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The Impact of the Forward-Looking Strategy on the Sustainable Development of Enterprises Under the Background of Digital Economy—Based on Dynamic Regulation

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Abstract: In recent years, sustainable entrepreneurship has emerged as a dynamic field, driving innovative solutions to environmental, social, and financial issues, as evidenced by the improvement of income systems. The purpose of this study is to explore the impact of the forward-looking strategy on enterprise performance so as to ensure that enterprises can maintain the ability of sustainable development. Foresight can promote the enhancement of sustainable development. Therefore, the current research mainly determines that forward-looking strategies will ultimately affect the performance of enterprises through the impact on their own dynamic capabilities. Through the empirical investigation of 125 enterprises, the corresponding research data are obtained. The results show that the forward-looking strategy has a positive impact on enterprise performance, while enterprise dynamic capability, as an intermediary variable, has a positive impact between the forward-looking strategy and enterprise performance. This research introduces market dynamic capability as a moderating variable to explore whether forward-looking strategies can adapt to changes in the external market environment. Structural equation modeling (SEM) is used to examine the complex relationships between multiple independent and dependent variables of forward-looking strategies and dynamic capabilities, including the impact of latent variables. Under the background of digital economy, digital technology gradually infiltrates the operation of enterprises and plays a vital role in enterprise performance. Digital transformation has become a realistic need for enterprises to respond to changes in the market environment and seek development. The forward-looking strategy has brought new opportunities to solve this problem. The core of the forward-looking strategy lies in “forward thinking” and “pioneering intention”. It not only emphasizes the ability to predict and identify potential opportunity windows in uncertain environments but also pays attention to the cultivation of enterprise resilience and openness to maintaining sustainable competitive advantage. Its foresight can build dynamic capabilities and ensure the sustainable development ability of enterprises through continuous insight into market information and technology resources, such as opportunity recognition perception, knowledge absorption and transformation, resource replacement and innovation, organizational change, and reconstruction.

Keywords: forward-looking strategy; enterprise performance; dynamic capability; innovation; sustainable development



Academic Editor: Muhammad Mohiuddin

Received: 19 November 2024

Revised: 26 December 2024

Accepted: 30 December 2024

Published: 2 January 2025

Citation: Zeng, X.; Rojniruttikul, N. The Impact of the Forward-Looking Strategy on the Sustainable Development of Enterprises Under the Background of Digital Economy—Based on Dynamic Regulation. *Sustainability* **2025**, *17*, 272. <https://doi.org/10.3390/su17010272>

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1. Introduction

In the context of the digital economy, digital technology has gradually penetrated the operation of enterprises, playing a crucial role in their performance. Digital transformation

has become a practical need for enterprises to respond to changes in the market environment and seek development [1,2]. Since the 21st century, as the main body of industrial transformation and upgrading, enterprises have faced increasing uncertainty and complexity in their business environment, making it difficult to improve their performance. For instance, Chinese technology-based enterprises generally have problems such as a lack of independent innovation capability, low product supply quality, and low internal control efficiency [3]. In addition, the frequent occurrence of ‘black swan’ events such as COVID-19 has a huge impact on the external market environment of enterprises, which makes the market performance of enterprises lack vitality [4,5].

As one of the important practices in responding to changes in the business environment, digital transformation is an important engine for stimulating China’s economic vitality and improving enterprise market performance. Therefore, it is necessary to seize the opportunity of the digital economy era and correctly grasp the relationship between the strategic intention of digital transformation and enterprise performance. At the same time, the rapid development of digital technology is also accelerating the transformation of enterprise organizational models, business models, and human resource management models, leading to the disappearance of the previously accumulated competitive advantages with rapid and frequent market changes [6]. In this context, the rapid and agile response ability to external markets has become an extremely necessary foundation for enterprises to adapt to the digital economy era [7].

Previous studies [8] have shown that the innovation breakthroughs and performance growth of enterprises in the dynamic market environment depend on whether the enterprise strategy can lead the enterprise to quickly respond to changes in the environment. Traditional strategic models that follow the rules are no longer able to cope with the unpredictable business ecosystem. The forward-looking strategy has brought new opportunities to solve this problem. The core of forward-looking strategy lies in ‘forward-thinking’ and ‘pioneering intention’, which not only emphasizes the ability to predict and identify potential opportunity windows in uncertain environments but also focuses on cultivating enterprise resilience and expansion to maintain a sustained competitive advantage. Dynamic capability refers to the ability of enterprises to adapt to environmental changes, integrate resources, and reconfigure internal processes and structures to meet market challenges. For enterprises, these capabilities are particularly important because they usually face challenges such as limited resources and fierce market competition [9]. Enterprises need the ability to reflect on the utility of existing resources; they must be able to perceive and seize opportunities outside the company; they also need to be able to reorganize old resources and integrate new resources in an effective way [10,11].

Helfat has previously proposed that dynamic capability is “the ability of an organization to purposefully create, expand and adjust its resource base”. The resource base of an organization includes physical goods, human resources, and organizational assets [12]. After the outbreak of COVID-19, the market economy has been in a downward trend. Enterprises should not only adjust their structure according to their dynamic capabilities but also adapt to changes in the external environment. Facts have proved that companies that can learn and adapt have amazing flexibility [13,14]. Such foresight can build dynamic capabilities through continuous insight into market information and technological resources, including opportunity recognition perception, knowledge absorption and transformation, resource reset innovation, and organizational transformation and reconstruction. Thus, the forward-looking strategy is the basic element of sustainable development. This, in turn, has stimulated a broadening of the scope of the search for radical new ideas. In addition, some methods emphasize the forward-looking nature of society, which is a participatory process between members of one or more organizations. In this sense, the forward-looking

perspective has been integrated into the concept of sustainable development of the company although the future orientation is not necessarily formulated in a structured or conscious way [15–17].

Based on this, this article is based on the forward-looking strategy theory, dynamic theory, and performance theory, aiming to study the impact of forward-looking strategic factors on corporate performance in Chinese technology enterprises. It attempts to study the mechanism ‘black box’ between the forward-looking strategy and corporate performance from both internal and external perspectives. This article uses 125 technology-based enterprises as research samples to construct a regression analysis model of the forward-looking strategy on enterprise performance and conduct empirical testing.

2. Theoretical Framework and Hypothesis Development

In the context of the digital economy, a forward-looking strategy enhances an organization’s ability to learn and innovate emerging technologies, allowing enterprises to keenly capture market trends and swiftly adapt to the demands of digital transformation. This strategy not only facilitates the optimization of internal processes and the innovation of products and services but also bolsters the effective utilization and protection of data resources. Consequently, it enhances operational efficiency, customer satisfaction, and market competitiveness, laying a solid foundation for sustainable development and significantly boosting long-term performance.

