

THE STUDY OF THE EFFECT OF ORGANIZATIONAL CULTURE WORKING ENVIRONMENT AND WORK MOTIVATION ON THE INNOVATION PERFORMANCE OF HIGH-TECH ENTERPRISES

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ABSTRACT

With the deepening of globalization and the advancement of the industry 4.0 revolution, high-tech enterprises are increasingly reliant on improving their innovation capabilities in the fierce market competition. Existing research has shown that organizational culture, work environment, and work motivation play crucial roles in enhancing the innovation performance of high-tech enterprises. This study adopts a literature review and a mixed research method combining quantitative and qualitative methods, and finds that the mechanism by which high-tech enterprises influence their innovation performance through organizational culture construction can help enterprises more effectively stimulate the innovation potential and motivation of employees, thereby facilitating the improvement of market performance, technological innovation performance, and environmental performance in high-tech enterprises, and helping them gain a competitive advantage in the fiercely competitive market.

Keywords: Organizational Culture Working Environment, Work Motivation Innovation Performance, High-Tech Enterprise

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INTRODUCTION

The conceptual framework constructed in this study aims to provide an in-depth analysis of how organizational culture affects business Innovation Performance through the intermediary mechanism of work environment and work motivation. The core components of the framework include four main components: organizational culture, work environment, work motivation and business Innovation Performance, as well as the interactions and influence paths between these elements. First, organizational culture serves as the starting point for the framework, defined as the sum of values, beliefs, regulation, and behavioral patterns shared in an enterprise. These cultural elements form the basis of corporate behavior and profoundly affect employees' thinking patterns and behavioral habits. In this framework, organizational culture is considered a key factor affecting business Innovation Performance. It can not only directly affect innovation behavior, but also indirectly affect innovation performance by shaping the work environment and enhancing work incentive mechanisms. Secondly, the work environment plays a mediating role in this framework, which is an important channel through which organizational culture affects business Innovation Performance. The working environment covers the physical environment, psychological environment and social environment of the enterprise, including but not limited to work space layout, technical support, management style, team interaction and communication mechanism, etc. A positive working environment can stimulate employees' innovative potential, while a negative working environment may inhibit or hinder innovative activities. Therefore, the work environment is a key bridge between organizational culture and employee innovative behavior. In addition, work motivation, as another important mediating variable, represents the intrinsic and extrinsic factors that drive employees to devote themselves to work and innovative activities. This study will start from different motivation theories, such as Maslow's Hierarchy of Needs Theory and Herzberg's Two-Factor Theory, to explore how to design a reasonable reward system, enhance employees' sense of accomplishment, and optimize employees' career progress paths. Enhance employees' innovation incentive effect. Finally, innovation performance, as the core focus of the research, covers multiple dimensions such as new product development, process innovation, market expansion and innovation efficiency. In the conceptual framework, innovative performance is viewed as the product of the combined effects of organizational culture, work environment, and work motivation. This study will use both quantitative and qualitative methods to assess how these three factors work together on a enterprise's innovative capabilities and performance. In summary, the conceptual framework of this study provides a multi-dimensional and dynamic perspective for understanding the impact of organizational culture on business Innovation Performance, and emphasizes the mediating role of work environment and work motivation in this process. Through an in-depth analysis of these key variables and their interactions, this study aims to contribute a new perspective to theoretical development and provide empirical evidence for promoting corporate innovation and development through cultural and environmental construction in corporate management practices.

REVIEW OF RELATED LITERATURE

Organizational culture as a field of study originated in the early 1900s, but it was not until the 1980s that it received widespread attention as a clear research direction. Schein (1985) proposed three levels of organizational culture: basic assumptions, values, and behavioral regulation, emphasizing the critical role of organizational culture in shaping organizational behavior and performance. Innovation management theory originated in the early 20th century, with the progress of science and technology and the development of industrialization, enterprises began to seek for more effective methods of innovation management. In the 1920s and 1930s, with the rise of Taylor's Scientific Management Theory

and Mayo's Hawthorne Experiment, the work environment began to receive widespread attention as an important factor affecting employee satisfaction and efficiency. One of the earliest theories was Taylor's Scientific Management Theory, which focused on optimizing work processes and providing financial incentives to improve work efficiency.

