

**TRANSFORMATIONAL LEADERSHIP,
LEARNING ORIENTATION, CREATIVE SELF-
EFFICACY AND EMPLOYEE CREATIVITY: A
STUDY OF SMES IN CHINA**

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STUDY OF SMES IN CHINA**

by

QIAN CHIQING

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LIST OF ABBREVIATIONS

CASME	China Association of Small and Medium Enterprises
CMV	Common Method Variance
CNY	Chinese Yuan
COVID	Coronavirus Disease
CSE	Creative Self-Efficacy
EC	Employee Creativity
GDP	Gross Domestic Product
HLM	Hierarchical Linear Modelling
ICC	Intraclass Correlation Coefficient
LO	Learning Orientation
MIC25	Made in China 2025
MIIT	Ministry of Industry and Information Technology
MSME	Manufacturing Small and Medium-sized Enterprise
NBS	National Bureau of Statistics
NDRC	National Development and Reform Commission
OLS	Ordinary Least Squares
SAMR	State Administration for Market Regulation
SCT	Social Cognitive Theory
SD	Standard Deviations
SME	Small and Medium-sized Enterprise
SMEDI	Small and Medium Enterprise Development Index
SPSS	Statistical Package for the Social Sciences
TL	Transformational Leadership
USD	United States Dollar

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**KEPIMPINAN TRANSFORMASI, ORIENTASI PEMBELAJARAN,
KREATIF EFIKASI DIRI DAN KREATIVITI PEKERJA: KAJIAN
TERHADAP PKS DALAM CHINA**

ABSTRAK

Kreativiti pekerja adalah kritikal untuk pertumbuhan berterusan dan daya saing perusahaan kecil dan sederhana. Walaupun kepentingannya, kajian yang terhad telah menumpukan perhatian untuk memahami faktor-faktor yang mendorong kreativiti pekerja dalam persekitaran yang terhad sumber seperti perusahaan kecil dan sederhana di China. Menangani jurang ini, kajian ini meneroka hubungan antara kepimpinan transformasi, orientasi pembelajaran, efikasi sendiri kreatif, dan kreativiti pekerja dalam konteks perusahaan kecil dan sederhana di China. Secara khususnya, penyelidikan ini mengkaji peranan perantaraan efikasi sendiri kreatif dalam hubungan antara kepimpinan transformasi, orientasi pembelajaran, dan kreativiti pekerja. Berasaskan Teori Kognitif Sosial, kajian ini mencadangkan rangka kerja penyelidikan yang meletakkan kepimpinan transformasi dan orientasi pembelajaran sebagai peramal utama kreativiti pekerja, dengan efikasi sendiri kreatif berperanan sebagai pemboleh ubah perantara. Soal selidik dalam talian diedarkan kepada pekerja di pelbagai perusahaan pembuatan kecil dan sederhana di China, menghasilkan 742 respon. Data dianalisis menggunakan pemodelan linear hierarki, yang mendedahkan bahawa kepimpinan transformasi dan orientasi pembelajaran mempunyai hubungan positif yang signifikan dengan kreativiti pekerja. Selain itu, efikasi sendiri kreatif didapati menjadi perantara yang signifikan dalam hubungan antara kepimpinan transformasi, orientasi pembelajaran, dan kreativiti pekerja. Penemuan ini memberikan wawasan yang bernilai kepada kedua-dua pekerja dan pihak pengurusan

dalam perusahaan kecil dan sederhana di China, menonjolkan strategi yang boleh dilaksanakan untuk meningkatkan kreativiti pekerja. Dengan menumpukan perhatian kepada peramal yang dikenal pasti, perusahaan kecil dan sederhana dapat memupuk tenaga kerja yang lebih inovatif dan adaptif, sekali gus memperkukuh kedudukan daya saing mereka dalam landskap ekonomi China yang semakin berkembang.

**TRANSFORMATIONAL LEADERSHIP, LEARNING ORIENTATION,
CREATIVE SELF-EFFICACY AND EMPLOYEE CREATIVITY: A STUDY
OF SMES IN CHINA**

ABSTRACT

Employee creativity is critical for the sustained growth and competitiveness of small and medium-sized enterprises (SMEs). Despite its importance, limited research has focused on understanding the factors that drive employee creativity in resource-constrained settings such as Chinese SMEs. Addressing this gap, this study explores the relationships among transformational leadership, learning orientation, creative self-efficacy, and employee creativity within the context of Chinese SMEs. Specifically, this research examines the mediating role of creative self-efficacy on the relationship between transformational leadership, learning orientation, and employee creativity. Grounded in Social Cognitive Theory, the study proposes a research framework that positions transformational leadership and learning orientation as key predictors of employee creativity, with creative self-efficacy serving as a mediating variable. An online questionnaire was distributed to employees across various Chinese small and medium-sized manufacturing enterprises, resulting in responses from 742 participants. Data were analyzed using hierarchical linear modeling, revealing that transformational leadership and learning orientation have a significant positive relationship with employee creativity. Additionally, creative self-efficacy was found to be a significant mediator in the relationship between transformational leadership, learning orientation, and employee creativity. The findings provide valuable insights for both employees and managerial stakeholders in Chinese SMEs, highlighting actionable strategies to enhance employee creativity. By focusing on the identified

predictors, SMEs can foster a more innovative and adaptive workforce, thereby strengthening their competitive position in the rapidly evolving China's economic landscape.

CHAPTER 1

INTRODUCTION

1.1 Background of the study

As the largest and fastest growing transition economy in the world, China's outsized growth has almost continually surpassed outsiders' expectations (Rogoff & Yang, 2024). Small and medium-sized enterprises (SMEs) play a pivotal role in economic advancement due to their significant contributions to job creation, employment, and productivity, particularly in emerging economies such as China (Liu & Suzuki, 2024).