A forward-looking strategy outlines the long-term development path for enterprises by bolstering organizational learning and innovation capabilities, ensuring that enterprises can consistently adapt to and spearhead market shifts. The dynamic capabilities of enterprises manifest in their flexibility and organizational restructuring abilities, allowing them to swiftly react to market and environmental changes and adapt their structures and strategies accordingly. These two elements complement each other. The forward-looking strategy offers direction and momentum for dynamic capabilities, while dynamic capabilities guarantee the effective execution and flexible adaptation of the forward-looking strategy. The seamless integration of the forward-looking strategy and dynamic capabilities empowers enterprises to retain a competitive edge in a rapidly evolving market, continuously optimize resource allocation, enhance operational efficiency, and significantly boost enterprise performance.

According to the dynamic capability theory, dynamic capability is the fundamental guarantee for enterprises to form sustainable competitive advantage [18]. Dynamic capabilities affect exploratory and exploitative innovation and can, in turn, affect business performance. Exploratory innovation involves the development of new products and the exploration of new markets, which has been found to have a significant positive impact on enterprise performance [19–21].

Based on the forward-looking strategy theory, dynamic theory, and performance theory, this study, from the perspective of enterprise resources and capabilities, focuses on whether the implementation of the forward-looking strategy can bring performance to enterprises and establishes a research model of the forward-looking strategy impact on enterprise performance based on the intermediary role of enterprise dynamics and the regulatory role of market dynamics. On this basis, the paper introduces factors such as organizational learning ability, alertness, digital innovation ability, organizational flexibility, organizational cognition, and reconstruction ability to explore the impact of the relationship between the forward-looking strategy and dynamic ability on enterprise performance.

The main purpose of organizational-level research is to explore the impact of the forward-looking strategy on enterprise performance. In previous studies at the organizational level, strategy performance was a widely adopted research paradigm. In the

study of specific mechanisms of action, ‘strategy structure performance’, ‘strategy behavior performance’, ‘strategy culture performance’, and other paths have also been proposed by scholars [22–24]. In the process of studying the impact of the forward-looking strategy on enterprise performance, this paper adopts the path of ‘strategy dynamic capability performance’ by investigating the research paradigm.

First of all, the purpose of the forward-looking strategy is to develop new products or expand new markets, which requires enterprises to constantly make breakthroughs in their own dynamic capabilities. The forward-looking layout of strategic emerging industries and future industries is a strategic focus to accelerate the formation of new quality productivity, laying the foundation for developing new driving forces, cultivating new growth poles, and breaking free from the “low-end lock-in” and “high-end constraints” of the global value chain [25]. Therefore, enterprises adopting a forward-looking strategy will invest more resources in their own dynamic capabilities. Secondly, forward-looking analysis helps evaluate a company’s positioning in resisting external macroeconomic shocks [26]. Using the dynamic theory perspective to study the impact on enterprise performance helps better understand the changes in other aspects of the enterprise in the process of implementing the strategy, such as changes in organizational structure, organizational flexibility, etc. Although dynamic capability is not the latest theoretical perspective, it is the most appropriate theoretical perspective for the forward-looking strategy. This paper will use this perspective to study the impact of the forward-looking strategy on enterprise performance.

Based on the above research path, the research hypothesis is put forward.

H1: *Forward-looking strategies have a positive impact on the organization’s performance.*

H2a: *Organizational learning ability has a positive impact on organizational flexibility.*

H2b: *Organizational learning ability has a positive impact on organizational cognitive ability.*

H3a: *Digital innovation capability has a positive impact on organizational flexibility.*

H3b: *Digital innovation ability has a positive impact on organizational cognitive ability.*

H4a: *Organizational flexibility has a positive impact on organizational performance.*

H4b: *Organizational cognitive ability has a positive impact on organizational performance.*

H5: *Market dynamic capability has a positive effect on regulating enterprise performance and dynamic capability.*

3. Research Methodology and Data Collection

This study uses non-probability sampling method to select 125 technology-based enterprises as the main business direction in Guizhou Province as the survey sample. Guizhou Province is located in Southwest China. Since the 1990s, the economic construction of Guizhou Province has developed rapidly. So far, Guizhou’s information technology has been at the forefront of China. The growth rate of Guizhou’s digital economy has ranked the first in China for seven consecutive years, and the added value accounted for about 37% of GDP. The revenue growth rate of software service industry has continuously maintained the first in the country, and the total amount of digital economy has increased by five times since 2019. Based on this, this study selected the technology-based enterprises in Guizhou province as the research sample, proposed the regulatory role of

dynamic ability, and explored the relationship between the forward-looking strategy and enterprise performance.

The research was designed as a quantitative study and data were collected through a questionnaire survey. Rummel (1970) [27] believed that the ratio of sample size to measurement terms should be at least 4:1 when conducting exploratory factor analysis. Hoelter (1983) [28] proposed that the minimum sample size should be 200 when conducting confirmatory factor analysis. Based on the views of these scholars and the needs of this study, this study selected 125 enterprises, and each enterprise was issued 4 questionnaires, totaling 500 questionnaires. The questionnaire survey was scheduled for June 2024 and lasted for one month. The survey was carried out in Guizhou Province, China. In order to obtain comprehensive and accurate information as much as possible, the survey distributed four questionnaires to each enterprise, which were filled in by the top management, middle management, and grassroots management of the enterprise. Finally, a total of 445 questionnaires were collected, with a collection rate of 89%. After deleting invalid questionnaires, 420 valid questionnaires were finally obtained for research and analysis, with an effective questionnaire rate of 84%. Through systematic literature reviews, studies have emphasized the importance for enterprises to possess dynamic capabilities and forward-looking strategies when confronting resource constraints and market competition challenges. Moreover, they underscored that in the digital economy and the post-COVID-19 market environment, enterprises must enhance flexibility by reassessing resource utility, recognizing and capitalizing on external opportunities, and effectively reorganizing and integrating both new and existing resources. Although the integration of forward-looking strategies with enterprises' sustainable development philosophies may not necessarily be formulated in a structured or deliberate manner, it is crucial for fostering a sustainable competitive advantage. Dynamic capabilities, serving as the fundamental pillar, influence enterprises' exploratory and exploitative innovations, subsequently impacting their performance. Research at the organizational level centers on the influence of forward-looking strategies on enterprise performance, suggesting various pathways between strategies and performance, and underscoring the pivotal role of forward-looking strategies and dynamic capabilities in bolstering enterprise competitiveness and performance. This paper summarizes and deduces the research literature in the fields of the forward-looking strategy, dynamic capability, and market dynamic capability. The research is based on the questionnaire design, research hypothesis, theoretical model construction, research conclusion, and discussion.

