Research Article

The Complex Impact of Relational Embeddedness on Enterprise Value: The Moderating Effect of Environmental Dynamics

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Based on social network theory and dynamic capability theory, a theoretical model is constructed that specifies the process through which relational embeddedness affects enterprise value. The authors selected 612 Shenzhen and Shanghai A-share manufacturing enterprises in the CSMAR database as sample enterprises, and a multiple regression analysis method was used to test hypotheses. The results show that (1) there is an inverted “U” relationship between relational embeddedness and enterprise value; that is, the enterprises’ relational embeddedness has an “inflection point” effect on the enterprise value; (2) the enterprises’ resource integration capability plays an intermediate role in the impact of relational embeddedness on enterprise value; (3) the market environmental dynamics and technology environmental dynamics play negative regulatory roles in the inverted “U” relationship between relational embeddedness and enterprise value, and they play different regulatory roles before and after the enterprise relational embeddedness reaches the “inflection point”; that is, before the relational embeddedness reaches the inflection point, the technology environmental dynamics plays a major negative regulatory role, while after the relational embeddedness reaches the inflection point, the market environmental dynamics plays a major negative regulatory role. Compared with the market environmental dynamics, the impact of technology environmental dynamics on the relationship between relational embeddedness and enterprise value is more significant; that is, the effect of relational embeddedness on enterprises value is more sensitive to the technology environmental dynamics.

1. Introduction

According to the resource-based theory, resources are the key factors that determine the strategic decision-making and enterprises’ governance capabilities [1]. Unique resources are crucial for enterprises to obtain competitive advantages, reduce the dependence on the external environment, and improve enterprise value [2]. Previous studies mostly explore the effects of enterprise resource input, resource patching up, resource integration, and resource allocation on enterprise value based on the enterprises’ internal perspective. It is found that enterprises can effectively make up for enterprise resource defects by innovatively restructuring and using existing resources or other neglected resources which can form a unique competitive advantage. However, with the rapid development of science and technology, the product life cycle has been shortened day by day, and it is

difficult for enterprises to cope with the fierce market environment by only relying on their own resources. In order to alleviate the adverse impact of resource constraints on sustainable growth, enterprises begin to break through their inherent organizational boundaries and frameworks and embed them into external relationship networks [3–5]. The generation mechanism of “embeddedness” originates from the trust level among enterprises in the network. Enterprises embed their economic behaviors into the external relationship network based on mutual trust, thus forming a relatively stable connection [6] and sharing the resources and information within the network. Among them, relational embeddedness is based on the perspective of cohesion, which emphasizes the role of a direct association between enterprises as a mechanism in the process of enterprises obtaining resources. It is mainly used to measure the information exchange degree in the network [7] and the

characteristics of relationship strength [3]. In the process of embedding the external relationship network, enterprises are more likely to access and obtain valuable unique strategic resources and share the capital, information, and other elements across organizational boundaries, thus overcoming resource constraints and creating conditions for enterprises to strengthen their competitive advantages [1, 6–9].

However, resources may not always produce high performance [10]. Research showed that enterprises with rich resources tended to accelerate rent-seeking activities rather than improve production efficiency compared with conventional enterprises, which may reduce the R&D investment, inhibit the innovation activities, and lead to a decline in enterprise performance. In addition, some scholars believed that the reciprocal exclusiveness and embedding inertia may cause enterprises to obtain too many redundant resources and information, erode the interests of relational embeddedness, and thus inhibit the improvement of enterprise production efficiency [11]. Throughout the research on the impacts of relational embeddedness on enterprise value at home and abroad, some scholars found that there was a positive correlation between relational embeddedness and enterprise value [1, 12]. The relational embeddedness is conducive to play the role of the trust-based relationship between enterprises [1, 7], thus forming an effective joint problem-solving mechanism, reducing transaction risks and the possibility of opportunistic behavior [13], and thereby increasing the enterprise value. However, some researchers believed that relational embeddedness negatively affected enterprise value [14, 15]. Although enterprises can obtain rich resources based on relational embeddedness, they tend to improve enterprise performance by increasing the frequency of rent-seeking activities and market operation ability, rather than increasing the R&D investment, thus inhibiting the enterprise innovation activities and ignoring the crowding-out effect caused by scattered resources, which is not conducive to the promotion of enterprise value to a certain extent [16]. The inconsistency of research results indicates that the influence process of relational embeddedness on enterprise value is relatively complicated, and only one scholar in China discusses the differential impact of network embeddedness on enterprise productivity [11], which provides an opportunity for this study to explore the influence mechanism of relational embeddedness on enterprise value.

