

# The Influence of Information Literacy, Creativity and Self-Efficacy on Managerial Performance: Insights from the Small and Medium-Sized Enterprises in China

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## Abstract

**Background:** In the context of rapid globalization and digitalization, how small and medium-sized enterprises (SMEs) can enhance managerial performance with limited resources has become a focal point of academic and practical interest. Information literacy, self-efficacy, and creativity are crucial for improving managerial decision-making effectiveness and responding to market changes.

**Aims:** This study analyzes how information literacy, self-efficacy, and creativity impact managerial performance in SMEs, focusing on the mediating roles of self-efficacy and creativity.

**Methodology:** The study selected managers from five categories of SMEs in China and employed a quota sampling method to collect 416 valid questionnaire responses. Structural Equation Modeling (SEM) was used to analyze the relationships among the variables.

**Results:** The results indicate that information literacy not only directly and positively predicts managerial performance but also exerts an indirect positive effect through creativity. Similarly, self-efficacy indirectly positively impacts managerial performance through the mediating role of creativity. Moreover, creativity itself significantly and positively predicts managerial performance.

**Conclusion:** This study provides empirical evidence on how information literacy, self-efficacy, and creativity directly or indirectly influence managerial performance. These findings offer new perspectives for academic discussions on managerial performance and valuable practical insights for enterprises looking to enhance organizational performance and achieve competitive advantages by

improving information literacy, creativity, and self-efficacy. The results underscore the importance of information literacy and creativity among SMEs.

**Keywords:** information literacy; creativity; self-efficacy; managerial performance

## Introduction

In the modern economic environment, SMEs play a crucial role in driving economic growth and innovation. They represent a significant portion of the global economy and make substantial contributions to employment, technological advancement, and regional development. However, due to limited resources, complex and ever-changing market conditions, and intense competition, SMEs often face greater challenges in management and operations. Enhancing managerial performance is particularly vital for the long-term development and competitiveness of these enterprises.

The performance of an organization is closely linked to the quality and effectiveness of its management, commonly referred to as managerial performance (Firman et al., 2020). According to Oh and Berry (2009), managerial performance encompasses effective managerial behaviors, specifically those that optimize resource identification, acquisition, and utilization to ensure the organization's survival (Shahul Hameed et al., 2022). It plays a crucial role in modern business management. As competition intensifies and market environments continuously evolve, managers must consistently enhance managerial performance to ensure the ongoing development and success of their enterprises. Improvements in managerial performance can be achieved by refining the decision-making process (Harahap et al., 2020). For any manager, a constant flow of information is essential when setting goals, formulating plans, and devising policies (Liebowitz & Beckman, 2020). However, according to the Bounded Rationality Theory (Simon, 1978), managers, as decision-makers, face constraints when making rational and effective decisions. These constraints include (1) limited availability of information, (2) limited cognitive abilities, and (3) limited decision-making time, which collectively lead managers to become boundedly rational in the decision-making process. To prevent decision-making failures caused by bounded rationality, managers need a specific skill set that enables them to correctly utilize information (Zenita et al., 2015). This skill, which empowers individuals to locate, evaluate, organize, and effectively use information to solve problems, is known as information literacy (Avcı & Ergün, 2022).

Managers frequently encounter challenges such as uncertainty and complexity while carrying out their managerial tasks. These challenges require managers to respond proactively and

appropriately to achieve their goals. Bandura (1986) found that an individual's self-efficacy plays a crucial role in how they handle goals, tasks, and challenges. Strong self-efficacy is believed to guide individuals in positively addressing challenges and tasks.

Creative employees are vital for achieving organizational goals (Kark et al., 2018). Managerial creativity refers to a manager's ability to generate novel and practical ideas (Cocu et al., 2015). As the epitome of organizational wisdom, managers with higher levels of creativity can significantly enhance the managerial performance of their enterprises. According to creativity theory (Plucker, 2021; Glăveanu, 2013), organizational managers with high levels of creativity can swiftly identify both explicit and implicit customer needs in response to changes in the external environment. They are adept at integrating existing knowledge and resources to promptly propose innovative and useful ideas or specific creative solutions.

This study aims to explore how managers of SMEs can enhance their managerial performance to cope with external environmental uncertainties and internal resource limitations. The specific questions include: How can SME managers improve their managerial performance? What are the causal relationships between information literacy, self-efficacy, creativity, and managerial performance? What roles do self-efficacy and creativity play in enhancing enterprise competitiveness and performance?