In the process of exploring the impact of forward-looking strategies on corporate performance, this article examines the impact of forward-looking strategies from two aspects: enterprise dynamics and market dynamics. The reason for conducting research from two levels is that the research at the organizational level of the enterprise itself is in line with traditional corporate strategies and can directly reflect the ways and results of forward-looking strategies on enterprise performance. Secondly, the impact of market dynamics on corporate performance can better reflect the significance and connotation of forward-looking strategies. Finally, a research paradigm with multiple perspectives, methods, and data sample sources is adopted to enhance the robustness of research conclusions.

3.1. Scale Measurements

Based on theoretical research, this article divides forward-looking strategies into two dimensions: learning ability and digital innovation; it divides the dynamic capabilities of enterprises into two dimensions: organizational flexibility and cognition. Finally, market dynamic capability is introduced as an external regulatory factor.

3.1.1. Forward-Looking Strategies

Likert five scales were used for measurement. This structure measures the set of tools, technologies, and systems that organizations use to create, capture, store, and the scale has two sub dimensions: organizational learning ability and organizational digital innovation ability.

3.1.2. Enterprise Dynamics

In order to measure the internal dynamic capability of enterprises, the Likert five-point scale is also used. It measures flexibility and cognitive ability within the enterprise.

3.1.3. Market Dynamics

In order to explore the ability of enterprises to quickly adapt to market changes, capture opportunities, and effectively integrate internal and external resources to meet competitive challenges, the items of Likert five-point scale were also designed.

4. Analysis and Results

In this study, 500 questionnaires were distributed to 125 enterprises, and 445 questionnaires were recovered, with a recovery rate of 89%. After deleting the invalid questionnaires according to the above screening principles, 420 valid questionnaires were finally obtained for research and analysis, with an effective questionnaire rate of 84%.

It can be seen from Table 1 that Pearson correlation analysis was used to study the correlation among 13 items, including information collection, information integration, alertness, redundant resources, dual innovation, reorganization ability, resource flexibility, technology flexibility, internal cognition, external cognition, financial performance, sustainable development, market dynamics, etc. Generally, the correlation is considered significant when the *p*-value is less than 0.05. After correlation analysis, regression analysis was carried out to explore the causal relationship.

Table 1. Results of variable correlation analysis. (“*” stands for significance, “**” stands for very significance).

	1	2	3	4	5	6	7	8	9	10	11	12	13
LC	1												
LI	0.471 **	1											
LA	0.457 **	0.471 **	1										
DS	0.161 **	0.125 *	0.143 **	1									
DA	0.230 **	0.176 **	0.160 **	0.572 **	1								
OR	0.087	0.061	0.073	0.247 **	0.200 **	1							
OT	0.120 *	0.085	0.024	0.136 **	0.099 *	0.451 **	1						
OX	0.101 *	0.057	0.006	0.226 **	0.144 **	0.495 **	0.392 **	1					
OI	0.200 **	0.191 **	0.190 **	0.363 **	0.257 **	0.265 **	0.171 **	0.135 **	1				
OE	0.155 **	0.136 **	0.178 **	0.224 **	0.141 **	0.134 **	0.073	0.080	0.546 **	1			
MD	0.239 **	0.190 **	0.226 **	0.459 **	0.333 **	0.293 **	0.227 **	0.254 **	0.419 **	0.348 **	1		
PF	0.184 **	0.183 **	0.207 **	0.422 **	0.359 **	0.321 **	0.230 **	0.279 **	0.349 **	0.270 **	0.509 **	1	
PE	0.200 **	0.141 **	0.198 **	0.385 **	0.362 **	0.249 **	0.144 **	0.238 **	0.296 **	0.268 **	0.515 **	0.487 **	1

It can be seen from Table 2 that the square root value of the AVE of each latent variable is greater than the correlation coefficient between this latent variable and other latent variables, indicating that the scale has good differential validity.

Structural equation modeling (SEM) is a multivariate statistical analysis technique that combines factor analysis and path analysis, allowing researchers to simultaneously handle complex relationships between multiple variables, including relationships between latent and observed variables, as well as causal relationships between latent variables. SEM describes these relationships by constructing a set of linear equations and evaluates the fit of the model to validate or modify theoretical hypotheses. During the research process, the Amos28 system was utilized to construct a structural equation model for relevant variables. Data aggregation and common method bias were employed to validate the correlations

among various variables. As shown in Figure 1, the structural equation model was used to test the relationship model between the forward-looking strategy, dynamic capabilities, and corporate performance, and to examine the moderating effect of market dynamics on the relationship between dynamic capabilities and corporate performance. Table 3 shows the fitting indicators of the model, and some indicators can be appropriately selected for evaluation. The model CMIN is 49.653, DF is 45, and CMIN/DF is $1.103 < 3$, which is ideal. RMSEA is $0.016 < 0.08$, and the indicators of GFI, CFI, NFI and IFI are greater than 0.9. To sum up, all indicators meet the standard, indicating that the fitting degree of the model is good.

Table 2. Pearson correlation and the AVE square root value.

	LC	LI	LA	DS	DA	OR	OT	OX	OI	OE	MD	PF	PE
LC	0.841												
LI	0.517	0.797											
LA	0.500	0.536	0.829										
DS	0.180	0.147	0.159	0.776									
DA	0.263	0.194	0.178	0.658	0.774								
OR	0.091	0.058	0.074	0.288	0.219	0.812							
OT	0.110	0.060	0.009	0.262	0.162	0.558	0.838						
OX	0.129	0.093	0.020	0.167	0.117	0.541	0.471	0.761					
OI	0.218	0.210	0.213	0.427	0.302	0.295	0.160	0.207	0.809				
OE	0.174	0.149	0.187	0.256	0.157	0.149	0.093	0.088	0.616	0.865			
MD	0.225	0.161	0.227	0.450	0.427	0.278	0.274	0.179	0.342	0.304	0.747		
PF	0.271	0.223	0.259	0.543	0.381	0.340	0.297	0.277	0.493	0.403	0.603	0.808	
PE	0.208	0.216	0.243	0.494	0.411	0.370	0.320	0.278	0.406	0.307	0.564	0.592	0.824