Independent Variable Definition

1. Definition of Organizational Culture

Organizational culture, as a core concept in the fields of management and organizational behaviour, is defined as an intangible influence that profoundly affects the behaviour and thinking patterns of organizational members. Firstly, organizational culture is created and sustained by the members of an organization and it reflects the history, traditions, and shared experiences of its members. (Shehova Kanelova & Philipova, 2019) state that organizational culture is an abstract, intangible force that is pervasive and influences processes in an organization. (Sabri, 2019) further elaborates that Organizational culture can be defined as the interweaving of values, vision, language, behaviors, and beliefs that together shape an entity's unique operating environment. (Çağlayan et al., 2018) states that organizational culture is a complex concept defined as a systematic set of values, behaviors, habits, regulation, and beliefs that guides the behaviors of individuals in an organization.

Table 1 The definition of organizational culture

Scholar	Year	Definition
(Thomas et al., 1990)	1990	the meanings people attach to interrelated bundles of experiences at work.
(Tohidi & Jabbari, 2012)	2012	Organizational Culture as a Learning Mechanism
(Darmawan, 2017)		Contemporary definitions of organizational culture include what is valued in the organization, dominant leadership styles, language and symbols used, procedures and routines, and definitions of success
(Çağlayan et al., 2018)	2017	Organizational culture is defined as the systematic values, behaviors, habits, norms, beliefs
(Shehova Kanelova & Philipova, 2019)	2018	Organizational culture is an abstract, intangible force that is pervasive and influences processes in an organization.
	2019	
(Rashedi, 2019)	2019	Organizational culture represents the collective values, beliefs and principles of the organization's members

2. Dimensions and Measurement of Organizational Culture

Organizational culture, as a core variable in the study of organizational behavior and performance, has attracted extensive attention from the academic community. Numerous scholars have explored and analyzed the multidimensionality of organizational culture in depth, enriching our understanding of organizational culture and providing practical perspectives for management practice.

Table 2 Dimension Division of Organizational Culture

Dimension	Scholar	Factor
Two	(Chapman et al., 2018)	Innovation; risk-taking
	(Ortiz, 2022)	Power distance; collectivism
	(Kukovec et al., 2021)	Internal communication; employee well-being
Three	(Baird et al., 2018)	Teamwork; innovation; attention to

	(Latta, 2019)	detail
		Integration; differentiation; fragmentation
Four	(Permana, 2021)	Teamwork; Communication; Rewards and Recognition; Employee Training and Development
Five	(Bradley et al., 2017)	Learning environment; Psychological safety; Organizational commitment; Top management support; Improved working hours
	(Yeung et al., 2021)	Service Mission and Values; Management and Leadership; Professional Development and Training; Working Conditions and Environment; Teamwork and Relationships

Mediating Variable1

1. Definition of working environment

The working environment can be categorized into two main groups: the physical environment and the psychological environment. The physical environment includes the physical characteristics of the workplace such as temperature, noise, lighting, and office space layout. For example, unsuitable temperature and noise levels have been shown to negatively affect employee productivity (Nurwahidah & Ahdan, 2021). The psychological environment, on the other hand, involves the social and organizational aspects of the workplace, including organizational culture, management style, relationships among co-workers, and work stress. Research has shown that a positive psychological working environment promotes creativity and innovative behavior among employees (Zhukovsky, 2021). In addition to this, the working environment includes the technological environment, i.e., the technology and tools used by employees. In high-tech enterprises, the importance of the technological environment is self-evident, as it directly affects employee productivity and innovation (Zhou & Qu, 2022).

Table3 The definition of working environment

Scholar	Year	Definition
(Vignesh & Nagarajan, 2019)	2019	The working environment is not only limited to the physical space, but also includes the company's culture, values, and the psychological perception of employees.
(Adis & Arnibal, 2020)	2020	All members work together to achieve a healthy and well-being environment
(Begum & Azam, 2021)	2021	Including workplace culture, interpersonal relationships, organizational atmosphere, and physical facilities provided by employees
(Hegazy et al., 2021)	2021	Internal and external factors that affect job satisfaction and performance
(Zhou & Qu, 2022)	2022	Physical environment, psychological environment, and technical environment
(Elsa & Syarvina, 2022)	2022	physical and non-physical

2. Dimensions and Measurement of working environment

There are also studies that have explored other important aspects of working environment dimensionality segmentation, such as employee-management relations, job satisfaction, and

sustainability of working environment improvements (De & Baroi, 2022). These studies show that the multidimensionality of the working environment is critical to understanding and improving the overall performance of employees. For example, employees' satisfaction with the working environment directly affects their performance and productivity (Da Silva et al., 2021).

