent with the status quo, are eager to embrace new ideas and challenges, and possess considerable conceptual skills and strong learning abilities. This enables them to face changes with adaptable thinking and innovative ideas, continuously enhancing the creativity and performance of high-tech employees. Therefore, this paper also sets the age of respondents as a control variable.

3. Educational Level

This paper posits that education can change an individual's cognition, adaptability, and decision-making abilities. Talent with higher educational levels is likely to analyze the causes of events more rationally when processing information and

facing emergencies and take timely and effective measures to resolve them, thereby positively impacting high-tech employee innovative performance. Therefore, this paper also sets educational level as a control variable.

1.8 Benefits of the Research

1.8.1 Research Significance

(1) Theoretical Significance

In this research topic, the study is based on social cognitive theory, Maslow's hierarchy of needs, motivation theory, and innovation management theory. It takes the perception of talent incentive policies as a breakthrough point to construct a theoretical research model of the perception of talent incentive policies, innovative climate, and innovative performance. This targeted exploration of the interrelationships among these three aspects can contribute to expanding the academic application of social cognitive theory, Maslow's hierarchy of needs, motivation theory, and innovation management theory. It enriches research perspectives and outcomes in innovative performance, policy perception, and organizational identification. There is little research on the interrelationships among the perception of talent incentive policies, innovative climate, and innovative performance, especially in the Hainan Free Trade Port. This paper's research can enrich findings in this area and contribute to the theoretical field.

(2) Practical Significance

This paper investigates the interrelationships between the perception of talent incentive policies, innovative climate, and innovative performance and verifies whether the innovative climate is mediating. This research can help the Hainan Free Trade Port to align its reality with the perception of talent incentive policies held by high-tech employees and an innovative climate. It can provide specific suggestions to enhance high-tech employees' innovative performance and help them generate motivation, enthusiasm, and initiative toward innovation. This is of significant practical importance for improving the overall innovative climate of the Free Trade Port, as well as the level of policy perception and innovative performance of high-tech employees.

1.8.2 Research Innovations

1. Innovation in Research Perspective

Firstly, this study builds upon existing research to explore the relationship between the perception of talent incentive policies and innovative climate. It introduces innovative climate as a mediating variable between the perception of talent incentive policies and high-tech employee innovative performance. This reveals the mechanism of action between the perception of talent incentive policies and high-tech employee innovative performance, enriching the research on social cognitive theory.

Secondly, after reviewing the literature, although many scholars have studied the single variables of talent incentive policy perception, innovative climate, and high-tech employee innovative performance, and there are research results on the relationship between two variables, in terms of quantity, there are relatively few in-depth and systematic studies of the interaction of the three variables. This research examines the impact of the perception of talent incentive policies on an organization's innovative climate, addressing the limitations of previous studies with singular dimensions.

Thirdly, by introducing the variable of organizational identification, this study combines micro and macro aspects from the disciplines of organizational behavior, management, economics, and psychology, enriching previous research findings and presenting a degree of novelty. Regarding how the perception of talent incentive policies and innovative climate can better predict market environment changes and opportunities, as well as help the Hainan Free Trade Port improve high-tech employee innovative performance (Finkelstein & Hambrick, 1996).

2. Innovations in Research Methods

Firstly, this study utilizes mathematical, deductive reasoning to dynamically (macro) and statically (micro) analyze the relationship between talent incentive policies perception and innovative climate from an economic perspective. Secondly, it constructs moderating and mediating models using multiple regression analysis. In the subsequent empirical analysis, a comprehensive analytical method is applied for the two moderating variables involving high-tech employee innovative performance and organizational identification. Finally, the study employs empirical analysis to determine the weight of different dimensions of talent incentive policy

perception and the decision-making of high-tech employee and their innovative performance. It verifies the overall mediating effect of an organization's innovative climate between the perception of talent incentive policies and high-tech employee innovative performance. It provides valuable references for enhancing the perception of talent incentive policies from both macro and micro cognitive levels.

CHAPTER II
LITERATURE REVIEW

2.1 Related Theories

2.1.1 Incentive Theory

Corporate incentives can be categorized into macro policy incentives by the state for enterprises and micro incentives within the enterprise, based on the breadth and object of the incentive's desired effect. Macro policy incentives by the state are due to market uncertainties, capital, production, and technological environment. The development of enterprises requires macro guidance from the government through policies. Government policy incentives refer to a series of incentive policies and measures promulgated by the state to promote enterprises' survival and development and improve the economic environment. The means of macro policy incentives by the state for enterprises include tax benefits, government subsidies, government procurement, financial services, and employee incentives.

Tax incentives and government subsidies are the primary means for the government to incentivize enterprise activities. Tax incentives support enterprise production inputs and results. Domestic tax incentive policies focus on direct benefits, preferential tax rates, and tax reductions and exemptions. In contrast, indirect incentive policies such as investment offsets are less common. Government subsidies involve the government collecting taxes from the external beneficiaries of enterprises and then providing subsidies to the enterprises. Such subsidies are beneficial for enterprises to increase R&D input, expand the scale of investment, reduce the risk of innovative activities, and enhance business performance. Government procurement policy refers to the government's actions in acquiring products or services through purchase, lease, commission, or employment, which helps increase enterprise input, expand enterprise output, reduce the risk of product entry into the market, and stabilize the market environment for the enterprise.

Many scholars have conducted extensive research on micro-motivation within enterprises, where the target of internal corporate motivation is the employees. Scholar Eberhart (2004) believes that motivation significantly impacts the work incentive of high-tech employees. He posits that the pursuit of a sense of achievement and personal growth are key drivers of motivation for high-tech employees. According to their research, high-tech employees with high motivation levels are more likely to participate actively in their work and have higher performance levels. Therefore, enterprises should continuously enhance the intrinsic motivation of their high-tech employees (Eberhart et al., 2004). Fritsch (2004) believes an informal, psychological contract exists between high-tech employees and their enterprises. When an enterprise fulfills its promises to high-tech employees, they feel recognized and valued by their leaders, enhancing their work motivation.

However, when an organization fails to deliver on its promises, high-tech employees become dissatisfied and disappointed, decreasing their work motivation (Eberhart et al., 2004). Scholar Gavetti (2005) emphasizes the importance of high-tech employees' pursuit of internal equity within the enterprise for motivation. He states that a sense of fairness within the enterprise is the foundation of motivation for high-tech employees. They are more willing to contribute to the organization when treated fairly. Fairness is reflected in compensation distribution, promotion opportunities, and the work environment. Organizations should focus on just management to enhance the work motivation of high-tech employees (Gavetti et al., 2005).

Zhang et al. (2012) noted that organizational internal career development incentives can significantly enhance high-tech employees' job satisfaction and motivation. Organizations should motivate employees to perform better by providing promotion, training, and development opportunities. Their research also explored the relationship between the career growth and development of high-tech employees and the organization's objectives, discovering that the degree of an employee's identification with organizational goals is closely linked to their motivation for career development (Zhang et al., 2012).

Zhang (2014) focused on the impact of internal relationships within an organization on the motivation of high-tech employees. He found that good social relationships between high-tech employees and their colleagues and superiors can

improve motivation. The support and recognition that high-tech employees receive can enhance their drive and satisfaction. Therefore, Zhang recommends that organizations establish a positive work environment and interpersonal relationships, encouraging cooperation and mutual trust among high-tech employees to improve overall work performance and employee satisfaction (Zhang, 2009).

Scholar Zhao (2012) points out that self-determination theory is an essential theoretical framework widely studied by foreign scholars. This theory suggests that individuals need autonomy, competence, and relatedness in their work. When high-tech employees feel they have control over their work, feel that their abilities are utilized and recognized, and establish good relationships with others, they become more engaged (Zhao, 2012).

Through research, Scholar Zhang (2018) discovered the importance of job design in motivating high-tech employees. Excellent job design can enhance the enthusiasm and engagement of high-tech employees. Enterprises should employ job designs rich in tasks and challenges, providing high-tech employees with work that offers autonomy and a sense of responsibility. Additionally, enterprises must match high-tech employees' skills and interests with job requirements to increase their job satisfaction and performance (Zhang & Yang, 2018).

Zhang (2018) posits that salary incentives are the most common and direct form of motivation. Appropriate salary incentives can encourage high-tech employees to work harder and improve their performance. However, he also points out that sole reliance on salary incentives may not be sufficient to stimulate the intrinsic motivation of high-tech employees, and a comprehensive approach that combines other forms of incentives should also be considered (Zhang, 2018).

Research on internal motivation in enterprises focuses on three aspects: the impact of individual behavioral processes, motivational elements, and the relationship between individual behavior and structure, each of which has developed into mature motivational theories, namely process, content, and behavioral modification theories.

According to different research perspectives, internal motivation in enterprises can be classified into three types. First, based on the reasons for individual behavior, motivation can be divided into internal and external. Internal motivation, intrinsic, emphasizes activities that individuals participate in to satisfy their interests

and achieve a sense of fulfillment without emphasizing or particularly valuing outcomes.

External motivation emphasizes result orientation, where individual participation in activities aims to achieve certain extrinsic outcomes, such as obtaining money or status. Second, based on whether the motivation has a concrete form, it can be divided into material and spiritual motivation. For example, money and goods are material incentives, while praise and commendation are spiritual rewards.

Third, it can be divided into positive and negative motivations. Positive motivation positively influences high-tech employees' behavior and attitudes through positive material or spiritual rewards, reinforcing the result. Negative motivation involves using punitive measures to weaken the negative behaviors of high-tech employees.

According to Herzberg's two-factor theory, satisfaction is generated by motivational factors, such as a sense of achievement, responsibility, and the job content itself; welfare factors, such as salary, work environment, and company policies, cause dissatisfaction. These motivational and welfare factors are integrated into the talent incentive policies of the Hainan Free Trade Port. For example, preferential tax policies, high-quality educational resources, living facilities, and housing subsidies can be regarded as welfare improvement factors. At the same time, recognition and rewards for the innovative achievements of high-tech employees provide motivational factors.

This section organizes the content related to motivation theory at the enterprise level, providing a theoretical foundation for this study to search and filter employee incentive policies to understand employee perception objectives and policy tool implementation paths deeply. It establishes an analytical framework for talent incentive policies, which is beneficial for researching how they impact high-tech employees' innovative performance within the free trade zone and for formulating research hypotheses.

2.1.2 Social Cognitive Theory

Social cognitive theory emerged at the end of the 19th century and quickly sparked a strong response among scholars. This theory has two levels: behavioral learning and cognitive learning. Behavioral learning is influenced by the external environment, with people's actions often unconsciously affected by their surroundings. Cognitive learning is almost entirely determined by individual subjective factors, where

a person's mental state and emotions fundamentally influence their behavior. Subsequently, psychologist Bandura (1977) conducted in-depth research on social cognitive theory. Incorporating his latest views into the theory, he proposed the well-known triadic, reciprocal theory. This theory elucidates the mutual influence of behavior, the individual, and the environment. These three elements have significant relations with each other and are subject to change in response to variations in each other (Bandura, 1977). The detailed model is as follows:

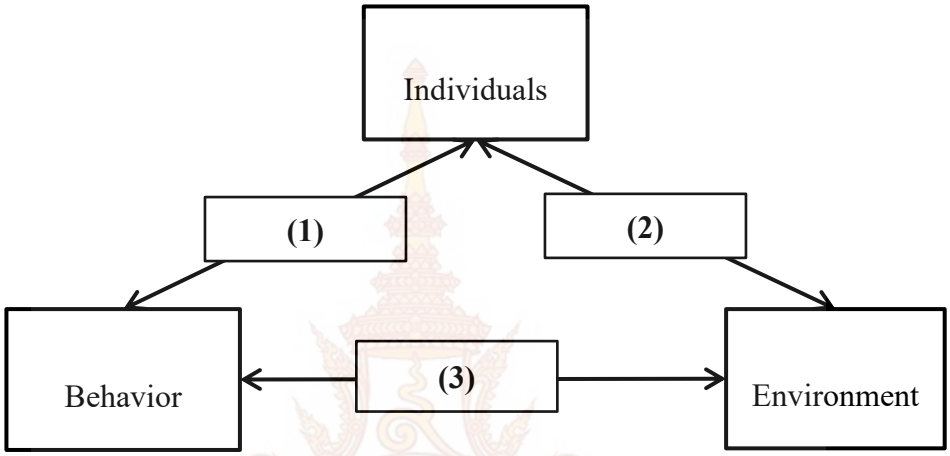

Figure 2.1 Ternary Interaction Model

As in Figure 2.1, the individual plays a central role among the three elements of behavior, individual, and environment. The influence of the individual is indispensable and crucial in prompting behavior. Meanwhile, the environment acts as an external catalyst. The position of the letters and the direction of the arrows in the figure indicate the interrelationships and mutual influences among these three elements. The detailed relationships between these three elements are further interpreted as follows:

1. Individuals and behavior complement each other, closely linked yet forming independent systems. Various desires and viewpoints of individuals can affect behavior, becoming the primary catalyst for its occurrence. Conversely, behavior can also impact the individual, affecting internal psychological aspects.

2. The interconnection between environment and behavior is also significant. The influence of the environment on behavior cannot be overlooked, as it may subtly

alter behavior. Individuals usually adopt a receptive or experimental attitude. On the other hand, the impact of behavior on the environment must be emphasized.

3. The influence between individuals and the environment has been briefly touched upon earlier. The impact of the individual on the environment is primarily through inherent factors such as personality, while the environment indirectly influences the individual.

Based on these theories, the internal connections between the individual, behavior, and environment at different levels can be explored in depth, and patterns of interaction can be discerned. Moreover, the individual is not constrained by any independent factor but is a constantly changing and dynamic entity with self-awareness and thoughts. Under external stimuli, individuals adjust themselves and respond according to the situation, formulating and optimizing plans and initiating a series of behavioral feedbacks.

The study of social cognitive theory has been widely applied in organizational behavior. Researchers have explored how individuals perceive and understand information within an organization and how individuals' cognitive processing influences their behavior and attitudes. It has been found that the cognitive formation process of individuals is closely related to their organizational environment. The goals and values of the organization influence how individuals receive and form information, which is closely related to the formation of organizational identification and subsequent individual behavior.

Firstly, social cognitive theory plays a significant role in understanding the formation of organizational identification. It posits that an individual's organizational identification is formed through the processing and understanding information within the organization. Individuals form attitudes and a sense of identification with the organization through perceiving and interpreting its goals, values, and culture. Social cognitive theory reveals individuals' processing of environmental information through reception, storage, and application, creating their sense of identification.

Secondly, let us consider the concept of organizational identification. When individuals cultivate a strong sense of identification with the organization, they are more likely to embrace and align with its goals and values. Identification with the organization leads to more active participation in its activities and decision-making

processes and contributes more to the organization. Furthermore, organizational identification increases an individual's trust and sense of belonging, enabling better adaptation to internal changes and development.

Finally, the research on social cognitive theory and organizational identification variables provides significant theoretical support and practical guidance for organizational behavior. Social cognitive theory reveals the information processing between individuals and organizations, helping to understand how individual identification with the organization is formed. The study of organizational identification variables focuses on the relationship and mutual influence between individuals and organizations, helping to explain the sense of identification and loyalty of individuals to the organization. These studies offer practical guidance for managers, aiding them in better managing internal personnel relations and improving the performance of high-tech employees.

2.1.3 Maslow's Hierarchy of Needs

Maslow's Hierarchy of Needs, a theory proposed by the American psychologist Abraham Maslow in the 1950s, outlines the levels and order of human needs and pursuits. Maslow believed in humans' intrinsic drive towards self-actualization, suggesting that human needs are not isolated but present a hierarchical structure. Starting from fundamental physiological needs, this hierarchy progresses upwards until the need for self-actualization is reached. Maslow categorized these needs by priority, representing them in a pyramid-shaped hierarchy, widely known as Maslow's Hierarchy of Needs. This theory has extensive application and influence in psychology, education, management, and other fields.

According to Maslow's theory, physiological needs are the most basic and urgent, including adequate food and drink, warm clothing, rest, and sleep. As these needs are satisfied, people turn to the next level of needs, safety needs, which encompass physical and environmental safety, stable employment, and income sources. When individuals feel safe, they pursue love and belonging needs, including forming intimate relationships, friendships, and a sense of family belonging. As these needs are met, people seek the next level, esteem needs, involving gaining respect from others, enhancing self-esteem, feelings of accomplishment, and status elevation. Finally, upon fulfilling these needs, individuals aspire to the highest level of needs - self-actualization,

which includes pursuing personal potential, achieving individual goals, and becoming the best version of oneself.

Maslow's Hierarchy of Needs emphasizes the hierarchical and sequential nature of needs. The theory continues to be widely applied in psychology and management, offering a valuable framework for understanding human needs and motivations. For individuals, understanding their hierarchy of needs can assist in setting realistic goals and striving to meet them. For organizations, Maslow's theory aids managers in comprehending the needs of high-tech employees, designing effective motivational mechanisms, and enhancing employee satisfaction and performance.

2.1.4 Social Identification Theory

Tajfel introduced a new conceptualization of social identification, framing it through three foundational processes: categorization, identification, and comparison. Consequently, the social identification theory is called the CIC theory (categorization-identification-comparison theory). The central tenet of the social identification theory suggests that within an organization, the identification and qualifications of team members or individuals lead to social identification. Those who continuously strive to elevate their social identification do so to bolster self-esteem within their emotional sphere. They utilize this positive social identification to make favorable comparisons within their group or with relevant out-groups, aiming to derive satisfactory evaluative outcomes. The positive or harmful nature of social identification will determine whether individuals can realize their self-worth.

Within the social identification theory framework, awareness of group distinctions is paramount. As delineated in the research perspectives of Turner and Tajfel, three variables might influence inter-group distinctions:

(1) External definitions alone are inadequate for an individual within an organization to recognize their in-group. The individual has to internalize and manifest their group membership.

(2) The situational allowance for evaluation can enable comparisons between groups. The quality of intergroup relations stems from potentially relevant evaluations and appropriate selections.

(3) Forming feasible out-groups inevitably results from thorough comparisons, and the pressures associated with such comparisons naturally arise.

Table 2.1 Summary of Research on Social Identification

DOMESTIC AND FOREIGN SCHOLARS ON SOCIAL IDENTIFICATION-RELATED RESEARCH			
Main Viewpoint Description	English Interpretation	Author	Publication Year
Social Categorization, Social Comparison, Positive Distinction	Social categorization, social comparison, positive distinction	Tajfel	1981
The self-image obtained from the perceived membership group, along with the emotional and value experiences as a member	The self-image an individual obtains from his perceived group and his emotional and valuable experiences as a member	Tajfel & Turner	1986
Social Organization, Meaning Systems, Welfare Infiltration	Social organization, meaning system, and welfare infiltration	Li Youmei	2007
Interest-based, Culture as a Bond, Organizational Belonging	Based on interests, using culture as a bond, belonging to the organization	Zheng Hangsheng	2009
Group or Category Qualification: Positive Cognitive Evaluation, Emotional Experience, and Value Commitment	Group qualification or category qualification: Positive cognitive evaluation, emotional experience, and value commitment	Fang Wen	2008

2.2 Related Studies

2.2.1 Research on the Perception of Talent Incentive Policies

Although policy perception has started to gain attention from governments and academic circles, research on the "perception of talent incentive policies" has been relatively scarce in previous studies. In prior research on policy perception, scholars have gradually established the definition and measurement methods for policy perception. The perception of talent incentive policies is a subcategory of social perception. This study aims to reveal the definition and methodology of the perception of talent incentive policies based on relevant literature in policy research.

1. The Concept of Perception of Talent Incentive Policies

Scholars study the "policy's encouragement effect on employees" in macro

and micro aspects. The macro aspect focuses on the policy itself, and its research process can be divided into five stages: searching, preliminary confirmation, development, further expansion, and comprehensive innovation management. From the searching stage to the further expansion stage, the main theme of talent incentive policy research concentrates on the policy's form and evaluation.

While studying the form and evaluation of policies, the academic field in China has put forward several viewpoints. For instance, Liu et al. (2018) believe that talent incentive policies are behavioral rules and institutional measures adopted by the government in a specific socio-historical context. These policies aim to stimulate talent development and increase the positive impact of employees in economic, scientific, technological, and cultural fields. They include various regulations, implementation plans, management strategies, and more, encompassing aspects such as attracting, motivating, utilizing, and managing talents (Liu & Liu, 2018).

In their research, Huang and others (2018) emphasized that the primary intention of formulating a talent incentive policy system is to attract and retain top talent from domestic and international sources. Additionally, it aims to establish healthy communication channels between talent within and outside the country (Huang, 2018). Lin (2009) posits that the construction of talent incentive policies should emphasize five main aspects. These include the principles of position allocation, the incentive process, measurement methods, the design of compensation, and training programs (Lin, 2009). In her research, Wu (2011) suggests that formulating talent incentive policies should focus on four key points. These include understanding the value of talent, deeply comprehending talent needs, designing clear policy objectives, and establishing a sound policy implementation mechanism (Wu, 2011). As research on this topic continues to deepen, scholars have begun identifying key factors influencing talent incentive policies.

Su and others (2013) conducted an in-depth study on Tianjin's talent incentive policies, exploring the critical drivers of talent motivation (Chen, 2017). The research direction of talent incentive policies has shifted from further expansion to comprehensive innovation management, primarily focusing on the impact of talent policies on innovation. Jin and others (2011) studied the optimal approaches of talent incentive policies on employee innovation according to different stages of the growth

of innovative employees. They advocate for policy support for junior employees to minimize the cultivation time for talent in the growth phase (Jin, 2011). The empirical research results of Zhang and others (2012) confirm that cultivating innovative employees is inseparable from policy encouragement (Zhang et al., 2012). In their study, Zhao and others (2012) pointed out that the talent system is one of the four key elements constituting the "environmental field" for talent development. They confirmed the argument that implementing a scientific talent system is crucial in cultivating employees (Zhao & Han, 2012).

In his article "Policy Tools for an Innovation-Driven Sports Industry" (2017), Chen emphasized that all regions across the country actively promote the advancement of the sports industry. Talent policies are one of the urgently focused and significant policy directions in this endeavor (Chen, 2017).

On the micro level, research has shown that the perceptions of high-tech employees play a significant role in evaluating the effectiveness of talent reward policies. An organization may have numerous explicitly formulated and implemented talent incentive policies. However, if high-tech employees fail to recognize the impact of these policies on themselves, then these incentives and measures become essentially valueless. This demonstrates that these strategies can produce the intended effects only when high-tech employees truly perceive the talent incentive policies.

Multiple studies have confirmed this viewpoint. Wright and others (2004) divided talent incentive strategies into three stages: establishment, execution, and perception. They emphasized that the actions of high-tech employees are responses to the perceived talent incentive strategies, focusing on variables that include the cognition of talent policies (Wright & Boswell, 2002). In their research, Takeuchi and others (2013) proposed that perception is decisive in altering the relationship between people's attitudes, behaviors, and outcomes. If high-tech employees misunderstand talent incentive policies during their formulation and implementation, they cannot achieve the expected effects (Takeuchi, 2013). Although existing research has made some clear distinctions, a universally accepted definition of the perception of talent incentive policies is still being formed.

