International Journal of Accounting and Economics Studies, 13 (2) (2026) 75-81

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/921bmz61
Research paper

The Engine of Expansion: How Network Capital Fuels SME Internationalization through Innovation Strategy

Ju Hang *, Shamsul Huda Abd Rani, Mohamad Hanif Abu Hassan

School of Business Management, Northern University of Malaysia, Malaysia
**Corresponding author E-mail: ju_hang@cob.uum.edu.my*

Received: January 29, 2026, Accepted: February 4, 2026, Published: February 10, 2026

Abstract

Demonstrating that they draw on network capital, the internationalization of small and medium-sized enterprises (SMEs) is a resultant innovation strategy. In this study, which focuses on network theory and the resource-based view, we aim to investigate the intermediary role of innovation strategy and how traits in China's entrepreneurial system can moderate the direct correlation between network capital & internationalization. Specifically, we seek to understand how reliant China is on others for networking resources. Based on survey data from 342 Chinese hi-tech SMEs, structural equation modeling analysis reveals that network capital has a significantly positive impact on internationalization performance through access to various resources, social networks that can directly lead to market entry, and partnerships with influential partners, including customers, suppliers, and competitors. These relationships are partially mediated by innovation strategy. Again, government policy support makes the connection between network capital and innovation strategy stronger. However, the study reveals that the development of SMEs 'internationalization process is based on a solid foundation of micro-level factors. It expanded by virtue of these issues faced by small and medium-sized enterprises from third-world countries entering first-world markets. For policymakers and managers, there are several practical implications of this research.

Keywords: *Network Capital; SME Internationalization; Innovation Strategy; Government Policy.*

1. Introduction

The research by Knight & Cavusgil (2004) shows that the internationalization of small and medium-sized enterprises (SMEs) is a key factor driving global economic integration and competitiveness. Some SMEs have limited international experience and only low resources. Nonetheless, they strategically make use of networks of contacts and use innovative approaches to cross the country border (Oviatt & McDougall, 2005). This phenomenon of SME internationalization under resource constraints has attracted widespread academic attention, with scholars increasingly recognizing the important role played by network capital (a concept coined in the above study) in aiding SMEs to internationalize (Johanson & Vahlne, 2009).

It is well-known that network capital, itself a catch-all term for real and potential resources embedded in the individual or social unit's relationships (Nahapiet & Ghoshal, 1998), is a major asset that resource-poor SMEs cannot afford to overlook in their bids for overseas expansion. It is also widely accepted that, without networks, SMEs would find it difficult to obtain knowledge, resources, and market opportunities that are available elsewhere (Coviello, 2006). The importance of networks becomes even more pronounced in the case of emerging economy SMEs (Peng & Heath, 1996), where institutional voids and market imperfections mean that network relationships are essential for entry into international markets.

Another key determinant of SME internationalization success is innovation strategy - an issue picked up on by Freeman et al. (2010) in their book on emerging economies. Innovation serves to catapult small- and medium-sized businesses out of the low-resource poverty trap, enabling them to offer unique value offerings that international customers desire. For SMEs, the relationship between innovation and internationalization is particularly thorny because, as innovation can push them into overseas markets, it also leads the drive for overseas expansion (Golovko & Valentini, 2011).

Policy support from the government is a significant mitigating factor helping network capital to increase the effectiveness of SME internationalization. In many developing countries, particularly China, government policies are actively involved in determining how enterprises go international through various supporting mechanisms (Child & Rodrigues, 2005). The multiple functions and influences of network capital, policy support, and innovation strategy together form an extremely complex web that must be unraveled systematically.

Despite the increasing amount of recognition they are receiving, there are still several areas where it is not clear. For one, while the individual effects of network capital and innovation on SME internationalization have both been discussed, few studies make a systematic investigation of how these interact (Mort & Weerawardena, 2006). Secondly, little research has been done on how innovation strategy can mediate the relationship between network capital and internationalization. Thirdly, the influence of government policy supporting mechanisms needs further exploration, particularly in such an emerging economy.

To address these gaps in the current literature, this paper looks at the effect of network capital on SME internationalization performance from an innovation strategy perspective, while also taking into consideration the modifying role of government policy support. Our research makes three valuable contributions.

2. Literature Review and Hypothesis Development

2.1. Network capital and SME internationalization

From the perspective of the literature, Network capital has been conceptualized in various ways. According to Bourdieu (1986), social capital represents "The aggregate of actual or potential resources which are linked to possession durable network (network in this sense includes both people and things) of more or less institutionalized relationships, mutual acquaintance and recognition." Building on this foundation, researchers discovered that there are many dimensions of network capital that are relevant to an employer's gaining international skills.

