

Resilient Leadership, Innovation, Executive Incentives, and Sustainable Business Performance: An Empirical Study

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Abstract. Leaders' resilience plays a significant role in organizational competitiveness. Jiangxi is a large manufacturing province in China. No scholars have proposed the definition of resilient leadership in manufacturing industry before. Therefore, the research on the relationship between resilient leadership and sustainable business performance in manufacturing industry has become a new topic. This article uses a structural equation model to empirically examine the relationship between variables. Specifically, path analysis and decomposition effect methods are used to examine the direct impact of resilient leadership on sustainable business performance; and the indirect effect of introducing the mediating variable enterprise innovation. This article uses the hierarchical regression analysis method to test the moderating effect of executive incentives. Finally, it was found that resilient leadership has a significant positive impact on sustainable business performance; Enterprise innovation plays a mediating role between resilient leadership and sustainable business performance; the moderating effect of executive incentives is established. Findings of the study are beneficial for practitioners and will allow their strategies to reflect sustainable competitive advantages and sustainable business performance.

Keywords: Resilient leadership, Sustainable business performance, Enterprise innovation, Executive incentives.

1. Introduction

1.1. Background

The modern world is transforming under the influence of global changes (Chychun et al., 2023). Current global changes such as globalization, digitization, COVID-19 pandemic and greater global rivalry provide significant difficulties for organizational leaders. Leaders are always challenged with change; they must deal with essential developments while also responding quickly to unforeseen situations. In today's new reality of business leadership paradigm, change is the only constant. The new millennium has witnessed several aspects of change including information technology, battle for superior talents, information overload, diversified environments, customer changing trends and demographics, economical and geopolitical drivers of change (Dalati, 2017). In the new technology age, decision making and its optimization have become more challenging due to the exponential growth and access to information (Mekvabidze, 2020). Human beings by nature have an insatiable appetite for gathering and seeking solutions to problem for advancement and development (Tijani & Popoola, 2019).

In this context, leaders' resilience has shown to be critical not just to leaders' health and well-being, but also to that of their followers, and so plays a significant role in organizational competitiveness. Recently, Transformational business models emphasize the importance of resilience in leadership and organizational performance. China's manufacturing business has limited overall innovation capabilities, and it is an economy with high investment, high rewards, and high risks. Jiangxi is a large manufacturing province in China. No scholars have proposed the definition of resilient leadership in manufacturing industry before. Therefore, the research on the relationship between resilient leadership and sustainable business performance in manufacturing industry has become a new topic. This study will look at the dynamic process of the resilience of people as leaders and how leaders engage with manufacturing enterprises located in Jiangxi Province, China to impact stability, development, and sound change during a crisis.

The existing literature mainly focuses on the relationship between resilient leadership behavior and the individual and team levels, with little attention paid to the enterprise level. There is almost no research on the mediators through which resilient leadership behavior of manufacturing enterprise leaders affects enterprise performance in China. To further uncover the "black box" of the impact mechanism of resilient leadership behavior on sustainable business performance, this article explores the impact of resilient leadership behavior on sustainable business performance at the enterprise level. For the first time, a theoretical mechanism using enterprise innovation as a mediating variable and executive incentives as a moderating variable is proposed, and empirical testing is conducted on questionnaire data from 500 manufacturing enterprises in Jiangxi Province, China.

Jiangxi is a large manufacturing province in China. No scholars have proposed the definition of resilient leadership in manufacturing industry before. Therefore, the research on the relationship between resilient leadership and sustainable business performance in manufacturing industry has become a new topic.

1.2. Significance of This Study

Firstly, it may arouse the attention of relevant leaders and solve the problem as soon as possible. This study by analyzing the resilient leadership, enterprise innovation and executive incentive factors on the influence of the sustainable business performance of manufacturing enterprises located in Jiangxi Province, China, and found that the actual circumstances of the industry, and cause the enough attention of leaders, as far as possible avoid these hidden dangers and problems, and combined with their own strategic planning and development, to solve these problems as soon as possible. Secondly, this study provides a theoretical framework suited for Chinese manufacturing businesses and further expands the original theory based on the idea of elasticity and innovation, in conjunction with the Chinese cultural backdrop.

1.3. Research Questions and Research Objectives

This article proposes three research questions, as shown below.

- Q1. Does resilient leadership influence sustainable business performance in manufacturing enterprises located in Jiangxi province in China?
- Q2. How resilient leadership influence sustainable business performance, when taking into account some selected variables such as enterprise innovation and executive incentive?
- Q3. How the hypothetical model developed fit with empirical data?

The research objectives of this article correspond to the above research questions, as shown below.

- O1: To study the influence of resilient leadership on sustainable business performance in manufacturing enterprises located in Jiangxi province in China.
- O2: To decompose such influences, by considering the mediation effect of enterprise innovation and the moderation effect of executive incentive.
- O3: To evaluate the model fit with empirical data.

2. Literature Review

2.1. The Influence of Resilient Leadership on Enterprise Innovation

Resilient leadership enhances the innovation within the organization and the tendency of organizational innovation. Leaders play an important role in organizational innovation by utilizing motivation and intellectual stimulation. Resilient leadership promotes the generation of creativity within organizations: this behavior reflects the "innovation support role" of resilient leadership (Howell & Higgins, 1990). These leaders use the company's vision to motivate their followers, increase their willingness to work beyond expectations, and enable them to adopt innovative methods in their work. The improvement of incentive level may enhance organizational innovation ability (Mumford et al., 2003). A certain amount of empirical research supports the positive impact of leadership on organizational innovation (Keller, 1992; Waldman & Atwater, 1994). Based on previous relevant theories, this study proposes the following research hypothesis:

H1: There is a significantly positive influence of resilient leadership on enterprise innovation.