After an in-depth review and organization of literature on policy perception, this study defines "perception of talent incentive policies" as the awareness and

measurement of the policy by its service targets and subjects. The perception of talent incentive policies is a subcategory of policy perception. Therefore, in this study, the perception of talent incentive policies will adopt the definition of policy perception, meaning it is the depth of understanding and degree of satisfaction of high-tech employees with the policy. This study investigates the impact of high-tech employees' perception of talent incentive policies on their innovative performance by exploring their awareness and satisfaction with these policies (Bennett & Liden, 1996).

2. Dimensionality

As research continues to deepen, in recent years, there has been an increasing number of studies on the dimensionality of the perception of talent incentive policies. Scholars Bunea and Thomson (2015) summarized the perception of talent incentive policies into three dimensions: the degree of understanding of the policy, the attitude towards the policy, and the level of satisfaction with the policy (Xu, 2019). Xu (2019) believes talent incentive policies are very important in modern society. These policies aim to enhance employees' sense of gain, satisfaction, and creativity by stimulating people's enthusiasm for work and development. In studying these policies, one should perceive them from "four dimensions" (namely policy support, policy recognition, policy perception, and policy satisfaction), and the division of dimensions should also encompass these four aspects (Marshall, 2007). Marshall (2007) and Fu (2021) both categorized the perception of talent incentive policies into three aspects: the level of understanding of the policy, the accessibility of policy information, and the subjective satisfaction with the policy procedures (Fu, 2021).

From the research of the scholars, it is evident that the current academic focus on the dimensions of the perception of talent incentive policies mainly revolves around the individual's familiarity with the policy, their perception of its implementation at the individual level, and their satisfaction and approval of the policy's content and execution process. This paper contends that the division of aspects in the perception of talent incentive policies should adhere to the following two criteria. First, the dimensions should effectively represent the individual understanding of the perception of talent incentive policies. Second, they should reflect the impact of talent incentive policies on individuals' subsequent attitudes and behaviors. Therefore, in this research project, the division of dimensions of the perception of talent incentive policies

was approached from a process perspective. Following the categorization methods of scholars such as Xu and Fu, the perception of talent incentive policies was divided into three dimensions: understanding level, sense of gain, individual policy satisfaction, policy awareness, sense of policy gains, and policy satisfaction. Herein, policy awareness is used to quantify the individual's level of understanding and familiarity with the policy, sense of policy gains to interpret the individual's perception of the policy's implementation, and policy satisfaction to represent the individual's satisfaction level and subjective evaluation of the policy.

From the research of these scholars, it can be observed that the current academic division of the perception of talent incentive policies is as follows:

(1) Policy Awareness

Policy awareness refers to the extent to which employees are aware of a policy. It is the first step in talent perception; only when talents are fully informed about the policy's content and objectives can they evaluate it effectively. Scholars like Chen et al. (2009) believe that to become aware of a policy, the government needs to take a series of measures, such as policy promotion, information dissemination, and policy explanation. Only through such efforts can the actual effects of the policy be better reflected through the employees' perceptions (Chen et al., 2009). Wright (2002) believes that the government should emphasize the feedback from talent regarding policy information. The government needs to adjust the methods of policy promotion and dissemination promptly to ensure that policy information is widely spread. This approach helps to enhance the willingness and capability of talent to become aware of the policy (Wright & Nishii, 2004).

(2) Sense of Policy Gains

Liu (2018) defines the sense of policy gains as the extent to which employees benefit from the policy. The sense of policy gains is an embodiment of the effectiveness of the policy and a crucial factor in the level of talent's identification with the policy. The government should ensure that talent can benefit from the policy through diversified incentives, such as tax and reward measures (Liu, 2018). Bunea and Thomson (2015) argue that the government should also enhance policy design's specificity and scientific nature to ensure effective measures are taken to motivate high-tech employees. This approach is crucial for reducing errors and deviations during

policy implementation, thereby improving talent experience regarding the sense of policy gains (Bennett & Liden, 1996).

(3) Policy Satisfaction

Policy satisfaction represents the overall evaluation of the policy's effectiveness by the target group and is a crucial indicator of their level of identification with the policy. Chen (2018) suggests that the government should establish a scientific evaluation system to monitor and measure talent incentive policies dynamically. This system would facilitate timely adjustments and optimization of policy measures, thereby enhancing worker satisfaction (Chen, 2018). Marttin (2018) and Zhu (2018) both contend that the government should also thoroughly consider the needs and concerns of talent, pay attention to their opinions and suggestions, increase their involvement and autonomy in policy-making, and thereby enhance their perception of policy satisfaction (Marttin, 2002).

3. Measurement of Perception of Talent Incentive Policies

Scholars' approaches to measuring the Perception of Talent Incentive Policies align with their conceptual framework. In previous research, the measurement indicators for the Perception of Talent Incentive Policies included aspects like "the degree of alignment between individual behavior and policy," "whether individuals perceive the policy and act accordingly," and "levels of understanding and satisfaction." This study, referencing the experiences of past scholars in researching the Perception of Talent Incentive Policies, matches the measurement factors with the concept of the Perception of Talent Incentive Policies. As previously mentioned, this study defines the Perception of Talent Incentive Policies as the level of understanding and satisfaction of high-tech employees with talent policies. Therefore, the measurement indicators selected in this study follow Peng's (2013) method.

2.2.2 Research on Organizational Innovation Climate

1. Concept of Organizational Innovation Climate

The concept of innovative climate is an elaboration on the environmental climate. This term originated from the "Psychological climate" proposed by scholar Lewin in 1935. At that time, introducing this technical term profoundly impacted the field of psychology, inspiring in-depth research among many scholars of Lewin's era. They found that both internal and external environments significantly influence

individual behavior. Therefore, combining psychological climate with innovation research led to the birth of the new concept of innovative climate. From the 1980s onwards, many researchers began to delve deeply into organizational innovative climate, making significant advancements in this field.

The renowned Swedish professor of management, Ekvall (1982), was the first to explain the concept of innovative climate in detail. He believed that the innovative climate refers to the situation where an individual's innovative capabilities are influenced by the surrounding environment to be either facilitated or hindered. This definition effectively describes the state of innovation (Ekvall, 1982). Amabile's (1989) research proposed a classic concept: organizational innovative climate is the degree to which organizational members perceive support and approval for innovation (Amabile, 1989). In the same year, Oldham and Cummings (1996) found through their research that organizational innovative climate is a deeply rooted environmental perception in the minds of high-tech employees, which drives them to exhibit innovative behaviors and facilitates the production of innovative outcomes (Oldham & Cummings, 1996). Tesluk (1997), approaching from a subjective human perspective, defined organizational innovative climate as the perception of objectively existing management activities within an organization. This climate can significantly facilitate the production of innovation (Tesluk & Griliches, 1984). Isaksen (1995) analyzed the interplay between innovative climate and other factors influencing innovative behavior from the perspective of operating principles. He posited that the innovative climate can affect an organization's innovative behavior and capabilities (Isaksen & Akkermans, 2011). Zhang and Yue (2017) interpreted the innovative climate from the perspective of an individual's psychological environment. They believe that the innovative climate is organizational members' perception of the environmental climate. At the same time, this organizational climate also provides feedback on their innovative activities (Zhang & Yue, 2017). Bharadwaj (2000) and others continued the concept of subjective perception, emphasizing that the changes in individuals' innovative actions are caused by their cognition, leading to changes in the innovative climate of the entire organization (Bharadwaj, 2000).

Chen (2011) presented a different perception of an innovative organizational climate. He discovered that high-tech employees' perception of the organizational

environment includes the perception of the environment and the cognition of innovative opportunities (Chen, 2011). Zhang and Ju (2014) categorized the innovative environment based on internal and external environments, dividing it into a company's internal and external innovative environments. They regarded the internal innovative environment of a company as a potent subjective cognition that influences the innovative behavior of high-tech employees. In contrast, the external innovative environment is considered a composite of all external environmental factors that affect the innovation effectiveness of high-tech employees (Zhang & Ju, 2014). Zhang (2018) proposed that the innovative environment is reflected at the organizational and individual levels, representing the intuitive feelings of organizational members about their work environment and overall perception of the innovation environment (Zhang, 2018). Kuenzi (2009) believed that the organizational innovative climate should be divided into the individual and organizational levels (Kuenz, 2009). The main focus of the research by Liu, Shi, and other scholars (2015) is on the internal innovation environment of enterprises. They advocate that a universally recognized subjective feeling can influence the innovative behavior of high-tech employees within enterprises (Liu & Shi, 2015).

From the scholars' research, it is evident that they first defined the concept of innovative climate and then studied its categorization. Defining the concept is an individual's perception of the organization's willingness to innovate. Subsequently, most scholars divide organizational identity into internal and external types, although the criteria and specific contents vary. Therefore, based on the theoretical stance of Oldham & Cummings (1996) and Zhang (2018), this paper defines the perception of an organization’s innovative climate involved in this study as the broad, subjective cognition of individuals towards the innovation environment of the free trade zone (Amabile, 1989).

2. Measurement of Innovative Climate

In academic works discussing the dimensions of innovative climate, the concepts put forth by Professor Amabile from the United States have been widely acclaimed in academic circles. Amabile and Conti (1989) established dimensional indicators for the innovative climate and elucidated a theory of intrinsic motivation. They advocated that the innovative climate should cover an eight-dimensional model, including team support, a challenging work environment, organizational impediments,

organizational rewards, encouragement from superiors, work pressure, work freedom, and resource abundance (Siegel, 1978). Siegel (1978) designed the SSSI questionnaire with schools as the research setting and categorized an innovative climate into five domains: leadership style, ownership, multiple criteria, continuous improvement, and collaborative communication (Ekvall, 1982). Swedish scholar Ekvall (1987) designed the CCQ (Creative Climate Questionnaire) measurement model, which outlines ten specific aspects to describe an innovative organizational environment. These aspects include challenge, freedom, support for new ideas, trust and openness, dynamism and vitality, ease and humor, debate, conflict, risk-taking, and time pressure (West, 2004). Scholar West (1989) developed the TCL (Team Climate Inventory) measurement model to determine team factors' distribution in the organizational innovative climate. This model distinguishes four parts: aspiration and goals, safe participation, task orientation, and support for innovation. Scholars subsequently refined these measurement models, developing new scales and dimensions (Amabile, 1989). Subsequently, Amabile (1989) developed the WEI (Work Environment Inventory) and KEYS measurement models. In the WEI model, he divided the innovative environment into nine parts: stimulation of suggestions, rewards and recognition, autonomy in innovation, management style, resource abundance, risk-taking, organizational support, challenge, and pressure. In the KEYS model, he defined more detailed ten parts: organizational motivation, encouragement from superiors, team support, sufficient resources, job challenges, autonomy in innovation, organizational problems, work pressure, innovation capacity, and output capacity. This study integrates these classic measurement models and lists them in detail in Table 2.2.

Table 2.2 Concept and Classification of Organizational Innovation Climate

Scale	Organizational Support	Task Support	Personnel Support
SSSI Scale	Sustainable Development, Normative Diversity	Ownership, Uniformity	Leadership
CCQ Scale	Dynamism & Drive, Playfulness & Humor, Adventurousness	Challenge, Autonomy, Innovation Time	Innovation Support, Trust, and Openness
WEI Scale	Encouragement of Suggestions, Rewards, Recognition, Abundant Resources	Autonomy, Risk-Taking, Challenge	Development, Debate, Conflict
KEYS Scale	Organizational Encouragement, Rich Resources	Challenging Work, Autonomy, Creativity	Management Role Model
TCL Scale	Innovation Support	Vision & Goals, Task Orientation	Supervisor Encouragement, Team Support

At the same time, many domestic scholars have also explored and further improved the measurement tools developed by international scholars. Taking Liu, Shi, and Zhang (2009) as an example, they adapted the KEYS scale to incorporate Chinese corporate culture and thinking characteristics. They reduced the measurement indicators of an innovative climate to five: organizational support, supervisor support, team support, work characteristics, and resource allocation. Sun (2009) utilizes the KEYS scale designed around seven aspects of an innovative climate: work style and environmental support, organizational philosophy, leadership support, work team support, resource supply, learning and growth, and knowledge expertise. Additionally, Yang et al. (2013) divided organizational innovative climate into value guidance (ideological or market guidance), institutional incentives (evaluation learning, resource assurance, role model demonstration), and interpersonal interaction (communication, cooperation, and authorization support) based on the SSSI scale, CCQ scale, and KEYS scale. Zhang (2014), after considering the domestic and international SSSI scale, CCQ scale, KEYS scale, WEI scale, and TCL scale, divided organizational innovative climate into three parts: support for high-tech employees, organizational support, and task support.

3. Research on Innovative Climate

In recent years, there has been increasing research on an innovative climate. According to a study by Peng and Gu (2010) in an economic development zone in Nanjing involving 478 employees in high-tech companies, five factors related to an innovative climate (which include environmental and job autonomy, organizational support for employees, cooperative relationships among innovators, and personal growth and challenging opportunities) were found to have a significant positive correlation with two directions of innovative behavior (including the generation and execution of innovative ideas). Moreover, the innovators' self-perception of their abilities also played a moderating role.

Sui (2012) extended the theoretical framework of Gu and Peng (2010) to the collective level, exploring the impact of an innovative climate, innovation efficacy, and team leadership on the innovative performance of high-tech employees in teams (Sui, 2018). Through an empirical survey of teams in 51 large high-tech information technology companies, they discovered a clear relationship between the team's innovative climate and the innovation outcomes of high-tech employees. Moreover, the perception of the effectiveness of team innovation played a bridging role in this relationship.

2.2.3 Research on High-Tech Employee Innovation Performance

1. Concept of High-Tech Employee Innovative Performance

Overseas scholars began exploring the innovative performance of high-tech employees in the last century. Later, Munford (2000) provided an in-depth interpretation of this concept, precisely indicating that the innovative performance of high-tech employees includes two significant aspects: one is the innovation of basic elements such as products and technologies; the other is innovation in the areas of knowledge discovery, innovation processes, and corporate culture during practical application (Munford & Gomez-Mejia, 2000). Kleysen (2001) and his colleagues presented a new perspective on innovation performance, recognizing it as a behavior that involves implementing valuable innovations at the organizational level (Kleysen, 2001). Amabile (1989) defined High-Tech Employee Innovative Performance as the crystallization of individual thoughts in a study (Amabile, 1989). Janssen (2004) defined High-Tech Employee Innovative Performance as purposeful creation aimed at

infusing independent and change-oriented modes of thinking. Janssen also analyzed three stages of High-Tech Employee Innovative Performance: formation, promotion, and completion (Janssen, 2000). Based on the research findings of several overseas scholars on High-Tech Employee Innovative Performance, it can be summarized that High-Tech Employee Innovative Performance can be divided into product innovation and process innovation.

Furthermore, Chinese scholars have defined High-Tech Employee Innovation Performance based on their perceptions. For example, Gao (2004) defines High-Tech Employee Innovation Performance as innovative behavior's benefits, outputs, and economic effects. He emphasizes the comprehensive representation of innovative product performance and innovative process efficiency (Nieto, 2011). Han (2006) believes that the innovative performance of high-tech employees encompasses the entire process of generating innovative ideas, taking innovative actions based on these ideas, and presenting innovative proposals and outcomes (Gao et al., 2004). Zheng (2007) emphasizes that High-Tech Employee Innovative Performance places a greater emphasis on individual innovative awareness. In other words, innovative concepts and methods must be based on an individual's understanding and application of certain concepts, steps, or ideas. The goal is to generate innovative results (Han, 2006).

After analyzing the literature, it is concluded that both domestic and international perceptions of High-Tech Employee Innovation Performance are similar. There is a consensus on the importance of independent thinking and awareness. It is uniformly agreed that High-Tech Employee Innovation Performance is a concentrated manifestation of the effectiveness of innovative outcomes and processes. By comparing academic literature from different countries, High-Tech Employee Innovation Performance can be divided into two categories: One views High-Tech Employee Innovation Performance as a ratio related to actual innovative outputs. The higher this ratio, the better the innovation performance of high-tech employees, and vice versa. The other perceives High-Tech Employee Innovation Performance as being demonstrated through innovative outcomes, emphasizing products, patents, and similar achievements. In this study, the focus on High-Tech Employee Innovation Performance is more on the achievements of high-tech employees in innovation. Integrating the definitions of High-Tech Employee Innovation Performance by scholars at home and

abroad, this study defines the concept of High-Tech Employee Innovation Performance as the intentional behavior of an individual to achieve tangible results by implementing new ideas and methods.

Table 2.3 Concept of Employee Innovation Performance

High-Tech Employee Innovation Performance	Gao Jian (2004)	High-tech employee Innovative Performance is about the efficiency and output of innovative activities of the innovating subject and the commercial profits obtained.
	Nieto (2011)	Profit from innovation.
	Kleysen et al. (2018)	Innovative behavior is an activity that applies beneficial innovation at any level within an organization.
	Zheng Jianjun (2007)	High-Tech Employee Innovation Performance refers to the process where employees generate innovative ideas, act on these ideas, and put forth innovative suggestions and outcomes.
	Han Yi (2006)	High-tech employee Innovative Performance is about transforming ways of thinking in work and introducing purposeful creations with independent thought.
	Janssen (2004)	High-tech employee Innovative Performance includes the innovation of intrinsic core elements and innovation of practice processes.
	Munford (2000)	High-Tech Employee Innovative Performance emphasizes the products of thinking.
	Amabile(1998)	High-Tech Employee Innovative Performance is no longer limited to production, manufacturing, and sales processes but should expand its scope.

2. Measurement of High-Tech Employee Innovative Performance

Scholar Janssen et al. (2000) pointed out that creativity is the foundation of High-Tech Employee Innovative Performance. The process from the generation to the promotion of creative ideas and realization to application is inseparable from creativity. Therefore, High-Tech Employee Innovative Performance is measured in three dimensions: willingness to innovate, behavioral innovation, and innovative outcome (Janssen, 2000). Ahmed (2006) built upon the progress of previous scholars and believed that enterprises should measure High-Tech Employee Innovative Performance by incorporating five aspects: innovative behavior, innovative products, the innovative process, innovation market, and innovation strategy (Ahmed, 2006). Wanger (2017) further supplemented the research, proposing that the measurement of High-Tech Employee Innovative Performance should encompass three dimensions: innovation benefits, High-Tech Employee Innovative Performance, and the comprehensiveness of the innovative dimensions.

According to literature reviews, compared to foreign scholars, domestic scholars have conducted more nuanced research in exploring the classification and measurement of High-Tech Employee Innovation Performance (Wanger, 2017).In the research of Han et al. (2007), the measurement of High-Tech Employee Innovative Performance was divided into three dimensions: innovative willingness, innovative actions, and innovative outcomes, and they successfully developed tools for measuring High-Tech Employee Innovative Performance (Han et al., 2007). Subsequently, as research deepened, the measurement standards for High-Tech Employee Innovative Performance became more comprehensive. In designing the measurement standards for High-Tech Employee Innovative Performance in 2013, Xie focused on the overall production process, incorporating new material design, production efficiency, and new product value into the measurement indicators (Xie et al., 2013). Wang (2013) categorized High-Tech Employee Innovative Performance into six parts: management mechanism’s High-Tech Employee Innovative Performance, R&D achievements, resources invested in technological innovation, outputs of technological innovation, production results of technological innovation, and market effects of technological innovation (Wang, 2013). In Wang's (2017) study of High-Tech Employee Innovative Performance in higher education institutions, the selected measurement indicators

included the number of papers published, the number of papers published in Nature and Science journals, the number of national-level achievements, the number of technology transfer contracts, patent numbers, the number of successful entrepreneurs among alums, and the number of academicians and outstanding political talents (Wang, 2017). Zhao et al. (2017), in their study of High-Tech Employee Innovative Performance, divided the measurement standards into four aspects: innovative input, self-research and development capability, innovative output profit, and innovative management capability (Zhao et al., 2017). From the above content, it is not difficult to see that the measurement standards for High-Tech Employee Innovative Performance can be summarized into two: (1) building an evaluation system for High-Tech Employee Innovative Performance based on the individual level. Although there are some differences in standard design among different studies, these standards often focus more on results than inputs, such as measures that might only include result-oriented indicators like the number of patents, innovative ideas, innovative thinking, and improvements in work efficiency. (2) Establishing a measurement system for High-Tech Employee Innovative Performance based on the enterprise level. High-Tech Employee Innovative Performance measurement at the enterprise level often considers the balance between input and output. Therefore, this measurement system commonly includes input standards such as R&D investment, overall innovation expenditure, patent citations, and the number of patents and new products. After referencing previous scholars' research and combining it with our interpretation of high-tech employee innovative performance, this paper adopts the method of constructing a measurement system for High-Tech Employee Innovative Performance at the enterprise level. We have chosen the single scale designed by Han (2017).

The measurement standards for employee innovative performance can be summarized into two main directions:

1. Individual-Level Measurement: This approach constructs an evaluation system for employee innovative performance primarily at the individual level. While there may be some variations in the design of these standards among different studies, they tend to focus more on outcomes and less on inputs. For example, measurement indicators in this category might include metrics such as the number of patents, innovative ideas, creative thinking, and improvements in work efficiency—mostly

outcome-oriented metrics.

2. Enterprise-Level Measurement: In this approach, employee innovative performance is measured at the enterprise level. Measurement systems at this level typically consider a balance between inputs and outcomes. Therefore, they often include input standards such as research and development investment, overall innovation expenditure, patent citations, and the number of patents and new products.

3. Current Research Status of Employee Innovation Performance

Scholars have conducted in-depth explorations and achieved significant results regarding employee innovative performance and its influencing factors. It is worth noting that while many elements influence employee innovative performance, this study does not include all of them but focuses on those closely related to the research topic. The study summarizes the specific ways in which these factors affect employee innovative performance. The elements of interest in this research project primarily include technological factors, government factors, R&D investment factors, and human resource factors.

(1) Technological Factors

Research suggests that technological advancements within a specific domain can spur progress, amplifying the efficacy of research and development (R&D) activities (Schere et al., 1965). This perspective is further nuanced by Jiao and his colleagues (2010), who shed light on the technological system, underscoring that distinct technological systems yield different impacts on employee innovation outcomes, though these are predominantly positive. Concurrently, Chu (2010) focuses on the facet of technological collaboration, positing that the depth of vertical cooperative alliances wields a significant sway over an organization's innovative prowess, with a direct correlation between the intensity of cooperation and the magnitude of innovation.

(2) Government Factors

Research by Liu (2006) elucidated governmental initiatives' significant role in augmenting employee innovative output. This perspective was further corroborated by Geng et al. (2016), who affirmed this correlation in scrutinizing innovative outputs within the private sector while noting that policies impeding innovation did not manifestly impact employee innovative outputs. Delving into the nature of governmental interventions, Long et al. (2012) posited that support from governmental entities indeed

catalyzes an uptick in employee innovative output, furnishing insights into the mechanics of this association. Further enhancing this conversation, Wang (2013) embarked on a comparative exploration, ascertaining that the influence of governmental financial aids on innovation outcomes oscillates contingent on the prevailing environmental context.