The above research results deepen people's understanding of the impact of relational embeddedness on enterprise value and provide a rich theoretical basis for this study, but there are still some deficiencies. On the one hand, relying solely on the resource-based theory to explain the positive or direct effects of resource acquisition or relational embeddedness on enterprise value in a static environment but does not give a clear answer to the differential effect of relational embeddedness on enterprise value and the possible intermediate transmission path, which is not conducive to a comprehensive explanation of the mechanism of relational embeddedness. On the other hand, the promotion of enterprise value depends not only on its resource endowment and resource integration capability but also on the

external dynamic environment. The existing studies ignore the contingency role of the environment as an important external situational factor in the impact of relational embeddedness on enterprise value, and it is difficult to objectively reflect the interaction effect between relational embeddedness and enterprise value. In addition, in the measurement of relational embeddedness, previous studies mostly use subjective cross-sectional questionnaire data. Due to the constraints of time, funds, and other factors, the sample size is usually relatively small, and the sample enterprises have the problem of selection bias, so it cannot accurately reflect the dynamic behavior information of enterprises, so the applicability of the research conclusions is questioned.

In view of the limitations of the existing literature, this paper intends to promote the research of the above problems from two aspects. Firstly, this paper integrates social network theory and dynamic capability theory, builds a conceptual model of “relational embeddedness-resource-integration capability-enterprise value”, and in-depth explores the differentiated interpretation and prediction effect of relational embeddedness on enterprise value. Secondly, this paper reveals the possible contingency role of the market environment and technology environment in the relationship between relational embeddedness and enterprise value from the perspective of the external environment and further enriches and complements the theoretical perspectives and methods to explain the impact of relational embeddedness on enterprise value. The specific path can provide a useful reference for enterprises to overcome resource constraints, cultivate dynamic capabilities, and improve resource utilization efficiency.

2. Theory and Hypotheses

2.1. Relational Embeddedness and Enterprise Value. The enterprises' economic behavior is embedded in the social network, and enterprises and external social environment influence each other. With the exchange and transfer of resources and the flow of information among enterprises in the relationship network, the original binary relationship has changed into a network relationship of interdependence [17]. Among them, a single enterprise exists in the form of a network “node”, and the “edges” of the social network represent the social relations formed by the transaction connection between enterprises [18]. It can be seen that network embeddedness is a kind of transaction or cooperative relationship with other affiliated enterprises in order to realize resource sharing and value cocreation.

As an important dimension of network embeddedness, relational embeddedness mainly refers to the intimacy degree among members in the network. The highly intimate relationship forms a mechanism of mutual trust, efficient information sharing, transmission, and collaborative problem-solving among members [7]. The higher the intimacy degree is, the higher the frequency of information sharing and opinion exchange among enterprises is, and the greater the impact of relational embeddedness on enterprise behavior and performance is. Relational embeddedness

covers three aspects such as trust, information sharing, and joint problem-solving [3, 7]. First of all, information sharing among enterprises can affect the enterprise decision-making behavior and strengthen the trust level among enterprises. The higher the trust level among enterprises is, the more obvious the characteristics of enterprises' openness to the outside world is, and the weaker the awareness of protecting their own resources or information is. Therefore, enterprises tend to invest more resources and information in cooperation to improve enterprise value. Secondly, enterprises can obtain certain external effects through information exchange and knowledge flow [19]. On the one hand, information sharing among enterprises can reallocate and utilize resources or information in the network, weaken the inhibitory effect of information asymmetry on enterprise efficiency, and promote effective cooperation between enterprises and the generation of new knowledge, so as to improve enterprise value [20]. On the other hand, enterprises' integrating resources on the basis of shared resources are conducive to encouraging enterprises to jointly solve difficult problems, improving cooperation efficiency and enterprise value [21]. In addition, information sharing among enterprises is conducive to broadening the perspective of enterprise strategy and innovation, and enterprises can realize the upgrading of new products and new processes by quickly obtaining more market demand information [22] and ultimately improve enterprise value.

However, there is an "optimal embedding point" in the relational embeddedness, and the positive impact of relational embeddedness on firm performance is limited within a certain threshold range [4]. On the one hand, enterprises embedded excessively into relational networks easily lead to resource rigidity and information redundancy, which leads enterprises into embedded "traps". It is difficult for enterprises to access external heterogeneous resources and information [11], which is not conducive to the improvement of production efficiency and enterprises' value. On the other hand, the excessive embeddedness leads to the blind pursuit of imitation or follow-up effect, thus strengthening the enterprises' overinvestment behavior [15] and leading to the decline in enterprise value. In addition, when the environmental dynamics level is high, it is more difficult for enterprises to match the internal resources with the external environment, and the high relational embeddedness requires enterprises to invest a lot of relationship maintenance and coordination costs, resulting in the destructive impact of relational embeddedness on enterprise value which is particularly significant [23]. It can be seen that moderate relational embeddedness is conducive to the promotion of enterprise value, while high relational embeddedness has a negative impact on enterprise value. Therefore, there is an inverted "U" relationship between relational embeddedness and enterprise value. In view of this, this paper proposes hypothesis H1: there is a significant inverted "U" relationship between relational embeddedness and enterprise value.