2.2. The Influence of Resilient Leadership on Sustainable Business Performance

Businesses have moved from individual business functions towards optimizing the entire business process, as called business process reengineering (Mekvabidze, 2020). Research has shown that the CEO's resilient leadership behavior is an important factor affecting enterprise performance (Judge & Piccolo, 2004). First of all, at the individual level, the resilient leadership management model guides employees to transcend personal interests for corporate goals by creating and sharing a common vision; At the same time, employees are made aware of the significance of the tasks they undertake through intellectual motivation, which better stimulates the potential and high-level needs of employees, and urges them to pay more efforts and actions, so as to achieve more than expected work results (Bass, 1985); Secondly, at the team level, the resilient leadership management model can improve the goal consistency of the senior management team by strengthening the communication and diversity of the senior management team. Colbert et al. (2008) pointed out that the resilient leadership management model can promote the goal and consistency of the senior management team and improve the enterprise performance. Based on previous relevant theories, this current study proposed the following hypothesis:

H2: There is a significantly positive influence of resilient leadership on sustainable business performance.

2.3. The Influence of Enterprise Innovation on Sustainable Business Performance

Without enterprise innovation, the sustainable development goals of enterprises cannot be realised, which can bring challenges to their development (Alqahtani, 2023). Mudambi & Swift (2014)

believed that R&D investment is beneficial for enterprises to carry out technological innovation activities. Through innovation activities, enterprises can enhance their core competitive advantages and thus enhance their sustainable business performance. Babkin et al. (2015) used listed companies in the information technology industry as research samples, econometric analysis results show that increasing research and development expenditure can enable enterprises to achieve higher investment returns. Sharma et al. (2016) studied the situation of 1356 food brands through regression and probability analysis. Jia & Wei (2019), based on big data from listed manufacturing companies in China, showed that R&D investment in enterprises has a positive impact on profit quality, and this positive correlation is more significant in state-owned enterprises. Based on previous relevant theories, this current study proposed the following hypothesis:

H3: There is a significantly positive influence of enterprise innovation on sustainable business performance.

2.4.The Mediation Effect of Enterprise Innovation

Chen et al. (2006) used the data of Taiwan, China's manufacturing industry to find that the resilient leadership of senior executives promotes the innovation activities of enterprises, and enterprises carry out innovation to enable enterprises to finally gain sustainable competitive advantage. Li (2013) studied the relationship between resilient leadership and enterprise performance in the context of entrepreneurial orientation, and found that under the moderation role of entrepreneurial orientation, resilient leadership has a positive impact on marketing innovation, and enterprise marketing innovation can improve enterprise performance. Guan et al. (2019) took Chinese manufacturing enterprises as the research object and found that the CEO's resilient leadership model can have a positive impact on enterprise performance through the mediation effect of enterprise innovation. Zhou et al. (2021) proposed that resilient leadership will promote enterprises to carry out innovation, thus enabling enterprises to achieve new product success, which can improve the performance level of enterprises. Based on previous relevant theories, this current study proposed the following hypothesis:

H4: Enterprise innovation mediates the effect between resilient leadership and sustainable business performance.

2.5.The Moderation Effect of Executive Incentives

Farouk et al. (2019) found a significant positive correlation between executive compensation and corporate innovation and long-term performance. Sheng & Che (2016) found a significant positive correlation between executive compensation incentives and sustainable business performance through regression analysis of Chinese A-share listed companies from 2008 to 2014. Xu et al. (2017) discovered that executive compensation incentives can promote the existence of technological innovation investment in enterprises. Li (2019) studied 371 listed companies and found that the implementation of executive incentives can stimulate the motivation of senior managers to carry out technological innovation, and the enhancement of R&D investment intensity can effectively promote enterprise innovation performance. Vergos & Christopoulos (2014) concluded through a study of over 200 US listed companies that adopt equity incentives that equity incentives can effectively promote the increase in corporate value and capital appreciation. Cui & Mak (2002) selected 250 high-tech listed companies with equity incentives as the research object. The results show that different levels of executive stock ownership have different impacts on corporate management and corporate performance, and there is a non-negligible interval effect between the two. Based on previous relevant theories, this current study proposed the following hypothesis:

H5: Executive incentive has a moderating effect on the relationship between resilient leadership and enterprise innovation.

H6: Executive incentives have a moderating effect on the relationship between resilient leadership and sustainable business performance.

Table 1 shows the research hypotheses proposed in this article. Based on the above six hypotheses (table 1), the following conceptual framework is constructed in this study.

Table 1: Research Hypotheses

	Research Hypothesis
H1	There is a significantly positive influence of resilient leadership on enterprise innovation.
H2	There is a significantly positive influence of resilient leadership on sustainable business performance.
H3	There is a significantly positive influence of enterprise innovation on sustainable business performance.
H4	Enterprise innovation mediates the effect between resilient leadership and sustainable business performance.
H5	Executive incentive has a moderating effect on the relationship between resilient leadership and enterprise innovation.
H6	Executive incentives have a moderating effect on the relationship between resilient leadership and sustainable business performance.