(3) R&D Investment

Hausman (1984) explored the nexus between corporate investment and the innovative milieu, discerning that corporations augmenting their R&D allocations typically foster a more propitious innovative ambiance, exerting a pronounced influence. Similarly, Eberhart (2004) underscored that R&D financial commitments profoundly and positively impinge upon a company's profit margins, market valuation, and operational metrics, transcending the repercussions of generic fiscal undertakings. Li (2008) posited that although fiscal outlays in scientific endeavors may not amplify a company's profit indices, they can galvanize its growth trajectory. Echoing this, Shang (2013) ascertained that allocations in R&D can catalyze the germination of innovative outcomes, bolstering the innovative prowess of employees. Taking a sector-specific stance, Wu (2013) elucidated that given the disparities in innovation prospects across diverse sectors, the dividends reaped from R&D expenditures fluctuate appreciably. Adding a nuanced layer to this discourse, Zhang (2017) deduced that the correlation between employee innovative acumen and R&D fiscal commitments traces an inverted U-shaped curve.

(4) Human Resources

Research has illuminated several pivotal factors that impact employee innovative performance. According to Lau (2004), a nexus exists between the adept allocation of human resources and elevated employee innovative performance. Similarly, Liu and his associates (2007) probed the implications of the human resource system on employee innovative outputs. Their discourse accentuated the capacity of the human resource system to amplify a company's innovation metrics by fostering employees' innovative prowess. Ma (2013) introduced another facet, positing that emphasizing employee training can bolster innovative outcomes. Wang (2016), in her scholarly pursuits, underscored the momentum imparted by an evolving innovation climate in catalyzing employee innovative performance. The influences these factors

exert on innovation vary in magnitude and nature. Therefore, considering these insights, this investigation has systematized and collated the perspectives in Table 2.4. Analyzing these curated factors highlights the tangible ramifications of government stratagems and human resource initiatives, laying a robust groundwork for hypothesizing in subsequent research phases.

Table 2.4 Factors Influencing Employee Innovation Performance and Their Modes of Impact

Classification	Representative scholars	Main viewpoint
Technical Factors	Scherer et al. (1965)	Technical factors impact the extent of R&D efforts.
	Jiao Shaofei et al. (2010)	Technical factors influence employee innovative performance by affecting the degree of R&D effort.
	Chu Dazhi et al. (2011)	The intensity of technical cooperation positively impacts employees' innovative performance.
Governmental Factors	Liu Hanrong (2006)	Government policies related to innovation incentives have a significant positive impact on employees' innovative performance.
	Long Jing et al. (2012)	Government support for innovation positively affects employees' innovative performance.
	Wang Yihui (2013)	The effect of government subsidies on employees' innovative performance varies in different environments.
	Geng Huifang et al. (2016)	Policies that suppress innovation do not significantly affect employee innovative performance.
R&D Investment	Hausman et al. (1984)	There is a strong correlation between R&D expenditure and organizational innovative climate.
	Eberhart et al. (2004)	A company's R&D investment has a positive impact on various performances. The effect of R&D expenditure on enterprise development is more significant than direct capital expenditure.

	Li Tao et al. (2008)	Corporate research investment has a significant promotional effect on enterprise growth capability.
	Shang Xiaohu (2013)	R&D investment positively impacts innovative output, and further innovation output affects innovation performance.
	Wu Zuo et al. (2013)	Differences in innovation opportunities across industries mean the contribution of R&D investment varies significantly between sectors.
	Zhang Jie (2017)	There is an inverted U-shaped relationship between R&D investment and employee innovative performance.
Human Resources	Lau (2004)	There is a positive correlation between the efficiency of human resource investment and the performance of an innovative organizational climate.
	Liu Shanshi et al. (2007)	The human resource system enhances corporate employee innovation performance by influencing employees' innovative capabilities.
	Ma Wencong (2013)	A focus on training has a significant positive impact on employees' innovative performance.
	Wang Juan et al. (2016)	The higher the employee's education level and the longer the years of education, the higher the employee's innovative performance.

In improving various aspects, including innovative performance, human resource performance, and management performance, a company's investment in research and development (R&D) plays a positive role. Compared to direct investments, it has a more substantial impact on a company's progress. Corporate research and development investments can effectively enhance their growth potential. Investment in research and development can efficiently stimulate innovation output and improve employees' innovative performance. Due to differences in industry-specific innovation opportunities, the contribution of R&D investment varies across different industries. The relationship between R&D spending and employee innovative performance exhibits an inverted U-shaped pattern within a certain range. The benefits of human resource investment are positively correlated with the performance of an

innovative environment. Human resources enhance overall employee innovative performance by strengthening employees' innovative capabilities. Giving importance to employee training has a positive catalytic effect on improving employee innovative performance. As employees' education levels increase and their educational duration extends, their innovative performance also grows.

2.2.4 Research on Organizational Identification

1. The Concept of Organizational Identification

The concept of organizational identification originates from the social identity theory of the 1950s. The term 'identification' in organizational identification comes from the Latin word 'idem,' meaning an individual's acknowledgment of an organization. It is a concept of individual perception and group cognition, reflecting how an organization is integrated into an individual.

Early research on organizational identification combined cognitive and emotional aspects. In 1978, scholar Tajfel found that the process of self-definition formed by individuals based on their membership identity in the organization is cognitive-based. Identity formation aims to internalize individual values to align with the organization, generating an emotional attachment.

Ashforth & Mael's study in 1989 further concluded that individuals in a group define their status in the group through membership, psychologically align themselves with the group, share honor and disgrace with the group, and thereby develop a sense of belonging, perceiving their fate as intertwined with the group (Ashforth & Mael, 1989). Mael and Ashforth's (1992) research results show that they consider organizational identification as the cognitive process of an individual aligning with an organization, where the individual perceives themselves as belonging to a particular group (Ashforth & Mael, 1989).

VanDick (2014) adopted the viewpoint of Ashforth and Mael (1989), believing that organizational identification includes four factors: individual cognition, emotional attachment, evaluation, and behavior. Guo (2017) describes it as the psychological intuition of consistency between an individual and their group and corresponding behavioral manifestations, including organizational cognition, emotional belonging, positive evaluation, and autonomous behavior (Guo, 2007).

Wei (2017) pointed out that organizational identification is an individual's self-definition stemming from the concept of organizational membership. It results from self-awareness, internalizing organizational values, and an individual's emotional reliance on the organization regarding belonging, pride, and loyalty, including aspects such as membership, loyalty, similarity, and persistence (Wei, 2017).

Synthesizing previous studies, this research believes that organizational identification is the process where an individual defines themselves as part of an organization, perceives the degree to which the organization integrates into the individual, and internalizes individual cognition to align with organizational values. An individual's sense of identification with an organization manifests in the emotional attachment shown towards the organization's sense of belonging, pride, and loyalty, being attracted to the organization's advantages, resulting in a state of emotional satisfaction."

Table 2.5 Definitions of Organizational Identification from Different Perspectives

Author	Definition	Perspective
Ashforth and Mael (1989)	Consistency at the perceptual level between the individual and the organization and the characteristics of an individual belonging to an organization	Cognitive
O'Reilly and Chatman (1986)	An individual's emotional satisfaction in self-definition regarding their relationship with the organization based on identification with the organization's goals	Affective
Simon (1947)	The process of setting the value index for organizational decisions is the substitution of organizational goals for individual goals.	Cognitive
Patchen (1970)	Individuals sharing goals or experiences with the organization or other members, unity, mutual support, similarity, member identification, and loyalty.	Cognitive and Affective
Daina (2009)	Cognitive organizational identification and affective organizational identification	Cognitive and Affective
Wang Yanbin (2004)	Consistency, survival-type organizational identification, attribution-type organizational identification, success-type organizational identification	Cognitive
Van Dick (2014)	Includes four cognitive components: cognition, emotion, evaluation, and behavior	Cognitive and Affective
Guo Jing (2017)	A psychological intuitive process and corresponding behavioral performance of organizational members is consistent with the organization they joined, including	Cognitive and Affective

	organizational cognition, emotional belonging, positive evaluation, and autonomous behavior.	
Wei Jun (2017)	An individual's self-conception stems from organizational membership, belonging, pride, and loyalty. It includes belonging, loyalty, similarity, and persistence.	Cognitive and Affective

The chart/table is based on the author's literature review and synthesis.

2. Measurement of Organizational Identification

Given the wide variety of approaches to categorizing organizational identification, researchers hold various views on measuring it. To date, some frequently used measurement strategies are primarily divided into the following types:

(1) Mael Organizational Identification Scale

Mael and Ashforth (1992), based on the definition of organizational identification, divided it into a unique dimension and designed a measurement tool consisting of 6 items specifically for measuring organizational identification. This tool has been widely used in many fields by business professionals, psychology professionals in-service, the U.S. military, and professionals in high-tech companies to complete the measurement of organizational identification. It has shown excellent reliability (Mael & Ashforth, 1992).

(2) Cheney Organizational Identification Scale

Cheney (1983), Barge and Schlueter (1988), and other scholars conducted research and created a questionnaire consisting of 25 questions to measure organizational identification. This questionnaire is mainly used to measure high-tech employees' identity recognition, loyalty, and similarity with the organization, thereby measuring an individual's cognitive level of the organization. Both domestic and international scholars have recognized this questionnaire and have widely used it in practical work. Its accuracy and utility have also been affirmed (Barge, 2000).

(3) Dick Organizational Identification Scale

Scholar Dick (1988), along with his partners, created a questionnaire for organizational identification that includes 30 questions. This questionnaire comprehensively measures an individual's level of identification with an organization from four aspects: cognition, perception, evaluation, and action. This measurement method is based on social identity theory and can be considered reasonable and scientific. Nonetheless, some researchers have pointed out that, in essence, there is an

overlap between the behavioral aspect of the questionnaire regarding organizational identification and organizational citizenship behavior.

(4) Wang Yanbin Organizational Identification Scale

Currently, the most influential measurement tool for organizational identification in China is the scale developed by Wang (2004). This scale, designed explicitly for high-tech employees in state-owned enterprises, includes 13 measurement questions. It focuses on measuring the organizational identification of high-tech employees from three perspectives: survival, belongingness, and success, and has been widely referenced and used by many domestic researchers. However, it is worth noting that this measurement tool is based on Alderfer's ERG theory, namely the needs for existence, relatedness (Wang, 2004), and growth. Baogong (2006) pointed out that since human needs vary from person to person and may also be influenced by socio-cultural factors in some cases, the effectiveness of this measurement method needs to be further confirmed in future practice (Bao, 2006).

The methods and means of measuring organizational identification are diverse. In addition to the four scales mentioned above, other supplementary methods and tools exist, such as the measurement tool Smidts (2001) designed based on social identity theory. After collecting and analyzing a large amount of domestic and international literature, it has been found that among the many methods, the most influential and commonly used measurement tools are the organizational identification scales created by Mael and Ashforth (1992), Cheney (1983), and Smidts (2006). Compared to the scale of Mael and Ashforth (1992), it is observed that Cheney's (1983) scale contains more rich information and has higher reliability. However, its question design is too broad and somewhat disorganized, leading to slight content validity and reliability deficiencies.

Additionally, out of the 25 items in Cheney's (1983) scale, 12 measure organizational commitment, which exceeds the scope of measuring organizational identification. This means that the tool has difficulties segregating data for the organizational identification scale and, to some extent, is more like a measure of the extent of organizational commitment. Therefore, although many scholars choose Cheney's organizational identification scale for use, its scientific nature is still a topic of debate in the academic community. On the other hand, the simplicity and clarity of

Mael's scale, widely cited by scholars, demonstrate its superior reliability and validity. Thus, the scale developed by Mael and Ashforth (1992) has become the favored means of measuring organizational identification. Therefore, this study plans to use the unidimensional scale designed by Mael and Ashforth (1992).

2.3 Research Hypotheses

2.3.1 The Impact of the Perception of Talent Incentive Policies on High-Tech Employee Innovative Performance

Freeman (1992) proposed the national innovation system theory, which suggests that innovation is not solely reliant on technology and entrepreneurial spirit but requires the support of infrastructure and network platforms. The national innovative system theory's structure includes macro-level elements such as government strategies and industrial composition and micro-level elements like corporate R&D, education, and training. As a part of this theory, promoting technological innovation cannot be separated from the incentives of government policies. In recent years, there has been a growing number of studies on policy perception and talent incentive policies (Freeman, 2011). In his research, Miller (2001) pointed out that from an individual level, the perception of talent policies is crucial in determining employees' views of the business environment, which affects their strategic decisions.

Similarly, the research by Aced et al. (2007) also showed that the level of policy perception determines workforce feedback. Aced found that the gap in high-tech employees' perception of government-issued Talent Incentive Policies has begun to affect their innovative outcomes Ashforth (2008). Fritsch et al.'s (2004) study on tax policies concluded that companies with a deeper perception of policies are more likely to achieve breakthroughs and increase influence in corporate innovation through the actions of high-tech employees. Gavetti's (2005) study indicates that high-tech employees' perception of talent incentive policies can be considered as a link between the broader environment and small businesses. In this process, high-tech employees are recipients and perceivers of incentive policies. They make the most beneficial decisions for their companies by comparing policies and carefully considering the company's profit and cost. This study clarified that high-tech employees' perception of talent

incentive policies could affect their daily behavior and guide them toward a path of innovation(Gavetti et al., 2005). Only a few scholars have researched the connection between the Perception of Talent Incentive Policies and the innovative behavior of high-tech employees. Xu (2013) analyzed how the perception of entrepreneurial and innovative talent incentive policies by returned overseas Chinese high-tech employees influences their innovative behavior. The study found that insufficient policy perception is one of the reasons for the lack of initiative in high-tech employees' innovative behavior.

Lin (2009) found through research that technology high-tech employees' perception of policies positively impacts their innovative outcomes (Xu & Chen, 2013). These scholars' viewpoints indicate that the Perception of Talent Incentive Policies includes the degree of perception and satisfaction with high-tech employee policies. This study will explain the positive impact of the Perception of Talent Incentive Policies on their innovative outcomes from these two aspects: The influence of the Perception of Talent Incentive Policies on high-tech employees' innovative output is a complex psychological process. Once talents perceive the incentive policies, they form a self-efficacy assessment related to innovative capability and react accordingly, reflecting this positive perception in the final innovative performance of high-tech employees. Simultaneously, from self-assessment to implementing response behavior, the Perception of Talent Incentive Policies plays a significant role. The higher the talent's perception of incentive policies, the more willing they are to adopt positive, innovative behaviors to improve performance in this area (Lin, 2009).

After integrating various theories and research findings, this paper believes that one of the key factors of High-Tech Employees' Innovative Performance is their perception of high-tech employees' incentive policies. High-tech employees' perception of incentive policies directly influences their performance in innovation. Based on the above research, combined with the dimensions of the perception of talent incentive policies, this paper proposes the following hypotheses:

H1: The concept of talent incentive policies impacts High-Tech Employee Innovative Performance.

H1a: Policy awareness has an impact on High-Tech Employee Innovative Performance.

H1b: The sense of policy gains impacts High-Tech Employee Innovative Performance.

H1c: Policy satisfaction has an impact on High-Tech Employee Innovative Performance.

2.3.2 The Impact of Perception of Talent Incentive Policies on Innovative Climate

Scholar Zhang (2020) indicated that employees' perception of incentive policies could enhance their enthusiasm and initiative in innovation, thereby fostering an overall entrepreneurial climate (Zhang, 2020). In their study of Chinese high-tech employees, Zhao and others (2021) found that workers' perception of talent incentive policies improves corporate performance, thus enhancing corporate competitiveness (Zhao, 2021). Yang et al. (2021), in their research on high-tech employees in China's manufacturing industry, found that the Perception of Talent Incentive Policies indicates future work goals and directions for talent. Their perception of incentive policies will guide their innovative behavior, which is conducive to creating an innovative climate. Wang (2022), after an in-depth exploration of talent incentive policies, found that the implementation of incentive policies allows high-tech employees to perceive incentives in promotions, bonuses, and benefits. This enables high-tech employees to understand the actual value of policy measures and the cost of obtaining resource support, promoting proactive, innovative behaviors, and forming a solid organizational innovative climate (Wang, 2022). Li (2021), in his study of Chinese private enterprises, found that talent as a variable plays a moderating role between the independent variable of policy perception and the dependent variable of policy implementation effectiveness (Li, 2021). Zhou (2020) believes that high-tech employees measure the stability of the environment they face for innovation through the perception of incentive policies and adjust their innovative behavior accordingly to match the external environment. In other words, a positive perception of incentive policies can effectively form a positive, innovative climate (Zhou, 2020). Tian (2021) demonstrated that employees' perception of policies promotes increased work enthusiasm and satisfaction, creating a more robust innovative climate (Tian, 2016). Zhang (2020), in his study of high-tech employees in China's manufacturing industry, found that government-issued talent incentive policies include a considerable proportion of clauses encouraging talent innovation and

creativity. High-tech employees' perception of these clauses can improve the enthusiasm and satisfaction of innovative work, creating a favorable innovative climate (Zhang, 2020). According to Mark and other scholars (2004), the differences in high-tech employees' perceptions of policies lead to different reactions. This similar conclusion has also been empirically supported in other scholars' research (Mark, 2004). For example, Acs (2020) confirmed that high-tech employees' different perceptions of government-issued incentive policies would have varying impacts on the organizational innovative climate of the policy implementation area.

Given that in Chapter 2, the Perception of Talent Incentive Policies was divided into three dimensions: policy awareness, sense of policy gains, and policy satisfaction, the following hypothesis H2 is proposed:

H2: The concept of talent incentive policies impacts the innovative climate.

H2a: Policy awareness impacts the innovative climate.

H2b: The sense of policy gains impacts the innovative climate.

H2c: Policy satisfaction impacts the innovative climate.

2.3.3 The Relationship between Innovative Climate and High-Tech Employee Innovative Performance

Many domestic and international scholars have studied the interaction between high-tech employees' innovation output and the corporate innovation environment. In this field, Scott (2013) conducted a detailed analysis of the factors affecting the innovation results of high-tech employees. He concluded that the corporate innovation climate is crucial (Scott, 2013). Similarly, Amabile (1996) also found that changes influence the innovative behavior of high-tech employees in the work climate. The climate of innovation significantly impacts the innovative effectiveness of high-tech employees.

Furthermore, Isaksen and Akkermans (2011) viewed the corporate innovation environment as a mediating variable, thereby verifying the positive impact of the corporate innovative climate on high-tech employees' innovative output. Zhang (2019) also discovered that the emergence of innovative behavior depends on the internal environment and climate in the company, including factors such as how innovation is promoted, assessment standards, and whether the company is willing to provide financial support (Zhang, 2019). Lian's (2019) empirical experiment shows a

positive correlation between innovative climate and the innovative effectiveness of high-tech employees. Carmeli (2020) holds the same view that the innovative behavior of high-tech employees is proactive, and a good innovative climate can generate emotional identification among high-tech employees. Therefore, they will actively innovate for the company, enhancing innovation effectiveness. Gu (2020) elaborated that the innovative climate can indirectly influence the innovation outcomes of high-tech employees through their self-efficacy (Gu & Peng, 2010). Xue (2021) used diversified research methods to explore the extent of the influence of various factors and the innovative climate on the innovation outcomes of high-tech employees, concluding that among all influencing factors, the innovative climate has the most significant impact on the innovation effectiveness of high-tech employees (Xue, 2021).

Therefore, this paper proposes the following hypothesis H3:

H3: The innovative climate impacts the innovative performance of high-tech employees.

2.3.4 The Mediating Role of Innovative Climate

Numerous scholars have discovered through their research that to motivate and support the innovative energy of high-tech employees, enterprises create opportunities and provide platforms for innovation, thereby granting high-tech employees more resource allocation rights. This approach enhances the innovation awareness of high-tech employees, activates their innovation skills, and consequently brings more significant benefits to the enterprise. By advocating and establishing a favorable climate for innovation and providing high-tech employees with practical resources, free trade zones, and technology, companies can foster innovative actions among high-tech employees and enhance the innovation performance of all high-tech employees. As Woodman (2009) stated, the emergence of innovative behavior requires the interaction of individuals, teams, and organizations, and innovative behavior is also influenced by the innovative climate in which it occurs (Woodman, 2009). Xing (2006) also indicated that any form of innovative behavior cannot be separated from the support of the innovative climate. An innovative climate helps effectively trigger innovative thoughts, stimulates innovative behavior, and thus impacts the innovative outcomes of high-tech employees (Xing, 2006). Wang (2015) also mentioned that when high-tech employees feel that the work environment encourages their innovative

behavior, they will have a deeper trust in the work environment and profoundly perceive their self-worth, thereby generating more innovative behaviors and enhancing the innovative performance of high-tech employees (Wang, 2015). Yang's (2018) empirical research also confirmed this point (Yang, 2018).

Based on this, the following hypothesis is proposed:

H4: An organization’s innovative climate mediates the relationship between the Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance.

2.3.5 The Moderating Effect of Organizational Identification

1. The Moderating Role of Organizational Identification Between Perception of Talent Incentive Policies and High-Tech Employee Innovation Performance

Organizational identification refers to high-tech employees' degree of identification and sense of belonging to the organization. It is an integral part of the internal, innovative climate in enterprises. Scholars at home and abroad have also researched the moderating role of organizational identification in the Perception of Talent Incentive Policies. Li (2019) believes that the level of organizational identification can influence the Perception of Talent Incentive Policies. When high-tech employees have a high sense of identification with the organization, they will more actively participate in the innovation and development of the enterprise, which is very important for the innovation and development of the enterprise. However, when the sense of identification of high-tech employees with the organization is low, their loyalty to the enterprise also decreases, affecting their perception of talent incentive policies (Li, 2019). Through research, Zhao (2018) found that organizational identification can influence high-tech employees' perception and acceptance of talent incentive policies. The higher the degree of identification of high-tech employees with the organization, the higher their perception and acceptance of the various benefits and incentives offered. Therefore, organizational identification can promote the effectiveness of implementing Talent Incentive Policies (Zhao, 2018).

Li (2020) discovered that the moderating role of organizational identification needs to consider the differences among high-tech employee groups. Different groups of high-tech employees have different feelings and expressions

towards organizational identification, such as those from different cultural backgrounds, different years of work experience, and different positions. Therefore, for different groups of high-tech employees, enterprises need to formulate different incentive policies and management measures to achieve better high-tech employees incentive effects (Li, 2020). Zhang (2021) believes that organizational identification can promote the long-term stable development of enterprises. The higher the sense of identification of high-tech employees with the organization, the higher their loyalty, the lower the turnover rate of high-tech employees, and the better the High-Tech Employee Innovative Performance of the enterprise will be ensured (Zhang, 2021). Bai (2020) argues that high-tech employees with high organizational identification are likelier to accept and respond to Talent Incentive Policies. High-tech employees with high organizational identification are more concerned about the development and interests of the organization, more identified with the goals and policies of the organization, and therefore more actively respond to the Talent Incentive Policies (Bai, 2020). Zhai and others (2020) showed that the higher the degree of organizational identification of high-tech employees with the enterprise, the easier it is for them to accept and support the enterprise's Talent Incentive Policies, thereby improving the High-Tech Employee Innovative Performance and competitiveness of the enterprise (Zhai, 2020).

Therefore, we propose the following hypothesis H5a:

H5a: Organizational identification moderates the relationship between Talent Incentive Policies and High-Tech Employee Innovative Performance.