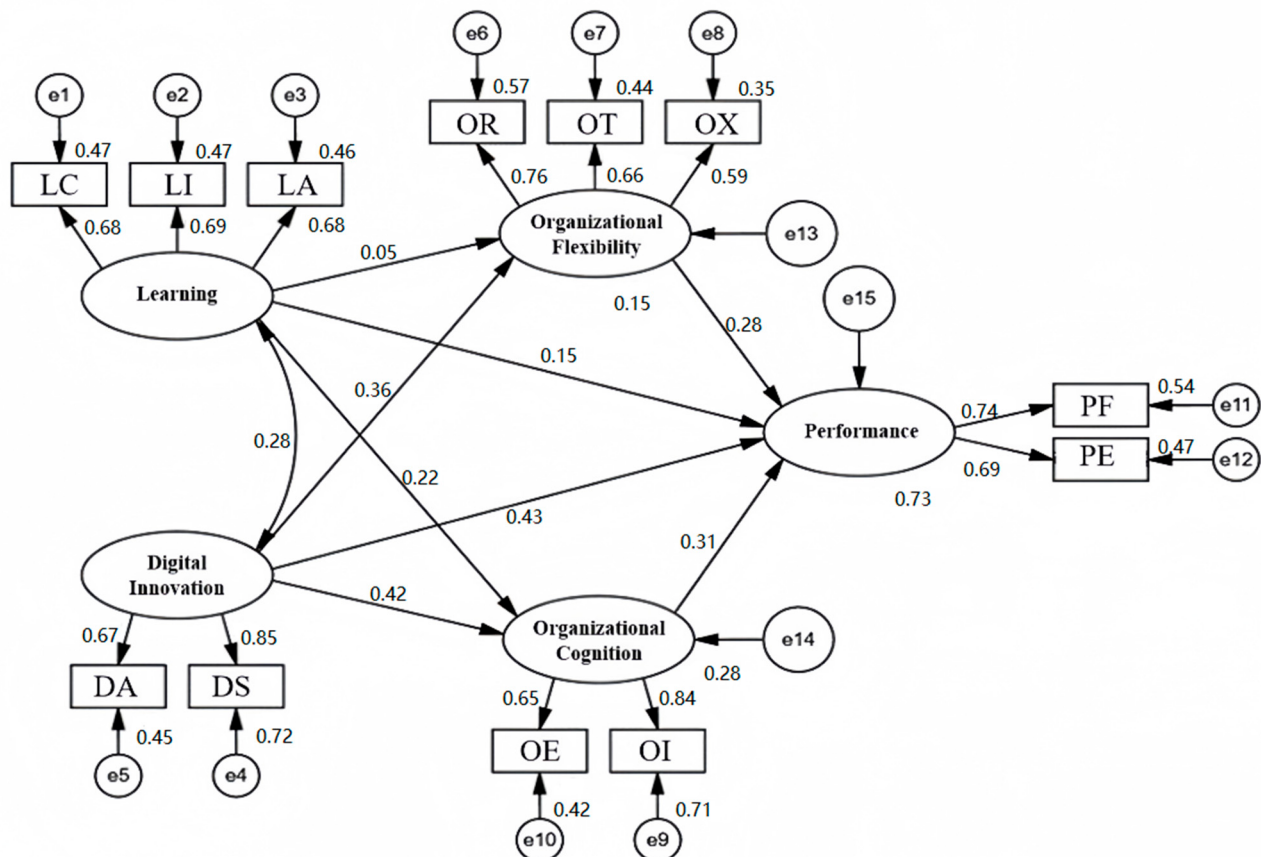


Figure 1. Structural equation model.

Table 3. Model fitting indicators.

Value	CMIN	DF	CMIN/DF	GFI	RMSEA	CFI	NFI	IFI
Predicted	-	-	<3	>0.9	<0.08	>0.9	>0.9	>0.9
Qualify	-	-	<5	>0.8	<0.10	>0.8	>0.8	>0.8
Actual	49.653	45	1.103	0.981	0.016	0.996	0.963	0.996

According to the regulatory effect test method, multiple hierarchical regression is mainly used to test and establish three multiple regression models (see Table 4). The first model introduces control variables and independent variables, mainly because the role of regulatory variables is more sensitive. To prevent the occurrence of pseudo regression, it needs to control independent variables, regulatory variables, and interactive items. The second model introduces control variables, independent variables, and regulatory variables. The model mainly judges the influence of independent variables and regulatory variables on dependent variables and determines the explanatory ability of the model, that is, to judge the size of the model R^2 . The third model introduces control variables, independent variables, regulatory variables, and interactive items. If the regression coefficient of interactive items is significant and R^2 is significantly increased, then the regulatory variables have a significant regulatory effect.

Table 4. Summary of model coefficients. “****” stands for $p < 0.001$.

Independent	Dependent	Coef.	Std.E	S.E.	z (C.R.)	p
Learning	Flexibility	0.046	0.053	0.059	0.771	0.441
Learning	Cognition	0.179	0.223	0.053	3.36	***
Digital innovation	Flexibility	0.391	0.363	0.079	4.971	***
Digital innovation	Cognition	0.423	0.418	0.07	6.036	***
Flexibility	Performance	0.168	0.284	0.038	4.408	***
Cognition	Performance	0.195	0.311	0.048	4.104	***
Learning	Performance	0.076	0.152	0.031	2.477	0.013
Digital innovation	Performance	0.275	0.434	0.052	5.312	***

Table 5 shows taking organizational flexibility as the independent variable, enterprise performance as the dependent variable, and the market dynamic ability as the regulatory variable, and the regulatory effect is tested. It can be seen from Table 5 that the regulatory effect is divided into three models. Model 1 includes independent variables (organizational flexibility), as well as five control variables: age, position, years of establishment, staff size, and enterprise industry. Model 2 adds adjustment variables (market dynamic capacity) on the basis of Model 1. Model 3 adds an interaction term (the product of independent variables and regulatory variables) to Model 2.

