THE EFFECT OF RESILIENT LEADERSHIP ON SUSTAINABLE BUSINESS PERFORMANCE

Shuhua NAN[1] and Kanokporn CHAIPRASIT[2]

1 Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Pathum Thani, Thailand; nan_s@mail.rmutt.ac.th
2 Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Pathum Thani, Thailand; kanokporn_c@rmutt.ac.th

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ABSTRACT
This research aims at examining the effect of resilient leadership on sustainable business performance. The samples were of 500 companies in the manufacturing industry of Jiangxi Province, China. The questionnaire was administered to collect the data, adopting stratified sampling methods. In order to explore the relationship between the two, this article constructed a structural equation model and collected first-hand data in the form of a questionnaire. Through empirical analysis, it was found that there is a positive correlation between resistive leadership and sustainable business performance.
Keywords: Resilient Leadership, Sustainable Business Performance, Structural Equation Model

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INTRODUCTION

According to Holsinger (2018), Self-reliance, independence, decisiveness, ambition, and risk-taking are all essential qualities associated with leadership. Resilience is one of the most critical characteristics of a leader in the modern world. Personal resilience is crucial, but it is also a necessary component of good leadership. Southwick et al. (2011) also argued that it's very difficult to be a successful leader in a time of rapid economic development and change. Baron, L. (2018) argue that improving leadership flexibility is critical to the long-term viability of businesses. The genuine grit of a leader is shown not by how well they perform in good times, but by how well they showcase emotional strength, fortitude, and professionalism in difficult times. It is hard to display resilience until you have experienced adversity. Cunha, Simpson, Rego, and Clegg (2020) note that the COVID-19 pandemic is both known and unknown, and countries have different ways of responding to it, highlighting the importance of resilient leadership. Zaharna (2016) pointed not much is known about organizational leadership resilience impact on sustainable business performance in Chinese-owned large and small to medium enterprises and the role of enterprise innovation in this process .Recently, transformational business models emphasize the importance of resilience in leadership and organizational performance.

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. The current study aims to explore the influence of resilient leadership on sustainable business performance of manufacturing enterprises located 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. The current study aims to explore the influence of resilient leadership on sustainable business performance of manufacturing enterprises located in Jiangxi Province, China.

LITERATURE REVIEWS

Relationship between Resilient Leadership and Sustainable Business Performance

Li, S. Q. (2019) pointed all kinds of natural disasters, terrorist attacks, epidemic diseases, economic recession, equipment failures and human errors may pose unpredictable and serious threats to sustainable business performance. Therefore, the research on "resilient leadership" has quickly become a hot topic in academic circles. Burnard and Bhamrar (2018) resilient leadership is the requirement for organizations to adapt to the rapidly changing environment. Ruiz-Martin, C., López-Paredes, A., and Wainer, G. (2018) put forward a variety of dimensions and measurement methods of resilient leadership structure, which have been applied to the empirical study of the relationship between team resilient practice and sustainable business performance. Guan, Y. M., Lu, J. J., and Shen, L. F. (2019) A good leader should not only consider the company's performance and interests, but also have a strong sense of social responsibility and organizational responsibility, not only seeking personal reputation and simply pursuing company performance, but also paying attention to the shaping of corporate values, corporate social responsibility and corporate ecology. Sheng and Che (2016) 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 the above analysis, this paper proposes the following assumption:

H1: There is a positive correlation between resilient leadership and sustainable business performance.