2. There is a Moderating Role of Organizational Identification Between Innovative Climate and High-Tech Employee Innovative Performance

In their field survey research, smidts and others (2006) found that high-tech employees' organizational identification can promote the construction of an innovative climate (Smidts, 2006). Hurst (2019) discovered that strong organizational identification can stimulate innovative behavior in high-tech employees, build a favorable organizational environment, and trigger intrinsic motivation for innovation activities, thereby optimizing the innovative performance of high-tech employees. Scholar Hou (2020), while exploring the relationship between organizational support and high-tech employees' service innovation behavior, considered organizational identification as a moderating element and the organizational climate as a mediating variable. The

research indicates that organizational identification can serve as a key factor in adjusting organizational temperament and supporting a positive perception and can also directly impact the outcomes of high-tech employees' innovative behavior. More specifically, organizational identification plays a moderating role in organizational climate and organizational support (Hou, 2020).

Scholar Chen (2021) believes that organizational identification and climate are distinct concepts. Organizational identification can subtly influence high-tech employees' behavior and thoughts, impacting the enterprise's internal innovative climate. This leads to more support for the organization, with employees considering issues more from the organization's perspective, continually enhancing the performance of high-tech employees. Therefore, he believes that organizational identification moderates the organizational climate and corporate performance (Chen, 2021). Scholar Wang (2022) explored the connection between civil servants' willingness to innovate and organizational climate, considering organizational identification as a moderating factor. Based on field observation studies, it was found that organizational identification plays a regulatory role between civil servants' innovative willingness and organizational climate (Wang & Guo, 2022).

Therefore, we propose the following hypothesis H5b:

H5b: Organizational identification moderates the relationship between organizational innovative climate and High-Tech Employee Innovative Performance.

CHAPTER III
RESEARCH METHODOLOGY

This chapter primarily sets the stage for the statistical analysis in Chapter 4, introducing the foundational aspects of the research, the research objectives, design, methods, subjects, data collection, and measurement of variables. Firstly, a quantitative research approach is employed, utilizing surveys that combine practical research with previously developed questionnaires by scholars to measure variables like Perception of Talent Incentive Policies, Innovative Climate, High-Tech Employee Innovative Performance, and Organizational Identification. Subsequently, high-tech employees from industries such as information technology, high-end equipment, new materials, biomedicine, big data, cloud computing, artificial intelligence, and manufacturing were selected as subjects. Preliminary tests were conducted using WeChat and work emails, followed by reliability and validity testing of the preliminary test results.

3.1 Research Design

Different research methods have their strengths and weaknesses. The appropriate selection of research methods can significantly enhance the effectiveness of a research project, directly influencing the scientific rigor and precision of the research outcomes. Therefore, at the beginning of a research project, it is essential to choose an appropriate research method based on the characteristics of the research methods and the specific circumstances of the topic.

Among these, based on empiricism, quantitative research holds that scientific research methods can ensure an objective understanding of the essence of matters. Thus, specific hypotheses are first proposed in the research process, followed by the 'hypothesis-verification' model to test these hypotheses. In the verification process, methods such as observation and experimentation are primarily used to perform regression, correlation, and variance analysis on the collected primary data,

ultimately summarizing the analytical results.

Qualitative research, also known as qualitative analysis, contrasts quantitative research. It involves describing and interpreting the contradictions and changes in the development process, the issues and reasons that arise, and proposing targeted measures based on the inherent regularities, mainly using methods like literature analysis, data collection, in-depth observation, and open-ended questioning.

Quantitative and qualitative research each have their characteristics and are suitable for different research fields. When choosing a research method, researchers need to flexibly select based on the field of the topic, specific research questions, and characteristics of the research methods. This research topic aims to objectively verify and summarize the interrelationships between high-tech employee innovative performance, innovative climate, organizational identification, and high-tech employee innovative performance from an overall perspective. This approach aligns well with the characteristics of quantitative research. Therefore, this paper ultimately chose the quantitative research method.

3.1.1 Questionnaire Design Process

The questionnaire design for this study went through the following stages: Firstly, a large amount of literature related to incentive theories, policy tool theories, innovation climate theories, and social identity theories was retrieved and organized to collect and sort questionnaire items related to the measurement variables. Subsequently, preliminary measurement items for each variable and an initial survey questionnaire were formed by organizing and drawing on important literature. These were modified based on suggestions from the supervising tutor through discussions and coordination. Then, discussions regarding the modified questionnaire were held with the technical directors and heads of some closely related enterprises. Based on their suggestions, appropriate modifications and additions were made to the questionnaire, forming the final survey questionnaire. Lastly, a preliminary survey was conducted on a small scale to test the reliability and validity of the scale through a small sample analysis of credibility and effectiveness. The results of the analysis showed that the questionnaire design was reasonably well-constructed.

3.2 Research Methodology

This study utilizes SPSS software to analyze data, including descriptive statistics, correlation coefficients, reliability and validity tests, and regression analysis.

The reliability and validity of the questionnaire are crucial foundations of empirical research. Validity considers whether the research is accurate and whether the conclusions are representative. Reliability focuses on consistency, meaning that the conclusions of each survey under the same conditions will not significantly differ. Validity is assessed in three steps. The first step is to test the surface validity, the second is to examine the internal validity, and the third is reliability analysis, using the Cronbach α coefficient to eliminate irrelevant measurement items. The questionnaire measurement assessment methods of scholars like Liu (2003) and Xie (2005) are widely adopted by scholars in their methodological systems and evaluation standards. First, the correlation coefficient of each measurement item with the total of other items in the same variable (Corrected-Item Total Correlation, CITC) is evaluated (Xie, 2005). When the CITC is less than 0.3, the measurement item is considered for deletion (Lu, 2002). The internal consistency of the questionnaire is tested by comparing the Cronbach α coefficients before and after item deletion. Generally, a standard of 0.7 is used for the Cronbach α coefficient, i.e., deleting some items with a Cronbach α coefficient less than 0.7, and the Cronbach α coefficient of the purified scale items should all be more significant than 0.7. This can be achieved through the KMO sample measure and Bartlett's test of sphericity, with a consensus that the higher the KMO value, the more suitable for factor analysis. Bartlett's test of sphericity can be used for factor analysis if the statistical significance probability is less than or equal to the significance level (Ma, 2002).

Descriptive statistical analysis is used to analyze the basic characteristics of sample data with two aspects. One is the statistical analysis of basic sample information such as respondents' age, education level, and gender. The other is the analysis of variables' mean values, standard deviations, and correlation coefficients. Mean and standard deviation analysis is an essential step in questionnaire surveys, referring to the preliminary organization and summarization of the large amount of data collected through mean and standard deviation analysis to establish the data's central tendency and dispersion tendency, essentially a static description of objective facts.

Therefore, it is necessary to conduct a general mean and standard deviation analysis of the questionnaire's second, third, and fourth parts to obtain an overall evaluation and describe each variable and its dimensions.

Correlation analysis is the systematic analysis of the degree of correlation between variables using SPSS software, typically divided into two parts. First, it verifies whether there is a correlation between variables, and second, after verifying the existence of a correlation between variables, it analyzes the degree of correlation. The analysis mainly involves examining the magnitude of the Pearson correlation coefficient. When the Pearson correlation coefficient is between 0.8 and 1.0, it indicates a robust correlation between variables; between 0.6 and 0.8, a strong correlation; between 0.4 and 0.6, a moderate correlation; between 0.2 and 0.4, a weak correlation; and between 0.0 and 0.2, a very weak or no correlation.

Regression analysis is a statistical method to determine quantitative relationships between multiple variables. It is widely applied to analyze the internal consistency of data, the specific forms of correlation between variables and phenomena, and to determine their causal relationships. This can be represented through mathematical models.

3.3 Research Population and Samples

3.3.1 Population

In the report of the 20th National Congress of the Communist Party of China, skilled artisans and high-skill high-tech employees were explicitly incorporated into the national strategic talent plan. General Secretary Xi Jinping stated, 'Encourage more workers, especially young people, to take the path of skills for high-tech employees development and serving the country through skills, and cultivate more high-skill talent and skilled craftsmen of the big country.' High-tech employees play a significant role in promoting the high-quality development of the Hainan Free Trade Port. According to data given by the Office of the Hainan Provincial Committee of the Free Trade Pilot Zone (Free Trade Port) Working Committee at the end of June 2023, as of June 30, 2023, the total number of high-tech employees in the Hainan Free Trade Port was 82,000. They are mainly distributed in finance, logistics, healthcare, culture

and entertainment, basic education, public health, and information technology, involving fields like artificial intelligence, digital services, industrial robots, mechanical manufacturing, and new energy vehicles. Although the number of high-tech employees in the Hainan Free Trade Port is considerable, there is still a significant gap compared to the ever-growing demand for talent for the construction of the Hainan Free Trade Port.

3.3.2 Samples and Samples Size

This study selects high-tech employees from 58 high-tech enterprises in the Hainan Free Trade Port. These high-tech employees are involved in a wide range of industries, including information technology, high-end equipment, new materials, biomedicine, big data, cloud computing, artificial intelligence, and manufacturing, covering a broad spectrum and possessing good representativeness.

This study used Yamane (1967) to calculate a suitable sample size with a 95% confidence level.

$$n = N/(1+Ne^2)$$
$$n = 30{,}000/(1+(30000*.0025))$$
$$n = 395$$

Where n = the sample size, N = the population, and e = allowable error value

However, 400 samples were collected in this study to make it easy.

3.3.3 Sampling Method

To ensure that the respondents possess the requisite knowledge and capability to answer the questions in the questionnaire, this research, when conducting enterprise surveys, primarily chose technical personnel who are more familiar with talent incentive policies as survey subjects. Given the unique identification of the respondents involved in this research topic and the considerable challenge of accessing them, combined with constraints such as time costs, it is difficult to distribute questionnaires offline uniformly within a single company. If the questionnaires are distributed via regular email, it is challenging to guarantee the response rate and the valid response rate. Therefore, in selecting samples, we mainly adopted "simplified" and "stratified" methods for distribution (Liu, 2005).

3.4 Data Collection

One of the methods employed was distribution via WeChat. To accelerate the development of the Free Trade Port, the Hainan Provincial Government of China appointed over 60 Business Environment Experience Officers in August 2022. These officers regularly visited and experienced firsthand, actively listening to, understanding, and gathering feedback and suggestions from businesses and the public on optimizing the business environment. They promptly identified and reported significant issues in improving the business environment, supervising the optimization efforts from a comprehensive and multi-perspective approach. Fortunately, the researcher was one of them. Therefore, taking advantage of the convenience of work, the latter have extensive contact with high-tech employees in the free trade port. Thus, during the survey, links were sent to the online questionnaire via WeChat, and the completed questionnaires were distributed via work email. Survey enterprises were sampled by industry classification. The survey questionnaires were distributed via work emails with the help of friends and classmates.

Scholar Liu (2006) believes that during a questionnaire survey, the response rate for self-administered questionnaires should be maintained between 80% and 90%, and the effective response rate should be above 67%. For questionnaires sent via email, the return rate is around 20%, and the effective response rate can be ensured to be around 10%. The return rate for socially distributed questionnaires should be about 25%, with an effective response rate of about 50%.

3.5 Research Instrument

The questionnaire was entirely developed by referencing established scales in the fields of Talent Incentive Policies research and management studies, both domestically and internationally. It was modified and refined based on the content and subjects of this study, incorporating expert opinions to organize all the measurement items. The questionnaire is divided into five parts: personal basic information, perception of talent incentive policies, innovative climate, high-tech employee innovative performance, and organizational identification, which comprises 40 questions. Among

them, Perception of Talent Incentive Policies, Innovative Climate, High-Tech Employee Innovative Performance, and Organizational Identification are all measured using a 5-point Likert scale, where 1 represents 'strongly disagree,' and 5 represents 'strongly agree'.

3.6 Preliminary Survey

3.6.1 Purpose of the Preliminary Survey

Despite the strict adherence to the requirements, principles, objectives, standards, and precautions of scale design in the questionnaire development process for this paper, there may still be less than ideal items. Based on the research findings of Wang (2000), Ma (2002), Li (2004), and Yang (2006), they suggest conducting a small sample survey before implementing a large-scale questionnaire survey. The purposes of the small sample survey are twofold. Firstly, it aims to estimate whether the respondents can accept the survey and answer the scale truthfully through the survey. Secondly, the small sample survey is used to identify inappropriate expressions in the questionnaire, further revise the wording and phrasing of the questionnaire items, test and enhance the study's validity and reliability, and strive to obtain more authentic and reliable research results.

3.6.2 Distribution and Collection of Preliminary Survey Questionnaires

The preliminary test was conducted in late April 2023. Firstly, links to the online survey questionnaire were sent to 66 high-tech employees via WeChat, and then the filled questionnaires were collected. Sixty-six survey questionnaires were obtained, with 65 collected, resulting in a collection rate of 98.5%. Among these, 62 questionnaires were valid, with an effectiveness rate of 95.3%.

Secondly, using work emails, 57 survey questionnaires were distributed through friends, classmates, and other relationships. A total of 14 questionnaires were received, of which 12 were valid. The questionnaire collection rate was 24.6%, with an effectiveness rate of 85.7%.

3.6.3 Preliminary Survey Reliability and Validity Test

1. Reliability and Validity Test of the Perception of Talent Incentive Policies Scale

(1) Reliability Test

The Cronbach's alpha coefficient for the items related to policy awareness is 0.784, the overall Cronbach's alpha coefficient for the items related to the sense of policy gains is 0.814, and the overall Cronbach's alpha coefficient for the items related to policy satisfaction is 0.725. The Cronbach's alpha coefficients for the three dimensions of Perception of Talent Incentive Policies range between 0.725 and 0.814, all above 0.7, indicating that the data for policy awareness and policy satisfaction have high reliability and acceptable internal consistency.

Table 3.1 Reliability Analysis of the Perception of Talent Incentive Policies Scale

Variable	Measurement Dimension	Item Number	Cronbach's Alpha Coefficient
Perception of Talent Incentive Policies	Policy awareness	A1	0.784
		A2	
		A3	
	Sense of policy gains	A4	0.814
		A5	
		A6	
		A7	
		A8	
	Policy satisfaction	A9	0.725

(2) Validity Test of the Perception of Talent Incentive Policies Scale (Factor Analysis)

The KMO value for the preliminary test questionnaire on the Perception of Talent Incentive Policies is 0.714, greater than 0.6, and Bartlett’s Test of Sphericity value is 2564.47 with a p-value of 0.000, less than 0.05. This indicates that the factors in the questionnaire are strongly correlated, and the sample data is suitable for factor analysis. The total variance explained before rotation reached 74.548%. Subsequently, further exploring the rotated factor loading matrix obtained through SPSS statistical analysis software is necessary. In the rotated factor loading matrix, each of the 11 items has one factor loading greater than 0.5. Additionally, the cumulative percentage of variance explained after rotation is higher than 50%, indicating that the information content of the principal common factors after dimension reduction can replace all variables. This suggests that the dimension reduction effect is good, and no further processing is needed.

Table 3.2 Validity Analysis of the Talent Incentive Policy Scale

Dimensionality	Title item	Factor					Commonality
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
Policy informed	A1	0.075	0.345	0.923	0.087	0.086	0.759
	A2	0.312	0.267	0.889	0.083	0.41	0.968
	A3	0.071	0.514	0.841	0.341	0.124	0.754
Sense of policy gains	A4	0.215	0.527	0.812	0.547	-0.047	0.621
	A5	0.252	0.542	0.321	0.643	0.811	0.752
	A6	0.101	0.417	0.245	0.784	-0.242	0.741
	A7	-0.215	0.542	0.435	0.278	0.546	0.745
	A8	0.741	0.154	-0.426	0.541	0.841	0.687
Policy effectiveness evaluation	A9	0.061	0.189	0.137	0.781	0.133	0.786
	A10	0.068	0.438	0.434	0.592	0.564	0.752
	A11	0.287	0.543	0.423	0.543	0.342	0.812
	A12	0.561	0.241	0.642	0.324	0.147	0.771
Eigenroot value (before rotation)		7.968	3.654	2.865	2.726	2.571	-
Variance explained % (before rotation)		26.689	14.213	19.465	9.956	9.264	
Cumulative variance explained % (before rotation)		26.254	45.842	58.456	64.214	74.548	
Eigenroot value (after rotation)		4.325	4.254	3.389	3.489	2.864	
Variance explained % (after rotation)		16.863	16.774	21.545	14.455	11.358	
Cumulative variance explained % (after rotation)		16.754	38.248	49.285	62.543	73.688	
KMO value		0.714					
Bartlett's spherical value		2564.47					
DF		328					
P-value		0.000					

2. Reliability and Validity Test of the Innovative Climate Scale

(1) Reliability Test

As shown in Table 3.8, the Cronbach's alpha coefficient for the Innovative Climate scale is 0.723, greater than 0.6. This indicates that the scale has very good internal consistency and a very high level of reliability."

Table 3.3 Reliability Analysis of Innovative Climate Scale

Dimension	Items	Cronbach α Coefficient
Innovative Climate	B1-B15	0.723

(2) Validity Test (Factor Analysis)

The validity test of the Innovative Climate scale also involves analyzing whether any items in the existing scale do not meet the requirements. As shown in Table 4.9, the KMO value of the scale data is 0.744, and Bartlett's Test of Sphericity value is 2764.46, indicating that the scale's validity is very good and has significant statistical meaning. Furthermore, the data's p-value is 0, implying that the probability of the current empirical data results being caused by sampling error is zero. In the principal component analysis with varimax rotation, the cumulative variance explained by the first five common factors reached 74.862%. Additionally, in the rotated factor loading matrix, all items have a factor loading greater than 0.6, indicating that the information content of the five common factors after dimension reduction can replace all variables, showing sound dimension reduction effects.

Table 3.4 Validity Analysis of the Innovative Climate, Innovation Scale

Dimensionality	Title item	Factor					Commonality
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
Innovative climate	B1	0.134	0.243	0.643	0.843	0.154	0.734
	B2	0.461	0.510	0.147	0.648	-0.101	0.813
	B3	-0.042	-0.124	0.465	0.784	0.461	0.713
	B4	0.413	0.345	0.514	0.864	0.049	0.741
	B5	0.087	0.245	0.874	0.542	0.5478	0.824
	B6	0.431	0.541	0.245	-0.145	0.734	0.731
	B7	0.731	0.345	-0.084	0.634	0.810	0.768
	B8	0.312	0.465	0.143	0.876	0.346	0.842
	B9	0.863	-0.027	0.12	0.141	0.1	0.779
	B10	0.91	0.037	0.08	0.086	0.064	0.815
	B11	0.049	0.452	0.684	0.485	0.822	0.751

	B12	0.222	0.584	0.429	0.801	-0.062	0.648
	B13	-0.105	-0.078	0.687	0.825	0.756	0.729
	B14	0.232	0.841	0.478	0.842	0.741	0.841
	B15	0.534	0.284	0.587	0.824	0.087	0.808
Eigenroot value (before rotation)		7.968	3.654	2.865	2.726	2.571	
Variance explained % (before rotation)		78.689	14.213	19.465	9.956	9.264	
Cumulative variance explained % (before rotation)		78.254	45.842	58.456	64.214	74.548	
Eigenroot value (after rotation)		4.325	4.254	3.389	3.489	2.864	
Variance explained % (after rotation)		16.863	16.774	21.545	14.455	11.358	-
Cumulative variance explained % (after rotation)		76.754	38.248	49.285	62.543	74.862	
KMO value		0.744					
Bartlett's spherical value		2764.46					
DF		328					
P-value		0.01					

3. Reliability and Validity Test of the High-Tech Employee Innovative Performance Scale

(1) Reliability Test

Table 3.10: The Cronbach's alpha coefficient for the High-Tech Employee Innovative Performance scale is 0.722, indicating that the scale has a high reliability and good internal consistency, making it suitable for further research.

Table 3.5 Reliability Analysis of Individual Innovative Performance Small Sample Data Questionnaire

Dimensionality	Title item	Cronbach alpha coefficient values
Individual Innovative Performance	C1-C10	0.722

(2) Validity Test (Factor Analysis)

KMO and Bartlett's Test of Sphericity. The collected data was entered into SPSS software to create the original dataset, followed by the KMO and Bartlett's Test of Sphericity. As shown in the table below, the KMO value for High-Tech Employee Innovative Performance is 0.816, greater than 0.7, and Bartlett's Test of Sphericity value is 2214.84, with a p-value of 0.01, less than 0.05. This indicates that the factors in the questionnaire are strongly correlated, making the sample data suitable for factor analysis.

Factor Extraction. Factor extraction in the questionnaire was conducted through principal component analysis. The threshold for factor extraction was set to eigenvalues >1, meaning extracting factors with eigenvalues greater than 1 or greater than the average variance. The table below shows that the total variance explained before rotation reached 76.542%. Subsequently, further exploring the rotated factor loading matrix obtained through SPSS statistical analysis software is necessary.

Dimension Reduction. As in the table below, in the rotated factor loading matrix, all items have a factor loading greater than 0.6, and the cumulative variance explained after rotation is 68.654%, higher than 50%. This suggests that the information content of the common factors after dimension reduction can replace all variables, indicating sound dimension reduction effects.

Table 3.6 Validity Analysis of Employee Innovative Performance Scale

Dimensionality	Title item	Factor					Commonality
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
High-Tech Employee Innovative Performance	C1	0.086	0.384	0.882	0.188	0.284	0.901
	C2	0.054	0.284	0.863	0.187	-0.012	0.886
	C3	0.254	0.254	0.886	0.046	0.086	0.854
	C4	0.342	0.364	0.884	0.089	0.512	0.873
	C5	0.087	0.684	0.942	0.442	0.054	0.834
	C6	-0.245	0.901	0.354	0.234	0.286	0.825
	C7	0.021	0.745	0.351	0.073	-0.064	0.786
	C8	-0.196	0.813	0.353	0.084	0.254	0.848
Eigenroot value (before rotation)		7.841	13.541	28.841	27.451	3.541	-
Variance explained % (before rotation)		33.194	14.417	32.414	32.614	11.541	
Cumulative variance explained % (before rotation)		31.425	43.164	53.421	55.137	32.461	
Eigenroot value (after rotation)		6.451	13.431	22.315	16.324	29.461	
Variance explained % (after rotation)		21.673	19.461	23.643	19.243	22.431	
Cumulative variance explained % (after rotation)		9.451	42.134	46.534	71.239	68.654	
KMO value		0.816					
Barlett spherical value		3214.84					
DF		386					
P-value		0.010					

4. Reliability and Validity Test of the Organizational Identification Scale

(1) Reliability Test

As in the table below, Cronbach's alpha coefficient for the small sample data of organizational identification is 0.845. This indicates that the scale is very

reliable and highly suitable for questionnaire surveys. All items in the questionnaire should be retained.

Table 3.7 Reliability Analysis of the Questionnaire for Organizational Identification Small Sample Data

Dimensionality	**Title item**	Cronbach alpha **coefficient values**
Organizational Identification	D1-D11	0.845

(2) Validity Test (Factor Analysis)

KMO and Bartlett's Test of Sphericity. The collected data was entered into SPSS software to create the original dataset, followed by the KMO and Bartlett's Test of Sphericity. As in the table below, the KMO value for the Organizational Identification preliminary test questionnaire is 0.924, greater than 0.7, and Bartlett's Test of Sphericity value is 5132.24, with a p-value of 0.000, less than 0.05. This indicates that the factors in the questionnaire are strongly correlated, making the sample data suitable for factor analysis.