2.2. The Mediating Role of Resource Integration Capability. The inverted "U" relationship between relational embeddedness and enterprise value may be different due to the

different intermediate transmission paths [24]. Dynamic capability is the ability to integrate internal and external resources, identifying and utilizing business opportunities in order to cope with the external uncertain environment [25]. The dynamic capability has the characteristics of adaptability, openness, and difficulty in replication [26], which is the propeller for enterprises to match the external environment. High dynamic capability is conducive to the improvement of an enterprise's basic ability and the upgrading of organizational structure [27]. Relevant scholars believe that the new knowledge and information acquired by enterprises embedded in relational networks are difficult to directly promote enterprise performance. Instead, resources are absorbed and utilized based on dynamic capabilities to realize the dynamic matching between enterprise resources and external uncertain environments [27]. Then, the core competitiveness and enterprise performance can be effectively improved on the basis of overcoming the "core rigidity" [28]. Based on this, this paper introduces the intermediary variable of resource integration capability to further analyze the path transmission mechanism of relational embeddedness influencing enterprise value. As a basic dynamic capability, resource integration capability refers to the ability of enterprises to screen, acquire, integrate, allocate, and reuse resources [29]. Resource integration capability provides an indirect transmission path in the influence process of relational embeddedness on enterprise value; that is, resource integration capability is helpful for enterprises to overcome resource constraints and improve the value of enterprise resources.

The strength of relational embeddedness plays an important role in the acquisition of enterprise resources, which is conducive to the formation and strengthening of enterprise resource integration capability to a certain extent, and then improves the enterprise value. On the one hand, enterprises can obtain more heterogeneous resources and knowledge by embedding the external relationship network. From the resources' acquisition to resources' integration, sharing, and diffusion and then to the resources' utilization, it is the construction process of enterprise resource integration capability [20]. The stronger the resource integration capability of an enterprise is, the more conducive it is to discover and seize the potential market development opportunities, make full use of the resources value, and develop new technologies and products to meet the changing needs of the market, so as to improve the enterprise value [21]. On the other hand, enterprises can overcome knowledge stickiness through relational embeddedness, continuously improve resource integration capability, effectively identify and judge the market value of various resources, and re-integrate and allocate internal and external resources, so as to better integrate knowledge or information from different fields into enterprise innovation activities, thus generating new resources, technologies, and innovative ideas [25]. On this basis, it can enhance the coordination flexibility of enterprise resources, weaken the blocking effect of rigid knowledge or resources on the enterprises development, accelerate the innovation process, and finally improve the enterprise value [30].

The level of relational embeddedness includes the trust perception between enterprises and partners, the level of information sharing, and the degree of joint problem-solving among enterprises. On the one hand, the higher the level of mutual trust and information sharing between enterprises is, the smoother and more frequent information communication channels are, and the higher the efficiency of resource and information transmission is. It is represented as the improvement of enterprise resource integration capability to a certain extent. With the improvement of resource integration capability, the higher the level of resource integration and order satisfaction rate among enterprises are, the more quickly the enterprises can respond to the changes in consumer demand and improve enterprise value [20]. On the other hand, when enterprises are faced with emergencies or major problems, the higher the possibility of solving problems through joint consultation between enterprises and partners is, the more it is conducive to improve the enterprise's resource integration capability, thus promoting the implementation of enterprise's problem-solving strategy and strengthening the enterprise's competitive advantage and ultimately improving the enterprises' value.

To sum up, the enterprise embeds the relationship network to reintegrate and reuse the resources, which is conducive to improving the resource integration capability, restraining the negative impact of resource conflict or workflow on the enterprise value, so as to realize the efficient flow of enterprise resources among various departments and supply chain links and improve the production efficiency and enterprise value [26]. In view of this, this paper proposes hypotheses as follows.

- (i) H2: resource integration capability has a significant positive impact on enterprise value.
- (ii) H3: the resource integration capability plays a mediating role in the impact of enterprise relational embeddedness on enterprise value.

2.3. *The Moderating Effect of Environmental Dynamics.*

The enterprise environment is a collection of all elements independent of the enterprise, which will affect the enterprise's operation and sustainable development to a certain extent. Environmental dynamics are specifically manifested in the high complexity and unpredictability of enterprises' perception of the external environment [31, 32], which mainly includes market dynamics caused by changes in market composition and demand [33] and technological dynamics due to technological innovation and development [34]. The existing research results show that the role of environmental dynamics is reflected in two aspects. One is the "opportunity theory", which believes that the complex and changeable external environment can bring more development opportunities and profit space for enterprises; the other is "threat theory", which believes that the dynamic environment will bring certain operational risks to enterprises and weaken the core competitiveness of enterprises, which is not conducive to the operation management and improvement of enterprises value.