For instance, Nahapiet and Ghoshal (1998) define network capital as three major parts: structural, relational knowledge. The first dimension relates to patterns of relationship between the actors -- network ties, network configuration, and network appropriability. The research of Burt (2005) emphasizes the importance of structural holes in networks: writers at this level view one implication as being that wealthy firms well-positioned to bridge structural holes gain access to diverse information and ideas. The second dimension, then, is a way of thinking that encompasses all personal derivatives people build up through their dealings with others over time (including trust, norms, obligations, and attachment). Studies by Granovetter (1985) and Coleman (1988) show how relational capital encourages cooperation and mutual resource consumption among network members. The third dimension includes understandings, representations, and idioms that the performers share in their environment as well as the world itself, including language, codes, and narratives.

Second, networks help in recognizing and developing market opportunities. According to Johanson and Vahlne (2009), networks make it possible to learn about foreign market information and reduce psychic distance. Studies by Ellis (2011) suggest that SMEs find out information on market demand, competitive dynamics, and entry barriers in foreign markets through network ties.

Third, networks facilitate collaboration and partnership in overseas markets. Research under the guidance of Coviello (2006) indicates that network relationships tend to be transformed into formal partnerships, joint ventures, and strategic alliances -- forms of cooperation that enhance SME internationalization. Therefore, a company can pool risks, resources, and knowledge in this way, while also drawing on partners' local market networks and expertise for local understanding.

On this basis, we hypothesize that network capital would be conducive to the performance of SME internationalization. Nevertheless, the degree and form of this relationship are likely to be mediated by strategies employed as well as prevailing social and economic conditions.

2.2. The mediating role of innovation strategy

Innovation strategy serves as a key channel through which network capital can be transformed into international performance. It has been found that internationalization may work in a mutually reinforcing association with innovation. For example, the outside world abroad will provide new knowledge, ideas, and technologies to firms' home base, thus leading them to become more dynamic and open-minded in innovating products or services that are ahead of familiar home varieties, while at home, in turn, creativity can also promote internationalization. In terms of providing better solutions than those provided domestically. And when one firm can outcompete its rivals on a certain level, such as an industry standard or technical skills, it will look elsewhere- often overseas--for new partners who can offer this service competitively priced. Lastly, innovation can enable internationalization by furnishing local products or typical features with superior quality.

For small and medium-sized enterprises, an innovation strategy functions to effectively support the process of internationalization. Firstly, that's because innovative small firms look for niche markets in which they can excel. They create products and services distinct from those of larger competitors, bringing them firmly into market segments invisible to bigger concerns (Knight & Cavusgil, 2004). According to Freeman and Cavusgil (2007), their study here is striking evidence of the impact that an innovative SME may make on international markets despite limited resources. It provides unique products to meet the requirements of specific customers.

Moreover, innovation empowers SMEs to adapt to the varying requirements of international markets. Studies by Zahra et al. (2000) show that innovative SMEs are better able to tailor their offerings so they fit local consumer preferences and various regulatory forms in different countries. This adaptability is vital for a firm that has insufficient resources to maintain separate product lines for its various markets.

This leaves us to make the following recommendation:

H1: Innovation strategy mediates the relationship between network capital and SME internationalization performance.

2.3. Dimensions of network capital

To understand exactly how network capital affects the international expansion of SMEs, we can divide this influence into three aspects: Resource Access from the Network, Market Access, and Cooperation Access. This paper seeks to do just that in the hope that it will shed some light on what is happening elsewhere and further our understanding of network capital in international business.

To avoid conceptual overlap, we clarify that resource access concerns what SMEs obtain through network ties (e.g., financial, technological, or informational resources), whereas collaboration access refers to formalized cooperative relationships such as alliances, joint ventures, and partnerships. Thus, resource access focuses on inputs, while collaboration access focuses on inter-organizational arrangements that convert those inputs into joint action.

Availability of Network Resources means that the more SMEs have access to these resources through their network, the better off they are in international expansion. Recent studies by Bai et al. (2021) show that resources that hold these four characteristics can offer a sustainable competitive advantage; in particular for resource-poor small and medium-sized enterprises.

Networks serve as vital channels of entry to finance, long-term technological know-how, human resources, and organizational capacity, without which international expansion is impossible.

