

The Effect of Enterprise Innovation on Sustainable Business Performance

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Abstract. Innovation in the workplace may encourage companies to create new goods, penetrate new markets, and broaden their line of business. Not only can ongoing innovation help retain current clients, but it can also draw in new ones, increase market share, and enhance business performance overall and sustainably. The impact of enterprise innovation on the long-term financial success of manufacturing companies in China's Jiangxi Province is examined in this study. This study created a structural equation model to investigate the link between the two and gathered first-hand information using a questionnaire. It was discovered via empirical research that enterprise innovation and sustainable company performance are positively correlated.

Keywords: Enterprise Innovation, Sustainable Business Performance, Structural Equation Model.

1 Introduction

Innovation refers to the collection of activities that conceptualize, research, experiment, and develop new equipment, methods, processes, processes, and commercialization. What innovation needs to do is not only from creativity to invention, but also the long process of transforming invention into socially recognized product goods or services and obtaining economic benefits. Innovation in the workplace may encourage companies to create new goods, penetrate new markets, and broaden their line of business. In addition to achieving product differentiation, company innovation may enhance the technological content and quality of products and establish an enterprise's fundamental competitive advantage. Not only can ongoing innovation help retain current clients, but it can also draw in new ones, increase market share, and enhance business performance overall and sustainably.

Jiangxi is a large manufacturing province in China. Regarding Chinese-owned big and small to medium-sized businesses, little is known about how enterprise innovation affects long-term business sustainable success (Jaramillo, J.A.et al.2019)[1]. As a result, the present research has taken on a new focus: the connection between enterprise innovation and sustainable business performance in the manufacturing industry. The

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purpose of the current study is to investigate how enterprise innovation affects the longterm financial performance of manufacturing companies in China's Jiangxi Province.

2 Review of Literature

According to the theory of technological innovation, innovation is the key to leading enterprise economic growth. Guan et al (2019) believed that corporate environmental ethics and corporate green innovation behavior is beneficial for enterprises to carry out technological innovation behaviors[2]. Through innovation activities, enterprises can enhance their core competitive advantages and thus enhance their sustainable business performance. Ch'ng et al. (2021) pointed that eco-innovation practices can promote sustainable business performance[3]. The econometric analysis results show that increasing R&D spending can enable enterprises to achieve higher investment returns. According to Sharma et al. (2016), multinational corporations are more adept at using their R&D spending to boost product innovation and increase their market share than small and medium-sized businesses and retail establishments[4]. The R&D budget of a corporation was considered an independent variable by Chauvin & Hirschey (1993)[5]. The study's findings indicate a positive relationship between R&D spending and sustainable corporate performance. A research on innovation performance and sustainable business performance in Shanghai, China's high-tech firms was carried out by Zhong & Ren in 2021[6]. The findings demonstrate how investing in science and technology by businesses enhances their long-term financial performance. Wang et al. (2021) found via empirical study that there is a substantial positive correlation between the investment in R&D staff and the firm operational profit margin and total asset return[7]. Consequently, the current puts forth the following theory:

H1: There is a positive correlation between enterprise innovation and sustainable business performance.

3 Methodology

3.1 Sampling

The table 1 shows the population of the current study was manufacturing enterprises in Jiangxi province, China. There are 26,336 manufacturing enterprises in Jiangxi province, China in 2022 (China Statistical Yearbook, 2022)[8].

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 current study.

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	1143
entertainment supplies	
Chemical fuels and chemicals	2315
Medicine	1603
Chemical fiber	271
General equipment	2562
Special equipment	2138
Automobile	2877
Railway, ship, aerospace, and other transportation equip-	879
ment	
Electrical machinery and equipment	3791
Computers, communication, and other electronic devices	5081
Instruments and Apparatuses	724
Others	188
Total	26,336

Table 1. Population Category

(SouVrce: China Statistical Yearbook, 2022)

3.2 Instrumentation

The enterprise innovation scale was developed based on the scales of Pan[9], Lin & Xiao (2022) and Agapitova & Linn (2016)[10] from four dimension including product service Innovation, strategic innovation, technical innovation and marketing innovation. The scales of Haseeb et al. (2019) [11]and Ch'ng, Cheah & Amran (2021) from three dimensions—corporate economic performance, corporate environmental performance, and corporate social performance—were the foundation for the development of the sustainable business performance scale. All of the elements on the aforementioned two measures fall between 1 (strongly disagree) and 5 (strongly agree).

4 Research Results

4.1 Reliability Test

It can be concluded that the resilient leadership scale and the sustainable business performance scale both have good reliability (see Table 2).

Scale	Number of Items	Cronbach's Alpha
Enterprise Innovation	20	0.924
Sustainable Business Performance	15	0.919

Table 2. Reliability Test Results

4.2 Convergent Validity Analysis and Confirmatory Factor Analysis

Table 3 shows that the observed items in this study can adequately explain their latent variables, as evidenced by the fact that the standardized factor loads of the observation variables of the two latent variables are all more than 0.6.

The two scales of enterprise innovation and sustainable business performance have good convergence validity because all of the observation items in each latent variable can consistently explain the latent variable, as indicated by the combined reliability CRs of greater than 0.7 and the factor extraction AVEs of greater than 0.5.