It can be seen that environmental dynamics have a contingency effect in the promotion process of enterprise value [35, 36]. When the relational embeddedness has a positive impact on the enterprise value, the positive impact is weakened under the highly dynamic external market environment and technology environment situation, which is mainly manifested in the following aspects. Firstly, it is more difficult to predict the enterprise market prospect because of high environmental dynamics, and the value of the original relationship network, experience, and resources is relatively reduced. Moreover, due to the lack of key resources needed to promote enterprise development and strategic change, it is difficult for the enterprise to effectively match with the external dynamic environment, so the enterprise value has declined. Secondly, the high dynamic environment makes the original relationship network more dynamic and fuzzy. In order to regain the key resources and information needed for development, enterprises need to invest a lot of time, cost, and energy to build a new relationship network, so the enterprise value that relational embeddedness can bring is low [37]. In addition, with the dynamic external environment, enterprises are less likely to make correct decisions, so they need to pay more costs in strategic choice and implementation [38], and the positive impact of relational embeddedness on enterprise value decreases. When an enterprise is in a relatively stable external market environment and technological environment, the degree of weakening the positive impact of relational embeddedness on enterprise value is low, because its original technology, experience, relationship network, and resource value are enough to match with the external environment and maintain enterprise value.

However, when an enterprise falls into an embeddedness "trap" due to excessive embeddedness in the external relationship network, the problems of relationship dependence and path dependence are more serious. The level of strategic flexibility is low, and the adjustment delay of network positioning, resources, and capabilities is long, which ultimately makes it difficult for enterprises to make strategic adjustments in time and realize the dynamic matching between enterprises and the external environment [39], which strengthens the negative impact of relational embeddedness on enterprise value to a certain extent. When an enterprise is in a relatively stable external market environment and technological environment, market demand and technological changes are mostly structural changes, and the original technology, experience, and resources are sufficient to match with the external environment [40], so the influence intensity of relational embeddedness on enterprise value changes little.

To sum up, the effect of relational embeddedness on enterprise value is different due to the dynamic environment. When the relational embeddedness has a positive impact on enterprise value, the environmental dynamics weakens the positive influence; when the relational embeddedness negatively affects the enterprise value, the environmental dynamics further strengthens the negative influence. In view of this, this paper proposes the hypotheses H4, H4a, and H4b as follows:

FIGURE 1: Conceptual model.

- (i) H4: environmental dynamics negatively regulate the inverted “U” relationship between relational embeddedness and enterprise value.
- (ii) H4a: the market environmental dynamics negatively regulate the inverted “U” relationship between relational embeddedness and enterprise value.
- (iii) H4b: the technology environmental dynamics negatively regulate the inverted “U” relationship between relational embeddedness and enterprise value.

The conceptual model of this paper is shown in Figure 1.

3. Methods

3.1. Sample and Procedure. In view of the fact that manufacturing enterprises are in a certain market relationship network, they have more and more comprehensive affiliated enterprises, such as upstream and downstream enterprises in the supply chain. This paper selects the data of Shenzhen and Shanghai A-share manufacturing enterprises in the CSMAR database as empirical data. In addition, in order to ensure the integrity of all variable data, this paper conducts conditional screening on the sample data, excluding ST, PT enterprises, and enterprises with missing variable data, and finally obtains 612 manufacturing enterprises covering industries such as food manufacturing, textiles, pharmaceuticals, and automobile manufacturing. Special treatment (ST) shares refer to stock varieties that are specially treated by listed companies due to abnormal financial conditions. Particular transfer (PT) shares are stock varieties based on special transfer services that provide circulation channels for stocks that are suspended from listing. Therefore, ST and PT enterprises refer to the enterprises in the above two situations.

3.2. Measures. The variable measurement methods involved in this study are shown in Table 1.

3.3. Descriptive Analyses and Correlation Analyses. In this paper, stata13.0 is used to make descriptive statistics on each variable. The results are shown in Table 2.

As shown in Table 3, the positive correlation between enterprise size and enterprise value is not significant, which indicates that the larger the enterprise scale is, the higher the enterprise value is; the positive correlation between enterprise financial leverage and enterprise value is not significant ($P > 0.1$). There is a significant negative correlation between enterprise leverage and enterprise value ($P < 0.05$); that is, the higher the enterprise leverage is, the lower the enterprise value is, and the overtop leverage is not conducive to the enterprises' sustainable growth.

In addition, this paper describes the scatter diagram of the relationship between the relational embeddedness and enterprise value as shown in Figure 2. It is found that there is an inverted “U” relationship between relational embeddedness and enterprise value. The scatter diagram (a), (b) and their combination chart (c) confirm the theoretical hypothesis of this paper to a certain extent and provide a comparable inspection basis for the empirical results.

4. Empirical Test and Result Analysis

In order to weaken the multicollinearity problem among variables, this paper centralizes the variables before they form interaction terms. In addition, this paper diagnosed the related variables involved in the theoretical model by the VIF, where $VIF_{max} = 1.57 < 10$, indicating that the multicollinearity problem can be excluded, so each variable can enter the regression model. This paper uses multiple regression analysis methods to sequentially examine the relationship between relational embeddedness and enterprise value, the mediating role of resource integration capabilities, and the moderating effect of environmental dynamics.

4.1. The Test of the Influence of Relational Embeddedness on Enterprise Value. As shown in Table 4, the results of model M1 show that moderate relational embeddedness has a positive impact on enterprise value ($P < 0.1$); that is,

TABLE 1: Measurement methods of variables.