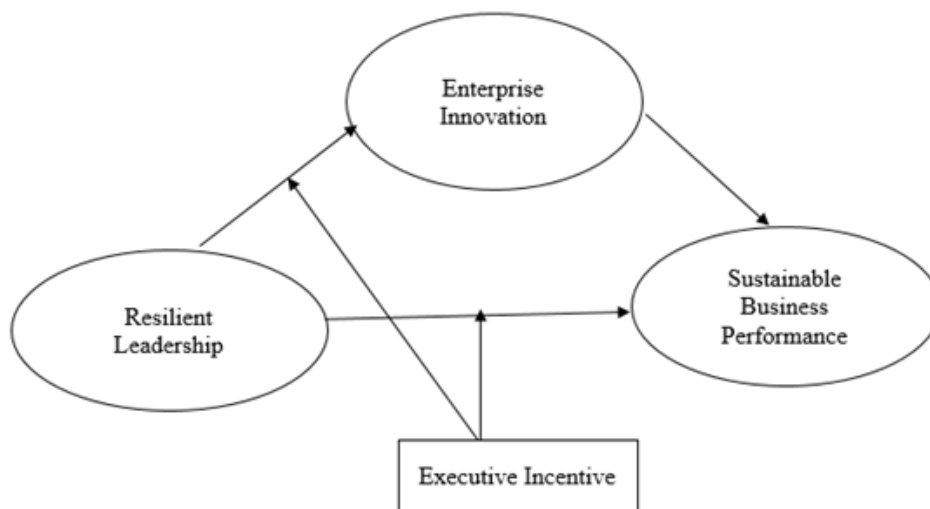


Fig. 1: Research Conceptual Framework

3. Research Methodology

3.1. Data Collection

To effectively gather data, this study developed an all-encompassing questionnaire covering every element of the study. Primary data collection is used by researchers, which implies that all data is collected by the researcher using an online questionnaire with a Likert-type scale.

3.2. Sampling

There are 26,336 manufacturing enterprises in Jiangxi province, China in 2022 (China Statistical Yearbook, 2022). From Table 2, it can be seen that these manufacturing industries can be further subdivided into 16 secondary industry categories. Stratified sampling is widely used in actual sampling surveys. Under the same sample size, it has higher accuracy, convenient management, low cost, and high effectiveness compared to pure random sampling. This article adopts a stratified sampling method. According to Table 2, the population (manufacturing enterprises) in this article can be subdivided into 16 subpopulations (layers). This article plans to select 500 enterprises from the overall population. Five senior managers for each 500 companies sampled in this study were given the

survey questionnaire for data collection purposes (Table 3). This article calculates the number of enterprises extracted from 16 layers based on Table 2.

Table 2: Population Category

Category of Manufacturing Enterprises	Number of Enterprises
Food	1318
Liquor, beverage, and refined tea	664
Tobacco	71
Furniture	711
Cultural and educational, industrial and artistic, sports and entertainment supplies	1143
Chemical fuels and chemicals	2315
Medicine	1603
Chemical fiber	271
General equipment	2562
Special equipment	2138
Automobile	2877
Railway, ship, aerospace, and other transportation equipment	879
Electrical machinery and equipment	3791
Computers, communication, and other electronic devices	5081
Instruments and Apparatuses	724
Others	188
Total	26,336

(Source: China Statistical Yearbook, 2022)

Table 3: Sample Selection

Category of Manufacturing Enterprises	Number of Enterprises	% of Total	Number of Samples
Food	1318	5.00%	25
Liquor, beverage, and refined tea	664	2.52%	13
Tobacco	71	0.27%	1
Furniture	711	2.70%	13
Cultural and educational, industrial and artistic, sports and entertainment supplies	1143	4.34%	22
Chemical fuels and chemicals	2315	8.79%	44
Medicine	1603	6.09%	30
Chemical fiber	271	1.03%	5
General equipment	2562	9.73%	49
Special equipment	2138	8.12%	41
Automobile	2877	10.92%	55
Railway, ship, aerospace, and other transportation equipment	879	3.34%	17
Electrical machinery and equipment	3791	14.39%	72
Computers, communication, and other electronic devices	5081	19.29%	96
Instruments and Apparatuses	724	2.75%	14
Others	188	0.71%	4
Total	26,336	100%	500

3.3. Instrumentation

This study will use questionnaires to collect first-hand data. The resilient leadership scale was developed based on the scales of Everly, Smith & Lobo (2013) and Everly, Strouse & Everly (2010).

The enterprise innovation scale was developed based on the scales of Pan, Lin & Xiao (2022) and Agapitova & Linn (2016). The sustainable business performance scale was developed based on the scales of Haseeb et al. (2019) and Ch'ng, Cheah & Amran (2021). The executive incentive scale was developed based on the scales of Lewellen, Loderer & Martin (1987) and Dechow & Sloan (1991). The above four scales' items are all ranged from 1 (strongly disagree) to 5 (strongly agree).

3.4.Data Analysis Techniques

Structural Equation Model

Structural equation model (SEM) is an important statistical method for quantitative research in contemporary behavioral and social fields (Yuan & Bentler, 2006). It integrates measurement and analysis, establishes structural equation models including measurement and structure based on experience or theory, and solves simultaneous equations.

Path Analysis

Path analysis is mainly used to analyze the relationship between multiple indicator variables, especially when there are indirect impacts between variables. It includes three parts: path map, path coefficient and effect decomposition. Path analysis can be used to determine the direction of influence, the size of action and the ability of interpretation. It is a very practical analysis tool and an important part of structural equation model (Hoyle, 1995).

Decomposition Effect

In path analysis, variables with causal relationship are usually standardized when calculating covariance. In this way, the obtained covariance is the correlation coefficient. In order to find out how the variables act, the correlation coefficient is generally decomposed into direct effect, indirect effect and total effect. The direct effect reflects the direct influence of the cause variable on the result variable, and its size is equal to the path coefficient from the cause variable to the result variable. The indirect effect reflects the influence of the cause variable on the result variable through one or more intermediate variables.

Hierarchical Regression Analysis

This study uses hierarchical regression analysis to test the moderating effect of variable. The dependent variable is divided into two levels. The first level is to test the influence of independent variables and moderation variables on dependent variables; The second level regression introduces the interaction term of independent variables and moderation variables (the product of independent variables and moderation variables) to test the impact of independent variables, moderation variables, and interaction terms on dependent variables.

4. Results and Discussion

4.1.Results

Reliability Test

The current study adopts the Cronbach's Alpha coefficient to test scale reliability.

Table 4 displays the resilient leadership scale contains 25 items, and its Cronbach's Alpha coefficient is 0.939, indicating the resilient leadership scale has good reliability. In the same way, it can be concluded that the three scales of enterprise innovation, sustainable business performance and executive incentive also have good reliability.