The classification system for companies in China is notably intricate, as the definition of SMEs is determined by industry sector, operational revenue, employee count, or total assets (EUSMECentre, 2023). In accordance with the "Statistical Classification Method for Large, Medium, Small and Micro Enterprises (2017)" which is promulgated by National Bureau of Statistics of China (NBSC) and still in use today, medium-sized and small enterprises in China must meet the minimum limits of all specified indicators at the same time, otherwise they will be moved down one level. As Table 1.1 shows, an industrial SME is defined as having up to 2,000 employees; while a medium-sized business has between 301 and 2,000 employees; and a small business has less than 300. What is regarded as an SME in China may be quite large relative to an SME in other countries.

Table 1.1 Classification of SMEs in China

Size	Industries	Employees	Total assets	Business revenue
Small	Industry	< 300	< USD 5.6 million	< USD 4.2 million
	Construction	< 600	< USD 5.6 million	< USD 4.2 million
	Wholesale	<100		< USD 4.2 million

	Retail	<100		< USD 1.4 million
	Transport	<500		< USD 4.2 million
	Post	<400		< USD 4.2 million
	Hotel & Industry	<400		< USD 4.2 million
Medium	Industry	300-2000	USD 5.6-56 million	USD 4.2-42 million
	Construction	600-3000	USD 5.6-56 million	USD 4.2-42 million
	Wholesale	100-200		USD 4.2-42 million
	Retail	100-500		USD 1.4-21 million
	Transport	500-3000		USD 4.2-42 million
	Post	400-1000		USD 4.2-42 million
	Hotel & Industry	400-800		USD 4.2-21 million

Source: National Bureau of Statistics of China, 2024.

SMEs in China are key drivers to the country's economic growth (Chen, 2023). According to data from The State Council Information Office of China (SCIOC), China saw an average of 23,800 enterprises established every day, with the total number of SMEs exceeding 52 million in 2022 (SCIOC, 2023). Currently, SMEs constitute almost 99% of all enterprises in China. These SMEs contribute to more than 60% of GDP, 50% of tax income, 70% of technological innovation as well as 79% of job positions (OECD, 2022). This highlights the critical role SMEs play in sustaining and driving economic development, job creation, and overall economic stability in China. Besides, Figure 1.1 from European Circular Economy Stakeholder Platform (CEstakeholderEU) shows that the number of SMEs in China is projected to continue increasing in the coming years. This anticipated growth reveals the ongoing and expanding significance of SMEs in the country's economy, further emphasizing their role in job creation and economic development.

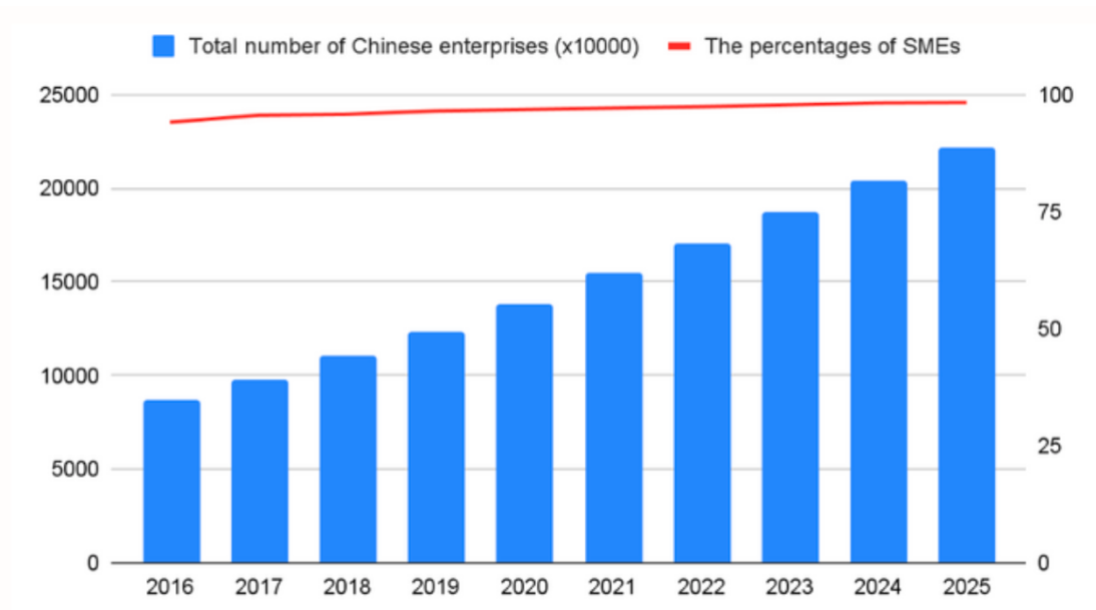


Figure 1.1 Number of Chinese Enterprises and SMEs 2016-2025
Source: European Circular Economy Stakeholder Platform, 2023

It is widely acknowledged that innovation plays a critical role in the survival and competition of any enterprise (Garrido-Moreno, Martín-Rojas, & García-Morales, 2024). Innovation is crucial for establishing new patterns of production and consumption, which not only expands market opportunities but also facilitates novel approaches to addressing environmental risks while mitigating transformation costs OECD (2022). As illustrated in Figure 1.2, China achieved an index value of around 55.3 points in the Global Innovation Index 2023, placing it 12th out of 132 countries worldwide (Statista, 2024). These data illustrates that China's global innovation capabilities have steadily advanced, achieving notable breakthroughs over the past decade.