Variable name	Code	Measurement methods	References
Enterprise value	EV	Tobin's Q (the ratio of a company's market value to the replacement value of its assets)	McConaughy et al. [41] & Liang et al. [42]
Relational embeddedness	RE	The number of top management's part-time enterprises	Zhang et al. [43] and Qu & Yu [44]
Resource integration capability	RIC	Enterprise intangible assets ratio	Song and Yu [29]
Market environmental dynamics	MED	The ratio of the standard deviation of abnormal profit and loss in 2011–2015 to the average operating income of the enterprise in the past five years	Boyd [45] & Chen et al. [38]
Technology environmental dynamics	TED	The ratio between the standard deviation of R&D investment in 2011–2015 and the average operating income of the enterprise in the past five years	
Enterprise size	Size	Logarithm of enterprise's total assets at the end of the period	
Leverage	LEV	The ratio between total liabilities and total assets of an enterprise	
Financial leverage	FL	The ratio between the change rate of earnings per share of common stock and the change rate of profit before interest and tax	Zhang et al. [43] and Qu & Song and Yu [29] & Chen et al. [38]
Ownership concentration	OC	Shareholding ratio of the top three shareholders	
Equity balance degree	EBD	The ratio of the sum of the shareholding ratio of the second to the tenth largest shareholders and the shareholding ratio of the first largest shareholder	
Capital density	CD	Ratio of net fixed assets to total assets at the end of the year	
Preperformance level	PROA	Ratio of operating profit to total assets	
Effective tax rate	ETR	Ratio of enterprise income tax expense to profit before interest and tax	

TABLE 2: Descriptive statistical results of each variable.

Variable name	Mean	Standard deviation	Min	Max
EV	3.815	3.120	0.129	30.241
RE	2.244	1.244	0	5.170
RIC	0.034	0.055	0	0.418
MED	0.067	0.326	0	4.412
TED	0.236	0.366	0	3.746
Size	21.594	0.969	16.727	26.222
LEV	0.408	0.188	0.024	1.349
FL	0.836	21.074	−507.515	79.087
OC	0.457	0.140	0.129	0.906
EBD	0.248	0.167	−0.337	0.781
CD	1.201	1.472	−1.968	14.691
PROA	0.043	0.059	−0.239	0.369
ETR	0.136	0.503	−3.099	11.012

TABLE 3: Correlation analysis of each variable.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
EV	1											
RE	0.122**	1										
MED	−0.061	−0.142***	1									
TED	0.068*	0.111**	−0.055	1								
Size	0.022	−0.092**	0.019	−0.045	1							
LEV	−0.092**	−0.164***	0.154***	−0.287***	0.011	1						
FL	0.031	0.065	−0.002	0.017	0.023	−0.049	1					
OC	0.053	0.032	−0.011	−0.019	−0.020	−0.004	−0.004	1				
EBD	0.027	−0.010	−0.055	−0.081**	0.017	0.013	−0.036	0.590***	1			
CD	0.015	0.007	−0.009	−0.026	−0.006	0.053	≤0.001	0.049	0.008	1		
PROA	0.014	0.041	−0.041	−0.131**	0.037	−0.282***	−0.042	−0.013	0.059	−0.014	1	
ETR	0.028	0.007	−0.014	−0.078*	−0.007	0.031	−0.006	−0.046	0.006	0.006	0.071*	1

Note: * $P < 0.1$, ** $P < 0.05$, *** $P < 0.01$, $N = 612$.

FIGURE 2: Scatter diagram. (a) Linear fitting. (b) Quadratic fitting. (c) Combination chart.

TABLE 4: The influence of relational embeddedness on enterprise value.

Variable	M_0	M_1	M_2	M_7
Size	0.078 (0.131)	0.092 (0.132)	0.104 (0.132)	0.083 (0.131)
FL	0.004** (0.001)	0.004** (0.001)	0.003** (0.001)	0.003** (0.001)
LEV	-1.613** (0.658)	-1.573** (0.660)	-1.453** (0.664)	-1.656** (0.642)
OC	1.204 (1.232)	1.132 (1.228)	1.188 (1.221)	1.078 (1.223)
EBD	-0.005 (0.863)	-0.008 (0.858)	0.076 (0.847)	0.069 (0.859)
CD	5.67e-07*** (1.48e-07)	5.88e-07*** (1.51e-07)	5.61e-07*** (1.55e-07)	6.50e-07*** (1.50e-07)
PROA	-0.774 (1.796)	-0.933 (1.779)	-0.901 (1.765)	-1.111 (1.792)
ETR	0.216** (0.089)	0.213** (0.090)	0.221** (0.083)	0.265** (0.082)
RE		0.009* (0.005)	0.023** (0.009)	0.008 (0.005)
RE ²			-0.0003* (0.0001)	
RIC				5.336* (2.910)
F	7.72***	7.31***	7.17***	7.27***

Note: standard error in brackets, * $P < 0.1$, ** $P < 0.05$, *** $P < 0.01$, $N = 612$.

moderate relational embeddedness is conducive to the improvement of enterprise value. The results of model M2 show that excessive relational embeddedness has a negative impact on enterprise value ($P < 0.1$); that is, the excessive relational embeddedness is not conducive to the improvement of enterprise value but will reduce the enterprise value. It can be seen that different levels of relational embeddedness have different effects on enterprise value. There is a significant inverted “U” relationship between relational embeddedness and enterprise value. Too low or too high level of relational embeddedness is not conducive to the improvement of enterprise value. Therefore, hypothesis H1 is examined.