Latent var- iable	Observation variable	Sym- bol	Standard- ized factor loading	S.E.	C.R.	Р	CR	AVE
Enterprise Innovation	Product/ser- vice Innova- tion	PSI	0.634	-	-	-		
	Strategic Inno- vation	SI	0.798	0.136	10.21	**		
	Technological Innovation	TI	0.686	0.107	9.561	**	0.813 3	0.523 3
	Marketing In- novation	MI	0.764	0.11	9.843			
Sustainable Business Perfor- mance	Economic Per- formance	ECP	0.709	-	-	-		
	Environmental Performance	ENP	0.798	0.111	10.16 9	**	0.803	0.576
	Social Perfor- mance	SOP	0.769	0.11	10.35 6	**	2	9

Table 3. Confirmatory Factor Analysis Results

4.3 Discriminant Validity Analysis

Table 4 shows that both the enterprise innovation and sustainable business performance scales have good discrimination validity. Each latent variable has an AVE value greater than 0.5, and the square root of AVE is greater than the absolute value of the correlation coefficient between the latent variables.

	Enterprise Innovation	Sustainable Business Performance
Enterprise Innovation	0.7234	
Sustainable Business Performance	0.7080	0.7595

Table 4. Discriminant Validity Analysis

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

4.4 Measurement Model Fit Evaluation

Fig. 1 and Fig. 2 show confirmatory factor analysis of model graph and the measurement model of the two latent variables.

This study's confirmatory factor analysis fitness criterion is mostly based on the Gefen (2000) standard[12]. The table below, number 6, displays the index standard. According to Kothari (2004), models that have a high sample size must have a chi-square degree of freedom ratio (χ^2 /df) of fewer than 5[13]. A lower RMSEA score indicates a higher level of model fitness. Its value, which falls between 0.05 and 0.08, suggests that the model has good fitness. The model's fitness is very good if it is less than 0.05. A good level of fitness is indicated when the GFI score is higher than 0.9. The adjusted fitness index, or AGFI for short, rises as the GFI does and is ideally higher than 0.9. The structural equation model's fitting degree is mediocre, and it has to be updated, since Table 5 shows that none of the aforementioned indicators have fulfilled the requirements. The updated model indicator values are displayed in Table 6. It is evident from Table V that all of the fitting indicators of the updated model satisfy the standards for model fitting indicators. Consequently, in order to support the theory put out in this article, the new model's trajectory is examined.

Indicator	$\chi^{2/} df$	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. Fitting Indicators of the Confirmatory Factor Analysis of the Unrevised Model

Table 6. Fitting Indicators of the Confirmatory Factor Analysis of the Revised Model

Indicator	$\chi^{2/} df$	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



Fig. 1. Confirmatory Factor Analysis of Model Graph (1)



Fig. 2. Confirmatory Factor Analysis of Model Graph (2)

4.5 Hypothesis Testing

Table 7 shows that the direct effect hypothesis of H1 has a significance probability (P value) of 0.000. 0.351 is the standardized path coefficient for H1. H1 has a P value of less than 0.01. The aforementioned findings support hypothesis H1 by demonstrating that corporate innovation significantly improves sustainable company success.

Direct effects	Standardized	S.E.	C.R.	Р	Unstandard-	Hypothe-
	Estimate				ized Estimate	sis
Sustainable Business Perfor-						
mance ← Enterprise Innova-	0.351	0.089	3.797	0.000	0.826	H1
tion						

Table 7. Hypothesis Testing

5 Conclusions

This study uses a quantitative research approach to examine the impact of enterprise innovation on sustainable business performance in manufacturing businesses in Jiangxi Province, China, and to break down such factors. A high degree of goodness of fit is seen in the structural model. The study's findings demonstrate that corporate innovation significantly improves the likelihood that sustained company performance will occur. In other words, the better enterprise innovation is, the more sustainable business performance happens. The research results are the same to Jia, J., & Wei, Y.O. (2019)[14] and Islam, M.[15], Hossain, A. T., & Mia, L.(2018). They argued enterprise innovation could promote sustainable business performance. As a strategic asset, independent innovation capability may show an organization's capacity to raise finance as well as the competitiveness of its goods, is the foundational force of business progress. By introducing new items, the innovative capacity can boost sales revenue, which can then result in an increase in the operational profit of the business (Jia, J., & Wei, Y.O., 2019). A company's ability to draw in investors and get timely outside funding is directly correlated with the number of patents it possesses (A. T., & Mia, L., 2018)[16]. An organization's innovation initiatives can advance its technical innovation, provide it a key competitive advantage, and support its long-term financial success.

6 Implications

Form a learning atmosphere and create an innovative environment. The organization should attach importance to the creation of internal innovation atmosphere. The innovation atmosphere is the subjective perception of employees on the level of organizational support for innovation. The organization should take measures that can promote employees' psychological perception to express its support and expectation for innovation. Knowledge is the basis of innovation, and the sum of enterprises' knowledge in technology, market and other aspects reflects the potential of enterprise innovation. Therefore, the learning system aimed at improving knowledge level, improving knowledge structure and strengthening innovation cooperation will enhance the overall innovation ability and potential of enterprises.

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