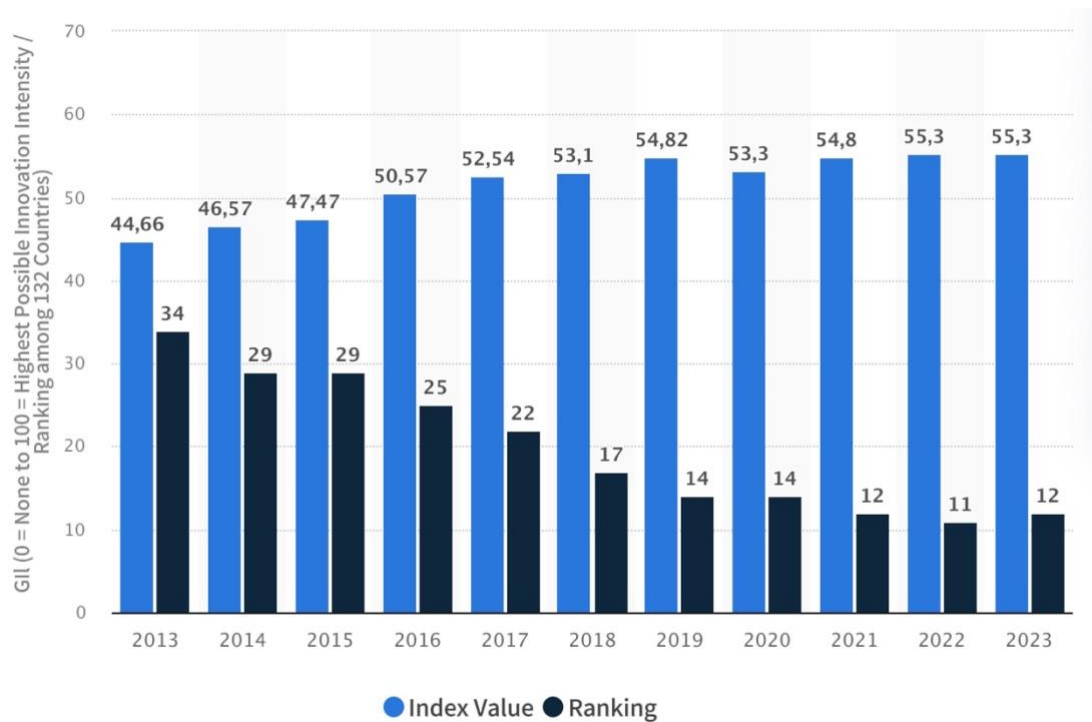


Figure 1.2 China's Global Innovation Index (GII) ranking by 2023
Source: Statista 2024

In China, SMEs are the lifeblood of economic and social development, as well as an important source of innovation (China IP News, 2023). Innovation-oriented SMEs play an important role in sustainable development, technological advances, green solutions and new business opportunities (SME International Cooperation Summit, June 27, 2023). Since the onset of economic reforms in China, SMEs have gained significant recognition due to their contributions to technological innovation. They are regarded as some of the most dynamic entities within the Chinese market economy (Chien, Zhang, & Sadiq, 2024). Moreover, privately-owned SMEs in China have increasingly played a pivotal role in fostering sectoral collaboration and commercializing innovative technologies (Chau et al., 2023; Gentile-Lüdecke, Torres de Oliveira, & Paul, 2020). In this context, China plans to invest heavily in its SMEs and is expected to cultivate 1 million SMEs and 100,000 SMEs that feature innovation during this time (MIIT, 2021) under the five-year plan from 2021 to 2025.

However, it is especially important to acknowledge that creativity is the fundamental foundation upon which innovation thrives, profoundly transforming industry and market dynamics (Nasir, 2024). Employee creativity also plays a crucial role in fostering organizational innovation and growth within the contemporary, rapidly evolving business environment (Lua, Liu, & Shalley, 2024). It encompasses the generation of original ideas and the conceptualization of new possibilities, which are vital for the creation of innovative solutions and products. As Harvard Business Review (2015) highlighted, the first requirement for a truly innovative company is that it must have employees who think like innovators, which directly shows the importance of employee creativity. Besides, several success stories of Chinese SMEs, like Shylon Optoelectronics Technology and Suzhou Raycan Technology, highlight how employee creativity has led to breakthrough innovations, new technologies, and improved processes, further solidifying their competitive edge in the market (WIPO, 2023). Therefore, fostering SME employee creativity is critical for sustaining and enhancing this trajectory of innovation in China.

In conclusion, encouraging employee creativity can lead to unique business strategies, improved processes, and competitive products that set the company apart in the market and then help China continues to be a global hub for manufacturing and business development in the context of SMEs in China. Recognizing that Organizational creative performance ultimately lies within the creativity of individual employees, this study, therefore, focuses on the employee creativity within the context of SMEs in China.

1.2 Problem Statement

SMEs have emerged as a prominent driving force in China's national economy and social progress (Min, Sawang, & Kivits, 2021). In the rapidly transforming landscape of SMEs in China, a critical challenge emerges in understanding and enhancing employee creativity (Qian & Kee, 2023), a key driver of innovation crucial for economic competitiveness.

Despite China's global economic standing, statistics reveal a significant gap in unleashing the creative potential within Chinese SMEs, posing a critical need for a deeper understanding of the factors influencing employee creativity in SMEs in China. According to the Global Innovation Index (GII) 2022, China ranks 11th among 132 nations, showcasing an improvement from the 12th position in 2021 and the 14th position in 2020. Figure 1.3 compares income levels (GDP per capita) and innovation performance (GII score), revealing that, in relation to its GDP, China surpasses expectations for its level of development, gradually transforming itself into an innovation leader. However, according to Mu, Lee, and Duan (2018), China is yet to fully establish itself as a hub for creativity, and leaders have yet to devise effective strategies to foster enhanced productivity among employees in Chinese enterprises. Therefore, it is necessary and urgent to find paths for China's conditions to effectively enhance employee creativity and more effective actions are needed to apply it in practice (Yesuf, Getahun, & Debas, 2024).