4.2. The Test of Intermediary Role of Resource Integration Capability. Relational embeddedness has a significant positive impact on resource integration capability ($\beta = 0.004$, $P < 0.05$), and resource integration capability has a significant positive impact on enterprise value ($\beta = 5.468$, $P < 0.1$). Hypothesis H2 is verified. As shown in Table 4, the results of

model M7 show that the influence coefficient of relational embeddedness on enterprise value decreases from 0.009 to 0.008, and it is no longer significant, indicating that the resource integration capability does have a complete mediating role in the impact of relational embeddedness on enterprise value. Therefore, H3 is assumed to pass the test.

4.3. The Test of Regulatory Role of Environmental Dynamics

- (1) The test of the regulatory role of market environmental dynamics: in Table 5, the results of model M3 show that market environmental dynamics do not play a significant regulatory role in the positive impact of relational embeddedness on enterprise value. The results of model M4 show that the market environmental dynamics has a significant negative moderating effect on the negative impact of excessive relational embeddedness on enterprise value ($\beta = -0.0004$, $P < 0.05$); that is to say, the moderating effect of market environmental dynamics strengthens the negative impact, thus further

TABLE 5: The moderating effects of market and technology environmental dynamics.

Variable	M_1	M_3	M_2	M_4	M_5	M_6
Size	0.092 (0.132)	0.096 (0.132)	0.104 (0.132)	0.108 (0.132)	0.103 (0.131)	0.112 (0.133)
FL	0.004** (0.001)	0.004** (0.001)	0.003** (0.001)	0.003** (0.001)	0.004** (0.001)	0.003** (0.001)
LEV	-1.573** (0.660)	-1.478** (0.674)	-1.453** (0.664)	-1.385** (0.678)	-1.271* (0.713)	-1.229* (0.716)
OC	1.132 (1.228)	1.167 (1.234)	1.188 (1.221)	1.222 (1.225)	1.067 (1.227)	1.175 (1.221)
EBD	-0.008 (0.858)	-0.074 (0.858)	0.076 (0.847)	0.005 (0.848)	0.155 (0.848)	0.248 (0.846)
CD	5.88e-07*** (1.51e-07)	5.65e-07*** (1.54e-07)	5.61e-07*** (1.55e-07)	5.45e-07** (1.57e-07)	6.19e-07*** (1.52e-07)	5.85e-07*** (1.55e-07)
PROA	-0.933 (1.779)	-0.883 (1.746)	-0.901 (1.765)	-0.867 (1.738)	-0.351 (1.768)	-0.349 (1.740)
ETR	0.213** (0.090)	0.208** (0.089)	0.221** (0.083)	0.217** (0.083)	0.232** (0.082)	0.239** (0.077)
RE	0.009* (0.005)	0.008 (0.005)	0.023** (0.009)	0.023** (0.009)	0.006 (0.005)	0.023** (0.009)
RE ²			-0.0003* (0.0001)	-0.0003** (0.0001)		-0.0003** (0.0001)
MED		-0.533 (0.331)		-0.197 (0.397)		
RE* MED		-0.010 (0.007)				
RE ² * MED				-0.0004** (0.0002)		
TED					0.460 (0.287)	0.481 (0.308)
RE* TED					-0.035* (0.015)	
RE ² * TED						-0.0005** (0.0002)
F	7.31***	6.41***	7.17***	7.63***	7.31***	7.25***

Note: standard error in brackets, * $P < 0.1$, ** $P < 0.05$, *** $P < 0.01$, $N = 612$.

TABLE 6: Summary of robust test results.