Table 4: Reliability Test Results

Scale	Number of Items	Cronbach's Alpha
Resilient Leadership	25	0.939
Enterprise Innovation	20	0.924
Sustainable Business Performance	15	0.919
Executive Incentive	7	0.909

Construct Validity Analysis

Table 5 shows that the KMO value of the Resilient Leadership Scale is 0.949, Approx. Chi-Square=7174.316, p=0.000. It can be concluded that the Resilient Leadership Scale has good structural validity. In the same way, it can be concluded that the three scales of Enterprise Innovation, Sustainable Business Performance and Executive Incentive also have good structural validity in line with the questionnaire analysis.

Table 5: KMO and Bartlett's Test

Scale	Bartlett's Test of Sphericity			
	KMO	df	Approx. Chi-Square	Sig.
Resilient Leadership	0.949	300	7174.316	0.000
Enterprise Innovation	0.927	190	5857.296	0.000
Sustainable Business Performance	0.928	105	4463.675	0.000
Executive Incentive	0.922	21	1966.91	0.000

Convergent Validity Analysis and Confirmatory Factor Analysis

In this section, confirmatory factor analysis and discriminant validity analysis are performed on the above four scales. It can be seen from Table 6 that the standardized factor loads of the observation variables of the four latent variables in this paper are all greater than 0.6, indicating that the observed items can well explain their latent variables. The combination reliability CRs are greater than 0.7, and the factor extraction AVEs are greater than 0.5, indicating that all observations in each latent variable can consistently explain the latent variable, thus, it can be concluded that the four scales of resilient leadership, enterprise innovation, sustainable business performance and executive incentive have good convergence validity.

Table 6: Confirmatory Factor Analysis Results

Latent variable	Observation variable	Symbol	Standardized factor loading	S.E.	C.R.	P	CR	AVE
Resilient Leadership	Realistic Optimism	RO	0.73	-	-	-	0.8697	0.5728
	Cognition & Flexibility	CF	0.845	0.093	11.948	***		
	Inspiration & Team Building	ITB	0.784	0.081	11.56	***		
	Innovation Capacity	IC	0.7	0.084	10.73	***		
	Customer Supplier Relationship	CSR	0.716	0.082	11.241	***		
Enterprise Innovation	Product/service Innovation	PSI	0.634	-	-	-	0.8133	0.5233
	Strategic Innovation	SI	0.798	0.136	10.21	***		
	Technological Innovation	TI	0.686	0.107	9.561	***		
	Marketing Innovation	MI	0.764	0.11	9.843			

Sustainable Business Performance	Economic Performance	ECP	0.709	-	-	-	0.8032	0.5769
	Environmental Performance	ENP	0.798	0.111	10.169	***		
	Social Performance	SOP	0.769	0.11	10.356	***		
Executive Incentive		Q66	0.827	-	-	-	0.9093	0.5893
		Q67	0.72	0.042	17.78	***		
		Q68	0.734	0.041	18.233	***		
		Q69	0.812	0.044	20.99	***		
		Q70	0.774	0.044	19.615	***		

Discriminant Validity Analysis

Table 7 shows that the AVE values of each latent variable are greater than 0.5, and the square root of AVE is greater than the absolute value of the correlation coefficient between latent variables, indicating that four scales of Resilient Leadership, Enterprise Innovation, Sustainable Business Performance and Executive Incentive have good discrimination validity.

Table 7: Discriminant Validity Analysis

	Resilient Leadership	Enterprise Innovation	Sustainable Business Performance	Executive Incentive
Resilient Leadership	0.7568			
Enterprise Innovation	0.637	0.7234		
Sustainable Business Performance	0.722	0.708	0.7595	
Executive Incentive	0.222	0.234	0.225	0.7677

Note: The bold value in the upper right corner is the square root of AVE, and other values are the correlation coefficients between dimensions

Measurement Model Fit Evaluation

Fig. 2 to Fig. 5 below show confirmatory factor analysis of model graph and the measurement model of four latent variables.

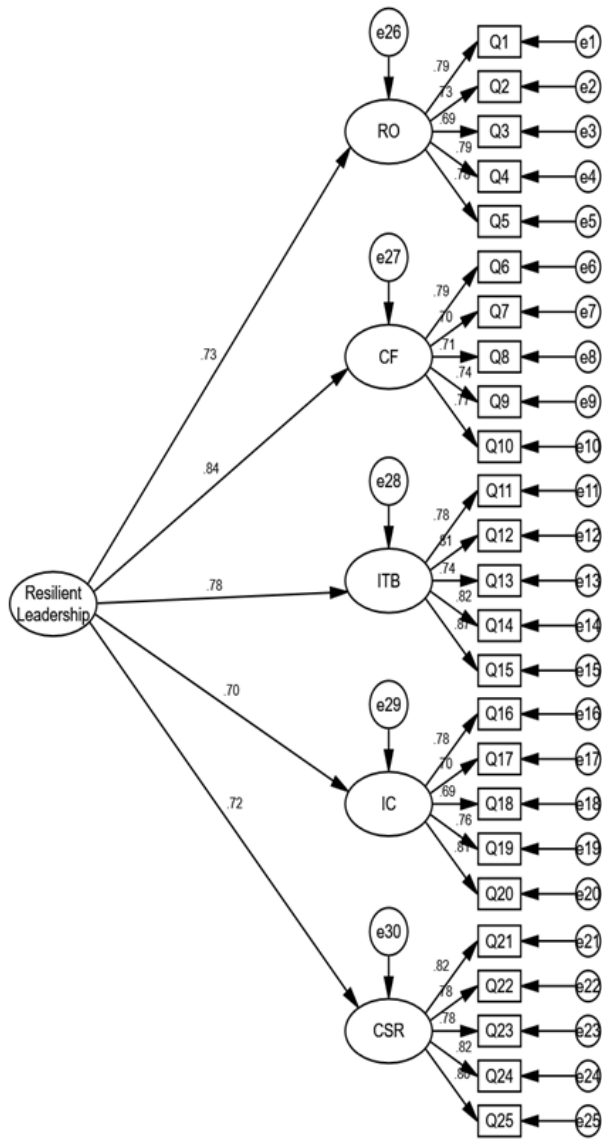


Fig. 2: CFA of Model Graph (1)