As SMEs play an increasingly significant role in the global economy, understanding how to improve their managerial performance has become increasingly critical. This study seeks to fill the research gap regarding the enhancement of managerial performance in SMEs, particularly by exploring the performance of managers in terms of information literacy, self-efficacy, and creativity, and providing practical insights and guidance for enterprise managers.

## Research Objectives

From the above, information literacy, self-efficacy, and creativity correlate with managerial performance to some extent, but no research has yet explored this. Therefore, this study examines their relationship by focusing on managers from five small and medium-sized enterprises in China.

1. To examine the causal relationship between managers' information literacy, self-efficacy, creativity, and managerial performance.
2. To investigate the mediating effects of creativity and self-efficacy as mediating variables.

## Literature Review and Hypotheses

### Information Literacy, Self-Efficacy and Creativity

More research is needed on the correlation between information literacy and work self-efficacy in the workplace. Self-efficacy, a concept introduced by Bandura (1977) based on social cognitive theory, is used to assess an individual's perception of their abilities across various environments. Maran et al. (2022) suggest that employee agility is crucial for an organization's ability to adapt to modern markets effectively and that digital self-efficacy among employees can promote workforce agility.

The research on the correlation between information literacy and creativity exhibits two distinct characteristics: First, the majority of studies are qualitative, with only a few scholars conducting empirical research on this correlation (Raeis et al., 2013; Faghiharam & Ebrahimi, 2018; Wu, 2019); second, most research is concentrated in the field of education, primarily focusing on students and teachers, with only a limited number of scholars examining the relationship between information literacy and creativity among employees (Anderson, 2011; Chang, 2015). Ghazizadeh et al. (2017) investigated the employees of an electronic company in Tehran, studying the relationship between their information literacy and organizational creativity, and found a significant positive correlation between the two.

De Villiers (2022) posits a close relationship between a successful, creative enterprise and self-efficacy. Such enterprises encourage employees to propose novel solutions to problems, steadfastly support them during adversities, assist in overcoming challenges, instill confidence in handling unpredictable tasks, and help employees envision a hopeful future. Utsch and Rauch (2000) also found a significant positive correlation between a firm's level of innovativeness and entrepreneurs' self-efficacy.

This study proposes the following hypothesis:

H1: Information literacy positively affects self-efficacy.

H2: Information literacy positively affects creativity.

H3: Self-efficacy positively affects Creativity.

### Self-efficacy, Creativity and Managerial Performance

Numerous studies have identified a connection between self-efficacy, job performance, and the decision-making processes of managers (Randhawa, 2004; Karpinski et al., 2021), particularly in task-specific roles (Ju et al., 2019). Robertson and Sadri (1993) conducted an empirical field study

to analyze the relationship between managerial self-efficacy and managerial performance, finding a correlation coefficient of 0.38. This result confirmed that managerial self-efficacy is a critical variable influencing managerial performance. Orpen (1995) obtained similar findings in his study of Black managers in South Africa, reporting a correlation of 0.40 between managerial self-efficacy and job performance.

Research related to creativity in management generally focuses on how managers can stimulate employee creativity and enhance organizational innovation to improve product and service quality, production processes, and market competitiveness, thereby maximizing organizational benefits. Studies specifically addressing the impact of an individual manager's creativity on managerial performance are relatively scarce.

Therefore, this study proposes the following hypothesis:

H4: Self-efficacy positively affects managerial performance.

H5: Creativity positively affects managerial performance.

H6: Creativity mediates the relationship between Self-efficacy and managerial performance.

#### **Information Literacy and Managerial Performance**

Managers with solid information literacy can deeply understand the importance of information in management, guiding their decisions through scientific theories and environmental analysis to enhance management's scientific and purposeful nature. Zenita et al. (2015) employed multiple regression analysis to study 236 managers from banking institutions in Pekanbaru, Indonesia. The study's results supported the direct impact of information literacy, self-efficacy, and SMA information use on managerial performance.

Building on the previous discussion about the relationship between information literacy, self-efficacy, and managerial performance, this study further hypothesizes that managers' information literacy can positively impact managerial performance through the mediating effect of self-efficacy. Similarly, based on the prior exploration of the relationship between information literacy, creativity, and managerial performance, this study hypothesizes that managers' information literacy can positively influence managerial performance through the mediating effect of creativity.

Therefore, this study proposes the following hypothesis:

H7: Information literacy positively affects managerial performance.

H8: Self-efficacy mediates the relationship between information literacy and managerial performance.

H9: Creativity mediates the relationship between information literacy and managerial performance.

## Conceptual Framework

A conceptual framework demonstrating the relationships among the variables in this study is shown in Figure 1.