Variable	M_1	M_2	M_3	M_4	M_5	M_6	M_7
Size	0.068 (0.158)	0.088 (0.159)	0.073 (0.158)	0.087 (0.160)	0.072 (0.157)	0.075 (0.159)	0.046 (0.156)
FL	0.004*** (0.001)	0.004** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004** (0.001)
LEV	-1.796** (0.753)	-1.402* (0.834)	-1.813** (0.770)	-1.731** (0.776)	-1.442* (0.804)	-1.392* (0.805)	-1.910** (0.723)
OC	0.902 (1.559)	0.726 (1.572)	0.913 (1.563)	0.951 (1.557)	0.831 (1.563)	0.831 (1.556)	0.862 (1.547)
EBD	0.093 (0.973)	0.279 (0.980)	0.078 (0.974)	0.095 (0.971)	0.286 (0.975)	0.384 (0.978)	0.159 (0.970)
CD	5.66e-07** (1.75e-07)	4.73e-07** (1.90e-07)	5.66e-07** (1.77e-07)	5.53e-07** (1.79e-07)	5.96e-07** (1.77e-07)	5.64e-07** (1.79e-07)	6.42e-07*** (1.73e-07)
PROA	-2.724 (2.046)	-1.744 (2.127)	-2.701 (2.105)	-2.654 (2.100)	-2.005 (2.075)	-2.058 (2.055)	-2.962 (2.079)
FTR	0.202** (0.088)	0.201** (0.074)	0.203** (0.088)	0.210** (0.083)	0.220** (0.079)	0.224** (0.073)	0.237** (0.084)
RE	0.010* (0.006)	0.016** (0.007)	0.010* (0.006)	0.021** (0.010)	0.006 (0.006)	0.023** (0.010)	0.009 (0.006)
RE ²		-0.172* (0.098)		-0.0002* (0.0001)		-0.0006** (0.0002)	
RIC							6.672* (3.889)
MED			-0.221 (0.494)	0.181 (0.580)			
RE* MED			-0.016* (0.010)				
RE ² * MED							
TED				-0.0005** (0.0002)			
RE* TED					0.465 (0.286)	0.613* (0.345)	
RE ² * TED					-0.039* (0.021)		
F	9.43***	8.91***	8.13***	8.57***	8.83***	-0.002** (0.001)	10.75***
						8.44***	

Note: standard error in brackets, * $P < 0.1$, ** $P < 0.05$, *** $P < 0.01$

reducing the enterprise value. Therefore, it is assumed that H2a partially is examined.

- (2) The test of the regulatory role of technology environmental dynamics: as shown in Table 5, the results of model M5 show that the technology environmental dynamics has a significant negative moderating effect on the positive impact of relational embeddedness on enterprise value ($\beta = -0.035$, $P < 0.05$). The results of model M6 show that the technology environmental dynamics has a significant negative moderating effect on the negative impact of excessive relational embeddedness on enterprise value ($\beta = -0.0005$, $P < 0.05$). That is to say, the technology environmental dynamics do not weaken the negative impact of the excessive relational embeddedness on enterprise value after the relational embeddedness reaches the inflection point value, but the negative impact of excessive relational embeddedness on enterprise value is further deepened. Therefore, the technology environmental dynamics play a significant negative moderating role in the inverted “U” relationship between relational embeddedness and enterprise value. Therefore, H2b is verified. To sum up, it is assumed that H2 partially passes the test.

4.4. Robust Test. In order to verify the robustness of variable selection, model setting, and research results, new samples are obtained according to the enterprise region.

In this paper, the sample enterprises are divided into three different regions according to their geographical location such as the eastern region, central region, and western region. Taking the eastern region as an example, there is also a significant inverted “U” relationship between relational embeddedness and enterprise value ($P_{RE} < 0.1$, $P_{RE}^2 < 0.1$) as shown in Table 6. Market environmental dynamics and technology environmental dynamics play significant negative moderating roles in the impact of relational embeddedness on enterprise value, and resource integration capability has a complete mediating effect in the impact of relational embeddedness on enterprise value ($\beta_{RE} = 0.009 < 0.010$, $P_{RE} > 0.1$, $P_{RI} < 0.1$); this is basically consistent with the previous results.

5. Conclusion and Discussion

5.1. Conclusion. Firstly, there is a significant inverted “U” relationship between relational embeddedness and enterprise value. Moderate relational embeddedness has a significant positive impact on enterprise value, while excessive relational embeddedness has a significant negative impact on enterprise value due to the existence of relationship maintenance cost and relationship dependence. Therefore, relational embeddedness cannot always improve enterprise value, and its impact on enterprise value has an “inflection point” effect. When the level of relational embeddedness is close to the “inflection point” value, enterprises can obtain more heterogeneous resources and information and

improve enterprise value on the basis of making full use of resources and information. However, when the level of relational embeddedness exceeds a certain threshold, the relational embeddedness makes the enterprise vulnerable to exogenous impact, and the negative impact will be gradually amplified, thus reducing the enterprise value.

Secondly, resource integration capability has a significant mediating effect on the impact of relational embeddedness on enterprise value. The resources and information obtained by relational embeddedness can improve the enterprises’ value through the transmission of resources integration capability. The reason is that the improvement of enterprise resource integration capability is the key to realize enterprise resource value and improve enterprise performance compared with the basic advantage of resource endowment.

In addition, the market environmental dynamics have a partial moderating effect on the impact of relational embeddedness on enterprise value. Before the relational embeddedness reaches the “turning point”, the enterprises’ original resources are enough to cope with the changes of external consumer market demand, and the fluctuation of the market environment does not weaken the effect of relational embeddedness on enterprise value. However, when the relational embeddedness level exceeds the “inflection point” value, it is difficult for enterprises to quickly realize the benign transformation of resource flexibility with the subtle changes in the external market environment due to the strong relationship dependence and resource rigidity, which results in a sharp decline in enterprise value. In addition, the technology environmental dynamics have a significant negative moderating effect on the impact of relational embeddedness on enterprise value. Market environmental dynamics and technology environmental dynamics have different regulatory effects before and after the “inflection point” value. Compared with the market environmental dynamics, the impact of technology environmental dynamics on the relationship between relational embeddedness and enterprise value is more significant; that is, the effect of relational embeddedness on enterprise value is more sensitive to the technology environmental dynamics.