Factor Extraction. Factor extraction in the questionnaire was conducted through principal component analysis. The threshold for factor extraction was set to eigenvalues >1, meaning extracting factors with eigenvalues greater than 1 or greater than the average variance. The table below shows that the total variance explained before rotation reached 79.842%. Subsequently, further exploring the rotated factor loading matrix obtained through SPSS statistical analysis software is necessary.

Dimension Reduction. As in the table below, in the rotated factor loading matrix, all items have a factor loading greater than 0.6, and the cumulative variance explained after rotation is 86.248%, higher than 80%. This suggests that the information content of the common factors after dimension reduction can replace all variables, indicating sound dimension reduction effects. Therefore, no further processing is needed.

Table 3.8 Validity Analysis of Questionnaire for Organizational Identity Small Sample Data

Dimensionality	Title item	Factor					Commonality
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
Organizational Identity	D1	0.012	0.19	0.068	0.132	0.81	0.901
	D2	0.321	0.162	0.013	-0.018	0.813	0.886
	D3	0.454	0.471	-0.014	0.054	0.812	0.784
	D4	0.214	0.348	0.484	0.284	0.741	0.741
	D5	0.784	-0.02	0.481	0.341	0.244	0.841
	D6	0.847	0.541	0.74	0.414	0.644	0.742
	D7	0.431	0.487	0.355	0.674	0.842	0.812
	D8	0.547	0.254	0.321	0.654	-0.087	0.841
	D9	-0.087	-0.048	0.284	0.645	0.784	0.803
	D10	0.071	0.341	0.541	0.841	0.084	0.836
	D11	0.212	0.341	0.084	0.248	0.734	0.739
	D12	0.121	0.122	0.034	0.742	-0.062	0.862
	D13	-0.075	-0.042	0.162	0.765	0.142	0.782
Eigenroot value (before rotation)		8.846	4.245	3.412	2.986	2.846	-
Variance explained % (before rotation)		36.689	16.542	21.546	10.542	10.345	
Cumulative variance explained % (before rotation)		28.254	54.842	64.456	58.214	79.842	
Eigenroot value (after rotation)		4.542	4.654	3.458	3.873	2.548	
Variance explained % (after rotation)		18.548	17.985	22.454	17.464	17.465	
Cumulative variance explained % (after rotation)		17.842	41.554	54.875	65.578	86.248	
KMO value		0.924					
BarlDtt spherical value		5132.24					
DF		412					
P-value		0.000					

3.7 Formal Survey

3.7.1 Description of the Formal Survey Situation

A large-scale survey was conducted after revising the questionnaire based on the interviewees' feedback. The survey distributed questionnaires to high-tech employees in 58 companies across 7 industries, including pharmaceutical, manufacturing, software and information technology services, electrical machinery and equipment manufacturing, and general equipment manufacturing. The distribution methods included WeChat, work emails, and field visits. A total of 1817 questionnaires were distributed, with 1666 collected, of which 1262 were valid, resulting in an effectiveness rate of 74.8%. This met the initial expectations and the needs of the research project (as detailed in Figure 3.14). To ensure the authenticity and reliability of the research, the data obtained from the formal survey was again subjected to reliability and validity testing.

Table 3.9 Detailed Distribution of Formal Survey Questionnaires

Industry	Number of Companies	Questionnaires Distributed	Questionnaires Collected	Effective Questionnaires	Effectiveness Rate
Internet and Related Services	12	438	415	318	76.5%
Metal Products, Machinery & Equipment Repair	8	234	199	167	83.8%
Computer, Communication & Other Electronic Manufacturing	10	355	317	244	76.9%
Pharmaceutical Manufacturing	14	532	490	336	68.6%
Software and IT Services	6	111	98	84	85.4%
Electrical Machinery and Equipment Manufacturing	3	68	55	51	93.2%
General Equipment Manufacturing	5	79	71	62	87.3%
Total	58	1817	1645	1262	76.7%

3.7.2 Reliability and Validity Test

Further validity was tested through factor loading (see Table 3.6). The standardized loadings for all items were higher than the 0.5 standard and passed the t-test at a significant level of P<0.001. The Average Variance Extracted (AVE) values for all six variables are almost all above 0.500, explaining more than 50% of the variance in these items. Therefore, the scale demonstrates good convergent validity.

Finally, the composite reliability was calculated using factor loadings, with all composite reliability values greater than 0.7, indicating the scale has good reliability.

Table 3.10 Convergent Validity and Reliability Test

Variable		Item	Standardized Coefficient Load	AVE	Composite Reliability
Perception of Talent Incentive Policies	policy awareness	A1	0.678	0.556	0.789
		A2	0.768		
		A3	0.787		
	sense of policy gains	A4	0.756	0.642	0.899
		A5	0.873		
		A6	0.758		
		A7	0.821		
		A8	0.792		
	policy satisfaction	A9	0.739	0.663	0.794
		A10	0.742		
		A11	0.769		
Organizational Innovative Climate		B1	0.759	0.605	0.958
		B2	0.686		
		B3	0.707		
		B4	0.765		
		B5	0.860		
		B6	0.871		
		B7	0.814		
		B8	0.723		
		B9	0.742		
		B10	0.752		
		B11	0.769		
		B12	0.765		
		B13	0.867		
		B14	0.770		
		B15	0.789		
Individual Innovation Performance		C1	0.761	0.567	0.913
		C2	0.756		

	C3	0.691		
	C4	0.649		
	C5	0.756		
	C6	0.769		
	C7	0.780		
	C8	0.847		
Organizational Identification	D1	0.786	0.572	0.889
	D2	0.760		
	D3	0.776		
	D4	0.645		
	D5	0.760		
	D6	0.801		

Discriminant validity was tested by comparing the correlation coefficients between variables with the square root of the AVE values. The results indicate that the square roots of the AVE values of all variables are greater than their respective correlation coefficients, demonstrating effective differences between all variables. This suggests that the scale possesses good discriminant validity.

Table 3.11 Discriminant Validity Test

Variable	Policy Awareness	Sense of Policy Gains	Policy Satisfaction	Innovative Climate	High-Tech Employee Innovative Performance	Organizational Identification
Policy Awareness	0.746					
Sense of Policy Gains	0.721**	0.801				
Policy Satisfaction	0.745***	0.719*	0.815			
Innovative Climate	0.533**	0.496**	0.412*	0.778		
High-Tech Employee Innovative Performance	0.226***	0.236**	0.284***	0.249***	0.753	
Organizational Identification	0.172**	0.158**	0.103***	0.225*	0.313*	0.756

Note: ***、**、*、+ respectively indicate: $p<0.001$, $p<0.010$, $p<0.050$, $p<0.100$; the square roots of AVE values are on the diagonal.

3.7.3 Reliability and Validity Test

The survey questionnaire used in this study included 3 items of basic information about the respondents: gender, age, and educational level. The survey was conducted among 1817 high-tech employees from 58 high-tech companies in the Hainan Free Trade Zone, obtaining 1262 valid questionnaires. The specific survey results are as follows:

1. Basic Information of Respondents

Gender

As in Figure 3.19, most respondents were male, with males accounting for more than three-quarters, at 57.5%, and females accounting for 42.5%. The gender ratio was significantly skewed, with the male proportion exceeding the female proportion by 55 percentage points.

Table 3.12 Respondent Gender Statistics

Variable		Frequency	Percentage
Gender	Male	726	57.5%
	Female	536	42.5%

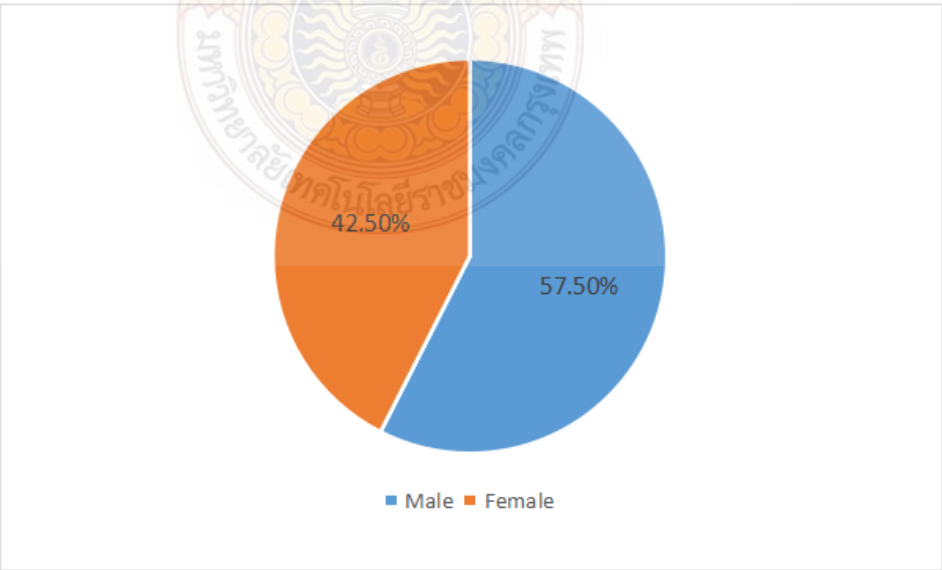

Figure 3.1 Schematic Representation of Gender Distribution of Respondents

Age

In this survey, respondents' ages were divided into five age groups. According to the survey statistics, there were 218 people aged 25 and below, accounting for 17.3%; 574 people aged between 26-35, accounting for 45.5%; 348 people aged between 36-45, accounting for 27.6%; 106 people aged between 46-55, accounting for 8.4%; and 15 people aged 56 and above, accounting for 1.2%. The respondents of this survey were concentrated under the age of 45, accounting for 90.4% of the total number of respondents.

Table 3.13 Respondent Age Statistics

Variable		Frequency	Percentage
Age	25 and below	218	17.3%
	26-35 years	574	45.5%
	36-45 years	348	27.6%
	46-55 years	106	8.4%
	56years old and above	15	1.2%

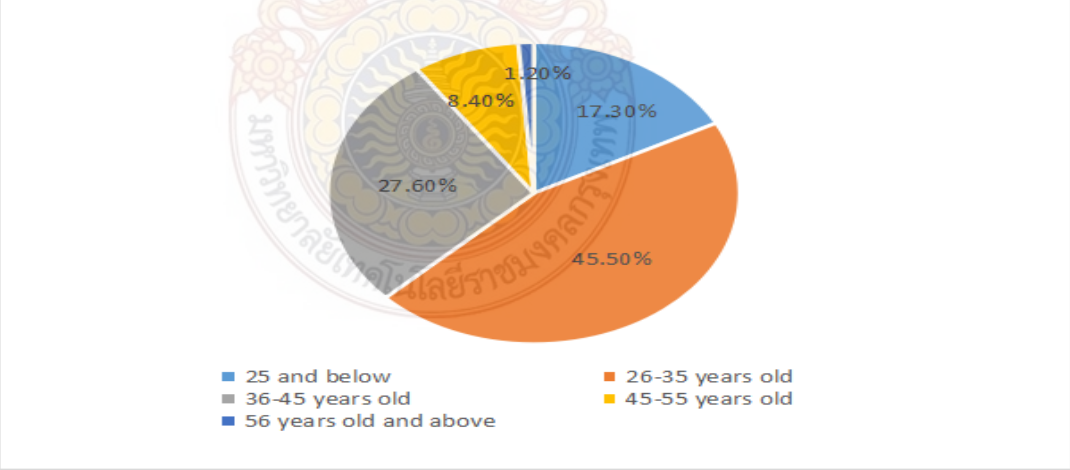

Figure 3.2 Schematic Representation of Age Distribution of Respondents

Educational Level

As in Table 3.21, this survey classified respondents' educational levels into five categories: below associate degree, associate degree, bachelor's degree, master's degree, and doctoral degree or above. Most respondents hold master's and doctoral degrees or above, accounting for nearly 70%, at 69.7%. Specifically, there were 39

respondents with education below an associate degree, accounting for 3.1%; 77 with an associate degree, accounting for 6.1%; 266 with a bachelor's degree, accounting for 21.1%; 705 with a master's degree, accounting for 55.9%; and 174 with a doctoral degree or above, accounting for 13.8%. Such educational attainment aligns with the actual situation of small and medium-sized companies listed on the Science and Technology Innovation Board.

Table 3.14 Respondent Educational Level Statistics

Variable		Frequency	Percentage
Educational Level	Below Associate Degree	39	3.1%
	Associate Degree	77	6.1%
	Bachelor's Degree	266	21.1%
	Master's Degree	705	55.9%
	Doctoral Degree and Above	174	13.8%"

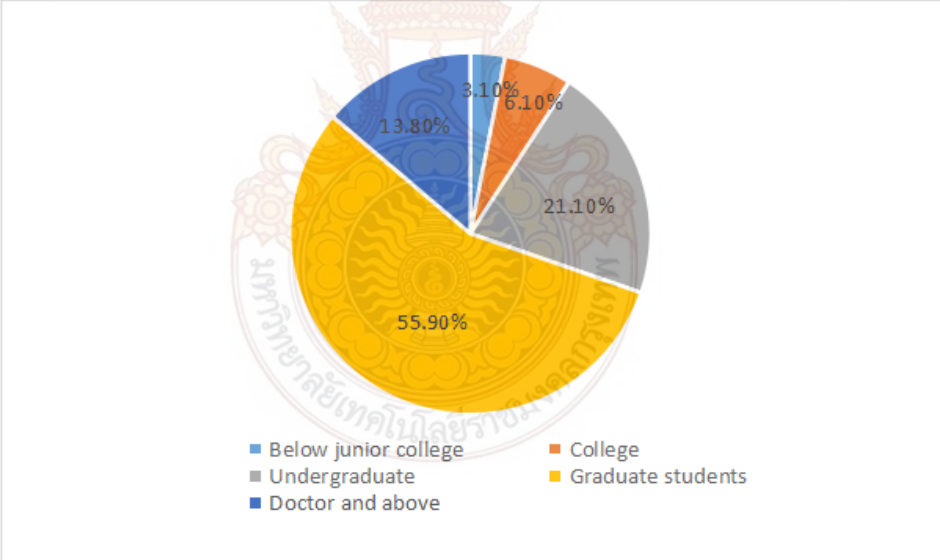

Figure 3.3 Schematic Representation of Respondents' Educational Level

2. Basic Information of Companies in the Sample

This survey mainly involved high-tech employees from 58 high-tech companies in the Hainan Free Trade Zone. A descriptive analysis of the basic information of these companies is as follows:

Company Establishment Duration. As shown in Table 3.22, among the 58 companies surveyed, 26 companies have been established for 5 years or less, making up the largest proportion, nearly half, at 44.8%. Companies established between 6 and

10 years number 21, accounting for 36.2%. Those established for 11 to 15 years are 6, making up 10.3%, while companies established for 16 years or more are the fewest, totaling 5 or 8.6%. The survey mainly focused on companies established for less than 5 years, which exceeds 40% of the sample, consistent with the actual situation.

Table 3.15 Years of Establishment of the Surveyed Enterprises

Variable (Years of Establishment)		**Frequency**	**Percentage**
Years of business establishment	5 years and below	26	44.8%
	6–10 years	21	36.2%
	11–15 years	6	10.3%
	16 years and above	5	8.6%

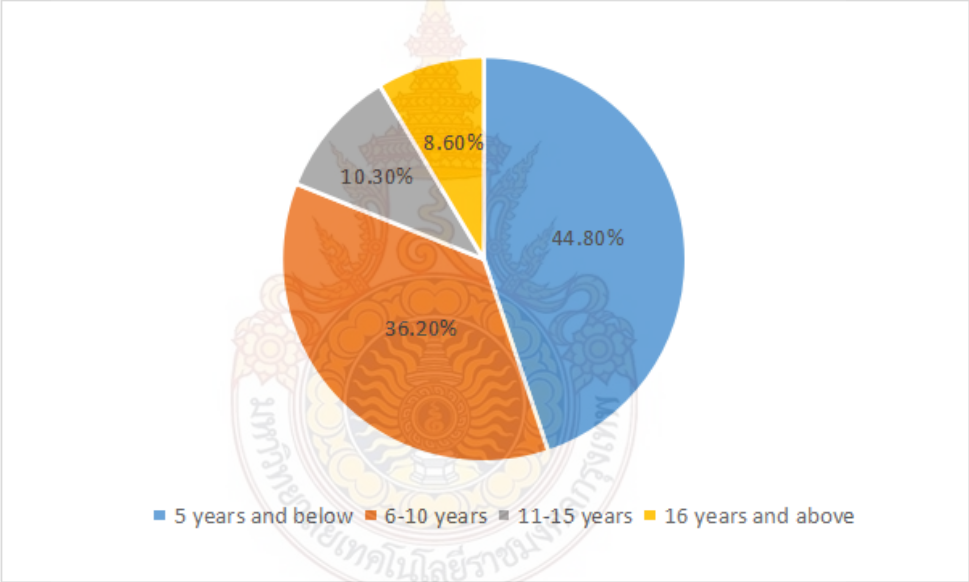

Figure 3.4 Schematic Representation of the Survey Results Regarding the Years of Establishment of the Sample Companies

Nature of the companies: Among the 58 companies surveyed in this study, the majority were private enterprises, with 46 companies accounting for nearly 80% at 79.5%. The next were collectively owned enterprises, with 6 companies representing 12.5%. State-owned enterprises numbered 4 4.7%, while foreign-invested enterprises had the smallest proportion, 2 companies, or 3.3%.

Table 3.16 Nature of the Enterprises Surveyed

Variable (Nature of Enterprise)		Frequency	Percentage
Nature of business	Foreign-invested enterprises	2	3.3%
	Private enterprises	46	79.5%
	State-owned holding enterprises	4	4.7%
	Collective enterprises	6	12.5%

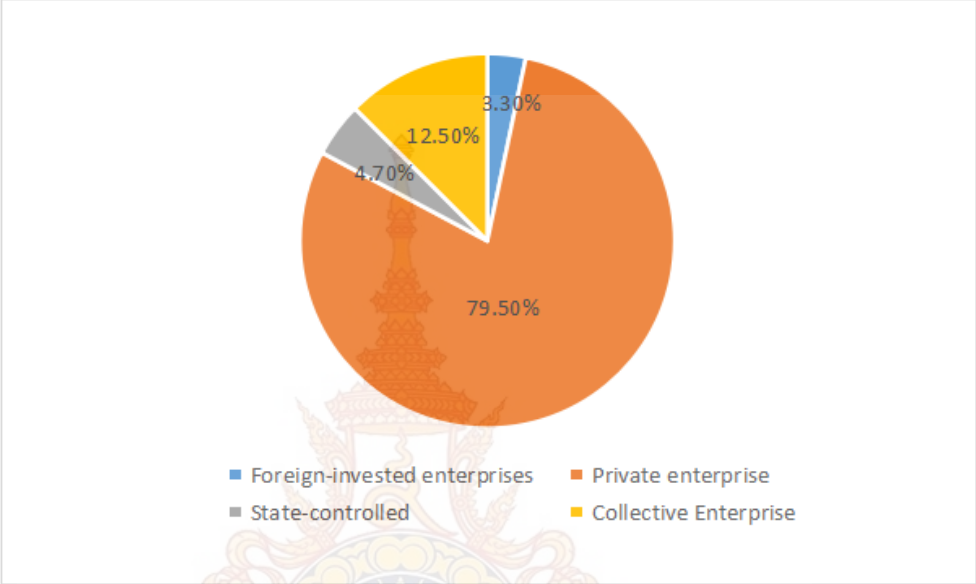

Figure 3.5 Schematic Representation of the Survey Results Regarding the Size of the Sample Companies

Company Size. As in Table 3.24, this survey classified company sizes into five categories: 50 or fewer employees, 51-300 employees, 301-800 employees, 801-1500 employees, and more than 1501 employees. According to the survey results, most respondents work in companies with 51-300 employees, accounting for nearly 60%, at 58.4%. The next largest group is companies with 50 or fewer employees, numbering 13 companies and accounting for 22.4%. The other categories in descending order of proportion are 301-800 employees, 801-1500 employees, and more than 1501 employees, with proportions of 10.7%, 8.5%, and 0%, respectively.

Table 3.17 Survey Results on the Scale of the Interviewed Enterprises

Variable (Enterprise Scale)		**Frequency**	**Percentage**
Enterprise scale	50 and below	13	22.4%
	51—300	34	58.4%
	301—800	6	10.7%
	801—1500	5	8.5%
	1501 and above	-	-

CHAPTER IV
ANALYSIS RESULT

4.1 Descriptive Statistics

Table 4.1 presents the mean, standard deviation, and correlation coefficients of the variables in this study. The results indicate a correlation between the independent variables, mediating variables, moderating variables, and employee innovative performance, providing a solid basis for subsequent tests in this research.

In terms of means, the average value for policy awareness is 3.921, for policy attainment feeling is 4.217, for policy satisfaction is 3.541, for the innovative climate is 3.942, for employee innovative performance is 4.213, and for organizational identification is 3.129. When ordered by value, the sequence is policy understanding, > employee innovative performance > innovative climate > policy awareness > policy satisfaction > organizational identification. These six variables' highest and lowest mean values are 4.217 and 3.129, respectively, ranging from 3.1 to 4.3. However, compared to the full mark of 5, the maximum difference is 1.871, and the minimum is 0.783, indicating room for improvement, which should be further strengthened.

Regarding standard deviations, the standard deviation for policy awareness is 0.562, for policy understanding is 0.635, for policy satisfaction is 0.724, for the innovative climate is 0.612, for employee innovative performance is 0.813, and for organizational identification is 0.575. The standard deviations of these six variables are all below 4.1, indicating that the data for each variable is relatively reliable, with a concentrated distribution, less dispersion, and a smaller range of variation.

Table 4.1 Descriptive Analysis of Major Variables

Variable	Mean	Standard Deviation	Policy Awareness	Policy understanding	Policy Satisfaction	Innovative Climate	Innovative Performance	Organizational Identification
1 Policy Awareness	3.921	0.562	1					
2 Policy understanding	4.217	0.635	0.721**	1				
3 Policy Satisfaction	3.541	0.724	0.745***	0.719*	1			
4 Organizational Innovation Atmosphere	3.942	0.612	0.533**	0.496**	0.412*	1		
5 Employee Innovation Performance	4.213	0.813	0.226***	0.236**	0.284***	0.249***	1	
6 Organizational Identification	3.129	0.575	0.172**	0.158**	0.103***	0.225*	0.313*	1

Note: ***, **, *, + respectively indicate: P<0.001, P<0.010, P<0.050, P<0.100

Table 4.1 shows positive and significant relationships among variables such as policy awareness, policy satisfaction, policy acceptance, innovative climate, and employee innovative performance. Specifically, policy awareness and policy acceptance are significantly correlated with innovative climate at the 0.010 significance level; policy satisfaction is significantly correlated with innovative climate at the 0.050 significance level; policy acceptance is significantly correlated with employee innovative performance at the 0.001 significance level, and policy awareness, policy satisfaction, and innovative climate are each significantly correlated with employee innovative performance at the 0.001 significance level. Furthermore, policy awareness and understanding are significantly correlated with organizational identification at the 0.010 significance level; policy satisfaction is significantly correlated with organizational identification at the 0.001 significance level; and innovative climate and employee innovation performance are each significantly correlated with organizational identification at the 0.050 significance level.