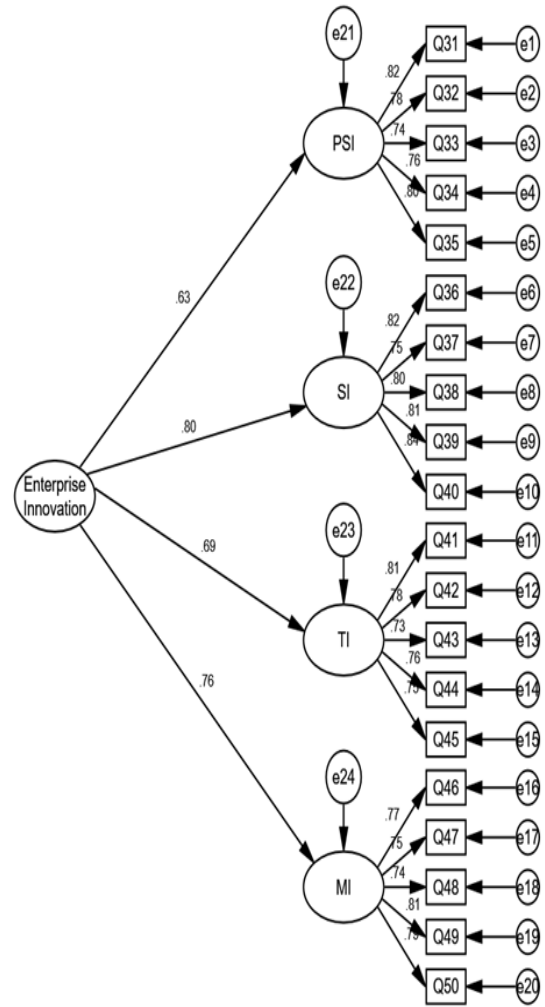


Fig. 3: CFA of Model Graph (2)

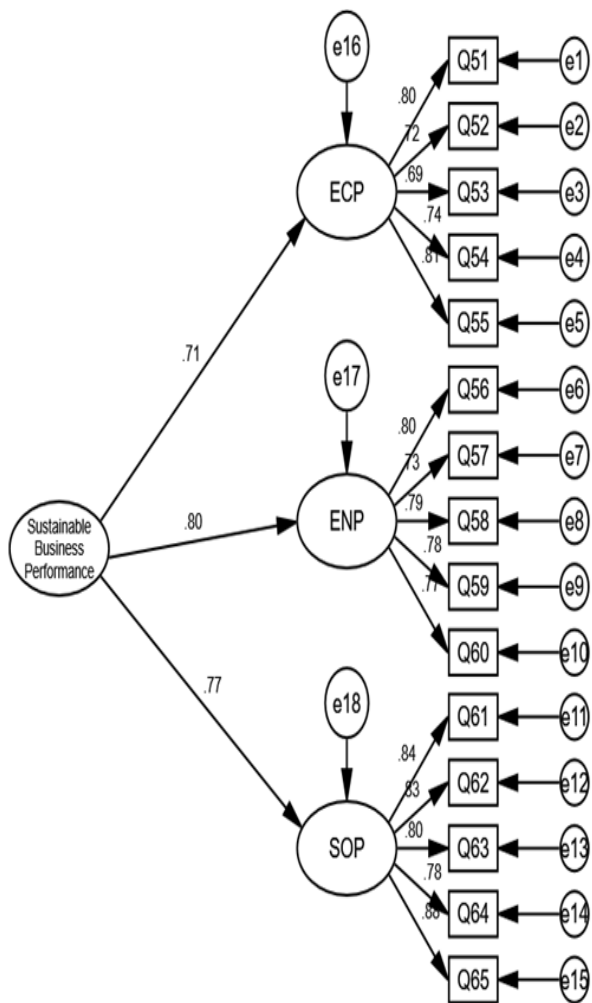


Fig. 4: CFA of Model Graph (3)

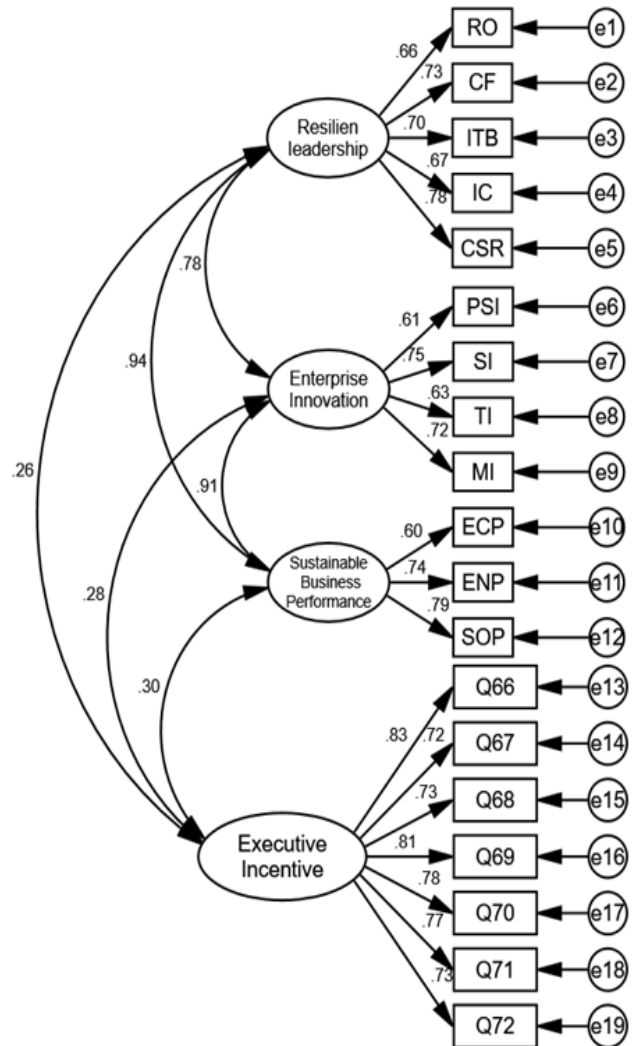


Fig. 5: CFA of Model Graph (4)