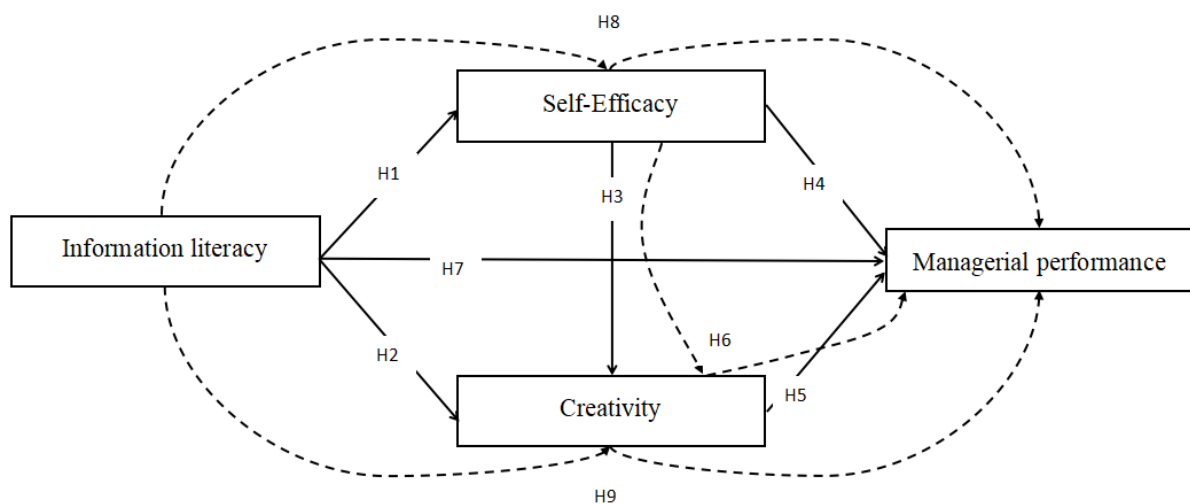


Fig.1 Conceptual Framework

## Research Methodology

This study employs a quantitative research approach for data collection, utilizing an online questionnaire as the primary tool. The data analysis is conducted using structural equation modeling (SEM). The questionnaire is primarily based on the content and items from questionnaires published by various scholars and has been carefully reviewed by three experts. It underwent a pilot test and revisions to ensure content validity.

### Population and Sampling Method

The study focuses on SMEs in China, encompassing five industries: Heavy Industry, Construction Industry, Retail Industry, Restaurant and Catering Industry, and Software and IT Services. The survey targets managers with managerial roles within these five categories of SMEs. Due to difficulties in meeting probability sampling standards, along with budget constraints and practical considerations, a non-probability quota sampling method was used. The quota sampling plan allocated samples with each of the five SME categories accounting for 20 of the total sample.

Since the total population is unknown, the sample size was calculated using Cochran's (1977) method, aiming for a 95% confidence level and a 5% margin of error. The required sample size was determined to be 384. To enhance the reliability and representativeness of the study, a total of 487 questionnaires were collected. The questionnaire was distributed from January 2024 to July 2024, spanning nearly seven months. After excluding invalid responses, 416 valid samples were retained. This not only meets the appropriate sample size according to Cochran's formula (1977) but also provides a larger sample size, enhancing the reliability and representativeness of the study.

### Research Instruments

The primary constructs measured in this study are information literacy, self-efficacy, creativity, and managerial performance. Respondents also provided background or personal characteristic information through the questionnaire.

**Information Literacy:** This study utilized the workplace information literacy scale developed by Widén et al. (2021), which uses a 5-point Likert scale. The scale includes six dimensions: information acquisition (2 items), information evaluation (3 items), information utilization (3 items), information environment awareness (4 items), learning from information experience (4 items), and information ethics (3 items), totaling 19 items.

**Self-Efficacy:** The study employed the unidimensional general self-efficacy (GSE) scale developed by Chen et al. (2001). This scale consists of 8 items and is used to predict specific self-efficacy (SSE) across various environments.

**Creativity:** Creativity was measured using the scale established by Muñoz-Doyague, González-Álvarez, and Nieto (2008). This scale includes 8 items designed to assess individual creativity levels.

**Managerial Performance:** Managerial performance was assessed using eight performance measures derived from Mahoney (1963).

### Research Results

The analysis for this study was conducted using SPSS 24.0 for statistical analysis and AMOS 21.0 for structural equation modeling.