Table4 Dimension Division of working environment

Dimension	Scholar	Factor
Two	(Hasanuddin, 2019)	Physical and psychological environment
	(Osahon & Ebipade)	Psychological and social environment
Three	(Riwukore, 2022)	Physical and nonphysical dimensions
	(Fuadi & Hermanto, 2020)	Physical environment, social environment, and management system
	(Lindeberg et al., 2022)	Physical, digital, and social dimensions

Mediating Variable2

1. Definition of Work Motivation

Effective work motivation strategies not only enhance employee performance, but also enhance the performance of the entire organization (Moroz & Shtepa, 2021). Work motivation is considered a key driver of work efficiency (Maslova & Kononyuk, 2018). Managing the effectiveness of work motivation needs to rely on a systematic approach, which includes clarifying the types of incentives, understanding the needs and motivations of employees, and implementing effective motivational strategies (Radeva, 2019).

Table5 The definition of work motivation

Scholar	Year	Definition
(Kehr et al., 2018)	2018	A series of driving factors that regulate employee behavior in specific contexts
(Maslova & Kononyuk, 2018)	2018	Inductive reasons for the influence of group on employee behavior
(Radeva, 2019)	2019	Motivation is the mobile factor behind defining an activity, emphasizing the importance of personal development and job achievement
(Przysada, 2019)	2019	An internal state composed of the desire to satisfy needs
(Moroz & Shtepa, 2021)	2021	The combination of motivational reasons and factors that motivate employees to take action in specific situations
(Jaiswal & Dewan, 2022)	2022	A set of energies that determine the direction, intensity, and duration of work behavior

2. Dimensions and Measurement of work motivation

(Chen & Aryadoust, 2023) investigated the psychological attributes of work motivation and its measurement invariance using a multidimensional work motivation questionnaire and through structural equation modeling (SEM). (Pramudena et al., 2021) study showed that work motivation and compensation have a positive effect on employee performance, with work satisfaction playing a mediating role in this process.

Table Dimension Division of work motivation

Dimension	Scholar	Factor
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Two	(Herzberg et al., 1959) (Bizarria, 2018) (Pham & Nguyen, 2020) (Grabowski et al., 2021)	Motivators (Intrinsic Factors) and Hygiene Factors (Extrinsic Factors) Intrinsic motivation and external motivation Motivational factors (achievement, recognition, job characteristics) and health factors (working conditions, supervision, company policies) Autonomous and non autonomous internal injection engines
Three	(Vanovenberghe et al., 2022)	Motivation, Control Motivation, and Autonomous Motivation
Five	(Maslow, 1954)	Physiological Needs, Safety Needs, Social Needs (Belongingness), Esteem Needs, Self-Actualization
Ten	(Pham & Nguyen, 2020)	Achievements, recognition, job characteristics, responsibilities, progress, working conditions, supervision, company policies, salary, relationships

DISCUSSION

The research results are connected with existing theories, their guiding significance for policy formulation and practical management of innovative development of high-tech enterprises is analyzed, and future research directions are proposed. Firestone (2020) mentions that organizational culture is critical to crisis leadership is extremely important and leaders should understand the relationship between culture and the organization's response to a crisis. In high-tech companies, the importance of the technological environment is self-evident, as it directly affects employee productivity and innovation (Zhou & Qu, 2022). In the academic field, work motivation is defined as a set of drivers that modulate employee behavior in a given context (Kehr., et al, 2018). Work motivation are also viewed as an internal state consisting of a desire to fulfill needs (Przysada, 2020).

CONCLUSION

This study contributes to enhanced guidance on management practices in high-tech enterprises. This study contributes to the insights of other researchers on the role of work environment and work motivation. This study can help high-tech enterprises improve their innovation capability and competitive advantage. This study provides a theoretical basis and case references for governmental decision-making departments in the process of formulating relevant policy areas, and promotes the science and effectiveness of policy decisions.

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