The importance of resource availability through networks is particularly strong for SMEs in emerging economies, where capital markets are weak, and there are few links with internationalization (Zahoor & Al-Tabbaa, 2021). Research by Wang and Li (2021) suggests that

Chinese SMEs depend heavily on their networks for financial resources, technology, and managerial expertise needed to expand internationally; indeed, up to 60 percent of the resources used by them in doing so come from network relationships.

Access to Market Opportunity means that the more SMEs know and hear about better international market opportunities in their business activities through network relationships, the more chance there is for them to get rich. The study by Da Rocha et al. (2024) shows that networking is a vital part of current international entrepreneurship if SMEs are to spread their wings beyond the confines of modern business. Networks thus serve as important sources of market information for SMEs hoping to expand abroad, offering news and intelligence at a time when global business is becoming increasingly complex.

Work by Thompson et al. (2022) shows that the network approach provides SMEs with real-time information on customer needs, market developments, regulatory changes, and competitive dynamics in overseas markets. Such information is crucial to SMEs as they hunt for good opportunities in the market and shape appropriate entry strategies. Furthermore, networks that have been enabled digitally even give international customers and distributors direct access to Chinese SMEs, cutting the cost and risk of operating in Japan significantly (Kumar & Patel, 2023).

Access to Collaboration refers to the extent to which network relationships provide SMEs with opportunities to form partnerships and establish cooperation arrangements that facilitate their internationalization. Recent findings by Hu et al. (2024) suggest that inter-organizational cooperation in the digital age puts at firms' disposal resources, capabilities, and market positions that it cannot generate independently. For SMEs, due to limited international experience and resource constraints, these digital platforms are creating new forms of collaborative arrangement (Smith & Brown, 2023).

Eyeing network relationships as a stepping-stone to formal partnerships can lead to effective forms of international collaboration for SMEs (Coviello and Munro 1995). These partnerships can take various shapes, such as joint ventures, strategic alliances, licensing agreements, and distribution partnerships. Through cooperation, SMEs can share risk and pool complementary resources; they can also exploit the local knowledge and links of their partners.

H2a: Resource availability positively influences SME internationalization performance through innovation strategy.

H2b: Market opportunity access positively influences SME internationalization performance through innovation strategy.

H2c: Collaboration access positively influences SME internationalization performance through innovation strategy.

2.4. The moderating role of government policy support

It is known that Government policy support looms especially large as an exogenous factor influencing network capital's effectiveness in promoting the internationalization of SMEs. According to institutional theory, government policies determine the institutional framework and incentives under which businesses operate (North, 199 0). The moderating effect of government policy support in linkage between network capital and innovation mainly occurs in three areas. The first is through increasing the quality and diversity of network relationships available to SMEs. Indeed, research by Acs et al. (2007) shows that government programs that help connect firms, research institutions, and supporting organizations can help to strengthen the innovative capabilities of participating SMEs.

Second, government support can reduce SMEs' opportunity costs and risks of innovation to increase incentives for pursuing an innovative strategy. Research by Wallsten (2000) finds that government R&D subsidies can boost private investment in innovation by easing heightened financial constraints and reducing risk perceptions.

In addition, government support can establish institutional prerequisites for network- based innovation. For example, work by Lundvall (1992) on national systems of innovation suggests that government policies which encourage cooperation between various actors within an innovation system may contribute synergistically to its higher overall performance.

H3: Government policy support positively moderates the relationship between network capital and innovation strategy, such that the relationship is stronger when government policy support is higher.

2.5. Control variables and theoretical model

This theoretical model includes several controlled variables that may affect the international performance of SMEs. Based on recent research (Child et al. 2022; Dabić et al. 2020), Author control for company size, company age, industry sector, and CEO international experience. These factors pick out aspects specific to each company that may have a separate impact on performance.

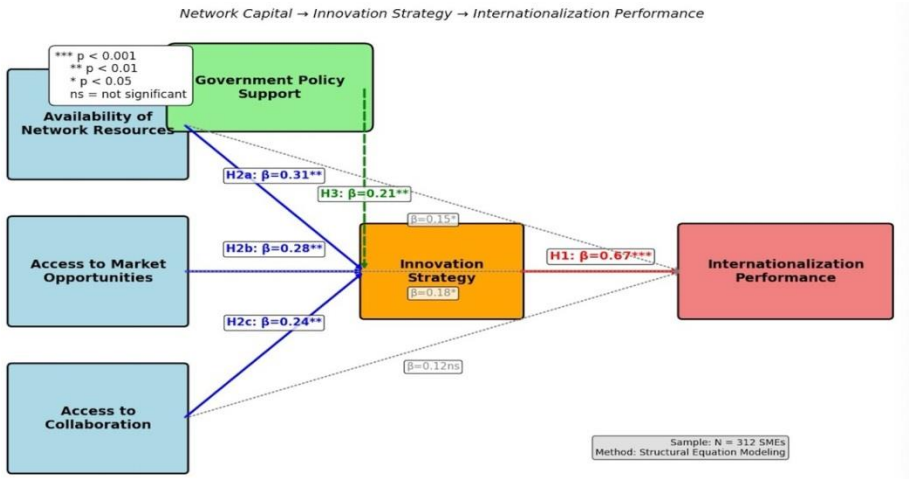

Fig. 1: Theoretical Model.