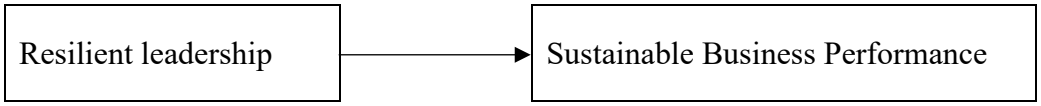

Figure 1 Conceptual Framework

RESEARCH METHODOLOGY

In response to examining the effect of resilient leadership on sustainable business performance in manufacturing industry in Jiangxi Province, China. There are 26,336 manufacturing enterprises in Jiangxi province, China in 2022 (China Statistical Yearbook, 2022). A sampling method focused on using stratified sampling techniques. The number of samples will be determined based on the results calculated from the minimum sample. The minimum sample size determined by Hair et al. (2010) is: (number of indicators + number of potential variables) x (estimated parameters), so the sample size of this study should not be less than 400. However, due to sample size appropriateness suggested by Yuan and Bentler (2000) should be over than 400 samples for data analysis via the structural equation model (SEM), Even more, Nevitt and Hancock (2001) suggested that sample size can be up to 500-1000 samples. In order to make the sample structure consistent with the overall structure and ensure the representativeness of the sample, this article adopts stratified sampling to determine the investigated objects, and finally selects 500 manufacturing enterprises as research samples for the study. The questionnaire is used to collect demographic information from the respondents based on age, gender, education, marital status, number of employees in the organization, and period of employment. The resilient leadership is the independent variable of the study consisting of five levels respectively realistic optimism, cognition and flexibility, inspiration and team building, innovation capacity, customer supplier relationship. The sustainable performance is the dependent variable of the study consisting of three levels respectively economic performance, environmental performance, and social performance. All items are measured using a five-degree Likert scale from 1 (strongly disagree) to 5 (strongly agree). One executive from each company was selected as a respondent to fill out the questionnaire. This study uses SEM to test hypotheses.

RESEARCH RESULTS

Reliability Test

Table 1 Reliability Test Results

Scale	Number of Items	Cronbach's Alpha
Resilient Leadership	25	0.939
Sustainable Business Performance	15	0.919

From table 1, it can be concluded that the resilient leadership scale contains 25 items, and its Cronbach's Alpha coefficient is 0.939, greater than 0.7, indicating that the resilient leadership scale has good reliability. In the same way, it can be concluded that the sustainable business performance scale also has good reliability.

Convergent Validity Analysis and Confirmatory Factor Analysis

It can be seen from table 2 that the standardized factor loads of the observation variables of the two latent variables in this paper are all greater than 0.6, indicating that the observed items can well explain their latent variables. The combined reliability CRs are all greater than 0.7, and the factor extraction AVEs are all greater than 0.5, which indicates that all the observation items in each latent variable can explain the latent variable consistently, indicating that the two scales of resilient leadership and sustainable business performance have good convergence validity.

Table 2 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	-	-	-		
	Cognition & Flexibility	CF	0.845	0.093	11.948	***	0.8697	0.5728
	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	***		
Sustainable Business Performance	Economic Performance	ECP	0.709	-	-	-		
	Environmental Performance	ENP	0.798	0.111	10.169	***	0.8032	0.5769
	Social Performance	SOP	0.769	0.11	10.356	***		

Discriminant Validity Analysis

It can be seen from table 3 that the AVE value of each latent variable is greater than 0.5, and the square root of AVE is greater than the absolute value of the correlation coefficient between the latent variables, indicating that two scales of resilient leadership and sustainable business performance have good discrimination validity.

Table 3 Discriminant Validity Analysis

	Resilient Leadership	Sustainable Business Performance
Resilient Leadership	0.7568	
Sustainable Business Performance	0.722	0.7595

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

Figure 2 and figure 3 below show confirmatory factor analysis of model graph and the measurement model of the two latent variables.

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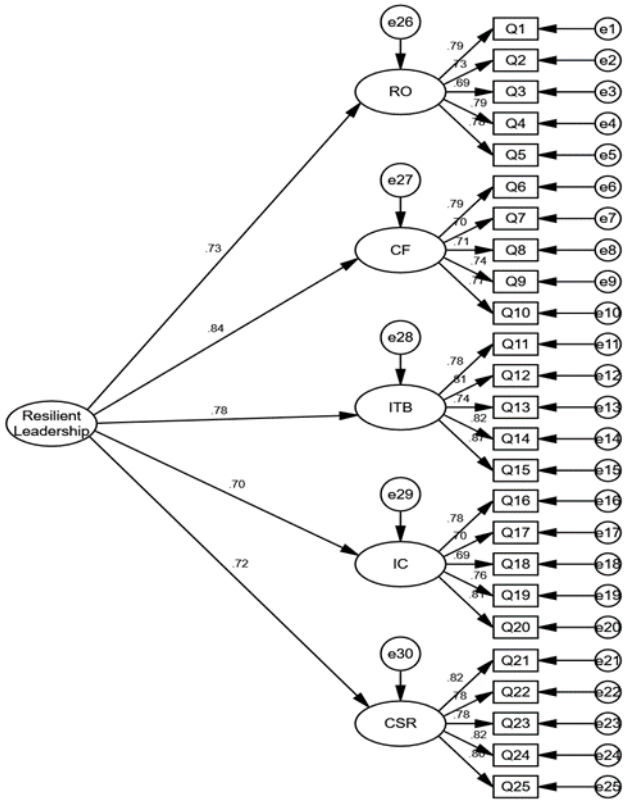