#### Reliability and Validity

Cronbach's  $\alpha$  coefficient was used to assess the reliability of the questionnaire in this study. The Cronbach's  $\alpha$  coefficients for information literacy, self-efficacy, creativity, and managerial

performance were 0.963, 0.953, 0.949, and 0.958, respectively, all exceeding the standard value of 0.7 (Field, 2009) as stipulated by the study. This result directly indicates that the research variables possess excellent internal consistency reliability.

This study assessed the convergent validity of the model using three indicators: factor loading, average variance extracted (AVE), and composite reliability (CR), as shown in Table 1. The standardized factor loading for the constructs of information literacy, self-efficacy, creativity, and managerial performance ranged between 0.731 and 0.914. The AVE values for the six sub-dimensions of information literacy ranged from 0.579 to 0.797, the AVE for self-efficacy was 0.718, the AVE for creativity was 0.684, and the AVE for managerial performance was 0.769. All variables' AVE values exceeded the threshold value of 0.5 (Fornell & Larcker, 1981). The CR values for the six sub-dimensions of information literacy ranged between 0.805 and 0.922, while the CR values for self-efficacy, creativity, and managerial performance were 0.953, 0.951, and 0.959, respectively. All variables' CR values were higher than the recommended critical value of 0.7 suggested by Esposito Vinzi et al. (2010). These results indicate that the constructs have good convergent validity.

Discriminant validity reflects the extent to which a construct is distinct from other constructs. It is tested by verifying that the square root of the AVE for each construct is greater than the correlations between that construct and other constructs (Fornell & Larcker, 1981). Table 2 shows the correlations between constructs and the square roots of AVE. The results reveal that the square root of the AVE values is greater than the correlations with other constructs, indicating that the scale has significant discriminant validity.

In summary, based on the evaluation of internal consistency (CR), indicator reliability, AVE, and discriminant validity, all criteria meet the academic standards for validity. Therefore, it can be inferred that the scale used in this study has good validity.



**Table 1.** Confirmatory Factor Analysis for Measurement Model

Variable		CR	AVE	Cronbach's $\alpha$
Information Literacy	IA	0.869	0.769	0.868
	IE	0.900	0.749	0.902
	IU	0.922	0.797	0.921
	AIE	0.901	0.695	0.897
	LIE	0.897	0.685	0.894
	IET	0.805	0.579	0.804
Self-Efficacy		0.953	0.718	0.953
Creativity		0.951	0.684	0.949
Managerial Performance		0.959	0.769	0.958

**Table 2.** Discriminant Validity Testing

Construct	A	B	C	D	E	F	G	H	I
A. IA	<b>0.877</b>								
B. IE	0.788*	<b>0.866</b>							
C. IU	0.672*	0.822*	<b>0.893</b>						
D. AIE	0.631*	0.710*	0.719*	<b>0.834</b>					
E. LIE	0.595*	0.682*	0.735*	0.772*	<b>0.828</b>				
F. IET	0.555*	0.649*	0.647*	0.688*	0.778*	<b>0.761</b>			
G. SE	0.517*	0.615*	0.664*	0.631*	0.681*	0.653*	<b>0.848</b>		
H. C	0.506*	0.584*	0.642*	0.576*	0.578*	0.583*	0.781*	<b>0.827</b>	
I. MP	0.544*	0.615*	0.663*	0.551*	0.556*	0.524*	0.685*	0.762*	<b>0.877</b>

Note 1: Diagonal elements are the square root of the AV.

Note 2: \*indicates that at a significance level of  $\alpha=0.05$ , the correlation coefficients between variables are statistically significant.

### Hypotheses testing

To assess the overall fit of the research model, this study evaluated the model's external quality through absolute fit indices, incremental fit indices, and parsimonious fit indices. The overall model's  $\chi^2/df$  ratio was 1.506, which is below the recommended threshold of 3, indicating a very good fit. Additionally, the GFI and the AGFI were 0.920 and 0.907, respectively, both exceeding the recommended value of 0.9. The RMR, SRMR, and RMSEA were 0.069, 0.047, and 0.035, all below the standard value of 0.08. The NFI, NNFI, CFI, RFI, and IFI were 0.958, 0.984, 0.985, 0.954, and 0.985, respectively, all exceeding the ideal threshold of 0.9. The PNFI and PGFI were 0.878 and 0.789, both higher than the recommended value of 0.5. The CN was 309, exceeding the standard threshold of 200. These results indicate that all fit indices meet the research standards, confirming that the structural equation model achieves a good overall fit.

Path coefficients represent the direct effect of predictor variables on outcome variables. This study utilized AMOS 21.0 for data analysis and employed the Maximum Likelihood Estimation method for parameter estimation. The results are presented in Figure 2.