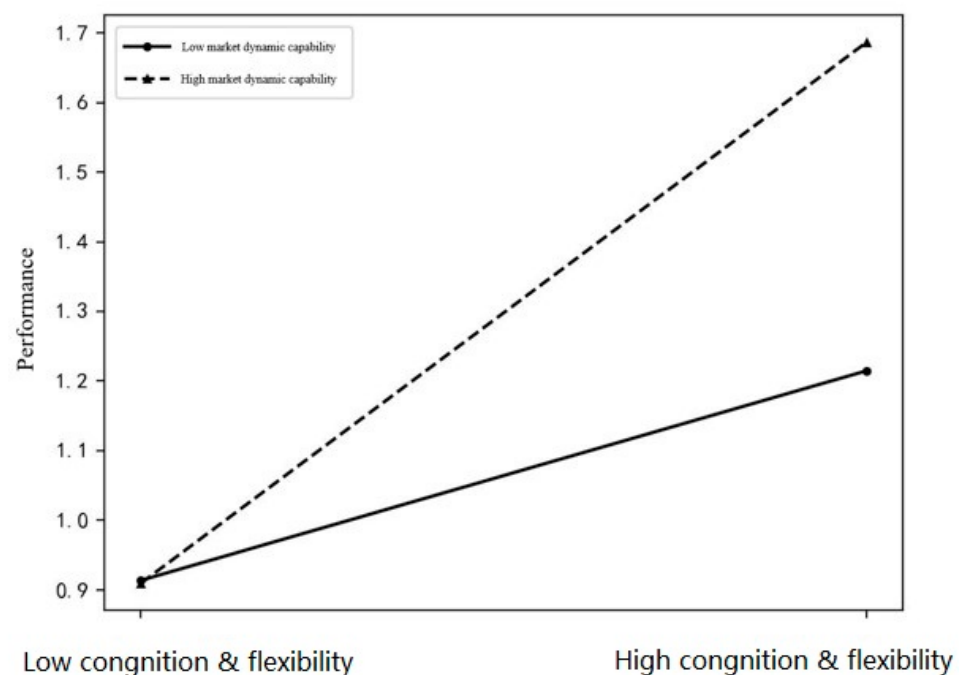
For Model 1, the purpose is to study the influence of the independent variable (organizational flexibility) on the dependent variable (enterprise performance) without considering the interference of the regulatory variable (market dynamic ability). It can be seen from Table 5 that the independent variable (organizational flexibility) shows a significant effect ($t = 8.767$, $p = 0.000 < 0.05$), which means that organizational flexibility will have a significant impact on enterprise performance. The moderation effect means that there is a moderation effect by looking at the significance of the interaction item in Model 3. The results of the regulatory effect analysis show that based on the interactive item organizational flexibility $\times$ market dynamic ability, the significance p -value is 0.000, and the interactive item in Model 3 is significant, which means that the regulatory variable market dynamic ability will significantly interfere with the impact of organizational flexibility on enterprise performance.

Table 5. Adjustment effect analysis of organizational flexibility.

Dependent	Independent: Performance		
	Model 1	Model 2	Model 3
(constant)	1.525 ** (8.708)	0.774 ** (4.735)	1.064 ** (7.112)
Age	−0.076 ** (−3.257)	−0.033 (−1.594)	−0.022 (−1.182)
Position	0.051 (1.425)	0.055 (1.789)	0.053 (1.932)
Year of establishment	−0.000 (−0.005)	0.007 (0.286)	−0.023 (−0.991)
Number of employees	−0.032 (−1.083)	−0.016 (−0.619)	0.010 (0.433)
Enterprises engaged in industries	0.027 * (2.021)	0.009 (0.753)	0.008 (0.781)
Flexibility	0.258 ** (8.767)	0.174 ** (6.608)	0.151 ** (6.346)
Market dynamics		0.373 ** (12.003)	0.234 ** (7.513)
Flexibility and market dynamics			0.238 ** (9.995)
R ²	0.195	0.404	0.520
Adjusted R ²	0.184	0.394	0.511
F	F = 16.711 <i>p</i> = 0.000	F = 39.866 <i>p</i> = 0.000	F = 55.743 <i>p</i> = 0.000

* *p* < 0.05, ** *p* < 0.01, The value of *t* is enclosed in parentheses.

Figure 2 is the slope chart of organizational flexibility, showing the difference in the impact of organizational flexibility on enterprise performance at different levels of a market dynamic capacity of the regulatory variable.

**Figure 2.** Slope chart of organizational cognition & flexibility.

Taking organizational cognition as the independent variable, enterprise performance as the dependent variable, and market dynamic ability as the moderating variable, the moderating effect is tested. It can be seen from Table 6 that the regulatory effect is divided into three models. Model 1 includes independent variables (organizational cognition), as well as five control variables: age, position, years of establishment, staff size, and enterprise industry. Model 2 adds adjustment variables (market dynamic capacity) on the basis of Model 1. Model 3 adds an interaction term (the product of independent variables and regulatory variables) to Model 2.

Table 6. Analysis of organizational cognitive regulation effect.

Dependent	Independent: Performance		
	Model 1	Model 2	Model 3
(constant)	1.596 ** (9.620)	0.865 ** (5.466)	1.090 ** (7.197)
Age	−0.057 * (−2.478)	−0.022 (−1.067)	−0.022 (−1.141)
Position	0.000 (0.009)	0.021 (0.677)	0.025 (0.891)
Year of establishment	−0.028 (−0.984)	−0.012 (−0.486)	−0.025 (−1.049)
Number of employees	−0.034 (−1.173)	−0.018 (−0.703)	−0.007 (−0.278)
Enterprises engaged in industries	0.022 (1.671)	0.006 (0.532)	0.007 (0.670)
Flexibility	0.313 ** (9.924)	0.210 ** (7.240)	0.162 ** (5.809)
Market dynamics		0.357 ** (11.436)	0.278 ** (8.965)
Flexibility and market dynamics			0.175 ** (7.533)
R ²	0.229	0.415	0.486
Adjusted R ²	0.218	0.405	0.476
F	F = 20.488 <i>p</i> = 0.000	F = 41.764 <i>p</i> = 0.000	F = 48.582 <i>p</i> = 0.000

* *p* < 0.05, ** *p* < 0.01, The value of *t* is enclosed in parentheses.

For Model 1, the purpose is to study the influence of the independent variable (organizational cognition) on the dependent variable (enterprise performance) without considering the interference of the regulatory variable (market dynamic ability). It can be seen from the above table that the independent variable (organizational cognition) presents a significant effect ($t = 9.924$, $p = 0.000 < 0.05$), which means that organizational cognition will have a significant impact on enterprise performance. Moderating effect by looking at the significance of the interaction item in Model 3, the results of the moderating effect analysis table show that based on the organizational cognition and market dynamic ability of the interaction item, the significance *p*-value is 0.000, and the interaction item in Model 3 is significant. It means that the ability to adjust variable market dynamics will significantly interfere with the impact of organizational cognition on enterprise performance.

Figure 2 is the slope chart of organizational cognition, showing the difference in the impact of organizational cognition on enterprise performance at different levels of market dynamic ability of regulatory variables.

Therefore, based on the above empirical analysis, the hypothesis is determined: Table 7 shows the results of all hypothesis tests.

Table 7. A summary table of hypotheses.