The positive relationship between innovation and development

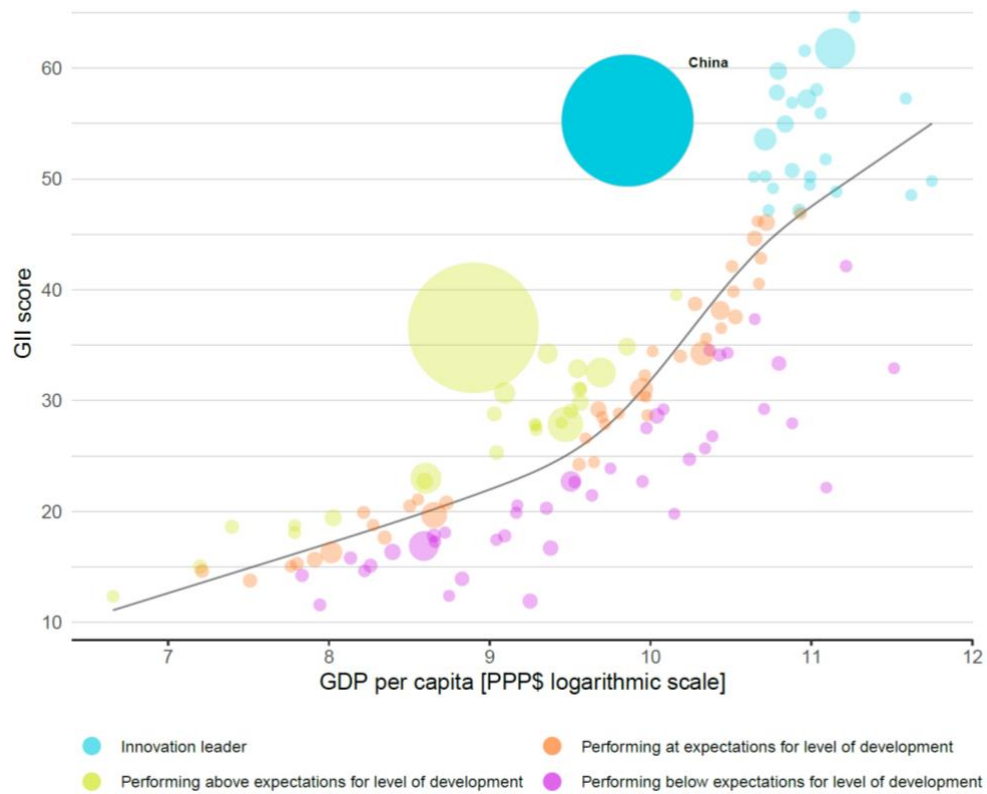


Figure 1.3 Innovation and Development in China

Source: Global Innovation Index (GII) (2022)

SMEs are the driving force of the national innovation industry and environmental sustainability in China (Zhou & Dai, 2023). However, under the pressure of three-year epidemic and subsequent economic downturn after the epidemic, the survival of China's small and medium-sized enterprises faces huge challenges (Li, Rubinato, Zhou, Li, & Chen, 2023; Lu, Yang, Peng, & Lu, 2023; Wen & Chernov, 2023). Moreover, the China Small and Medium Enterprise Development Index (SMEDI), as depicted in Figure 1.4 above, has fluctuated up and down but generally declined over the past year (from July 2023 to July 2024), according to data from the China Association of Small and Medium Enterprises (CASME). This line chart directly indicates that the performance and development of China's SMEs are

slightly declining. Therefore, Piñeiro-Chousa, López-Cabarcos, Romero-Castro, and Pérez-Pico (2020) highlight the significance of innovation, entrepreneurship, and knowledge in propelling China's economic development, emphasizing the urgent need of innovation-based growth on the dynamics of productivity-compensation.

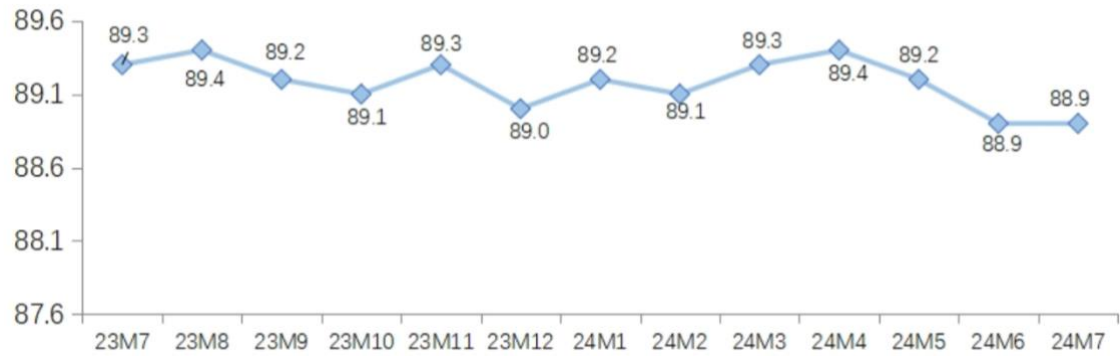


Figure 1.4 China's Small and Medium Enterprise Development Index (SMEDI) from July 2023 to July 2024

Source: China Association of Small and Medium Enterprises (CASME)

It is noteworthy that the development of employee creativity in China's SMEs also faces many other external obstacles, like limited resources from government and restricted access to advanced resources technologies (Bogers, Chesbrough, & Moedas, 2018). Limited resources and constrained access to funding, often impede SMEs in China from fully unlocking their creative potential. Compared to large enterprises, SMEs face distinctive challenges, including a relatively singular financing approach and a simplified capital chain structure (Su, Guo, Ling, & Fan, 2022). The quality of equipment and technological innovation in Chinese SMEs is relatively low, constituting a critical bottleneck for their further development (Tang et al., 2018). Funding shortages, both from private and government sources, coupled with a dearth of technical expertise, equipment, and skilled personnel, stand out as major obstacles hindering technological innovation in SMEs in China (Tang et al., 2018). As a result, SMEs exhibit comparatively lower levels of innovativeness (Gallego, Rubalcaba, &

Hipp, 2013) and are less attractive to talents who have a stronger innovation ability (Cui, Lim, & Song, 2022) when compared to large enterprises.