The fitness standard of the confirmatory factor analysis in this study is mainly based on the standard of Gefen (2000). The index standard is shown in Table 4.6 below. The fitness test of the model in this study is carried out according to the table. For models with large samples, the value of the chi-square degree of freedom ratio (χ^2/df) is required to be less than 5 (Kothari, 2004). The smaller the value of RMSEA is, the better the fitness of the model is. Its value is between 0.05 and 0.08, which indicates that the fitness of the model is good. If it is less than 0.05, the fitness of the model is very good. When the GFI value is greater than 0.9, it indicates that the fitness is good. AGFI is the adjusted fitness index, which increases with the increase of GFI, preferably greater than 0.9. However, Table 8 indicates that none of the above indicators have met the standards, indicating that the fitting degree of the structural equation model is average, and the model needs to be corrected. Table 9 shows the modified model fitting indicators all meet the requirements. Therefore, the path of the revised model is analyzed to verify the hypothesis proposed in this article.

Table 8: Fitting Indicators of the Confirmatory Factor Analysis of the Unrevised Model

Indicator	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Estimate	7.054	0.894	0.838	0.875	0.858	0.890	0.11
Threshold	<5	>0.9	>0.9	>0.9	>0.9	>0.9	<0.08

Interpretation	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
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Table 9: Fitting Indicators of the Confirmatory Factor Analysis of the Revised Model

Indicator	χ^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Estimate	3.964	0.939	0.902	0.934	0.930	0.949	0.077
Threshold	<5	>0.9	>0.9	>0.9	>0.9	>0.9	<0.08
Interpretation	Qualified	Qualified	Qualified	Qualified	Qualified	Qualified	Qualified

Hypothesis Testing

Table 10 shows the direct path analysis results of the structural equation model. It can be seen from Table 10 that all of the significance probability (P value) of direct effect hypothesis of H1 – H3 is 0.000. The standardized path coefficients of H1-H3 are 0.842, 0.642 and 0.351, respectively. The P values of H1, H2 and H3 are all less than 0.01. The above results indicate that resilient leadership has a significant positive impact on enterprise innovation, supporting hypotheses H1, H2, and H3.

Table 11 shows the indirect influence results between variables. It can be seen from Table 11 that the indirect effect coefficient of resilient leadership on sustainable business performance through enterprise innovation was 0.295, with 95% confidence interval of [0.102, 0.53], excluding 0, indicating that resilient leadership has a significant indirect effect on sustainable business performance, through enterprise innovation, in other words, enterprise innovation plays an mediating role in the impact of resilient leadership on sustainable business performance. Therefore, the hypothesis H4 is proved to be valid. Fig. 6 shows the structural equation model of this study.

Table 10: Direct Effect Analysis

Direct effects	Standardized Estimate	S.E.	C.R.	P	Unstandardized Estimate	Hypothesis
Enterprise Innovation ← Resilient Leadership	0.842	0.061	11.734	0.000	0.433	H1
Sustainable Business Performance ← Resilient Leadership	0.642	0.08	6.58	0.000	0.153	H2
Sustainable Business Performance ← Enterprise Innovation	0.351	0.089	3.797	0.000	0.826	H3

Table 11: The Decomposition Effect Analysis- the Indirect Effect Analysis

Indirect Effect Analysis	Standardized Estimate	Lower	Upper	P value
Sustainable Business Performance ← Enterprise Innovation ← Resilient Leadership	0.295	0.102	0.53	0.007

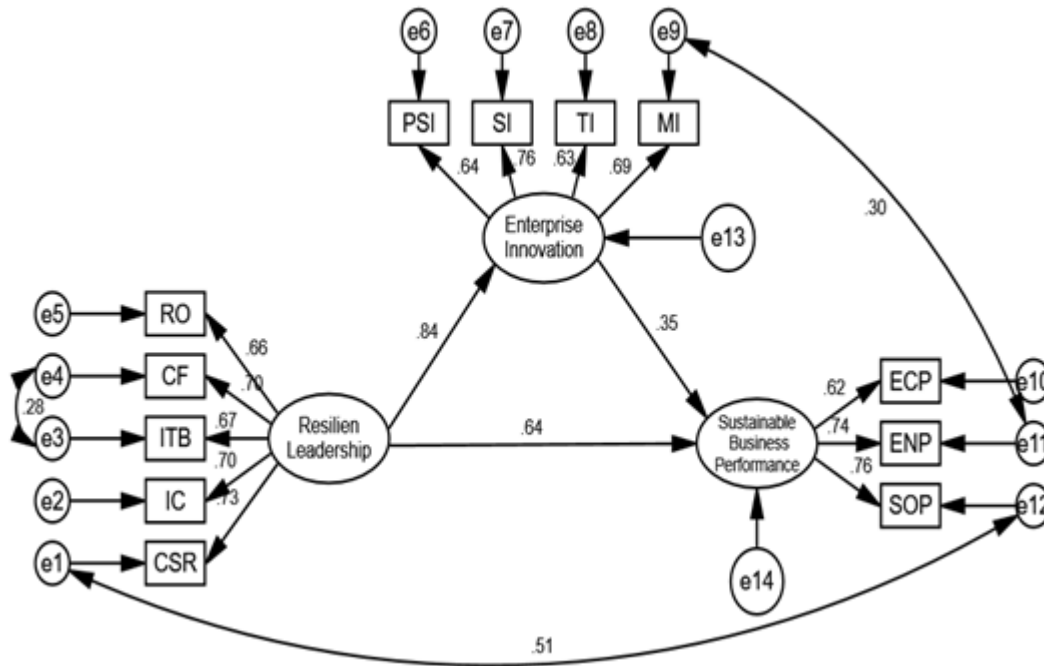


Fig. 6: Structural Equation Model

Analysis of Moderating Effect

This article uses SPSS software and hierarchical regression method to test the moderating effect of executive motivation. Before conducting the moderating effect test, it is necessary to standardize the independent variable and the moderation variable, and then establish a linear regression model to eliminate the collinearity effect. This paper first examines whether Executive initiative plays a moderating effect and the direction of the moderating effect between resilient leadership and enterprise innovation.