	Content	Result
H1	Forward-looking strategies have a positive impact on the organization's performance.	Positive (direct influence) ($t = 0.771$, $p = 0.441 > 0.05$)
H2a	The organizational learning ability has a positive impact on organizational flexibility.	Negative (direct influence) ($t = 3.36$, $p = 0.0 < 0.05$)
H2b	The organizational learning ability has a positive impact on the organizational cognitive ability.	Positive (direct influence) ($t = 3.36$, $p = 0.0 < 0.05$)
H3a	The digital innovation capability has a positive impact on organizational flexibility.	Positive (direct influence) ($t = 4.971$, $p = 0.0 < 0.05$)
H3b	The digital innovation ability has a positive impact on the organizational cognitive ability.	Positive (direct influence) ($t = 6.036$, $p = 0.0 < 0.05$)
H4a	Organizational flexibility has a positive impact on the organization's performance.	Positive (direct influence) ($t = 4.408$, $p = 0.0 < 0.05$)
H4b	The organizational cognitive ability has a positive impact on the organization's performance.	Positive (direct influence) ($t = 4.104$, $p = 0.0 < 0.05$)
H5	The market dynamic capability has a positive effect on regulating enterprise performance and dynamic capabilities.	Positive(regulated) ($p = 0.0 < 0.05$)

H1 proposes that the forward-looking strategy has a positive impact on performance; the standardized path coefficient from the organizational learning ability to enterprise performance is 0.152 ($t = 2.477$, $p = 0.013 < 0.05$), indicating that the organizational learning ability has a significant positive impact on enterprise performance, that is, the higher the organizational learning ability, the higher the enterprise performance. The standardized path coefficient from digital innovation to enterprise performance is 0.434 ($t = 5.312$, $p = 0.0 < 0.05$), indicating that digital innovation has a significant positive impact on enterprise performance, that is, the higher the digital innovation, the higher the enterprise performance. Because both organizational learning ability and digital innovation are forward-looking strategic factors, it is inferred that the forward-looking strategy has a significant positive impact on performance. H1 is supported.

H2a proposes that organizational learning ability has a positive impact on organizational flexibility; the standardized path coefficient from the organizational learning ability to organizational flexibility is 0.053 ($t = 0.771$, $p = 0.441 > 0.05$), indicating that the organizational learning ability has no significant impact on organizational flexibility. H2a is not supported.

H2b proposes that organizational learning ability has a positive impact on organizational cognitive ability; the standardized path coefficient from the organizational learning ability to organizational cognition is 0.223 ($t = 3.36$, $p = 0.0 < 0.05$), indicating that the organizational learning ability has a significant positive impact on organizational cognition, that is, the higher the organizational learning ability, the higher the organizational cognition.

H3a proposes that digital innovation has a positive impact on organizational flexibility; the standardized path coefficient from digital innovation to organizational flexibility is 0.363 ($t = 4.971$, $p = 0.0 < 0.05$), indicating that digital innovation has a significant positive impact on organizational flexibility, that is, the higher the digital innovation, the higher the organizational flexibility.

H3b proposes that digital innovation has a positive impact on organizational cognition. The standardized path coefficient from digital innovation to organizational cognition is 0.418 ($t = 6.036$, $p = 0.0 < 0.05$), indicating that digital innovation has a significant positive impact on organizational cognition, that is, the higher the digital innovation, the higher the organizational cognition.

H4a proposes that organizational flexibility has a positive impact on performance; the standardized path coefficient from organizational flexibility to enterprise performance is 0.284 ($t = 4.408$, $p = 0.0 < 0.05$), indicating that organizational flexibility has a significant positive impact on enterprise performance, that is, the higher the organizational flexibility, the higher the enterprise performance.

H4b proposes that organizational cognition has a positive impact on performance; the standardized path coefficient of organizational cognition to enterprise performance is 0.311 ($t = 4.104$, $p = 0.0 < 0.05$), indicating that organizational cognition has a significant positive impact on enterprise performance, that is, the higher organizational cognition, the higher enterprise performance.

H5 is related to the research in this paper, and we can see that the significant p -value of organizational flexibility, organizational cognition, and the market dynamic ability based on interactive items is 0.000, which means that the market dynamic ability as a regulatory variable will have a significant impact on the impact of organizational flexibility on enterprise performance.

5. Discussion

This paper studies the composition of forward-looking strategic factors and enterprise dynamic capabilities. Since the concept of forward-looking strategic factors was formally

put forward, scholars have been discussing the composition and connotation of forward-looking strategic factors from multiple perspectives [29,30]. Based on the forward-looking strategy theory and dynamic capability theory, this study believes that the forward-looking strategy can be divided into two dimensions: learning ability and digital innovation. At the same time, this paper also believes that dynamic capability can be divided into two dimensions: organizational flexibility and organizational cognition, which has been verified by empirical research.

Based on the existing theoretical and empirical research progress, this paper further clarifies the composition of the forward-looking strategy and dynamic capability and enriches the research in related fields. At the same time, it also lays a good foundation for the study of the factors affecting dynamic capabilities and the results of dynamic capabilities.

After the survey, through exploratory factor analysis, it is found that the learning ability and digital innovation have certain discriminant validity, and the factor load value of each variable also meets the research requirements. At the same time, the Cronbach's α values of learning ability and digital innovation variables are greater than 0.8, and the CITC values of each measurement item are greater than 0.5. Therefore, the reliability of each variable also meets the research requirements. Then, through confirmatory factor analysis, it was found that the construct reliability (CR) of the five factors under the two variables were 0.906, 0.874, 0.898, 0.959, and 0.856, which were all greater than 0.8, and the average variance extraction (AVE) values were 0.708, 0.636, 0.687, 0.603, and 0.599, which were all greater than 0.5, indicating that the aggregate validity of each variable was good. At the same time, the Cronbach's α values of organizational flexibility and organizational cognition variables are greater than 0.8, and the CITC values of each measurement item are greater than 0.5. Therefore, the reliability of each variable also meets the research requirements. Then, through confirmatory factor analysis, it was found that the construct reliability (CR) of the five factors under the two variables were 0.859, 0.856, 0.886, 0.876 and 0.804, which were greater than 0.8, and the average variance extraction (AVE) were 0.603, 0.599, 0.660, 0.703 and 0.578, which were greater than 0.5, indicating that the aggregate validity of each variable was good.

This paper explores the mechanism between dynamic capabilities and performance. Firstly, this paper explores the strategic factors that affect dynamic capabilities, including organizational learning ability and digital innovation. The results show that different strategic factors have different effects on different dynamic capabilities. Then, this paper examines the impact of dynamic capabilities on performance. The results show that different dynamic capabilities have different effects on enterprise performance. Finally, this paper also explores the path of forward-looking strategic factors affecting enterprise performance through dynamic capabilities using the intermediary test.

At present, the research on the relationship between the forward-looking strategy and dynamic capabilities mostly stays at the theoretical level, and the dynamic capability theory provides some support for explaining the above phenomenon. Teece [11] pointed out that dynamic capability is the ability of enterprises to integrate, construct, and reconfigure internal and external resources to quickly adapt to the changing environment. Helfat identified two criteria for enterprise capabilities: technical (internal) adaptability and evolutionary (external) adaptability [12]. Pavlou and Sawy built a framework for dynamic capabilities [31]. According to the framework, enterprises can do the following:

- (1) Discover, explain, and seek opportunities from internal and external stimuli through perceptual ability;
- (2) Use the learning ability to determine which organizational ability must be modified, rebuilt, or reconfigured to generate new knowledge;

- (3) Use the integration ability to comprehensively understand and make necessary changes to its operation ability;
- (4) Utilize the coordination capability to realize and use the reconfigured operational capability;
- (5) Continue to investigate external and internal stimuli in detail.