Figure 2 Confirmatory Factor Analysis of Model Graph

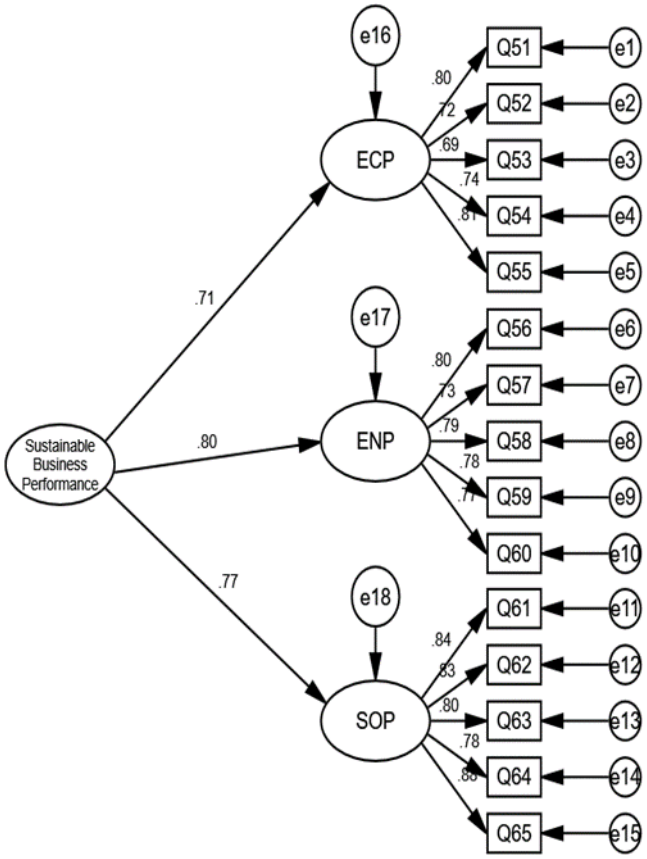

Figure 3 Confirmatory Factor Analysis of Model Graph

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 6 below. 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 4 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 revised.

Table 4 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

Table 5 shows the revised indicator values of the model. From Table 6, it can be seen that according to the standard of model fitting indicators, the fitting indicators of the revised model all meet the requirements. Therefore, the path of the revised model is analyzed to verify the hypothesis proposed in this article.

Table 5 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 6 Direct Effect Analysis and Hypothesis Testing

Direct effects	**Standardized Estimate**	**S.E.**	**C.R.**	**P**	**Unstandardized Estimate**	**Hypothesis**
Sustainable Business Performance ←Resilient Leadership	0.642	0.08	6.58	0.000	0.153	H1

It can be seen from table 6 that the significance probability (P value) of direct effect hypothesis of H1 is 0.000. The standardized path coefficients of H1 is 0.642. The P value of H1 is less than 0.01. The above results show that resilient leadership has a significant positive impact on sustainable business performance, which supports the hypothesis H1.

DISCUSSION & CONCLUSION

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. The structural model has goodness of fit in the high degree. The results of this study show that resilient leadership has a significant positive predictive effect on sustainable business performance. In other words, the better resilient leadership is, the more

sustainable business performance happens. 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. Leaders' positive psychological quality can be effectively transmitted to their subordinates, triggering the same psychological and behavioral reactions of their subordinates. Individuals with high resilience have more psychological resources (Lives, 2008), and can be more fully prepared and adopt more effective coping strategies when facing challenges, thus reducing the adverse effects of stress events. So, they can develop good adaptation in work and life, including having positive work attitude and behavior, healthy psychological state, etc. (Shin et al., 2012), and then promote team synergy to improve team members' performance and enterprise performance.

Establish leadership values and maintain optimistic and upward spirit. "The value-based leadership theory believes that the higher the degree of sharing and recognition of the values that leaders believe in and have integrated into the organizational culture, the more effective their leadership behavior will be, and the higher their organizational performance will be, especially in the crisis and uncertain environment."

Improve the leadership decision-making ability and cultivate the quality of courage to take responsibility. The enterprise leader is both a decision-maker and an executive. The level and correctness of leaders' decision-making are the main criteria to measure their leadership level. 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. 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.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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