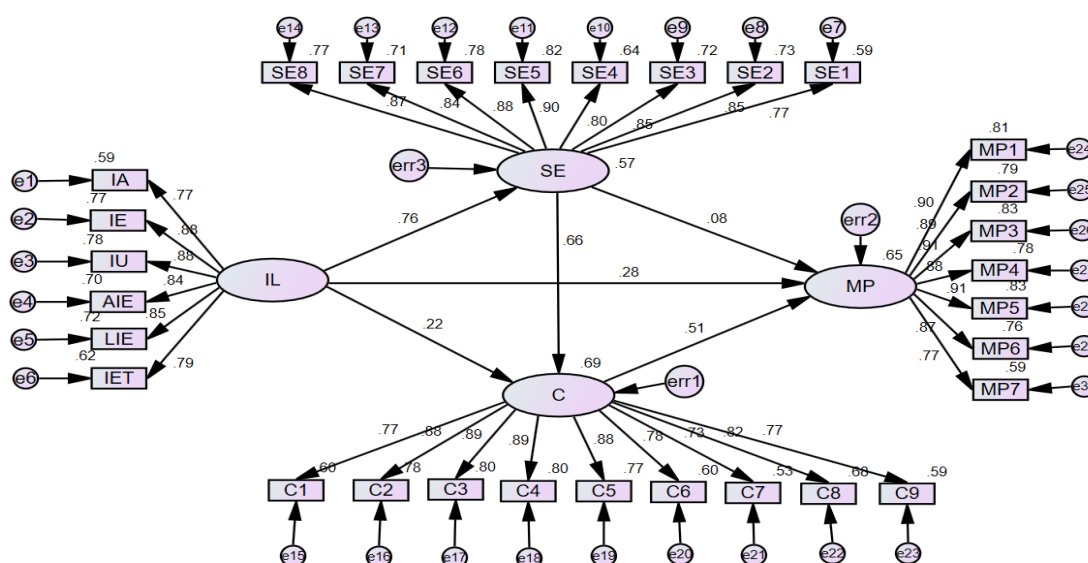


Fig. 2 Model Analysis Diagram

As shown in Table 3, the standardized path coefficient for information literacy to self-efficacy is 0.755 with a T-value of 13.423, which exceeds the standard of 1.96; thus, H1 is supported. The standardized path coefficient for information literacy to creativity is 0.216 with a

T-value of 4.163, which is also greater than 1.96; hence, H2 is supported. the standardized path coefficient for self-efficacy to creativity is 0.658 with a T-value of 10.248, which is greater than 1.96; hence, H3 is supported. The standardized path coefficient for self-efficacy to managerial performance is 0.081 with a T-value of 1.193, which is less than 1.96; therefore, H4 is not supported. The standardized path coefficient for creativity to managerial performance is 0.513 with a T-value of 7.375, which is greater than 1.96; thus, H5 is supported. Finally, the standardized path coefficient for information literacy to managerial performance is 0.28 with a

T-value of 4.972, exceeding 1.96; therefore, H7 is supported.

**Table 3.** Summary of hypotheses tests

Hypothesis	Path coefficient	Supported
H1: Information literacy → Self-efficacy	0.755***	Yes
H2: Information literacy → Creativity	0.216***	Yes
H3: Self-efficacy → Creativity	0.658***	Yes
H4: Self-efficacy → managerial performance	0.081	No
H5: Creativity → managerial performance	0.513***	Yes
H7: Information literacy → managerial performance	0.28***	Yes

Note: \*P<0.05 \*\*P<0.01 \*\*\*P<0.001

This study also tested the mediation effect hypotheses. As shown in Table 4, the indirect effect of self-efficacy on managerial performance through creativity is 0.377, and the Bias-corrected 95% confidence interval does not include zero. The p-value is less than 0.05, indicating that creativity indeed plays a significant mediating role in the relationship between self-efficacy and managerial performance, with the mediation effect being a full mediation. Therefore, Hypothesis 6 is supported.

The standardized indirect effect of self-efficacy in the relationship between information literacy and managerial performance is 0.061; however, the Bias-corrected 95% confidence interval includes zero, and the p-value is 0.372, which is greater than 0.05, indicating a lack of statistical significance. This suggests that self-efficacy does not play a significant mediating role in the relationship between information literacy and managerial performance. Therefore, Hypothesis 8 is not supported.