Table 12 shows that in model 1, the explanatory rate of the independent variable resilient leadership and the moderating variable execution initiative on the dependent variable enterprise innovation is 41.5%. After adding interaction terms to model 2, the change in R-squared is 0.018, indicating a 1.8% improvement in the model's predictive ability, and the significance probability of F change is $p=0.000$, which confirms that the moderating effect of Executive initiative is significant. According to Table 12, the unstandardized regression coefficients of the independent variable resilient leadership and the moderating variable executive incentive in model 1 are 0.412^{**} and 0.066^{**} , respectively, which are significant at the 1% level. In model 2, the unstandardized regression coefficients of the independent variable Resilient Leadership, the moderation variable Executive incentive and their interaction items are 0.430^{**} , 0.089^{**} and 0.08^{**} , which are significant at 1% level, and the regression coefficient of the interaction item is positive, suggesting that executive incentive plays a positive moderating effect in the impact of Resilient Leadership on Enterprise Innovation. Therefore, the research hypothesis H5 (Executive incentive has a moderating effect on the relationship between resilient leadership and enterprise innovation) is confirmed.

Table 12: Test of moderating effect of executive initiative in the influence of resilient leadership on enterprise innovation

Model	Variable	Unstandardized Coefficients	t	R Square Change	Sig. F Change
1	(Constant)	3.593**	156.348		
	Zscore: Resilient Leadership	0.412**	17.474		

	Zscore: Executive Incentive	0.066**	2.791	0.415	0.000
2	(Constant)	3.575**	154.902	0.018	0.000
	Zscore: Resilient Leadership	0.430**	18.160		
	Zscore: Executive Incentive	0.089**	3.712		
	Interaction Term	0.08**	3.962		

Note: Unstandardized regression coefficients are listed in the table; ** P<0.01, two-tailed test.

Dependent Variable: Enterprise Innovation

Next, this paper examines whether Executive initiative plays a moderating effect between resilient leadership and sustainable business performance and the direction of the moderating effect. Table 13 shows that in model 1, the explanatory rate of the independent variable of resilient leadership and the moderating variable of executive incentive on the dependent variable of sustainable business performance is 52.5%, based on the change in the R square. After adding the interaction term in Model 2, the change in R-squared is 0.02, indicating a 2% improvement in the predictive ability of the model. The significance probability of F change is p=0.000, confirming the importance of executive initiative of the moderating effect. According to Table 13, in model 1, the unstandardized regression coefficients for the independent variable resilient leadership and the moderating variable executive initiative are 0.522** and 0.051**, respectively, which are significant at the 1% level. In model 2, the unstandardized regression coefficients of the independent variable resilient leadership, the moderating variable executive incentive, and their interaction terms are 0.542**, 0.078**, and 0.094**, respectively, which are significant at the 1% level. The regression coefficient of the interaction term is positive, indicating that executive initiative plays a positive moderating role in the impact of resilient leadership on sustainable business performance. Therefore, the research hypothesis H6 (Executive incentives has a moderating effect on the relationship between resilient leadership and sustainable business performance) has been confirmed.

Table 13: Test of moderating effect of Executive initiative in the influence of resilient leadership on sustainable business performance

Model	Variable	Unstandardized Coefficients	t	R Square Change	Sig. F Change
1	(Constant)	3.484**	152.805	0.525	0.000
	Zscore: Resilient Leadership	0.522**	22.290		
	Zscore: Executive Incentive	0.051**	2.176		
2	(Constant)	3.463**	152.212	0.02	0.000
	Zscore: Resilient Leadership	0.542**	23.247		
	Zscore: Executive Incentive	0.078**	3.307		
	Interaction Term	0.094**	4.727		

Note: Unstandardized regression coefficients are listed in the table; ** P<0.01, two-tailed test.

Dependent Variable: Sustainable Business Performance

4.2. Discussion

The results of this study show that resilient leadership has a significant positive predictive effect on enterprise innovation, which is consistent with the research hypothesis H1. In other words, the better resilient leadership is, the more enterprise innovation happens. The research results are consistent with those of Kanter (1983) and Jung et al. (2003). They argued resilient leadership could promote enterprise innovation. According to Boal and Hooijberg (2000), flexible leaders can transfer the development strategy and objectives of the organization to their subordinates through motivation, so

that the organizational objectives can be recognized by the subordinates, and can be decomposed into the work objectives of each subordinate, so that the subordinates have the motivation and direction to learn. They can enable the organization members to start from the organizational objectives, constantly revise their own learning process and objectives, so as to have a deeper understanding and body of the organizational objectives in this process. Therefore, resilient leadership will provide good climate and guidance for employees' learning to promote organizational learning.

The results of this study indicate that resilient leadership has a significant positive predictive effect on sustainable business performance, consistent with the research hypothesis H2. In other words, the stronger the resilient leadership, the more sustainable the business performance will be. The research results are consistent with those of Marique and Stinglhamber (2011), Allen and Meyer (1996). They argued resilient leadership could promote sustainable business performance.