4.1.2 Descriptive Statistics on the Perception of Talent Incentive Policies

Table 4.2, the descriptive statistics show that talent incentive policies in the Hainan Free Trade Zone exhibit positive characteristics. The median for policy awareness (A1-A3) is 4.232, with an average of 3.921 and a standard deviation of 0.962.

For the sense of policy gains (A4-A8), the median is 4.364, the average is 3.894, and the standard deviation is 0.935. For policy satisfaction (A9-A11), the median is 4.521, the mean is 3.865, and the standard deviation is 0.924. These statistical figures indicate that the respondents are generally optimistic about the talent incentive policies in the Hainan Free Trade Zone. The relatively low standard deviation suggests that the data is not highly dispersed, indicating a certain degree of consistency in the respondents' views on these policies. These results lay a solid foundation for further exploration of the talent incentive policies in the Hainan Free Trade Zone.

Table 4 .2 Descriptive Statistics of Talent Incentive Policy Perception

	Median	Mean	Standard Deviation
Policy Awareness (4.1.1-4.1.3)	4.232	3.921	0.962
Sense of Policy Gains (4.2.1-4.2.5)	4.364	3.894	0.935
Policy Satisfaction (4.3.1-4.3.3)	4.521	3.865	0.924

Note: N=1262

4.1.3 Descriptive Statistics for Mediating Variables and Dependent Variables

According to Table 4.3, the descriptive statistics show that for the variable 'Innovation Performance (C1-C8)', the median is 4.445, with an average of 3.743 and a standard deviation of 0.913. These values indicate a moderate tendency towards higher levels of innovative performance, with a relatively low degree of data dispersion.

Similarly, for the variable 'Organizational Identification (D1-D6)', the median is 4.395, the average is 3.954, and the standard deviation is 0.905. These statistical data suggest that most high-tech employees exhibit higher levels of organizational identification, with relatively low data dispersion. These results provide a preliminary data description for the mediating and dependent variables, laying the groundwork for subsequent analyses.

Table 4.3 Descriptive Statistics for Mediating Variables and Dependent Variables

Variable Name	Median	Mean	Standard Deviation
Innovation Performance (6.1-6.8)	4.445	3.743	0.913
Organizational Identification (7.1-7.5)	4.395	3.954	0.905

Note: N=1262

4.2 Inferential Statistics

4.2.1 Correlation Statistics

The data in Table 4.4 clearly show a significant positive correlation between variables, policy awareness, and policy satisfaction, and a significant positive correlation between understanding policy gains, innovative climate, organizational identification, and High-Tech Employee Innovative Performance. Specifically, there is a significant correlation between policy awareness and understanding of policy gains with innovative climate at the significance level of 0.010. Policy satisfaction is significantly correlated with innovative climate, at a significance level of 0.050. At the significance level of 0.001, understanding policy gains significantly correlates with high-tech employee innovative performance. High-Tech Employee Innovative Performance correlates significantly with policy awareness, policy satisfaction, and innovative climate.

Furthermore, at the significance level of 0.010, policy awareness and understanding of policy gains are significantly correlated with organizational identification. Policy satisfaction is significantly correlated with organizational identification at a significance level of 0.001. An innovative climate is significantly correlated with organizational identification, and High-Tech Employee Innovative Performance is also significantly correlated with organizational identification, both at a significance level of 0.05.

Finally, at a significance level of 0.01, policy awareness and understanding of policy gains significantly correlate with organizational identification level. Innovative climate, at 0.05, and High-Tech Employee Innovative Performance are also significantly correlated with organizational identification at a significance level.

Table 4.4 Descriptive Analysis of Main Variables

Variable	Policy Awareness	Understanding of Policy Gains	Policy Satisfaction	Innovation Climate	High-Tech Employee Innovative Performance	Organizational Identification
Policy Awareness	1					
Sense of Policy Gains	0.721**	1				
Policy Satisfaction	0.745***	0.719*	1			
Organizational Innovation Climate	0.533**	0.496**	0.412*	1		
High-Tech Employee Innovation Performance	0.226***	0.236**	0.284***	0.249***	1	
Organizational Identification	0.172**	0.158**	0.103***	0.225*	0.313*	1

Note: ***, **, *, and + respectively represent: p<0.001, p<0.010, p<0.050, p<0.100

4.3 Inferential Statistics

4.3.1 Multiple Linear Regression of Perception of Talent Incentive Policies on Innovative Performance

Table 4.5, Model (1), displays the impact of this paper's control variables on the dependent variable, innovation performance. In Model (1), the adjusted R2=0.101 and F=4.366, with P<0.001, indicating that the regression of Model (1) is significant. The variables age (β=0.006, P<0.050), educational level (β=0.056, P<0.001), company establishment duration (β=-0.008, P<0.010), company nature (β=0.036, P<0.010), and company size (β=0.008, P<0.050) all have a significant impact.

Model (2) extends Model (1) by adding the variable Perception of Talent Incentive Policies. Model (2) shows that the adjusted R2=0.105, indicating more substantial explanatory power than the regression model with only control variables. The F value is 4.400 with P<0.001, signifying a significant regression model. The variables age (β=0.007, P<0.010), educational level (β=0.057, P<0.001), founder identity (β=0.0005, P<0.001), company establishment duration (β=-0.009, P<0.010), and company size (β=0.024, P<0.050) all have significant impacts. The dimension of

policy awareness in the independent variable Perception of Talent Incentive Policies has a significant positive impact on innovative performance (β=0.216, P<0.001), as do the dimensions of policy gains (β=0.326, P<0.001) and policy effectiveness evaluation (β=0.348, P<0.001). Therefore, the research hypotheses H1, H1a, H1b, and H1c are all supported.

Table 4.5 Regression Analysis of the Talent Incentive Policy Perception on Innovation Performance

Variable	**Innovation Performance**	
	Model 1	**Model 2**
(Constant)	0.067	0.060
Gender	0.130+	0.008+
Awareness of Policy	-	0.216***
Perceived Policy Benefits	-	0.326***
Policy Satisfaction	-	0.348***
Adjusted R^2	0.101	0.105
F	4.366***	4.400***

Note: ***, **, *, + represent: p<0.001, p<0.010, p<0.050, p<0.100, respectively.

4.3.2 Multiple Linear Regression of Perception of Talent Incentive Policies on Innovation Climate

First, in Model 3, we investigated the effects of control variables and gender on the innovative climate. The adjusted R^2 was 0.229, with an F-value of 19.906 (p<0.001), indicating that Model 3 is statistically significant. In this model, gender significantly impacts the innovative climate (β=0.144, p<0.100).

Next, in Model 4, we introduced additional independent variables, policy awareness, understanding of policy gains, and policy satisfaction, to explore their impact on the innovative climate further. The adjusted R^2 for Model 4 was 0.236, higher than Model 3, suggesting that Model 4 better explains the variance in the innovative climate. The F-value for Model 4 was 9.973 (p<0.050), indicating a statistically significant difference.

In Model 4, gender continued to significantly affect the innovative climate (β=0.171, p<0.050). Additionally, the innovative climate positively impacted the dimensions representing talent incentive policy awareness, understanding of policy gains, and policy satisfaction. Policy awareness (β=0.216, p<0.001), understanding of policy gains (β=0.223, p<0.010), and policy satisfaction (β=0.221, p<0.010) all positively influenced the organizational innovative climate. This suggests that higher awareness of talent incentive policies is associated with a more positive, innovative environment. Therefore, Hypothesis 2 is supported.

Table 4.6 Regression Analysis of Talent Incentive Policy Perception and Innovation Climate

Variables	**Innovation Climate**	
	Model 3	**Model 4**
(Constant)	0.362	0.309
Gender	0.144+	0.171*
Policy Awareness		0.216*
Sense of Policy Gains		0.223**
Policy Satisfaction		0.221**
Adjusted R^2	0.229	0.236
F-value	19.906***	9.973***

Note: ***, **, *, + represent: p<0.001, p<0.010, p<0.050, p<0.100, respectively.

4.3.3 Impact of Organizational Innovative Climate on High-Tech Employee Innovation Performance

In Table 4.7, we conducted a regression analysis to test the relationship between innovative climate and performance. Model 5 examines the impact of gender on innovative performance, and Model 6 introduces the additional variable of innovative climate. Results:

Model 5 demonstrates the relationship between gender and innovative performance. The adjusted R^2 for Model 1 is 0.101, indicating that the variables in the model can explain 10.1% of the variance in innovation performance. The F-value is 4.366 (P<0.001), signifying that Model 1 is statistically significant. In this model, the impact of gender on innovation performance is small (β = 0.103, P < 0.100).

Model 6 adds the variable of innovative climate to the basis of Model 1. The adjusted R^2 for Model 6 is 0.109, showing an improvement in explanatory power compared to Model 1. The F-value is 4.557 (P<0.001), further confirming the significance of this model. In Model 2, the impact of gender on innovation performance remains small (β = 0.118, P < 0.100). The innovative climate significantly impacts innovative performance in this model (β = 0.319, P<0.001), thus supporting Hypothesis H3.

Table 4.7 Regression Analysis of Innovation Climate and Innovation Performance

Variab	**Innovation Performance**	
	Model 5	**Model 6**
(Constant)	0.067	0.074
Gender	0.103+	0.118+
Innovation Climate		0.319***
Adjusted R^2	0.101	0.109
F-value	4.366***	4.557***

Note: ***, **, *, + represent: p<0.001, p<0.010, p<0.050, p<0.100, respectively.

4.3.4 Testing the Mediating Role of Innovative Climate

Table 4.8 illustrates the mediating role of the innovative climate between the perceived talent incentive policies and innovative performance. Model (9) reveals the impact of the independent variable of talent incentive policies across three dimensions and control variables on the dependent variable of innovative performance. Among them, the coefficient of the dimension of policy awareness (β = 0.316, P < 0.001) is significant, as well as the dimension of policy gains (β = 0.323, P < 0.001), and the dimension of policy satisfaction (β = 0.321, P < 0.001).

When variables such as policy awareness, understanding of policy gains, and policy satisfaction are included simultaneously in the regression model with High-Tech Employee Innovative Performance as the dependent variable, the innovative climate remains significant (see Model 11). However, the impact of policy awareness, understanding of policy gains, and policy satisfaction on High-Tech Employee Innovative Performance significantly weaken (β decreases noticeably from Model 9 to

Model 11), suggesting that innovative climate plays a mediating role in the relationship between the perception of talent incentive policies and High-Tech Employee Innovative Performance, thereby supporting Hypothesis 4.

Table 4.8 Hierarchical Regression Analysis Results for Mediation Effect Test

Variable	Innovation Performance		
	Model 9	Model 10	Model 11
Constant	0.309	0.071	0.074
Gender	0.115+	0.112+	0.108+
Policy Awareness	0.316***		0.209***
Understanding of Policy Gains	0.323***		0.224***
Policy Satisfaction	0.321***		0.233**
Innovation Climate		0.219***	0.261**
Adjusted R^2	0.236	0.221	0.115
F-value	9.973***	4.245***	4.642***

Note: ***, **, *,、+ respectively represent: P<0.001、P<0.010、P<0.050、P<0.100

4.3.5 Multiple Linear Regression of the Mediating Effect of Innovation Climate

Table 4.9 presents the mediating role of the innovation climate between the Perception of Talent Incentive Policies and innovation performance. Model (13) shows the impact of this paper's control variables and the independent variable, Perception of Talent Incentive Policies, across three dimensions on the dependent variable of innovation performance. Among these, the coefficient c of the policy awareness dimension (β=0.005, P<0.001) is significant, the coefficient c of the understanding of policy gains dimension (β=0.013, P<0.001) is significant, and the coefficient c of the policy effectiveness evaluation dimension (β=0.124, P<0.010) is significant.

Model (14) examines the influence of the control variables and the independent variable, the perception of talent incentive policies, on the mediating variable of innovative climate. In this model, the coefficient c of the policy awareness dimension (β=0.023, P<0.001) is significant, the coefficient c of the understanding of

policy gains dimension (β=0.034, P<0.001) is significant, and the coefficient c of the policy effectiveness evaluation dimension (β=0.025, P<0.010) is significant.

Model (15) addresses the impact of the control variables, the mediating variable innovation climate, and the independent variable Perception of Talent Incentive Policies on innovative performance. In this model, the coefficient c of the policy awareness dimension (β=0.009, P<0.001) is significant, the coefficient c of the understanding of policy gains dimension (β=0.024, P<0.001) is significant, and the coefficient c of the policy effectiveness evaluation (β=0.033, P<0.010) is significant; the coefficient b of the mediating variable technological innovative climate (β=-0.021, P<0.001) is also significant. Tests were conducted sequentially for c, a, b, and c's, where c is significant, both a and b are significant, and c' is significant, indicating that the mediating variable technological innovative climate is mediating between Perception of Talent Incentive Policies and innovative performance. Therefore, Hypothesis H4a is supported.

Table 4.9 Regression Analysis of the Mediating Role of Innovative Climate Between Perception of Talent Incentive Policies and Innovation Performance

Variables	**Innovation performance**	**Innovation Climate**	**Innovation Performance**
	Model 13	Model 14	Model 15
Constant	0.002	0.062	0.004
Gender	0.003*	-0.032***	0.002
Age	0.007**	0.002	0.007**
Education Level	-0.057***	0.050	-0.056***
Years of Establishment	0.006*	0.038***	0.004
Nature of Enterprise	0.008**	0.003	0.072**
Enterprise Size	-0.064***	0.052	-0.058***
Talent Incentive Policy Perception	Policy Awareness	0.005***	0.023***
	Policy Acquisition Feeling	0.013***	0.034***
	Policy Effectiveness Evaluation	0.124*	0.025***
Innovation Climate			-0.021***
Adjusted R^2^	0.105	0.236	0.115
F Value	4.400***	9.973***	4.642***

Note: ***, **, *, + represent: P<0.001, P<0.010, P<0.050, P<0.100, respectively.

4.3.6 The Moderating Role of Organizational Identification

(1) The Moderating Effect of Organizational Identification between Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance

The study of moderating effects does not require that the independent variable (X) must have an impact on the dependent variable (Y); it can be conducted even if X does not impact Y. From the perspective of supervisory constraints, we further examined the positive moderating effect of organizational identification on the relationship between Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance. We added the interaction of Talent Incentive Policies and organizational identification to see if there is a moderating effect, mainly by observing changes in $\triangle R^2$ values and the significance of the interaction term. There are three models in the following figure, with Model 16 including the independent variable Perception of Talent Incentive Policies and control variables; Model 17 adds the moderating variable, i.e., organizational identification, based on Model 16; Model 18 includes the interaction term, which is the product of the independent variable Perception of Talent Incentive Policies and the moderating variable organizational identification. The effect of the moderating variable is usually judged in two ways: by observing significant changes in $\triangle R^2$. From the figure, the $\triangle R^2$ value changes from 0.025 to 0.064 from Model 17 to Model 18, indicating a significant change in R^2 and the significance of the interaction term. The second method is based on the significance of the interaction term. In Model 18, the interaction term of the independent variable, Perception of Talent Incentive Policies, and the moderating variable, organizational identification, has a P value of 0.000**, indicating a very significant interaction, meaning organizational identification positively moderates the relationship between Talent Incentive Policies and the organizational innovative climate, reinforcing the positive moderating effect of Talent Incentive Policies on High-Tech Employee Innovative Performance. Organizational identification can effectively stimulate talent's perception of incentive policies, enhancing the convergence between the perception of incentive policies and High-Tech Employee Innovative Performance, which is beneficial in enhancing the enterprise's organizational innovative climate and High-Tech Employee Innovation Performance. Therefore, the hypothesis is supported.

Table 4.10 Regression Analysis of the Moderating Effect of Organizational Identification

Analysis Results of Organizational Identification Moderating Effect (n=1262)												
	Model 21				Model 22				Model 23			
	B	Standard Value	T	P	B	Standard Value	T	P	B	Standard Value	T	P
Constant	1.751	0.397	4.411	0.000**	1.302	0.422	3.084	0.002**	.709	0.410	4.165	0.000**
Control Variable	0.532	0.095	5.592	0.000**	0.640	0.101	6.318	0.000**	0.523	0.099	5.266	0.000**
Perception of Talent Incentive Policies	0.171	0.082	2.076	0.039*	0.255	0.086	2.951	0.004**	0316	0.083	3.809	0.000**
Organizational Identification					-0.235	0.084	-2.779	0.006**	-0.020	0.092	-0217	0.828
Perception of Talent Incentive Policies * Organizational Identification									0.234	0.050	4.710	0.000**
R2	0.345				0.370				0.434			
Adjusted R2	0.338				0.360				0.422			
F Value	F(2,197)=51.810, P=0.000**.				F(3,196)=38.293,P=0.000**				F(4,195)= 37.369,P=0.000**			
△R2 Value	0.345				0.025				0.064			
△F Value	F(2,197)=51.810,P=0.000**				F(1,196)=7.722,P=0.006**				F(1,195)-22.183,P=0.000**			
Dependent variable: High-tech Employee Innovative Performance												
*P<0.05** P<0.01												

Note:***、**、*、+ respectively indicate: P<0.001, P<0.010, P<0.050, P<0.100

(2) The Moderating Role of Organizational Identification between Innovative Climate and High-Tech Employee Innovative Performance

Like the test for the moderating effect of organizational identification between Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance, the test for its moderating effect between Innovative Climate and High-Tech Employee Innovative Performance is also validated by examining the significance of the change in $\triangle R^2$ values and the significance of the interaction term. As shown in the figure, the analysis of the moderating effect of organizational identification includes three models. Model 19 includes the independent variable, Innovative Climate, and control variables; Model 20 adds the moderating variable, organizational identification, to Model 19. Model 21 introduces the interaction term, the product of Innovative Climate, and the moderating variable Organizational Identification. As illustrated, from

Model 20 to Model 21, the $\triangle R^2$ value changes from 0.034 to 0.092, indicating a significant change in R^2 and the significance of the interaction term. Additionally, in Model 21, the interaction term of Innovative Climate and Organizational Identification has a P value of 0.000**, confirming the significant interaction.

In conclusion, as indicated in the above table, Innovative Climate shows significance (t=2.076, p=0.039<0.05), implying that Innovative Climate significantly influences High-Tech Employee Innovative Performance. Simultaneously, the interaction term between Innovative Climate and Organizational Identification is significant with a regression coefficient at t=4.710 and p=0.000 (<0.05), indicating that the degree of high-tech employees' identification with the organization positively moderates the relationship between Innovative Climate and Innovation Performance. Hence, hypothesis H5b is validated.

Table 4.11 Regression Analysis of the Moderating Effect of Organizational Identification

Analysis Results of Organizational Identification Moderating Effect (n=1262)												
	Model 19				Model 20				Model 21			
	B	Standard Value	T	P	B	Standard Value	T	P	B	Standard Value	T	P
Constant	1.864	0.412	4.542	0.000**	1.408	0.442	3.782	0.001**	.987	0.424	4.453	0.000**
Control Variable	0.632	0.123	5.432	0.000**	0.672	0.113	6.534	0.000**	0.532	0.094	5.453	0.000**
Perception of Talent Incentive Policies	0.182	0.072	2.237	0.031*	0.243	0.089	2.932	0.002**	0345	0.089	3.978	0.000**
Organizational Identification					-0.221	0.087	-2.783	0.006**	-0.021	0.089	-0387	0.828
Perception of Talent Incentive Policies * Organizational Identification									0.342	0.045	4.675	0.000**
R2	0.334				0.365				0.454			
Adjusted R2	0.346				0.374				0.453			
F Value	F(2,652)=51.810, P=0.000**.				F(3,453)=37.354,P=0.000**				F(4,242)= 38.897,P=0.000**			
$\triangle$R2 Value	0.389				0.034				0.092			
$\triangle$F Value	F(2,323)=51.810,P=0.000**				F(1,204)=7.722,P=0.006**				F(1,254)=23.783,P=0.000**			
Dependent variable: High-tech Employee Innovation Performance												
*P<0.05** P<0.01												

Note: 、、、+ respectively indicate: P<0.001, P<0.010, P<0.050, P<0.100

4.3.7 Analysis of the Impact of Control Variables

To analyze the impact of control variables, this study investigates the effect of control variables on independent and dependent variables from two aspects: the personal level of respondents and the enterprises they belong to. At the individual level, the study focuses on the personal characteristics of respondents, such as gender, age, and educational level. The data analysis employs a combination of independent samples, a t-test (for two groups), and a one-way ANOVA (for more than two groups). This study follows the suggestions of Ma (2003), using the LSD method for comparing control variables with homogeneous variances and the Tamhane method for those with heterogeneous variances.

(1) Analysis of the Impact of Gender on Independent and Dependent Variables

As in Table 4.12, in the independent samples T-test with respondents' gender as the subject, at a 95% confidence level, the significance probability values for the variables policy awareness, understanding of policy gains, policy satisfaction, and High-Tech Employee Innovative Performance are 0.111, 0.225, 0.094, and 0.068 respectively, all greater than 0.05. This means that respondents' gender does not significantly differ in the impact on Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance.

Table 4.12 Variance Analysis Table for the Influence of Gender on Independent and Dependent Variables

Variable Name		Mean Difference (Male-Female)	F-value	Homogeneity of Variances Test		Significance Probability	Is it Significant?
				Sig. Value	Is it Homogeneous?		
Perception of Talent Incentive Policy	Policy Awareness	0.10872	0.913	0.091	yes	0.111	no
	sense of policy gains	0.05563	1.658	0.085	yes	0.225	no
	Policy Satisfaction	0.08427	2.680	0.004	no	0.094	no
Employee Innovative Performance		0.07481	0.764	0.032	no	0.068	no

Note: The significance level for the homogeneity of variances test is 0.05.

(2) Analysis of the Impact of Age on Independent and Dependent Variables

Given that this study categorizes respondents' ages into five levels: below 25, 26-35 years, 36-45 years, 46-55 years, and above 56 years, it is most appropriate to use one-way ANOVA to determine the impact of respondents' age on independent and dependent variables. As shown in Table 4.13, at a 95% confidence level, the significance probability values for the variables policy awareness, understanding of policy gains, policy satisfaction, and High-Tech Employee Innovative Performance are 0.533, 0.391, 0.418, and 0.134, respectively, all greater than 0.05. This indicates that there is no significant difference in the impact of respondents' age on Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance.

Table 4.13 Variance Analysis Table for the Influence of Age on Independent and Dependent Variables

Variable Name	Total Variance	F-value	Homogeneity of Variances Test		Significance Probability	Is it Significant?
			Sig. Value	Is it Homogeneous?		
Policy Awareness	1270.511	1.654	0.764	Yes	0.533	no
sense of policy gains	1176.235	1.241	0.854	Yes	0.391	no
Policy Satisfaction	1130.254	1.987	0.768	Yes	0.418	no
Employee Innovation Performance	0.08996	0.680	0.004	No	0.134	no

Note: The significance level for the homogeneity of variances test is 0.05.