Furthermore, Chinese SMEs encounter inherent obstacles that impedes their ability to independently drive successful innovation. Firstly, many SME leaders do not always promote employees' novel ideas (Harvard Business Review, 2019), because they have not realized that creative labour is irreplaceable and competitive in this highly industrialized contemporary era (Zhao, Said, Ismail, & Hamzah, 2022). Secondly, given the inherent high uncertainty and risk of innovation, not everyone dares to innovate (Di, Hafit, Mohamed, 2024). SMEs may face higher risks of failure in innovation (Snieska, Navickas, Grecikova, Safrankova, & Sikyr, 2020), leading to frustration from multiple trials and errors, and consequently burnout in employees willing to innovate (Gabrielova & Buchko, 2021). Finally, Wuest and Thoben (2012) highlighted several challenges encountered by SMEs, including often conservative and patriarchal organizational structures, strategies predominantly influenced by dominant patriarchal figures, dependence on a limited number of key knowledge carriers, and inadequate systematic development of human resources.

This study, therefore, focuses on employee creativity in Chinese SMEs and examines the pathways to improving creativity levels from the perspectives of both leaders and employees, which is critical to the continued growth and competitiveness of Chinese SMEs and the country's innovation landscape on the global stage.

1.3 Research Objectives

The objectives of this research are:

1. To examine the relationship between transformational leadership, learning orientation, creative self-efficacy, and employee creativity.

2. To examine the relationship between transformational leadership, learning orientation and creative self-efficacy.

3. To examine the mediating role of creative self-efficacy on the relationship between transformational leadership, learning orientation and employee creativity respectively.

1.4 Research Questions

The research aims to answer the research questions as follows:

1. Does transformational leadership, learning orientation and creative self-efficacy have a relationship with employee creativity?

2. Does transformational leadership and learning orientation have a relationship with creative self-efficacy?

3. Does creative self-efficacy mediate the relationship between transformational leadership, learning orientation and employee creativity respectively?

1.5 The Scope of the Study

The scope of this study focuses on the following constructs: transformational leadership, learning orientation (both individual and team levels), creative self-efficacy, and employee creativity. The relationships among these constructs are examined using the SCT as the overarching theoretical framework. The study examines the direct impact of transformational leadership and learning orientation on employee creativity and investigates the mediating role of creative self-efficacy in these relationships.

The study is limited to SMEs operating in China. This geographic focus is essential to understanding how cultural, economic, and industrial factors unique to

China influence employee creativity and the impact of transformational leadership and learning orientation. Meanwhile, the research specifically targets employees and their immediate supervisors working in these organizations, as they are directly involved in the processes that influence creativity and innovation. The study also employs a quantitative research approach, utilizing Hierarchical Linear Modeling (HLM) to analyze the collected data and assess the hypothesized relationships.

1.6 The Significance of The Study

The significance of this study can be viewed from theoretical, and practical aspects in the area of creativity among employees of Chinese SMEs.

1.6.1 Theoretical Significance

This research holds substantial theoretical significance for several reasons.

Firstly, it contributes to the existing body of literature on creativity by addressing a noted gap in research. Prior studies, such as those by Castillo-Vergara and Lema (2022) and Sujatha, Mukherjee, Singh, and Bamel (2023), have highlighted the limited exploration of creativity within SMEs, particularly those operating in resource-constrained environments. This study directly addresses this gap by examining creativity levels among employees in SMEs. It introduces new perspectives by considering antecedents like transformational leadership and learning orientation as predictors of creativity, thereby enriching the literature on creativity in this context. The findings of this study can serve as valuable resources and references for future researchers interested in creativity-related issues within the SME sector.

Secondly, this study gains theoretical significance by applying Social Cognitive Theory (SCT) to investigate the effects of motivation and resources on creativity among SME employees. Schunk and DiBenedetto (2020) emphasized the

need for empirical research incorporating contextual and cultural variables to further develop SCT. By utilizing constructs such as transformational leadership, learning orientation, creative self-efficacy, and creativity, this study contributes to expanding the theoretical understanding of SCT in the SME context.

Thirdly, this study examines the mediating role of CSE between the independent and dependent variables. While significant research exists on innovation's antecedents, there has been a notable gap in understanding the inherent processes of creativity, particularly in SMEs (Castillo-Vergara & Lema, 2022). This study addresses this gap by examining CSE's mediating role, responding to Farmer and Tierney's (2017) recommendation to consider creative self-efficacy as a vital element in creativity research. By investigating the indirect effects of transformational leadership and learning orientation on creativity through CSE, the study offers a deeper understanding of the causal mechanisms at play.

Finally, studying creativity within Chinese SMEs offers unique insights into the cultural and societal factors that shape creativity and innovation processes in China. This approach bridges the gap between Western creativity theories and the distinct Chinese cultural context. By applying transformational leadership, learning orientation, and CSE within the employees' work processes, this research not only addresses creativity in manufacturing companies but also offers valuable insights into understanding creativity across different industries in China.

1.6.2 Practical Significance

From a practical standpoint, this study holds multiple significant implications.

First, it aims to inspire creativity among employees in Chinese SMEs. Understanding the factors that influence employee creativity can inform the

development of training and development programs within organizations. By enhancing creative thinking, problem-solving, and innovation skills, these programs can result in improved products, enhanced organizational performance, and greater competitiveness (Li, Chen, & Huang, 2021). Investigating predictors of employee creativity is vital for policymakers to design effective interventions and policies that foster creativity among Chinese SME employees.

The study also highlights the practical value of implementing leadership approaches like transformational leadership to foster a culture of innovation within Chinese SMEs. Such leadership approaches can significantly enhance employee engagement, empowerment, and active involvement, ultimately promoting continuous improvement within the organization (Nguyen, 2020). By examining employees' creative abilities, the study provides valuable insights into how leadership and the work environment influence innovative thinking and problem-solving skills. These insights can guide organizations in formulating strategies and practices that promote creativity and innovation.