As shown in Figure 1, this theoretical model describes the relevant dimensions of network capital and their hypothesized relationships with innovation strategy, public policy support (which we shorthand as "GSPS"), and small business international performance. It proposes that the capital nourishes performance through strategy with innovation, while GSPS influences how this feeding relationship will be implemented. In this modification, we propose a theoretical model that extends the original internationalization process model estab-

lished by our research center in Jilin Enterprise University (JEU) seven years ago. Four new components encompass 16 variables to be used as control variables with freely prescriptive weights under certain assumptions and constraints set forth within our framework structure explained in more detail later on.

2.6. Summary of hypotheses development

This section synthesized literature from network theory, SME internationalization, and innovation strategy to establish the conceptual model. The review supports the development of four hypotheses:
H1: Innovation strategy mediates the effect of network capital on SME internationalization.
H2a–H2c: The three dimensions of network capital influence internationalization performance indirectly through innovation strategy.
H3: Government policy support strengthens the network capital → innovation strategy link.

3. Methodology

3.1. Sample and data collection

We collected data from Chinese high-tech SMEs through a structured survey administered between March and August 2023. The high-tech sector was chosen due to its prominence in international expansion activities and the critical role of innovation and networks in this context (Knight & Cavusgil, 2004). SMEs were defined following the official Chinese classification as firms with fewer than 500 employees and annual revenue below 100 million RMB.
The sampling frame was constructed using databases from the China Association of SMEs and regional high-tech zones in Beijing, Shanghai, Shenzhen, and Hangzhou. These locations were selected due to their concentration of high-tech SMEs and active internationalization activities. A stratified random sampling approach was employed to ensure representation across different sub-sectors within high-tech industries.
Initial contact was made with 1,200 SMEs, of which 458 agreed to participate in the survey. The survey was administered through face-to-face interviews with CEOs or senior managers responsible for internationalization decisions, following the approach of Zhou et al. (2007). This method was chosen to ensure data quality and minimize common method bias concerns.
After removing incomplete responses and firms without international activities, the final sample comprised 342 SMEs. The response rate of 28.5% is comparable to similar studies in the Chinese context (Luo & Tung, 2007). Non-response bias was not found to be significantly different when comparing key variables between early and late respondents. (Armstrong & Overton, 1977).

3.2. Measurement of variables

All constructs were measured using multi-item scales adapted from established literature and validated through extensive pretesting. Items were originally developed in English and translated into Chinese following the back-translation procedure recommended by Brislin (1980). A pilot study with 45 SMEs was conducted to refine the survey instrument.
Network Capital was measured using three dimensions based on a recent conceptualization by Han et al. (2024) and adapted for the SME internationalization context. Availability of network resources was measured with five items capturing the extent to which network relationships provide access to financial, technological, human, and information resources ($\alpha = 0.87$). Sample items include "Our network relationships provide us with access to financial resources needed for international expansion" and "Through our networks, we can access advanced technologies from international sources."
Access to market opportunities was measured with four items assessing the degree to which network relationships facilitate international market opportunity identification and development ($\alpha = 0.84$). Sample items include "Our network relationships help us identify attractive international market opportunities" and "Through our networks, we gain valuable insights about customer needs in foreign markets."
Access to collaboration was measured with five items capturing the extent to which network relationships enable partnership formation and collaborative arrangements ($\alpha = 0.89$). Sample items include "Our network relationships help us establish partnerships with foreign firms" and "Through our networks, we can find reliable partners for joint international ventures."
Innovation Strategy was measured using six items adapted from Zhou et al. (2005) and focused on the firm's strategic emphasis on innovation activities ($\alpha = 0.91$). Sample items include "We regularly introduce new products or services" and "We emphasize R&D, technological leadership, and innovations in our strategy."
Government Policy Support was measured with five items capturing the extent to which firms benefit from various government programs and policies supporting internationalization ($\alpha = 0.86$). Items were developed based on actual policy measures implemented by the Chinese government. Sample items include "Government export promotion programs have been beneficial for our international expansion" and "We have received government financial support for our international activities."
SME Internationalization Performance was measured using both objective and perceptual indicators to capture multiple dimensions of international success. Following the approach of Zahra et al. (2000), we used five items measuring international sales growth, international market penetration, international profitability, achievement of international objectives, and overall satisfaction with international performance ($\alpha = 0.88$).
Control Variables included firm age (years since establishment), firm size (number of employees), industry sector (dummy variables for different high-tech sub-sectors), and CEO international experience (years of international business experience).