The core of dynamic capabilities is to reshape business processes, organizational structures, business models, and cooperation models through the integration of information, computing, communication, and connectivity technologies so as to help enterprises create more value. Prahalad and Hamel [32] think, based on the strategic logic, that in the short term, the competitiveness of the company mainly comes from products, but in the long term, competitiveness depends on the core competence of the company.

The forward-looking strategy is fundamental to ensuring the sustainable development of the company. This study enriches the relevant research from the empirical perspective. At the same time, although there have been some empirical studies measuring the impact of dynamic capabilities on enterprise performance from the perspective of the definition in recent years, this paper tests it further on the basis of clarifying the connotation of dynamic capabilities.

6. Conclusions

Based on a systematic review of the existing research literature, combined with the scale data of previous scholars, this paper defines the concept of the forward-looking strategy and forms a measurement scale. Then, the reliability and validity of the scale are proved by exploratory factor analysis and confirmatory factor analysis. Based on theoretical research, this paper divides the forward-looking strategy into two dimensions: learning ability and digital innovation; The dynamic capabilities of enterprises are also divided into two dimensions: organizational flexibility and organizational cognition.

According to the correlation analysis, this paper divides dynamic ability into two dimensions: organizational flexibility and organizational cognition; it also divides the forward-looking strategy into two dimensions: learning ability and digital innovation, which have good reliability and validity. Through research and analysis, it is found that from the perspective of resources, the acquisition, absorption, integration, and reconstruction of resources by enterprises are of great significance to the survival and development of enterprises, which determines whether enterprises can flexibly change their resource base to adapt to the changing environment. In view of this, this paper proposes the learning ability, digital innovation ability, organizational flexibility, and cognition as four important factors. Enterprises should pay attention to the cultivation of dynamic capabilities, which can have a positive effect on the growth performance of enterprises. Specifically, the purpose of the forward-looking strategy is to improve the learning ability and innovation ability of enterprises. It can enable enterprises to absorb more external knowledge, speed up the circulation of internal knowledge, and enable enterprises to obtain the survival market skills through their own innovation in the volatile market. Therefore, enterprises should not only acquire external knowledge by participating in industry activities but also pay attention to internal education and training and knowledge sharing. Secondly, enhancing the integration ability of enterprises can improve the efficiency of enterprises and help find new ways to improve enterprise performance. Therefore, enterprises should always follow up on the latest information, select appropriate ways to integrate new technical knowledge, methods, and experience, and, finally, integrate these factors to achieve performance improvement.

This study explores the impact of forward-looking strategic elements and the composition of enterprise dynamic capabilities on enterprise performance and sustainable

development. Since the concept of forward-looking strategic factors was formally proposed, scholars have been discussing the composition and connotation of forward-looking strategic factors from multiple perspectives. Based on the forward-looking strategy theory and dynamic capability theory, this study believes that the forward-looking strategy can be divided into two dimensions: learning ability and digital innovation. At the same time, this paper also believes that dynamic capability can be divided into two dimensions: organizational flexibility and organizational cognition, which has been verified by empirical research.

Based on the existing theoretical and empirical research progress, this paper further clarifies the composition of the forward-looking strategy and dynamic capability and enriches the research in related fields. At the same time, it also lays a good foundation for the study of the factors affecting dynamic capabilities and the results of dynamic capabilities. The theory also explores the relationship mechanism between dynamic capabilities and performance. Firstly, this paper explores the strategic factors that affect dynamic capabilities, including organizational learning ability and digital innovation. The results show that different strategic factors have different effects on different dynamic capabilities. Then, this paper examines the impact of dynamic capabilities on performance. The results show that different dynamic capabilities have different effects on enterprise performance. Finally, this paper also explores the path of forward-looking strategic factors affecting enterprise performance and sustainability through dynamic capabilities using the intermediary test. From the perspective of sustainable development, both the internal dynamic capabilities of enterprises and the impact of external market dynamics can have a positive impact on enterprise performance. At present, the research on the relationship between the forward-looking strategy and dynamic capabilities mostly stays at the theoretical level, and this study enriches the relevant research from the empirical perspective. At the same time, although there have been some empirical studies measuring the impact of dynamic capabilities on enterprise performance from the perspective of definition in recent years, this paper tests it further on the basis of clarifying the connotation of dynamic capabilities.

This research was conducted in strict accordance with scientific standards and strived to make contributions to the management theory and practice. However, subject to some objective conditions, there are still some factors that need to be further improved in future research. The reliance on horizontal quantitative data limits the ability to study and evaluate the long-term impact of forward-looking strategies on corporate performance. In subsequent research, longitudinal or qualitative data should be combined to provide deeper insights. For example, the theme of this study was to explore the impact of forward-looking strategies on the dynamic capabilities of enterprises and, ultimately, reflect the impact on the performance of enterprises, as well as the impact of enterprises' own dynamic capabilities on performance in the dynamic market environment. Because the cultivation and development of dynamic capabilities of enterprises need a long time to develop, the impact on enterprise performance also needs a long time to truly reflect. Therefore, for the research of dynamic energy, it is best to use longitudinal research to track and analyze the enterprise for a long time. However, due to the time limit of this study, it was not possible to conduct long-term tracking of enterprises. Therefore, in future research, efforts will be made to seek long-term cooperation with enterprises so as to better observe and study the development of dynamic capabilities of enterprises vertically, hoping to better grasp the impact and results of forward-looking strategies and dynamic capabilities on the development of enterprises. Secondly, this study was conducted in China, lacking market research and analysis in other regions. The research path proposed by this study may not necessarily be applicable to enterprises in other countries. Therefore, in future research, efforts will be made to address this deficiency.

Author Contributions: Conceptualization, X.Z. and N.R.; formal analysis, X.Z.; investigation, X.Z.; methodology, X.Z. and N.R.; resources, X.Z.; supervision, N.R.; writing—original draft, X.Z.; writing—review and editing, X.Z. and N.R. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: This study complies with ethical standards and is approved by King Mongkut's Institute of Technology Ladkrabang.