Encouraging learning and knowledge sharing among employees is another key practical significance. This can be achieved through training, mentoring, and knowledge management practices, fostering the diffusion of new ideas, best practices, and experiences within Chinese SMEs. The study's findings provide guidance for SME management on how elevating individual learning awareness and ability can enhance employee creativity. Additionally, it offers insights for policymakers in identifying factors to enhance employee creativity, allowing them to take corrective actions to maintain the benefits of Chinese SMEs.

Lastly, the study aims to benefit Chinese SME management and policymakers by encouraging increased investment in the SME working environment. By focusing

on the predictors of creativity enhancement among workers in Chinese SMEs, the study provides valuable insights for SME practitioners (Slåtten, 2014). It also responds to calls for greater awareness of creativity and innovation antecedents to improve organizational performance (Direction, 2022). The study is anticipated to offer Chinese SMEs insights into how transformational leadership and learning orientation, as key job resources, promote employee creativity through creative self-efficacy, thereby improving job performance. Measuring creative self-efficacy as a mediator provides a practical tool for adjusting management practices and enhancing worker productivity, complementing existing findings on the impact of transformational leadership and learning orientation on creativity and performance (Cheung & Wong, 2011; Henker, Sonnentag, & Unger, 2015; Jyoti & Dev, 2015; Lee & Yang, 2015; Simmons & Ren, 2009).

1.7 Definitions of the Key Terms

The key terms in this study are defined as follows.

1.7.1 Employee Creativity

Employee creativity refers to the production of novel and useful ideas by an individual or a small work group (Oldham & Cummings, 1996).

1.7.2 Transformational Leadership

Transformational leadership is a leadership style, which can generate follower commitment, loyalty, involvement, and performance through leaders' charisma, intellectual stimulation and individualized consideration (Avolio, 1999).

1.7.3 Learning Orientation

Employee learning orientation is an individual's tendency to engage in and enjoy continuous learning and development of new knowledge and skills (Gong et al., 2009).

1.7.4 Creative Self-Efficacy

Creative self-efficacy is a crucial predictor of creative performance, denoting individuals' belief in their capability for creativity. Those who possess creative self-efficacy are more likely to participate in creative activities and persist in the face of obstacles (Tierney & Farmer, 2002).

1.7.5 Small and Medium-Sized Enterprises (SMEs)

According to the classification standards for SMEs in China (National Bureau of Statistics of China, 2011), which are governed by the "Regulations on the Standards for Classification of Small and Medium-sized Enterprises", Small and Medium-Sized Enterprises (SMEs) in China are defined as enterprises with fewer than 500 employees and annual sales revenue below CNY 300 million (approximately USD 41.37 million).

1.8 The Organization of the Thesis

The thesis comprises five distinct chapters. **Chapter 1** provides an in-depth overview, encompassing background, problem statements, research objectives, research questions, study significance, and key term definitions. **Chapter 2** delves into an exhaustive review of literature, embracing study variables, underlying theories, research framework, and hypotheses. **Chapter 3** delineates the research methodology, encapsulating research philosophy, design, population, data sources, sampling

techniques, minimum sample size, data collection, instruments, considerations of method bias, and statistical analyses. **Chapter 4** discloses statistical findings, while **Chapter 5** critically evaluates implications, limitations, and furnishes recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

As a critical component of this study, the literature review serves ensures that the research is grounded in established knowledge while making meaningful contributions to the understanding of employee creativity in Chinese SMEs. This chapter discusses the theoretical foundations and relevant literature of transformational leadership, learning orientation, creative self-efficacy, and employee creativity respectively, and then introduces the research framework and hypotheses.

2.2 Employee Creativity

2.2.1 Importance of Creativity

In the contemporary business landscape, the rapid pace of change has caused in a dynamic, uncertain, and knowledge-driven work environment, intensifying the reliance on innovative thinking (Li, Yang, & Ma, 2018). According to Alexandra (2020), organizations must continually innovate to not only survive but also thrive, differentiating themselves, adding value, and securing a competitive edge. Employees constitute the bedrock of an organization's sustainable innovation (Brown Jr, 2022). Because employee performance stands out as a pivotal determinant of organizational triumph (Gabrielova & Buchko, 2021), and creative performance serves as a linchpin of long-term development (Song, Gao, Zhao, & Singh Gaur, 2020; Arefieva, Piletska, & Arefiev, 2018). Creativity is the foundational impetus that can ensure an organization's enduring viability, making employee creativity increasingly

indispensable for favorable performance outcomes and organizational longevity (Lee, Kim, Lee, & Moon, 2019; Song et al., 2020).

Creativity is generally conceptualized as the generation of innovative and valuable ideas, whether by an individual or a small working group (Oldham & Cummings, 1996). Employee creativity assumes a pivotal role in ensuring industry survival by birthing fresh and valuable ideas, with pronounced effects on both organizational and employee well-being (Lee & Kim, 2021). Employee creativity entails the generation of innovative ideas, products, and processes across various organizational facets, thereby fostering novel approaches to developmental endeavors (Cai, Lysova, Khapova, & Bossink, 2019). Given today's fierce business competition, creative and innovative ideas are imperative for achieving dominance. Without employee creativity and innovation, gaining a competitive advantage becomes an elusive aspiration (Alexandra, 2020). When employees exhibit creative prowess, their work epitomizes utility, novelty, idea development, methodical techniques, and resource implementation (Naizm et al., 2021). Innovative products or services can substantially bolster an organization's productivity, adaptability, and competitiveness in the contemporary market (Naizm et al., 2021).