(3) Analysis of the Impact of Educational Level on Independent and Dependent Variables

Since this study categorizes respondents' educational levels into five levels: below diploma, diploma, bachelor's degree, master's degree, and doctorate or above, it can be seen from the following table that, at a 95% confidence level, the significance probability values for the variables policy awareness, policy satisfaction, and High-Tech Employee Innovation Performance are 0.269, 0.374, and 0.226 respectively, all greater than 0.05. This indicates no significant difference in the impact of respondents' educational level on policy awareness, policy satisfaction, and High-Tech Employee

Innovation Performance. However, the significance probability value for understanding policy gains is 0.001, less than 0.05, indicating a significant difference in the impact of respondents' educational level on the understanding of policy gains.

Table 4.14 shows the results of multiple comparisons, where the homogeneity of variance probability value for policy gains is 0.001, less than 0.05, thereby rejecting the hypothesis of homogeneity of variances. Therefore, this study used Tamhane's method for a more in-depth analysis of multiple comparisons. Table 4.15 shows significant differences in understanding policy gains among respondents with different educational levels. Compared to respondents with a diploma or less, those with doctoral and master's degrees have the most vital understanding of policy gains. In contrast, respondents with a bachelor's or diploma have a stronger understanding of policy gains than those without a diploma education.

Table 4.14 Variance Analysis Table for the Influence of Education Level on Independent and Dependent Variables

Variable Name	Total Variance	F-value	Homogeneity of Variances Test		Significance Probability	Is it Significant?
			Sig. Value	Is it Homogeneous?		
Policy Awareness	1182.342	9.154	0.000	No	0.269	no
understanding of policy gains	1165.421	8.215	0.061	Yes	0.001	yes
Policy Satisfaction	1146.341	8.842	0.000	No	0.374	no
High-Tech Employee Innovation Performance	1299.102	7.329	0.001	No	0.226	no

Note: The significance level for the homogeneity of variances test is 0.05.

Table 4.15 Multiple Comparisons Results Based on Education Level

Variable Name	Analysis Method	Education (I)	Education (J)	Mean Difference (I-J)	Sig.
understanding of policy gains	Tamhane	Junior College and below	Doctorate and above	4.3322(*)	0.000
			Master's	2.6684(*)	0.013
			Bachelor's	2.1651(*)	0.031
			Junior College	2.0487(*)	0.037
			Junior College and below	1.9957(*)	0.042

Note: *p<0.05, same below.

4.4 Summary of Hypothesis Test Results

In this research topic, using the questionnaire survey method and employing mathematical statistics and regression analysis as tools, all 13 hypotheses were supported after testing the sample data obtained in this study. The details are as follows:

Table 4.16 Research Hypothesis Test Results

Hypotheses	**Hypotheses Content**	**Results**
H1	Talent incentive policy perception has an impact on High-Tech Employee Innovative Performance.	Supported
	H1a: Policy awareness has an impact on High-Tech Employee Innovative Performance	Supported
	H1b: understanding of policy gains has an impact on High-Tech Employee Innovative Performance	Supported
	H1c: Policy satisfaction has an impact on High-Tech Employee Innovative Performance	Supported
H2	Talent incentive policy perception has an impact on innovative climate.	Supported
	H2a: Policy awareness has an impact on innovative climate.	Supported
	H2b: Understanding policy gains have an impact on innovative climate.	Supported
	H2c: Policy satisfaction has an impact on innovative climate.	Supported
H3	Innovation climate has an impact on High-Tech Employee Innovative Performance.	Supported

H4	Innovation climate mediates the relationship between talent incentive policy perception and High-Tech Employee Innovative Performance.	Supported
H5	Organizational identification plays a moderating role.	Supported
	H5a: Organizational identification moderates the relationship between talent incentive policy perception and High-Tech Employee Innovative Performance	Supported
	H5b: Organizational identification moderates the relationship between the innovative climate and High-Tech Employee Innovative Performance	Supported

CHAPTER V
CONCLUSION AND IMPLICATIONS

5.1 Discussion

This research project focuses on a segment of high-tech employees in the Hainan Free Trade Port, aiming to elucidate the relationships among four variables: Perception of Talent Incentive Policies, Innovative Climate, Innovative Performance, and Organizational Identification. To ensure the scientific rigor of the research, this paper builds upon previous studies to establish a research model, formulate hypotheses, and design a survey scale.

Using the Questionnaire Star software, a preliminary survey was conducted on a small sample of respondents, and the results were tested for reliability and validity using SPSS 29.0 statistical software. After confirming the preliminary survey's good reliability and validity, an in-depth investigation was carried out among some high-tech employees in the Hainan Free Trade Port. The collected data was subjected to descriptive statistical analysis, and regression analysis was applied to test the set hypotheses. The verification results show that the Perception of Talent Incentive Policies (policy awareness, understanding of policy gains, policy effectiveness evaluation) positively impacts innovative performance. Perception of Talent Incentive Policies positively influences the innovative climate, and the innovative climate has a positive effect on innovative performance. The innovative climate mediates the relationship between the Perception of Talent Incentive Policies and innovative performance. Organizational identification plays a moderating role between the Perception of Talent Incentive Policies and innovative performance, as well as between the innovative climate and innovative performance.

5.1.1 Perception of Talent Incentive Policies, Innovative Climate, and Innovative Performance Reliability and Validity

The results demonstrate that the Perception of Talent Incentive Policies, encompassing dimensions such as policy awareness, understanding of policy gains, and

policy effectiveness evaluation, have Cronbach's alpha coefficients around 0.9. The overall KMO value is 0.875, and Bartlett’s test of sphericity value is 6874.32, indicating good reliability and validity, excellent internal consistency, and significant statistical meaning.

The Innovative Performance survey scale has a Cronbach's alpha coefficient of 0.912, an overall KMO value of 0.934, and a Bartlett’s test of sphericity value of 6542.32, confirming that the scale's reliability and validity, as well as internal consistency, are satisfactory. The Innovative Climate survey scale's dimensions have Cronbach's alpha coefficients ranging from a maximum of 0.924 to a minimum of 0.887. The overall KMO value of this scale is 0.909, with Bartlett’s test of sphericity value of 7846.47, meeting the research requirements for reliability and validity, with good internal consistency and clear statistical significance.

5.1.2 Descriptive Analysis of Perception of Talent Incentive Policies, Innovative Climate, and Innovative Performance

In this survey, the dimensions of Perception of Talent Incentive Policies ranged between 3.865 and 3.921, ranking from highest to lowest, policy awareness, understanding of policy gains, and policy effectiveness evaluation. Although there are gaps between these three dimensions of Perception of Talent Incentive Policies, the largest gap being 0.056, it indicates that the high-tech employees in the Hainan Free Trade Zone have a very high level of perception of talent incentive policies, especially regarding policy awareness. The mean of Innovative Performance is 3.743, consistent with many experts' empirical analyses, suggesting that the innovative performance of high-tech employees in enterprises within the Hainan Free Trade Zone is good. However, there is room for improvement, such as constructing Perception of Talent Incentive Policies. Among the three dimensions of Innovative climate, the means are evenly distributed between 3.6 and 3.9, with the highest mean reaching 3.942 for innovative climate, followed by organizational support and task support.

5.1.3 Impact of Perception of Talent Incentive Policies on Innovative Performance

The beta value of the policy awareness dimension of Perception of Talent Incentive Policies on Innovative Performance is 0.216 with a p-value <0.001, indicating a positive impact on Innovative Performance. The beta value of the understanding of

policy gains dimension is 0.326 with a p-value <0.001, indicating a positive impact on Innovative Performance. The beta value of the policy effectiveness evaluation dimension is 0.348 with a p-value <0.001, suggesting a positive impact on Innovative Performance.

Field theory posits that individual behavior results from the interaction of environmental and psychological factors, where the external "environmental field" includes the individual's perception of the external environment. As an essential external "environmental field", the impact of the Perception of Talent Incentive Policies on Innovative Performance also needs to be considered along with the psychological factors of talent. Perception of Talent Incentive Policies can convey government and organizational expectations for innovative performance. Once talent perceives these policies, they transform external expectations into self-innovative ones, enhancing innovative performance. Precisely, governments formulate and implement a series of talent incentive policies, providing resources for daily work and innovative activities. Previous research has confirmed that good talent incentives help promote the development of innovative thinking and the generation of innovative outcomes. These policies do not directly affect innovative performance but do so through the individual's policy perception. Talent incentive policies provide objective support like funding, space, and tax benefits but also address practical difficulties, reduce innovation risks and barriers, and meet talent’s needs in innovation. This maximizes the stimulation of talent’s innovative enthusiasm, enhancing their willingness and perceived behavioral control for innovation, ultimately improving innovative performance.

Moreover, while innovation is an intrinsically driven activity with its complexity, it can easily reduce the internal drive of talent, leading to burnout and withdrawal. Most talent incentive policies are tailored to the needs of talents. Implementing these policies not only helps to alleviate the psychological pressure and work burnout caused by the complexity of innovation but also conveys the government's level of regard for talent. When talent perceives this level of regard, it subtly affects their psychological inclinations, stimulating their internal motivation for innovation and mobilizing their enthusiasm and initiative to participate in innovative activities, ultimately enhancing innovative performance.

This conclusion is also consistent with the research findings of Xu et al. (2013), Jiang et al. (2020), Gavetti (2018), and Ni (2021). Xu et al. (2013) concluded that policy perception could impact innovative behavior using questionnaires for data collection and analysis. Jiang et al. (2015) used the Logit model to verify the impact of policy perception on grassroots employee willingness. Internationally, Gavetti's (2005) research indicated that policy perception influences decision-making.

5.1.4 Descriptive Analysis of the Talent Incentive Policy Perception, Innovative Climate, and Innovative Performance

In this survey, the mean values for the various dimensions of the talent incentive policy perception range from 3.865 to 3.921. They are arranged in descending order: policy awareness, policy perception, and policy satisfaction. Although there are differences among the three main dimensions of the perception of talent incentive policy, the gaps are not pronounced. The most significant difference is 0.056. This suggests that the employees of high-tech companies in the Hainan Free Trade Zone have a very high degree of awareness of talent incentive policies, especially in terms of policy awareness.

The mean value for innovative performance is 3.743. This figure is generally consistent with empirical analyses conducted by many experts and scholars. It indicates that the innovation performance of employees within enterprises in the Hainan Free Trade Zone is relatively good. However, like the construction of the talent incentive policy perception, there remains room for improvement.

As for the three dimensions of innovative climate, the smallest mean value is 3.621, and the largest is 3.942, evenly distributed between 3.6 and 3.9. Among them, personnel support has a mean value of 3.942, followed by organizational and task support.

5.1.5 Impact of Talent Incentive Policy Perception on Innovative Performance

The β value of the policy awareness dimension in the talent incentive policy perception concerning innovative performance is 0.216, with a P-value <0.001. This indicates a positive effect of understanding policy gains dimension on innovative performance. The β value of the policy perception dimension about innovative performance is 0.326, with a P-value <0.001, indicating a positive effect. The β value

of the policy satisfaction dimension concerning innovative performance is 0.348, with a P-value <0.001, again indicating a positive effect.

Psychodynamic theory suggests that individual behavior results from environmental and psychological factors. Among them, the external "environmental field" includes the external environment perceived by the individual. As an important external "environmental field", even though the effect of the talent incentive policy perception on innovative performance needs to be considered along with the psychological factors of high-tech employees, such perception can convey the government's and organizations' expectations and requirements regarding innovative performance. After perceiving these incentive policies, high-tech employees transform external expectations into self-expectations for innovation, leading to improved innovative performance. Specifically, by formulating and implementing a series of talent incentive policies, the government provides resources such as funding, venues, equipment, social networks, and services for daily work and innovative activities. Existing studies have confirmed that good talent incentives promote the development of innovative thinking and the generation of innovative results. However, these policies do not directly affect innovative performance but influence it through individual policy perception. Talent incentive policies provide objective support in funding, venues, and tax breaks but also address pain points in practice, reduce innovation risks and barriers, and satisfy talent’s needs. This maximized their innovative enthusiasm, enhancing their intention and perceived behavioral control, thereby improving their performance. Although innovation is an intrinsically motivated activity with complexity, which can easily reduce the intrinsic motivation for innovation, leading to fatigue and withdrawal, talent incentive policies are "tailored" for talent. Implementing these policies not only helps alleviate the psychological stress and work fatigue brought about by the complexity of innovation but also conveys the government's emphasis on them. After perceiving this level of importance, it subtly affects their psychological tendencies, thereby helping to stimulate the intrinsic motivation for innovation, mobilizing the enthusiasm and initiative of talents to participate in innovative activities, ultimately enhancing innovation performance.

This conclusion aligns with the research findings of scholars like Xu et al. (2013), Jiang et al. (2020), Gavetti (2018), and Ni (2021). Using questionnaire data

collection and analysis, Xu et al. (2013) concluded that policy perception can influence innovative behavior. Jiang et al. (2015) used the Logit model to verify the impact of policy perception on grassroots employment intentions. Internationally, Gavetti (2005) also demonstrated that policy perception can affect decision-making.

5.1.6 Impact of Perception of Talent Incentive Policies on Innovative Climate

After including the three dimensions of Perception of Talent Incentive Policies, the adjusted R^2 value increased to 0.236, higher than the model without these dimensions, indicating a more substantial explanatory power. The beta values for policy awareness, understanding of policy gains, and policy satisfaction were 0.216, 0.223, and 0.221, respectively, with corresponding p-values of less than 0.010, 0.050, and 0.050, showing significant positive impacts on the innovative climate.

As a crucial situational factor, the organizational innovative climate, representing the "soft environment" for talent's innovative activities within organizations, has been confirmed to enhance High-Tech Employee Innovative Performance by numerous studies. The formation of an innovative climate resulted from individual and environmental factors, influenced by individual factors like ability, cognitive level, values, knowledge structure, and life satisfaction, and environmental factors like policies, laws and regulations, culture, values, new technologies, and equipment. As a significant environmental component, the overall perception level of talent incentive policies significantly affects the formation of an innovative climate. Researchers such as Zhang (2020), Zhao et al. (2019), Yang et al. (2021), Wang (2022), Li, Xu et al. (2021), Zhou (2020), Tian (2021), and Zhang et al. (2020) also indicated that the intensity of the innovative climate is directly related to talent’s perception of incentive policies. Talent systematically assesses the risks and challenges the perceived environmental uncertainties bring to their innovative activities and adjusts their innovative behavior to align with the external environment. In other words, the considerable proportion of clauses encouraging talent innovation in current talent incentive policies provides good guidance for high-tech employees' future work goals and directions. High-tech employees' perception of these policies helps stimulate their innovative behavior, guiding them to innovate and create, enhancing their enthusiasm and satisfaction for innovative work, and cultivating a favorable innovative climate.

5.1.7 Impact of Innovative Climate on Innovative Performance

The beta value related to innovative climate and innovative performance is 0.319, with a p-value of less than 0.001, indicating a significant positive impact of the innovative climate on innovative performance.

These results are consistent with the findings of researchers like Scott and Bruce (1994), Amabile (1996), Isaksen and Akkermans (2011), Zhang (2019), Carmeli (2020), Lian (2019), Gu (2020), and Xue (2021). These researchers found that an innovative environment helps stimulate high-tech employees' innovative vitality and improve organizational performance. Firstly, an innovative climate can promote information communication and teamwork among high-tech employees through skill training, innovative exchange, and the development of innovative thinking. Encouraging internal knowledge sharing, providing innovative rewards, and continually stimulating the innovative potential of high-tech employees can enhance their resilience to failure and proactive self-management skills, accelerating the transformation of resources, like knowledge and capital, into innovative outcomes.

Secondly, an innovative climate reflects an individual's perception of their innovative environment, which continually influences their innovative attitudes, intrinsic motivation, curiosity, and values, helping to stimulate their innovative drive and thus impacting the innovative performance of high-tech employees. Additionally, a robust, innovative environment supports innovative behaviors, recognition, and expectations of innovation. Once high-tech employees perceive these signals, they typically align with organizational expectations, leading to higher innovative outcomes.

Lastly, an innovative environment tends to tolerate failures in innovation. It provides high-tech employees with autonomy, emotional support, constructive feedback, and necessary resources for innovative activities, such as materials, funds, time, and knowledge, helping reduce innovation risks.

5.2 Contribution

5.2.1 Theoretical Value

Research from platforms like CNKI and Wanfang using keywords "non-material incentives, organizational identification, innovative performance" reveals

limited studies on the relationship among these three. This research breaks through the limitations of studying innovative performance from a single perspective. Starting from individual psychological mechanisms and using organizational innovative climate as a mediating variable, it reveals the impact mechanism of Perception of Talent incentive policies and organizational innovative climate on innovative performance. This enriches the discussion on policy and organizational factors influencing High-Tech Employee Innovative Performance, filling a gap in this area.

First, the study explores the impact of innovation support policies, represented by the Perception of Talent incentive policies, on High-Tech Employee Innovation Performance. However, extensive research has explored the impact of organizational factors, such as leadership style and organizational culture, and individual factors, like capabilities and cognition of high-tech employees' innovation, most focus on the policies' functionality. The variable results often pertain to macro-level regional and meso-level organizational innovative performance. The theory and empirical analysis of how subjective perceptions of talent incentive policies affect High-Tech Employee Innovation Performance need further exploration. In the same policy environment, individual perceptions of policy vary, and different perceptions of talent incentive policies may be a key reason for variations in individual innovation performance. This paper introduces a new mechanism based on previous studies about the relationship between talent incentive policies and High-Tech Employee Innovation Performance – a positive perception of talent policies promotes innovative performance through an innovative climate. This finding echoes Lewin's field theory, suggesting that individual behavior results from the combined effect of the perceived external environment and individual psychological factors.

Second, it further confirms that a positive organizational innovative climate is an essential situational factor for enhancing High-Tech Employee Innovation Performance, enriching the antecedent mechanism of innovative performance. There is a strong correlation between organizational innovative climate and innovative performance. Many studies have explored its impact on organizational or team-level innovation and its direct effect on individual innovation performance. The role of organizational innovative climate in promoting innovative performance is widely recognized, but its mechanism of action still needs exploration. This paper offers a new

research perspective on the formation mechanism of innovative performance. It introduces organizational innovative climate as a key mediating variable, revealing the micro-mechanisms of innovation in high-tech employees and further demonstrating the importance of organizational innovative climate in stimulating individual innovative performance.

Third, it compares the effects of talent incentive policies and organizational factors on High-Tech Employee Innovation Performance. Both policy and organizational factors affect High-Tech Employee Innovative Performance, but existing research does not answer which has a more significant effect. Therefore, this study incorporates policy and organizational factors into the same research framework, attempting to break the divide between macro and micro research through policy perception and organizational innovative climate variables.

The study finds that, compared to the organizational innovative climate, the Perception of Talent incentive policies significantly impact High-Tech Employee Innovation Performance. This suggests that external Perception of Talent incentive policies is a more influential precursor to innovative performance than organizational innovative climate. Therefore, to stimulate talent innovation and enhance high-tech employee innovation performance, the focus should be on organizational innovation climate and the role of perception of talent incentive policies.

5.2.2 Practical Value

Research from platforms like CNKI and Wanfang using keywords "non-material incentives, organizational identification, innovative performance" reveals limited studies on the relationship among these three. This research breaks through the limitations of studying innovation performance from a single perspective. Starting from individual psychological mechanisms and using innovative climate as a mediating variable, it reveals the impact mechanism of Perception of Talent incentive policies and innovative climate on innovative performance. This enriches the discussion on policy and organizational factors influencing High-Tech Employee Innovation Performance, filling a gap in this area.

First, the study explores the impact of innovation support policies, represented by the Perception of Talent incentive policies, on High-Tech Employee Innovation Performance. However, extensive research has explored the impact of

organizational factors like leadership style and organizational culture and individual factors like capabilities and cognition on talent innovation, most focusing on the policies' functionality. The variable results often pertain to macro-level regional and Meso-level organizational innovation performance. The theory and empirical analysis of how subjective perceptions of talent incentive policies affect High-Tech Employee Innovative Performance need further exploration.

In the same policy environment, individual perceptions of policy vary, and different perceptions of talent incentive policies may be a key reason for variations in individual innovative performance. This paper introduces a new mechanism based on previous studies about the relationship between talent incentive policies and High-Tech Employee Innovation Performance – a positive perception of talent policies promotes innovative performance through an innovative climate. This finding echoes Lewin's field theory, suggesting that individual behavior results from the combined effect of the perceived external environment and individual psychological factors.

Second, it further confirms that a positive organizational innovative climate is an essential situational factor for enhancing High-Tech Employee Innovative Performance, enriching the antecedent mechanism of innovation performance. There is a strong correlation between organizational innovative climate and innovative performance. Many studies have explored its impact on organizational or team-level innovation and its direct effect on individual innovative performance. The role of innovative climate in promoting innovative performance is widely recognized, but its mechanism of action still needs exploration. This paper offers a new research perspective on the formation mechanism of innovation performance. It introduces innovative climate as a key mediating variable, revealing the micro-mechanisms for innovation in high-tech employees and further demonstrating the importance of innovative climate in stimulating individual innovative performance.

Third, it compares the effects of talent incentive policies and organizational factors on High-Tech Employee Innovation Performance. Both policy and organizational factors affect High-Tech Employee Innovative Performance, but existing research does not answer which has a greater effect. Therefore, this study incorporates policy and organizational factors into the same research framework, attempting to break the divide between macro and micro research through policy perception and innovative

climate variables. The study finds that, compared to the innovative climate, the Perception of Talent incentive policies significantly impact High-Tech Employee Innovative Performance. This suggests that external Perception of Talent incentive policies is a more influential precursor to innovative performance than innovative climate. Therefore, to stimulate high-tech employees' innovation and enhance High-Tech Employee Innovative Performance, the focus should be on the organizational innovative climate and the role of Perception of Talent incentive policies.

5.2.3 Practical Value

Based on a review of Chinese and international research, this paper explores the mechanisms of the perception of talent incentive policies and innovative climate on high-tech employee innovative performance and the mediating role of innovative climate. The results show that High-Tech Employee Innovative Performance results from multiple factors, with the Perception of Talent Incentive Policies playing a positive role in an innovative climate. This conclusion has not only academic significance but also practical implications.

First, the Perception of Talent Incentive Policies enhances High-Tech Employee Innovative Performance through an innovative climate, further supplementing the explanatory factors of innovative performance and unveiling the "black box" of the transmission mechanism between Perception of Talent Incentive Policies and High-Tech Employee Innovative Performance. This provides new empirical evidence for enhancing innovative performance.

Second, innovative climate directly affects High-Tech Employee Innovative Performance and promotes it by improving the innovative climate. Therefore, this paper introduces innovative climate as a mediating variable, finding that it mediates between innovative climate and high-tech employee innovative performance. This conclusion aligns with classic social cognition theory, where the work climate can stimulate individual behavioral responses. When individuals perceive a good innovative climate, they are more likely to respond positively, leading to better innovative performance.

Third, this research can help the Hainan Free Trade Port Management Committee and high-tech enterprises change their mindset, clarify management strategies, and emphasize the formulation and implementation of talent incentive

policies, the cultivation of a good innovative climate, and the role of organizational identification. This will lead to a clearer understanding of the roles and functions of talent incentive policies, innovative climate, and organizational identification. On the one hand, continuous efforts can be made in talent incentive policies and organizational identification, taking adequate measures to fully stimulate high-tech employees' innovation.