Informed Consent Statement: This study obtains written informed consent from participants.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Yasir, N.; Mahmood, N.; Mehmood, H.S.; Babar, M.; Irfan, M.; Liren, A. Impact of environmental, social values and the consideration of future consequences for the development of a sustainable entrepreneurial intention. *Sustainability* **2021**, *13*, 2648. [CrossRef]
2. Jokinen, L.; Palonen, T.; Kalliomäki, H.; Apostol, O.; Heikkilä, K. Forward-Looking Sustainability Agency for Developing Future Cruise Ships. *Sustainability* **2020**, *12*, 9644. [CrossRef]
3. Huang, Z.; Zhou, M.; Chen, J. Establish a joint R&D and sharing mechanism of science and technology to improve the independent innovation ability of small and medium-sized enterprises. *Party Gov. Cadres Forum* **2023**, *4*, 24–25.
4. Li, C.; Yin, J.; Li, S. The impact of digital technology application on international business performance: Supply chain resilience and the impact of the new crown pneumonia epidemic have a moderating mediating role. *Technol. Ind.* **2024**, *24*, 210–218.
5. Comoli, M.; Tettamanzi, P.; Murgolo, M. Accounting for “ESG” under Disruptions: A Systematic Literature Network Analysis. *Sustainability* **2023**, *15*, 6633. [CrossRef]
6. National Internet Information Office. Digital China Development Report (2020). Available online: https://www.gov.cn/xinwen/2021-07/03/content_5622668.htm (accessed on 29 December 2024).
7. Wei, M. *Research on the Impact Mechanism of Financing Structure on Enterprise Performance: Based on the Intermediary Effect of Innovation Investment*; Shanghai Academy of Social Sciences: Shanghai, China, 2017.
8. Zou, Z.; Liu, M.; Zou, S. The impact of knowledge worker redundancy on the dual innovation of small and medium-sized listed companies: The regulatory role of environmental characteristics. *Sci. Technol. Prog. Countermeas.* **2021**, *38*, 141–150.
9. Heider, A.; Gerken, M.; VanDinther, N.; Hulsbeck, M. Business model innovation through dynamic capabilities in small and medium enterprises—Evidence from the German Mittel stand. *J. Bus. Res.* **2021**, *130*, 635–645. [CrossRef]
10. Carlos, M.; DaSilva, P.T. Business Model: What It Is and What It Is Not. *Long Range Plan.* **2014**, *47*, 379–389.
11. Teece, D.J. Business models and dynamic capabilities. *Long Range Plan.* **2017**, *51*, 40–49. [CrossRef]
12. Constance, E.H. *Dynamic Capabilities Resource-Based Change in Organizations*; John Wiley & Sons: Hoboken, NJ, USA, 2007.
13. Smallbone, D.; Deakins, D.; Battisti, M.; Kitching, J. Small business responses to a major economic downturn: Empirical perspectives from New Zealand and the United Kingdom. *Int. Small Bus. J.* **2012**, *30*, 754–777. [CrossRef]
14. Zhao, S.; Guan, Y.; Zhou, H.; Hu, F. Making digital technology innovation happen: The role of the CEO's information technology backgrounds. *Econ. Model.* **2024**, *140*, 106866. [CrossRef]
15. Weber, C.; Sailer, K.; Katzy, B. Real-time foresight—Preparedness for dynamic networks. *Technol. Forecast. Soc. Chang.* **2015**, *101*, 299–313. [CrossRef]
16. Tapinos, E.; Pyper, N. Forward looking analysis: Investigating how individuals ‘do’ foresight and make sense of the future. *Technol. Forecast. Soc. Chang.* **2018**, *126*, 292–302. [CrossRef]
17. Schatzmann, J.; Schäfer, R.; Eichelbaum, F. Foresight 2.0—Definition, overview & evaluation. *Eur. J. Futures Res.* **2013**, *1*, 1–15.
18. Leoni, L.; Cristofaro, M.; Chirumalla, K.; Dobson, S. Guest editorial: Creativity management and manufacturing firms’ performance. *J. Manuf. Technol. Manag.* **2022**, *33*, 645–655. [CrossRef]
19. Sari, D.N.; Susilowati, C.; Moko, W. Leveraging dynamic capabilities to drive innovation and enhance business performance. *Int. J. Res. Bus. Soc. Sci.* **2024**, *13*, 85–95. [CrossRef]
20. Wang, Y.; Zhang, J.; Yan, Y.; Guan, J. The bidirectional causality of tie stability and innovation performance. *Res. Policy* **2024**, *53*, 105102. [CrossRef]
21. Huang, F.; Ren, Y. Harnessing the green frontier: The impact of green finance reform and digitalization on corporate green innovation. *Financ. Res. Lett.* **2024**, *66*, 105554. [CrossRef]

22. Zhang, J. Analysis of enterprise development strategy selection in industrial structure adjustment. *China Bus. Theory* **2018**, 169–170. [CrossRef]
23. Zhang, A.; Guo, P.; Guo, X. Dynamic mechanism, strategic behavior and niche transition of latecomers: A longitudinal case study of photovoltaic enterprises. *J. Manag.* **2024**, 37, 1–16.
24. Liang, C. The development strategy of cultural integration of state-owned enterprises under the new business state. *Mod. Enterp.* **2024**, 9, 142–143.
25. Shen, K.; Jin, T.; Zhao, Q. Empowering High Quality Development with New Quality Productivity. *Nanjing Soc. Sci.* **2024**, 37–42. Available online: https://www.zhangqiaokeyan.com/academic-journal-cn_detail_thesis/02012154494523.html (accessed on 29 December 2024).
26. Correia, S.A.; Seay, M.P.; Vojtech, C.M. Updated Primer on the Forward-Looking Analysis of Risk Events (FLARE) Model: A Top-Down Stress Test Model. *Financ. Econ. Discuss. Ser.* **2022**. Available online: <https://ssrn.com/abstract=4053079> (accessed on 29 December 2024).
27. Rummel, R.J. *Applied Factor Analysis*; Northwestern University Press: Evanston, IL, USA, 1970.
28. Hoelter, D.R. The analysis of covariance structures: Goodness-of-fit indices. *Sociol. Methods Res.* **1983**, 11, 325–344. [CrossRef]
29. Wang, F. Research on the effect mechanism of top leaders' strategic leadership behavior on business performance. *Stat. Manag.* **2020**, 35, 79–82.
30. Du, K.; Chen, G.; Liang, J. Heterogeneous environmental regulation, environmental dual strategy and green technology innovation. *Sci. Technol. Prog. Countermeas.* **2023**, 40, 130–140.
31. Pavlou, P.A.; Sawy, E.O. Understanding the elusive black box of dynamic capabilities. *Decis. Sci.* **2011**, 42, 239–273. [CrossRef]
32. Prahalad, C.K.; Hamel, G. The core competence of the corporation. *Harv. Bus. Rev.* **1990**, 68, 79–91.

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