Given the significant importance of creativity, it has emerged as a central area of investigation in diverse research domains. Creative ideas catalyze positive organizational transformations, from thought-provoking suggestions related to assigned tasks to groundbreaking innovations (Lee & Kim, 2021). Heightened employee involvement in innovation yields favorable economic performance for organizations (Stachová, Stacho, Blštáková, Hlatká, & Kapustina, 2018). While extant research underscores the significance of employee creativity for organizational success, limited studies delve into how internal organizational initiatives, such as leader empowerment,

organizational restructuring, adaptability, and leader-employee engagement, can elevate employee creativity within the millennial workforce of today (Lee & Kim, 2021). The burgeoning demand for employee creativity has engendered an urgent need for management strategies that cultivate creativity even in areas where creativity was not historically required (Sunaguchi & Fujii, 2020).

Scholarly investigation into the realm of individual creativity revolves around five primary research domains (Bavik & Kuo, 2022). Within the realm of psychology, there have been comprehensive reviews exploring the correlation between cognitive advancement and creativity, as demonstrated by studies such as those conducted by Puryear, Kettler, and Rinn (2017) and Storme, Celik, and Myszkowski (2021). In the sphere of behavioural science, certain investigations have scrutinized the connections between substance use and individual creativity. In the domains of education and healthcare, significant attention has been directed toward understanding the interplay between teaching methodologies, educators, and creativity. This line of inquiry has been addressed in past studies (Bereczki & Karpati, 2018; Davies et al., 2014; Kupers, Lehmann-Wermser, McPherson, & Van Geert, 2019; Mullet, Willerson, Lamb, & Kettler, 2016; Snyder, Hammond, Grohman, & Katz-Buonincontro, 2019). The disciplines of business and economics have also witnessed notable contributions in the form of two recent comprehensive reviews that have substantially advanced our comprehension of 'employee creativity'. However, these reviews have predominantly focused on a detailed analysis of social dynamics, particularly the nexus between leadership roles, green creativity, and employee creativity, as observed in the works of Arici and Uysal (2022) and Hughes, Lee, Tian, Newman, and Legood (2018). In addition to the various leadership styles, Andriopoulos (2001) underscores four additional pivotal factors: organizational climate, organizational culture, resources and

skills, as well as the structure and systems within an organization, all of which contribute to fostering creativity within a workplace.

Nevertheless, certain aspects pertaining to individual, occupational, and organizational antecedents, underlying mechanisms, resultant outcomes, theoretical frameworks, and methodological considerations associated with employee creativity remain relatively underexplored within the realm of manufacturing industry research, especially SMEs in the manufacturing industry. Specifically, there remains a dearth of clarity surrounding how creativity is conceptually framed, which theoretical underpinnings are employed to investigate creativity in the MSME literature, what methodological strengths and limitations are inherent in the utilized measurement scales, and what constitute the essential creative attributes and competencies in MSME. These are areas that warrant further scholarly attention and exploration.

2.2.2 Antecedents of Creativity

Conducting a thorough literature review is important to gain a deeper understanding of the factors influencing creativity. The investigation into elements that either foster or hinder creative performance among employees constitutes a rapidly evolving area of research. Theoretical frameworks and empirical studies within this domain have predominantly focused on uncovering the antecedents of employee creativity. Upon reviewing the existing literature on creativity, antecedents of creativity emerge in two distinct categories: contextual factors and individual differences, which serve as antecedents or moderators of creativity (Zhou & Hoever, 2014). Figure 2.1 presents a summary of the literature review's findings on the antecedents of creativity.

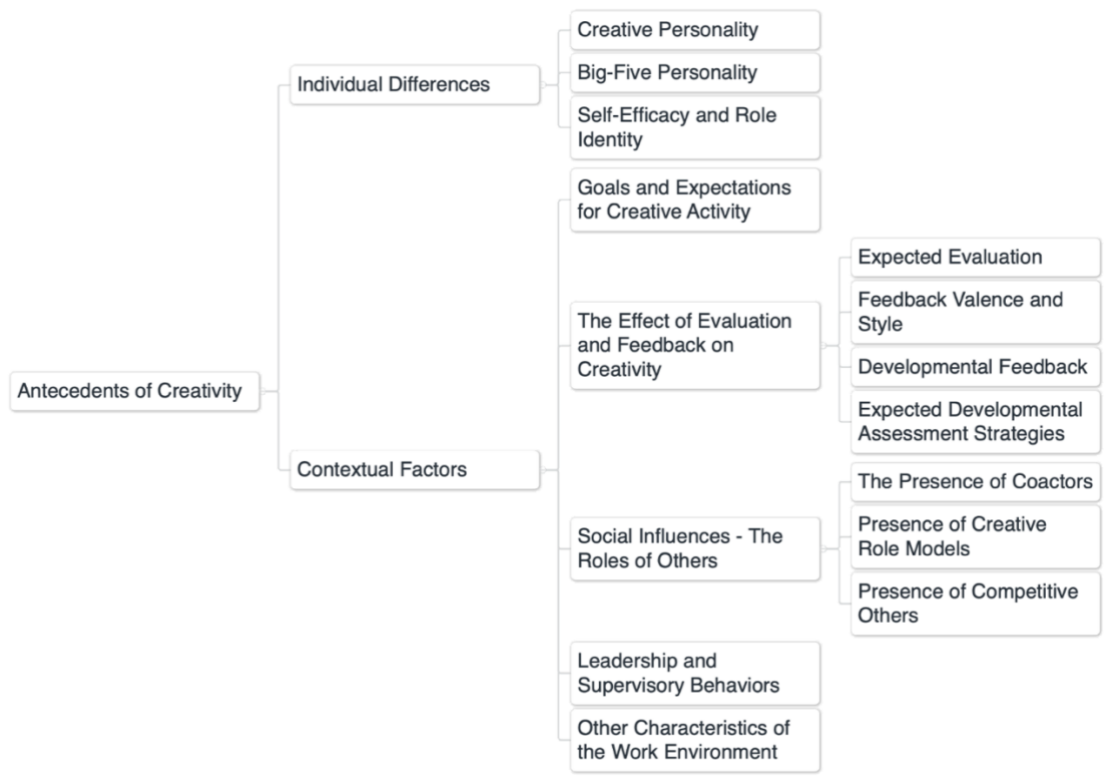


Figure 2.1 Summary of Antecedents of creativity

Source: Zhou and However (2014)