5.3 Recommendation

This empirical analysis confirms the interrelationship among Perception of Talent incentive policies, innovative performance, innovative climate, and organizational identification. Here, the Perception of Talent incentive policies and innovative climate positively impact innovative performance. The dimensions of policy awareness and policy satisfaction positively influence innovative climate. Organizational innovative climate partially mediates, and organizational identification plays a moderating role. Based on these findings, compared to high-tech employees with a low level of policy perception, those with a high level of talent policy perception can create higher innovative performance. This is evident in real-life situations where individuals sensitive to policy perception can grasp the trends and directions of developments, innovate under the guidance of policies, and become pioneers and leaders in new products and industries, like Lei Jun with Xiaomi and Elon Musk with Tesla.

Similarly, the thickness of the innovative climate also affects High-Tech Employee Innovative Performance, and the level of organizational identification can modulate the relationship between the Perception of Talent incentive policies, innovative performance, and innovative climate. Therefore, if the Hainan Free Trade Port Management Committee wishes to enhance the Innovation Performance of High-Tech Employees within the port, it must start with Perception of Talent incentive policies, innovative climate, and organizational identification.

5.3.1 Suggestions Regarding Talent Incentive Policies

1. Strengthening Pre-Policy Formulation Research

The policies formulated by the government have a significant impact on the

development of various fields, such as the economy, society, and environment. Research before policy formulation is a prerequisite for the government to develop policies. It helps policymakers understand the existence and nature of problems, analyze the causes and mechanisms of problems, and assess the scale and impact of problems, providing a scientific basis for policy formulation (Zhang et al., 2022). Therefore, thorough research should be conducted before formulating policies.

Firstly, the objectives and scope of the research should be clearly defined. The objectives should be specific and quantifiable. Extensive communication and consultation with relevant stakeholders should be conducted before the research to clarify the demands of those affected by the policy, providing clear standards and indicators for the research.

Secondly, a scientific and reasonable research plan should be developed. The plan should include the subjects of the survey, the content of the survey, the methods, and the time and place of the survey.

Thirdly, a multi-angle and multi-level approach should be adopted for the survey. Various methods, such as questionnaires, field research, and expert interviews, can obtain information from different dimensions and levels. Multi-angle and multi-level surveys can provide a more comprehensive understanding of the problems, providing richer data support for policy formulation.

Fourthly, data processing and analysis should be strengthened. Statistical methods and techniques can be used to organize, transform, and analyze data to extract valuable information. However, during the data processing and analysis process, attention should be paid to the accuracy and reliability of the data to obtain more comprehensive, objective, and scientific results.

2. Enhancing the Publicity of Talent Incentive Policies

Increasing the intensity and breadth of publicity for talent incentive policies is crucial for raising awareness of these policies among high-tech employees (Liu & Liu, 2018). To enhance the publicity of talent incentive policies, it is essential to focus on the goals, content, and channels of the policy publicity. Therefore, in future work:

1. Developing and Distributing Talent Incentive Policies Brochures: To make more high-tech employees aware of the incentive policies in the Hainan Free Trade Zone, a detailed brochure can be created outlining the specific content,

application conditions, and benefits of various talent incentive policies. This brochure can be promoted through various channels, such as official websites, emails, and social media.

2. Actively Using Various Media for Publicity: Various media can be invited to track and report on the talent incentive policies in the Hainan Free Trade Zone, publishing related articles and news reports. Organizing talent policy publicity events to attract media participation can increase the exposure of the policies.

3. Releasing Promotional Videos for Talent Incentive Policies: Creating promotional videos for talent incentive policies can vividly inform the public about these policies. These videos can be uploaded to various platforms and social media, expanding their influence through sharing and reposting.

4. Organizing Talent Incentive Policies Seminars: Regular seminars can be held in various cities to introduce talent incentive policies in the Hainan Free Trade Zone, with government officials and experts invited to explain them. Talent exchange events can also be organized, allowing beneficiaries of the policies to share their experiences and insights.

5. Establishing a Talent Incentive Policies Consultation Service Platform: A dedicated website or mobile app can be set up to offer consultation services on talent incentive policies. People can use this platform to inquire about specific details, application processes, and required materials, ask questions, and provide feedback.

6. Establishing a Reward Mechanism for Publicizing Talent Incentive Policies: Reward mechanisms can be established to encourage various organizations and individuals to participate in the publicity of talent incentive policies. Awards can be given to those who promote talent incentive policies in the Hainan Free Trade Zone, stimulating more people to join the publicity efforts.

In summary, by developing brochures, utilizing media, releasing promotional videos, organizing seminars, establishing consultation platforms, strengthening cooperation with universities, and setting up reward mechanisms, the publicity of talent incentive policies in the Hainan Free Trade Zone can be enhanced, attracting more talents to develop in the region.

3. Strengthening the Implementation Effectiveness of Talent Incentive Policies

Enhancing the perception of talent incentive policies requires effective implementation post-policy formulation. Inadequate implementation can significantly reduce the talent's perception of these policies. Therefore, it is imperative to exert all efforts to enhance their implementation effectiveness. For this purpose:

1. Enhance Information Transparency and Public Participation: The process and results of policy implementation should be made public and transparent. This can be achieved by establishing government information platforms and conducting assessments of government departments' information transparency, thereby enhancing government transparency and strengthening supervision and evaluation of policy implementation. Furthermore, the government should actively guide and encourage enterprises, high-tech employees, and the public to participate in policy-making and implementation, establishing a broad mechanism for social participation. Public involvement effectively increases political transparency, reduces negative impacts during policy implementation, improves policy executability, and enhances public satisfaction.

2. Establish a Comprehensive Evaluation System: The evaluation system should be centered around policy objectives. Specific evaluation work should be scientific, objective, and fair by independent third-party institutions or professionals. It involves a comprehensive and systematic assessment of the policy implementation process, effects, and impact. Strengthen the application of evaluation results promptly feedback to relevant policy-making and implementing departments, providing a scientific basis for policy adjustments and improvements.

3. Strengthen Institutional and Capacity Building: Supervision and evaluation of the policy implementation phase require establishing relevant systems and mechanisms and the capacity and quality of government departments involved. Training and capacity building for relevant departments and personnel should be strengthened to improve the professionalism and capability of government officials. A robust institutional system should be established, including norms and procedures for policy implementation and coordination mechanisms among government departments.

4. Optimize Resource Allocation: To enhance policy implementation effectiveness, it is crucial to optimize resource allocation. Economic and social resources should be rationally arranged, focusing on supporting and prioritizing

resources necessary for policy implementation. Strengthen cross-departmental cooperation to form a joint force in promoting policy implementation and ensuring its smooth progress.

5. Fully Utilize Modern Technological Means: The development of modern technology provides strong support for improving policy implementation effectiveness. Actively advance the construction of information technology and fully utilize modern technological means in policy implementation. Using extensive data analysis, artificial intelligence, and other technical means can enhance the intelligence and precision of policy implementation.

5.3.2 Suggestions for Building an Innovative Climate

1. Vigorously Create a Favorable Innovative climate

Whether it is a society, an enterprise, or an individual, innovation should be a priority as it is essential for survival and development (Zhang et al., 2022). For high-tech employees, their ability to actively exercise initiative and creativity in the workplace and to innovate entirely depends not only on the company's salary system, wage treatment, and promotion system but also on a positive, innovative climate. An "open, inclusive, and innovative" climate can subtly enable high-tech employees to utilize their talents fully. Therefore, governments and enterprises should strive to create a favorable environment conducive to innovation. This involves emphasizing the importance of an innovative climate, strengthening its construction, establishing long-term management mechanisms, enhancing innovation capabilities, and strengthening corporate construction. Efforts should be made to create a "harmonious, open, inclusive, and innovative" climate, convey the latest concepts and ideas to high-tech employees, improve their job skills, and stimulate their autonomy, creativity, and innovation.

2. Increase Support for High-Tech Employee Innovation

Enterprises must support the innovative activities of high-tech employees and accurately estimate the risks involved in innovation, tolerating the risks and even failures that come with it within a controllable range (Zhan & Chen, 2012).In practice, high-tech employees often support innovation ideologically but are cautious in material terms, which limits innovation progress to some extent. High-tech employees tend to focus more on risk avoidance, which is understandable but not advisable for those aspiring to be industry leaders. Enterprises must tolerate mistakes and failures in the

innovation process, mainly by providing the best time and resources to achieve innovation more quickly and effectively.

Additionally, optimizing communication and coordination among high-tech employees is crucial. Once the decision-making layer approves an innovation activity, relevant personnel involved in the innovative activity must be empowered. If every minor and major issue in the innovation process requires superior approval, it will significantly delay the process and hinder high-tech employee innovation. Empowerment also signifies trust and importance to innovative organizations and high-tech employees, creating an innovation-oriented production climate.

3. Strengthen the Entrepreneurial Spirit of Innovation

As a crucial part of the innovation climate, the entrepreneurial spirit has a significant guiding and influencing effect on the work of high-tech employees and should be given full attention. Enterprises should take various measures to continuously strengthen the entrepreneurial spirit of innovation (Zhu, 2018). With the current socio-economic climate needing growth model transformation, enterprises must ensure their survival and development and continuously adapt to economic and political reforms. If they fail to lead in innovating and adapting to the trends and economic development of the times, they risk being passed by society. The spirit of innovation cannot be generated unilaterally within a company; its external environment complements it. It is essential to recognize the immense impact of the external environment on the spirit of innovation and to focus on internal improvement. Firstly, it is crucial to understand that enhancing the spirit of innovation is not just about recognizing innovation but also the opportunities it brings to the company. Secondly, a scientific spirit is necessary. Thinking and solving problems must be based on scientific methods and means, emphasizing cultivating the entrepreneurial spirit of innovation.

5.3.2 Suggestions Regarding Organizational Identification

1. Establish a Positive Identification Mechanism

Establishing an identification mechanism can comprehensively enhance the organizational identification of high-tech employees and fully utilize its positive impact on innovative performance. In future work, enterprises should establish efficient and effective communication platforms, ensuring quick and effective communication from subordinates to superiors and across departments.

Secondly, it is crucial to strengthen the "sense of belief" among high-tech employees and enhance the "sense of trust" within the organization, thereby deepening their organizational identification and actively establishing an identification mechanism.

Thirdly, enterprises should vigorously promote collective activities among high-tech employees, fostering a healthy cycle of internal interaction. Managers can use activities like sharing practical experiences to bridge the gap among high-tech employees, turning these into meaningful, emotion-enhancing exchanges and strengthening their high level of identification with the enterprise.

2. Improve Internal Communication Mechanisms

Perfecting internal communication mechanisms is crucial for enhancing the organizational identification of high-tech employees. They should have a transparent understanding of the organization's crucial decisions and the opportunity to participate in discussions and voice their opinions.

Firstly, it is vital to consider the central bodies of internal communication, clarifying the responsibilities and tasks of each participant to avoid blame-shifting. Typically, internal communication should involve both human resource managers and department leaders. Human resource managers are usually more familiar with performance assessment schemes and results, while department leaders are more acquainted with the tasks and status of high-tech employees. Therefore, both should collaborate in communications with high-tech employees for effective results.

Secondly, building a process and working model for communication is crucial to promote internal communication and provides practical constraints and guidance for human resource managers and department leaders. This will help them understand how to conduct internal communication, grasp specific responsibilities and requirements, and accurately implement principles. Regular assessment and evaluation of internal communication should also be conducted, rewarding or penalizing based on effectiveness, to enhance the value of internal communication.

3. Strengthen Professional Development Training for High-Tech Employees

Enhancing professional development training is key to increasing the organizational identification of high-tech employees. They aspire to grow and develop continually in their work. As Niugensheng, the former chairman of Mengniu, once said,

"Training is the company's greatest benefit, and the most important thing is to train high-tech employees comprehensively. If they cannot be trained to the standard that the operator wants, then the company will find it difficult to improve." Professional development training helps high-tech employees better plan their career paths while significantly enhancing their sense of organizational identification and satisfaction and increasing their enthusiasm and professionalism at work. Therefore, companies should start career development training immediately after high-tech employees join. The training content can be divided into self-awareness, which includes understanding career development laws, external environment awareness, and self-decision knowledge. After high-tech employees clearly understand their career development and self-awareness, they should be taught specific difficulties they may encounter in their career development and taught decision-making methods and solutions, enabling them to make rational judgments and plans for their future career development. Moreover, the training methods and scheduling should be planned, purposeful, and targeted. Various formats like case analysis and group discussions can be used, and training can be short-term or long-term, allowing high-tech employees to complete their training in a structured and selective manner.

5.4 Limitations and Future Prospects

5.4.1 Research Limitations

In the process of this research project, extensive literature was reviewed to explore the impact of talent incentive policy perception on the innovative performance of high-tech employees in high-tech enterprises in the Hainan Free Trade Port, as well as the role of innovative climate and organizational identification. While striving for scientific rigor, the complexity of the theoretical framework and its depth from various angles posed challenges due to limited theoretical and professional knowledge. Despite efforts to ensure a structured and rigorous discussion, the research inevitably faced limitations related to disciplinary knowledge, resources, time, and geography, leading to several shortcomings in the study: 1. Geographic Limitations: The survey was primarily conducted within enterprises in the Hainan Free Trade Port. Hence, the respondents mostly came from these enterprises. This limited sample scope might

introduce a certain bias in the research results. 2. Limitations in the Survey Process: The survey used the Likert five-point scale, commonly accepted in academic circles. However, individual differences in understanding terms like "strongly disagree," "disagree," "agree," "somewhat agree," and "strongly agree" can lead to variations in their responses. 3. Sample Limitations: The survey focused solely on high-tech employees because they tend to have sensitive perceptions of talent incentive policies. This approach overlooks the perspective of non-high-tech employees, which might lead to a gap in understanding the actual situation of talent incentive policy perception among the overall high-tech workforce in the Hainan Free Trade Port.

5.4.2 Future Prospects

From the current research results, "The Impact of Perception of Talent Incentive Policies on High-Tech Employee Innovative Performance" is akin to an image whose entirety is unclear, with existing research contributions being fragmented and scarce. The explored areas thus far represent just the tip of the iceberg in this vast field. Given the significance of understanding how the Perception of Talent Incentive Policies influences High-Tech Employee Innovative Performance for formulating talent incentive policies in the Hainan Free Trade Port, future researchers must pay more attention to this topic and delve deeper and broader into this subject. Based on the practicalities of this research, the following suggestions are offered:

1. Conduct broader research on the connections between innovative climate and other variables

Since organizational climate can encompass various aspects such as innovation, culture, and interpersonal relationships, it is insufficient to study only the innovative climate and its impact on High-Tech Employee Innovative Performance. Future research could investigate these other facets more thoroughly.

2. Study the Perception of Talent Incentive Policies among non-high-tech employees in the Hainan Free Trade Port

This research primarily focused on high-tech employees within the port. Future studies could expand to include non-high-tech employees, examining whether different types of employees significantly alter the research findings.

3. Change the research methodology

This study predominantly employed empirical research methods to derive

general conclusions about the impact of the Perception of Talent Incentive Policies on innovative performance. Future researchers might use qualitative research methods or other quantitative approaches to investigate the phenomena behind the issue deeply.

4. Survey high-tech employees in different positions

This research did not specifically differentiate the respondents based on their positions. However, their perceptions of Talent Incentive Policies, innovative climate, and performance might vary due to differences in job responsibilities and perspectives. Future research could investigate high-tech employees in different positions to see if this leads to significant variations in the research outcomes.

5. Strengthen the study of theories related to this research

It is vital to deeply engage with advanced theories within China and internationally, incorporating strengths from various sources while avoiding shortcomings. Researchers should remain dedicated and faithful to the core of their studies, diligently advancing the research to its fullest potential.

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APPENDICES

Appendix 1: Questionnaire

Questionnaire for “Effects Of Hainan Free Trade Port’s Talent Incentive Policy On The Innovative Performance Of High-Tech Employees: The Roles Of An Innovative Climate And Organizational Identification”

Dear sir (madam):

Thank you for taking the time to fill out this questionnaire after work. This questionnaire is completed anonymously. The questionnaire design and the results obtained are only used for thesis research. Please answer the following questions objectively and truthfully. Thank you for your cooperation. I hope everything goes well with your work.

Note: Please tick "√" on the corresponding option number.

Part 1: Demographic

In this section, please tick "√" in front of the options that match your personal information.

1. Gender

□ Male □ Female

2. Age

□ below 26 years old □ 26 – 35 years old

□ 36 – 45 years old □ 46 – 55 years old

□ more than 55 years old

3. Educational Level

□ Below Junior College □ Junior College

□ Bachelor's Degree □ Higher than Bachelor's Degree

Part 2: Perceived Talent Incentive Policy

In this section, please tick "√" in front of the options that match your personal information. 1 means strongly disagree, 2 means disagree, 3 means neutral, 4 means agree, and 5 means strongly agree.

Items	1	2	3	4	5
4. Perceived Talent Incentive Policy					
4.1 Policy Awareness					
4.1.1 I am very familiar with the national policies formulated and introduced for skilled talents					
4.1.2 I often pay attention to various skilled talent policies the government promotes.					
4.1.3 I believe that if I achieve specific results in my job, I can receive rewards from the government through various channels.					
4.2 Sense of Policy Gains					
4.2.1 My company has fair and reasonable talent training, promotion, and salary distribution systems.					
4.2.2 I have participated in various training and competitions organized by the government or my unit and received specific recognition and material rewards.					
4.2.3 I am aware of and have participated in obtaining various honorary titles from the government.					
4.2.4 Seeing skilled talent praised and publicized by the government through media serves as a role model and motivates me.					
4.2.5 Various talent policies stimulate my enthusiasm for work, enhance my skills, and provide certain help for my future work and personal development.					
4.3 Policy Satisfaction					
4.3.1 My overall satisfaction with the content of the					

skilled talent policy.					
4.3.2 My satisfaction with the policy's publicity and implementation process.					
4.3.3 My opinion on the effect of policy implementation, i.e., the satisfaction level of the policy on your work enthusiasm and elevation of social status.					

Part 3: Innovation Climate

Items	1	2	3	4	5
5.1 At work, my colleagues help and encourage each other.					
5.2 At work, my colleagues are willing to share each other's working methods and techniques.					
5.3 My colleagues often communicate and discuss work-related problems.					
5.4 When I have a new idea, my colleagues actively comment and provide constructive feedback.					
5.5 My supervisor respects and tolerates different opinions and objections from subordinates.					
5.6 My supervisor encourages subordinates to propose solutions to improve production or services.					
5.7 My supervisor supports and assists subordinates in implementing innovative ideas or new approaches at work.					
5.8 My supervisor is a great role model for innovation.					
5.9 The company advocates for employees to try new things and learn lessons from mistakes.					
5.10 The company appreciates and recognizes employees with innovative and enterprising spirits.					
5.11 The company often rewards employees who can propose innovative ideas.					

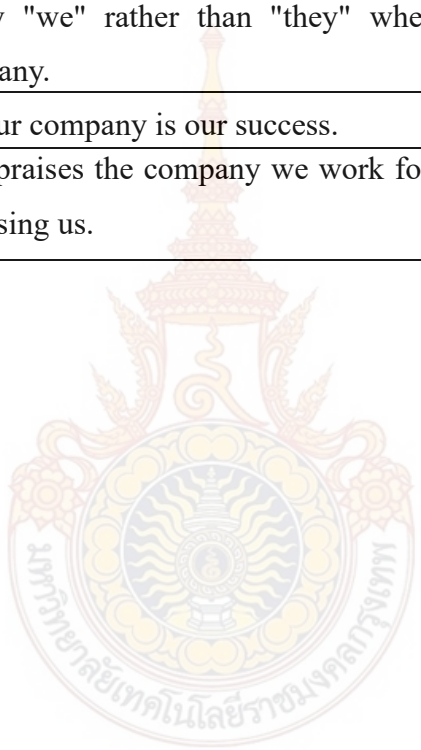
5.12 The company advocates freedom, openness, and innovative change.					
5.13 Work tasks have clear, challenging, and achievable goals.					
5.14 Task assignments fully utilize the interests and expertise of employees.					
5.15 Under the overall task requirements, employees can freely set their work goal progress.					

Part 4: High-Tech Employee Innovation Performance

Items	1	2	3	4	5
6. High-Tech Employee Innovation Performance					
6.1 I would provide new ideas to improve the existing situation.					
6.2 I actively support innovative thoughts.					
6.3 I seek new working methods, skills, or tools through learning.					
6.4 I often receive praise from superiors for innovative ideas.					
6.5 I can turn innovative ideas into practical applications.					
6.6 I propose some original solutions through learning.					
6.7 I can introduce innovative thoughts with a systematic approach.					
6.8 I can drive the company's key organizational members to focus on innovative thinking.					

Part 5: Organizational Identification

Items	1	2	3	4	5
7. Organizational identification					
7.1 When others criticize the company we work for, we feel disgraced.					
7.2 We employees care about how others perceive the platform we work on.					
7.3 We usually say "we" rather than "they" when discussing our company.					
7.4 The success of our company is our success.					
7.5 When someone praises the company we work for, we feel they are praising us.					



声明

作者郑重声明：所呈交的学位论文，是本人在导师的指导下进行研究工作所取得的成果。尽我所知，除文中已经注明引用内容和致谢的地方外，本论文不包含其他个人或集体已经发表的研究成果，也不包含其他已申请学位或其他用途使用过的成果。与我一同工作的同志对本研究所做的贡献均已在独立研究报告中作了明确的说明并表示了谢意。

若有不实之处，本人愿意承担相关法律责任。

独立研究报告题目：**Effects Of Hainan Free Trade Port's Talent Incentive Policy On The Innovative Performance Of High-Tech Employees: The Roles Of An Innovative Climate And Organizational Identification**

作者签名：Mr. Zhangzhong Huang　　日期：2023 年 10 月 5 日

Declaration

The author solemnly declares: The submitted doctoral thesis is the result of my research work under the guidance of my supervisor. To the best of my knowledge, except for the content cited and acknowledged in the text, this dissertation does not contain any research results that other individuals or groups have published, nor does it contain results that have been used for other degree applications or other purposes. The contributions made by my colleagues who worked with me on this research have been clearly explained and acknowledged in a separate research report.

I am willing to bear the relevant legal responsibilities if any inaccuracies exist.

Title of Independent Research Report: **Effects Of Hainan Free Trade Port's Talent Incentive Policy On The Innovative Performance Of High-Tech Employees: The Roles Of An Innovative Climate And Organizational Identification**

Author's signature: Mr. Zhangzhong Huang

Date: October 5, 2023

BIOGRAPHY

NAME	Mr. Zhangzhong Huang
TELEPHONE	+86 18689903311 +66 828511136
EDUCATIONAL BACKGROUND	National Institute of Development Administration, Thailand M.A. in Financial Management GPA: 3.45 (2022, March 30) Minor: International Master of Business Administration (Business School, Guangxi (University, CN) GPA: 3.1 (2017, Jul,30) Renmin University of China, CN B.A. in Accounting, Business School GPA: 3.7
GRADUATION APPROVAL DATE	July 1, 2019