The results of this study indicate that enterprise innovation has a significant positive predictive effect on sustainable business performance, consistent with research hypothesis H3. In other words, the better a company innovates, the more sustainable its performance will be. The ability to innovate can increase sales revenue by adding new products, thereby leading to the growth of business profits (Huang et al., 2017). Some scholars also believe that the positive impact of innovation capability on corporate performance is mainly due to its ability to generate good investment information in the capital market. The more patents a company has, the more it can attract investors' attention and obtain timely external financial support (Lee et al., 2018).

The results of this study show that resilient leadership positively influences sustainable business performance through enterprise innovation (H4). The working methods, working styles and working methods of leaders in enterprises have a decisive effect on the organizational innovation atmosphere. Strong leadership has a significant impact on the organizational innovation atmosphere, and even determines the tone of the organizational innovation atmosphere (Ekvall, 1991). When the level of organizational innovation atmosphere is obvious, employees continue to participate deeply in product development activities, and the cohesion of both parties in the organization continues to increase. Enterprise innovation has a significant role in promoting enterprise performance.

The results of this study indicate that executive motivation plays a positive moderating role between resilient leadership and corporate innovation (H5). The results of this study indicate that executive incentive plays a positive moderating role between resilient leadership and sustainable business performance (H6). According to the principal-agent theory, resilient leadership has a fundamental impact on enterprise innovation activities and enterprise performance. The behavior of managers largely depends on whether the interests of managers and shareholders are consistent. When the interests of the two tend to be the same, managers are more inclined to pursue long-term strategic development goals with innovation and enterprise performance as the core; When the two interests diverge, managers tend to pursue short-term financial performance objectives. Therefore, granting some equity to executives while transferring some operational risks to management, linking executives' interests with corporate performance, can reduce their short-term self-interest behavior and enable them to focus on innovative activities that have certain risks but are beneficial for the long-term development of the enterprise and ultimately achieve sustainable performance improvement (Lee & O'Neill, 2003).

5. Conclusion and Implications

To study the influence of resilient leadership on sustainable business performance in manufacturing enterprises in Jiangxi Province of China and to decompose such influences, by considering enterprise innovation and executive incentive, this study adopts a quantitative research method. This paper collects first-hand data in the form of questionnaires, and carries out quantitative analysis on the effective data collected. A total of 500 samples were selected in this paper, and first-hand data were collected in the form of this questionnaire. This study developed a structural equation model. The

structural model has goodness of fit in the high degree. Through empirical analysis, all six hypotheses proposed in this article have been proven to be valid, indicating that resilient leadership has both a direct positive impact on sustainable business performance and an indirect impact through enterprise innovation. Executive incentives play a moderating role.

5.1. Implications of The Study

Theoretical Implications

This study has certain value for developing theory and guiding management practice. From the perspective of theoretical development, this paper takes 500 enterprises as a sample to make an empirical study on the relationship between enterprise leadership, enterprise innovation, executive incentive and sustainable business performance in China. Although some Chinese scholars have done some research on the theory of resilient leadership and organizational performance, there are few studies on how resilient leadership affects organizational performance from the enterprise level. The research on the impact of enterprise innovation as a mediating effect and executive incentive as a moderating effect is still in a blank. Therefore, this study, based on the western theory of resilient leadership and the situation of Chinese enterprises, proposes for the first time the influence mechanism of enterprise resilient leadership mediated by enterprise innovation and moderated by executive incentive, which further enriches the connotation of the theory of resilient leadership.

Practical Implications

Enterprise level

Benchmarking Needs and Precise Training

The senior leaders of enterprises must keep up with the times and constantly improve their leadership ability if they want to lead their employees to make new contributions to training talents, researching science, serving society and inheriting culture.

Increase Assessment and Strengthen Application

In today's complex and changeable internal and external environment, organizations should pay attention to the significance of resilient leadership style to the organization. Resilient leadership is a new style of leadership, which represents a kind of management behavior with pioneering, enterprising, forward-looking, which can penetrate into the hearts of the people and stimulate the internal motivation of employees.

Form A Learning Atmosphere and Create an Innovative Environment

The research in this paper finds that resilient leadership will affect the innovation ability of enterprises. Therefore, enterprise managers should actively create a good learning atmosphere and strive to build a learning organization, which will effectively improve the innovation ability of the enterprise. The organization should attach importance to the creation of internal innovation atmosphere.

Personal Level of Leaders

Establish Leadership Values and Maintain an Optimistic and Upward Spirit

Maintaining an optimistic and upward spirit is conducive to improving employees' enthusiasm for work, creating a relaxed and harmonious working atmosphere, reducing work pressure, and delivering more positive energy to employees.

Improve the Leadership Decision-Making Ability and Cultivate the Quality of Courage to Take Responsibility

When making decisions, leaders should be aware of the favorable and unfavorable factors in the work as early as possible, focus on the correct opinions of employees, think carefully, and rely on their own vision and insight to make unusual and fact-based decisions before others, so as to promote the smooth development of the work.

Cultivate Flexibility

Enterprise leaders need to understand and grasp the work situation from the macro perspective, analyses the objective situation from the overall perspective, use different ways of thinking to grasp

the overall situation from different angles and sides, review the situation, control the details, pay attention to the changes of events, quickly find the response strategy, be able to recognize the situation, be flexible, seize the opportunity, break through the adversity, and achieve success.

5.2.Limitations of The Study

First of all, due to the large number of questionnaires used in this study, the subjects need to take a long time to fill in, and there is no on-site supervision, so the authenticity of the data is biased; Secondly, this study selects cross-sectional data at a certain time point, but because work-family balance and leader-member exchange are dynamic processes that will migrate over time, future research can try longitudinal research; Thirdly, the measurement of each variable in this study is from the self-assessment questionnaire, and there may be common method deviation.

Acknowledgements

In the process of thesis writing, I am very grateful to my tutor, who provided me with a lot of resources and gave me careful guidance in the writing process. I also want to thank my classmates, who gave me a lot of help in technology.

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