2.2.2(a) Contextual Factors

Considerable research has been undertaken in recent years to investigate the impact of contextual factors on creativity. First potential avenue through which managers can exert influence over employee creative activities is by setting goals and managing expectations. Empirical findings from the study of Azim, Fan, Uddin, Abdul Kader Jilani, and Begum (2019) have illuminated that employees interpret leaders' expectations for creativity as an affirmation of their capacity to manifest creativity in their work. This positive reinforcement serves as a catalyst for employees to surmount apprehensions about disrupting the existing order, ultimately fostering an environment conducive to enhanced creativity. Secondly, a substantial body of research has been dedicated to investigating various aspects of employee creativity performance assessment. These studies span from exploring the expected evaluations, feedback

valence and style, developmental feedback, to expected developmental assessment strategies (Lee & Kim, 2021; Thuan, 2021; Visser, Chandler, & Grainger, 2017; Yuan & Zhou, 2002). Thirdly, numerous investigations have delved into the influence of others on an individual's creative abilities. To illustrate, certain studies have scrutinized the consequences of competitive peers' presence (Goldberg, 2019; Liu, Zhou, Wei, Ouyang, & Zhou, 2023), while others have examined the effects of coaching individuals (Barrett, Creech, & Zhukov, 2021; Gebbing, Lattemann, & Siemon, 2022; Shalley, 1995). Additionally, some investigations have centered on the role of creative role models and their potential to influence the creative prowess of individuals (Al Halbusi, Soto-Acosta, & Popa, 2022; Furley & Memmert, 2018). Fourthly, theoretical frameworks and empirical investigations converge to underscore the pivotal role of leadership and supervisory conduct in shaping the creativity within organizations. For instance, Lee et al. (2020) posited that the establishment of a nurturing, non-intrusive leadership style engenders an environment conducive to creative expression. Furthermore, Prihandaka, Rohman, and Wijaya (2022) corroborated this notion by revealing that the adoption of a supportive leadership style is imperative due to its potential to enhance the caliber of relationships between employees and their superiors. And this approach seamlessly aligns with the organization's overarching objective of cultivating and nurturing employee creativity. Finally, investigations have been conducted into the impact of other attributes within the workplace environment on the creative abilities of employees. While there exists a relatively smaller body of research on these factors compared to the ones discussed earlier, it is instructive to illuminate these initial discoveries, as exemplified in De Clercq and Belausteguigoitia (2021)'s study.

Significant research has been undertaken to investigate the influence of contextual factors on creativity. While some domains within this review exhibit well-defined results, the field of contextual factors still beckons for further exploration. Moreover, prior examinations of the impact of contextual conditions on creativity have predominantly revolved around motivation as the principal explanatory factor. However, a limited number of studies have directly probed into the existence of this causal relationship. Furthermore, the empirical evidence derived from these investigations has thus far proven inconclusive (Zhou & Shalley, 2003). For instance, in a study by Ma and Jiang (2018), it was observed that transformational leadership displayed no statistically significant correlation with employee creativity. Conversely, Maria, Yulianto, Palupiningtyas, and Usodo (2022) uncovered a positive and substantial association between transformational leadership and employee creativity. Consequently, there arises a pressing need for additional research aimed at both identifying and scrutinizing the underlying or intervening psychological processes involved, as well as delving into the nuanced mechanisms by which transformational leadership influences employee creativity.

2.2.2(b) Individual Factors

An additional promising direction for prospective research within the domain of creativity could entail an examination of the comparative advantages of individual differences in forecasting employee creativity (Zhou & Shalley, 2003). Firstly, initial investigations into creativity placed significant emphasis on individual traits such as personality and problem-solving aptitude or approach, which were identified as contributing factors to the manifestation of creativity. For example, many researches on creativity emphasized the importance of individual proactive personality that result in creativity in past few years (Ajijah, Somantri, & Puspasari, 2023; Alikaj, Ning, & Wu,

2021; Chien, Yang, & Huang, 2021; Kim, 2019). Moreover, in recent years, some personality researchers have reached a consensus regarding the Five-Factor Model of personality, affirming it as a comprehensive and parsimonious representation of human personality traits (Zhou & Shalley, 2003). The model encompasses five primary factors: conscientiousness, openness to experience, extraversion, neuroticism, and agreeableness. Among these five factors as measured by the Big Five personality traits, research suggests that openness to experience, extraversion, and conscientiousness demonstrate strong predictive validity in relation to creativity (Zare & Flinchbaugh, 2019). Finally, a nascent field of study concerns the beliefs held by employees regarding their creative potential. To investigate this matter, one avenue involves the exploration of creative role identity (Uddin, Priyankara, & Mahmood, 2019), while another avenue centers on the concept of creative self-efficacy (Qian & Kee, 2023).

In accordance with findings from Zhou and Shalley (2003), it remains a challenge to predict actual creative performance reliably and significantly in various workplace scenarios using individual differences variables. Besides, the existing body of literature underscores the importance of adopting the person-situation interaction perspective as a guiding principle in future field studies, provided it aligns with the theoretical frameworks under examination. However, researchers should take care to elucidate and delineate the precise mechanisms by which individuals and their respective contexts interplay to influence employee creativity (George & Zhou, 2001), rather than offering a broad assertion that both the individual and the situational factors are essential for fostering creativity. Therefore, this study used learning orientation as an individual factor to examine employee creativity level, and examined the potential mechanism of all independent variables (including transformational leadership) on creativity through creativity self-efficacy as a mediator.