The standardized indirect effect of creativity in the relationship between information literacy and managerial performance is 0.111, and the Bias-corrected 95% confidence interval does not include zero. The p-value is 0.001, which is less than 0.05, indicating statistical significance. This demonstrates that creativity indeed plays a significant mediating role in the relationship between information literacy and managerial performance, with the effect being a positive partial mediation. Therefore, Hypothesis 9 is supported.

**Table 4.** Summary of Mediation Effects

	Estimate	BC 95% Confidence Interval		Results
		p value	BC	
Indirect effect				
SE→C→MP	0.337	0.000	0.224~0.488	H6 is supported
IL→SE→MP	0.061	0.372	-0.077~0.193	H8 is not supported
IL→C→MP	0.111*	0.001	0.033~0.217	H9 is supported
Direct effect				
SE→MP	0.081	0.376	-0.099~0.267	
IL→MP	0.28*	0.001	0.148~0.434	
Total effect				
SE→MP	0.418	0.001	0.218~0.594	
IL→MP	0.706*	0.001	0.589~0.794	

Note: BC is a Bias-corrected percentile method

## Discussions

### The Impact of Information Literacy on Managerial Performance

Based on the statistical analysis of path coefficients, this study confirms that information literacy directly impacts managerial performance, with a direct effect size of 0.28. Additionally, information literacy significantly influences managerial performance indirectly through creativity as a mediator, with an indirect effect size of 0.11 ( $0.216 \times 0.513$ ). Therefore, in the proposed model, the total effect of information literacy on managerial performance is 0.391.

The analysis supports that managers' information literacy directly affects managerial performance, aligning with Simon's (1957) bounded rationality theory. According to this theory, managers often struggle to make optimal decisions due to the cognitive limitations of managers (Simon, 1957). Crawford and Irving (2007) further emphasize that managers with higher information literacy can better evaluate the quality and relevance of information, reduce cognitive biases, and thus make more reasonable decisions, ultimately enhancing overall organizational performance. However, the relationship between information literacy and managerial performance had not been empirically tested before this study. This study advances the bounded rationality theory by empirically validating the significant positive impact of information literacy on managerial performance. Traditionally, this theory posits that managers' cognitive limitations prevent them from making optimal decisions in complex and dynamic environments. This research reveals that high-quality information can help managers better understand their environment, identify problems, and

formulate more effective decisions, significantly improving managerial performance. This finding provides empirical support for the bounded rationality theory and expands its application in management practice.

Previous studies by Hamdani et al. (2023) and Naveed et al. (2022) have empirically explored the relationship between information literacy and performance. However, unlike this study, their focus was primarily on employee performance. For instance, Naveed et al. examined the impact of information literacy (IL) on the job performance of journalists in Pakistan, finding that as journalists' information literacy skills improved, so did their job performance. In contrast to the workplace context of journalists, this study investigates Chinese SMEs and explores managerial performance from the perspective of managers. This indicates that although previous research has shown a positive correlation between information literacy and performance, these studies mainly focused on how information literacy affects employee performance. In comparison, our research deepens this argument from the managers' perspective by exploring the crucial role of information literacy in managerial decision-making for the first time, thereby filling a gap in the existing literature.

Moreover, this study pays particular attention to the impact of information literacy on managerial performance through creativity, validating that managers' information literacy can significantly and positively affect managerial performance via creativity. This finding is an essential addition to the existing literature. While previous research has discussed the relationship between information literacy and performance, it has yet to explore the mediating role of creativity in this process systematically. This study is the first to reveal this mechanism, demonstrating how managers' information literacy enhances creativity, leading to improved managerial performance.

Finally, since this study is based on a sample of Chinese SMEs, the results extend previous findings observed in Western cultural contexts to a cultural sample that has not been thoroughly studied. This not only provides empirical support for the universality of information literacy across different cultural backgrounds but also offers new insights for global management practices.

### **The Impact of Self-Efficacy on Managerial Performance**

According to the path relationship analysis, this study found that self-efficacy does not have a significant direct impact on managerial performance. However, self-efficacy significantly influences managerial performance indirectly through creativity, with an indirect effect size of 0.338 (0.658 \* 0.513).

The analysis data reveal that self-efficacy does not have a direct effect on managerial performance, which contrasts with the findings of Robertson and Sadri (1993). Robertson and Sadri

(1993) conducted an empirical field study that analyzed the relationship between managerial self-efficacy and managerial performance, finding a correlation coefficient of 0.38. Their study validated that managerial self-efficacy is an important variable influencing managerial performance. A possible reason for the difference in findings could be that Robertson & Sadri's (1993) study was conducted in a specific field environment, emphasizing the direct impact of managerial self-efficacy in particular management contexts. This research setting may more closely resemble the actual work scenarios of managers, making it easier to capture the influence of self-efficacy on managerial performance. In contrast, this study utilized general self-efficacy, applied in broader contexts, which may have led to different results.