5.2. Theoretical Implications. First of all, previous studies are mostly based on the social network theory to explore the positive impact of relational embeddedness on enterprise value, ignoring the crowding-out effect that enterprises may have due to excessive dispersion of resources, which is not conducive to the promotion of enterprise value. Based on the social network theory and resource-based theory, this paper explores the different effects of relational embeddedness on enterprise value in different situations and finds that relational embeddedness has an “inflection point” effect, which enriches the researches on enterprise embeddedness strategy and paths to a certain extent.

Secondly, this paper explains the intermediate transmission path of relational embeddedness influencing enterprise value based on social network theory and dynamic capability theory. Enterprises obtain more scarce

resources and information by embedding the external market relationship network. On this basis, they should cultivate and make full use of the resource integration capability to achieve the maximum economic benefits of resources and information and ultimately enhance the enterprise value.

In addition, this paper analyzes the boundary conditions of the inverted “U” relationship between relational embeddedness and enterprise value based on the perspective of the external environment. In the past, most of the previous studies focused on the impact of relational embeddedness on enterprise value in a static environment. However, this paper takes the dynamic nature of the market environment and technology environment as situational factors to explore whether the effect intensity of relational embeddedness on enterprise value varies with the change of external environment. This paper finds that market environmental dynamics and technology environmental dynamics play a significant negative regulatory role in the inverted “U” relationship between relational embeddedness and enterprise value, and there are differences in the intensity of their moderating effects before and after the relational embeddedness reaches the “inflection point”. That is, before the relational embeddedness reaches the “inflection point”, the technology environmental dynamics plays a major negative regulatory role. When the relational embeddedness reaches the “inflection point”, the market environmental dynamics plays a major negative regulatory role. Compared with the market environmental dynamics, the technology environmental dynamics have a more significant impact on the relationship between relational embeddedness and enterprise value; that is, the effect of relational embeddedness on enterprise value is more sensitive to the technology environmental dynamics.

5.3. Practical Implications. In view of the fact that different levels of relational embeddedness can bring differentiated enterprise value, enterprises should improve the relational embeddedness and resource integration capability according to the logic of “structure-behavior-performance”, so as to improve the enterprise value. The enlightenment of this paper is as follows.

First of all, when the enterprise embeds the external relationship network to obtain resources and information, it should grasp the “embeddedness degree”, appropriately reduce the enterprise’s dependence on the external relationship network or resources, and improve the utilization rate of its own resources. When facing emergencies, enterprises should enhance the trust level among members of the network, strengthen the interaction or communication frequency, and improve the joint problem-solving efficiency and enterprise value on the basis of sharing resources and information. In addition, enterprises need to further expand their relationship networks and establish cooperative relationships with more enterprises in order to obtain more heterogeneous human capital and social capital. Enterprises should pay more attention to the relationship network density and structure while paying attention to the quality of

the relationship network, so as to occupy the advantageous position of “structure hole” to obtain key resources.

Secondly, enterprises need to strengthen strategic flexibility and technological innovation, develop diversified products to meet the personalized needs of consumers, and realize the effective matching of enterprise resources and capabilities in an external dynamic environment. In addition, enterprises should strengthen the rational allocation of enterprise resources and information in different dynamic environmental situations, improve the stability of cooperative relations with other enterprises in the network on the basis of retaining their own characteristics and strengthening core competitiveness, reduce the relationship maintenance cost or resource coordination among enterprises, and improve the enterprise value to cope with the dynamic changes of external market and technology.

In addition, enterprises should overcome the rigidity of core competence, further cultivate their own resource integration capability, pay attention to the quality and structure of enterprise resources while paying attention to the number of resources, so as to improve the efficiency of reorganization, integration, and reuse of internal and external resources, and finally enhance the enterprises’ value. For example, in the daily operation and management process, enterprises should maintain certain strategic flexibility and strengthen the cultivation of dynamic capabilities, such as resource integration capability, learning capability, and innovation capability. When the external environment changes, it can timely reallocate and utilize the internal and external human resources, technology, and other resources, so as to improve the enterprise value.

5.4. Limitations and Future Research. In view of the constraints of subjective and objective conditions, there are still some deficiencies in this paper. This paper mainly discusses the influence mechanism of relational embeddedness on enterprise value from the perspective of resource integration capability. Future research can integrate various dynamic capabilities, further analyze the synergistic effects of learning capability and innovation capability on enterprise value, and interpret the multiple effects of relational embeddedness on enterprise value more comprehensively. In this paper, we only consider the moderating effect of the external environment on the relationship between relational embeddedness and enterprise value. Future research can comprehensively consider the contingency effects of both internal and external contextual factors, so as to better expand the application boundary of social network theory.

Data Availability

The data sets are available upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest regarding the publication of this article.

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