On the other hand, this study extends the research of Tierney and Farmer (2002) by examining creativity as a mediator between self-efficacy and managerial performance. Tierney and Farmer (2002) found that individuals with higher confidence in their abilities are more likely to exhibit creative behaviors at work. However, their research did not delve into the mechanisms by which these creative behaviors specifically influence managerial performance. This study fills that gap by exploring the mediating role of creativity between self-efficacy and managerial performance for the first time. Specifically, the study not only confirms the positive relationship between self-efficacy and creativity but also reveals how creativity, as a key mechanism, transforms the potential impact of self-efficacy into improved managerial performance. This finding not only enriches the theoretical framework of the relationship between self-efficacy and managerial performance but also provides new perspectives for organizational practice—namely, that enhancing managers' creativity can indirectly improve managerial performance.

Moreover, our research emphasizes the importance of creativity in real management contexts, demonstrating the universality and validity of this mediating effect across different cultural backgrounds, as evidenced by the sample in this study. This makes our research a significant contribution not only theoretically to the existing literature but also practically, offering actionable guidance for managers on how to leverage self-efficacy and creativity to enhance performance.

### **The Impact of Creativity on Managerial Performance**

Based on the statistical analysis of path coefficients, this study confirms that managers' creativity has a direct impact on managerial performance, with a direct effect size of 0.513. While existing research has established a positive correlation between creativity and managerial performance, these studies primarily focus on how managers inspire employee creativity, enhance organizational innovation capabilities, improve product and service quality, and optimize production

processes, thereby strengthening market competitiveness and boosting managerial performance. Such research typically explores topics like managerial support for innovation (Sousa et al., 2019), the creation of environments conducive to innovation (Osman & Kamis, 2019), and the influence of leadership styles on innovation (Xie et al., 2018). However, most of these studies emphasize the manager's role in organizational innovation, with limited attention given to how a manager's creativity directly influences managerial tasks.

This study fills that gap by investigating the direct impact of managers' creativity on managerial performance, offering a new perspective within the field of management. Not only does it validate the positive influence of creativity on managerial performance, but it also provides an in-depth analysis of how managers' creativity plays a role in practical management tasks. In doing so, this research expands the discussion on the relationship between creativity and performance and provides empirical support for how managers can leverage their creativity to enhance managerial performance.

This unique research perspective further enriches the theoretical foundation of management practice, particularly in understanding how enhancing managers' creativity can improve overall managerial performance. The study offers new insights for organizations in the selection and development of managers, emphasizing that creativity is not merely a tool for fostering employee innovation but also a crucial factor in improving a manager's performance.

## New Knowledge

Information is the source of enterprise competitiveness, and managers' information literacy is the core element of enterprise management functions. One of the contributions of this study is to explore the relationship between information literacy and managerial performance through a combination of theoretical and empirical methods, thereby enhancing the relevant theories. By quantitatively analyzing the impact of information literacy on managerial performance, this study aims to make enterprises fully aware of the importance of information literacy in their operations and its crucial role in managerial performance. This understanding can guide enterprises to emphasize cultivating and enhancing managers' information literacy, bringing more opportunities and success to the organization.

This study constructs an impact model of managerial performance through theoretical and empirical analysis. There is limited research on managerial performance in the academic community,

and even fewer studies adopt empirical analysis and structural equation modeling methods. In this study's model, not only is the impact of information literacy on managerial performance examined, but also the mediating effects of self-efficacy and creativity as mediating variables. This model can further enrich theoretical research in related fields and contribute to the theoretical development of managerial performance. It also provides theoretical support for scholars exploring related topics in the future.

The enterprises surveyed in this study are located in China, the world's second-largest economy, where the business environment and cultural context differ significantly from those of Western countries. The empirical analysis conducted in this study fills a research gap in this field in China. By deeply investigating the managerial performance of Chinese enterprises and its influencing factors, this study provides valuable insights for researchers, entrepreneurs, and policymakers. These insights help to better understand the dynamic changes in the Chinese business environment and how to succeed in this diverse and competitive market. Additionally, the findings of this study can guide international enterprises in operating and collaborating in the Chinese market, as well as inform strategic planning and decision-making.

Knowledge from Research, as shown in Figure 3.

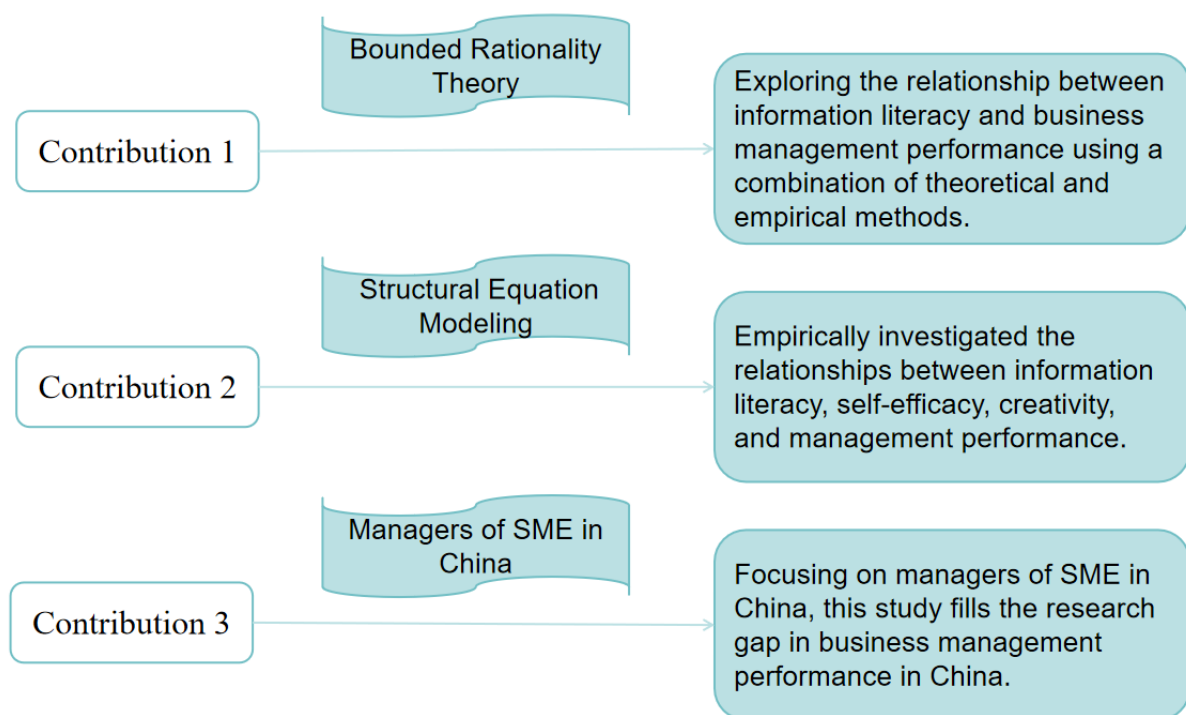


Fig.3 Knowledge from Research



## Conclusion

The proposed research model was conceptualized based on insights drawn from an extensive review of existing literature in the areas of information literacy, self-efficacy, creativity, and managerial performance. The results confirm the relationship between information literacy, self-efficacy, creativity, and managerial performance among managers in the context of Chinese SMEs. The following conclusions can be drawn. First, Information literacy not only directly and positively predicts managerial performance but also has an indirect positive effect through creativity. Secondly, self-efficacy also has an indirect but positive effect on managerial performance through the mediating role of creativity. Lastly, creativity also predict positively managerial performance. These results provide practical insights for employers on how information literacy, self-efficacy, and creativity can influence organizational performance and contribute to achieving a sustainable competitive advantage.

## Suggestions

Based on the research results, it is recommended that organizations enhance managerial performance by comprehensively improving information literacy, self-efficacy, and creativity.

Organize strategic management: Organizations should adopt a holistic management development strategy that integrates improvements in information literacy, self-efficacy, and creativity to achieve comprehensive management capability development. Specifically, organizations should strengthen information literacy training to help managers more effectively acquire, evaluate, and utilize information, thus directly improving their performance. Additionally, fostering creativity through creative problem-solving, experimentation, and encouraging innovative thinking is essential. Enhancing managers' self-efficacy through mentorship programs and leadership training can also help boost their confidence, leading to more active engagement in creative work. This approach not only aids in immediate performance enhancement but also establishes a foundation for sustained competitive advantage in an increasingly competitive market.

University Education: It is suggested that university courses incorporate information literacy education as a compulsory credit-bearing component, focusing on improving students' abilities to acquire, evaluate, and apply information, while also encouraging innovative thinking. Additionally, specialized librarians should collaborate closely with university teaching and training teams to design and implement comprehensive information literacy education programs.

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