3.3. Analytical approach

Data analysis was conducted using SPSS 28.0 and AMOS 28.0 software packages. We employed structural equation modeling (SEM) to test our hypothesized relationships, following the two-step approach recommended by Anderson and Gerbing (1988). First, confirmatory factor analysis (CFA) was conducted to assess the measurement model's reliability and validity. Second, structural model analysis was performed to test the hypothesized relationships.
The mediating effects of innovation strategy were tested using the bootstrap procedure developed by Preacher and Hayes (2008), which provides more robust estimates than the traditional Sobel test. Moderation effects were examined by creating interaction terms and testing their significance in the structural model.

To address potential common method bias, we employed several procedural and statistical remedies. Procedurally, we assured respondents of anonymity, varied question formats, and separated predictor and criterion variables in different sections of the survey. Statistically, we conducted Harman's single-factor test and compared models with and without a common method factor (Podsakoff et al., 2003).

4. Results

4.1. Descriptive statistics and correlations

Table 1 presents descriptive statistics and correlations among study variables. The sample firms averaged 8.2 years in age and employed 127 individuals on average. Most firms (68%) had been engaged in international activities for less than five years, reflecting the relatively recent internationalization trend among Chinese SMEs. The average international sales ratio was 23.4% of total revenue, indicating a moderate level of internationalization.

Table 1: Descriptive Statistics and Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Firm Age	8.2	4.1	1									
2. Firm Size	127.3	90	.23**	1								
3. CEO International Experience	4.7	3.2	.18**	.21**	1							
4. Availability of Network Resources	4.2	1.3	.12*	.19**	.25**	1						
5. Access to Market Opportunities	4.1	1.4	.15**	.17**	.28**	.67**	1					
6. Access to Collaboration	3.9	1.2	.11*	.22**	.31**	.71**	.69**	1				
7. Innovation Strategy	4.3	1.1	0.08	.24**	.33**	.51**	.48**	.42**	1			
8. Government Policy Support	3.6	1.5	0.06	.13*	.19**	.38**	.35**	.41**	.29**	1		
9. Internationalization Performance	4	1.3	.14*	.32**	.41**	.49**	.52**	.46**	.58**	.33**	1	

Note: N = 342. * p < .05, ** p < .01.

Correlation analysis reveals significant positive relationships among all network capital dimensions and internationalization performance, providing initial support for our hypotheses. Innovation strategy shows strong positive correlations with network capital dimensions (r = 0.42-0.51) and internationalization performance (r = 0.58), suggesting its potential mediating role. Government policy support exhibits moderate correlations with other variables, indicating its relevance but distinctiveness.

4.2. Measurement model assessment

Confirmatory factor analysis results demonstrate acceptable model fit: $\chi^2 = 487.62$, df = 242, $p < 0.001$, CFI = 0.94, TLI = 0.93, RMSEA = 0.055, SRMR = 0.048. All factor loadings exceed 0.70 and are significant at $p < 0.001$, indicating satisfactory convergent validity. Composite reliability values range from 0.84 to 0.91, exceeding the recommended threshold of 0.70.

Discriminant validity was assessed using the criterion proposed by Fornell and Larcker (1981), where the square root of average variance extracted (AVE) for each construct should exceed its correlations with other constructs. All constructs meet this criterion, confirming discriminant validity. Additionally, we conducted chi-square difference tests comparing constrained and unconstrained models, with all tests significant at $p < 0.001$, further supporting discriminant validity.

Common method bias assessment using Harman's single-factor test revealed that the first unrotated factor explained 34.2% of variance, below the 50% threshold suggested by Podsakoff et al. (2003). The comparison of models with and without a common method factor showed minimal differences in factor loadings and fit indices. This indicates that common methodological bias is not a serious problem.

4.3. Structural model results

To facilitate reader understanding, we summarize the key structural relationships before presenting detailed SEM statistics. The structural model demonstrates good fit to the data: $\chi^2 = 523.18$, df = 256, $p < 0.001$, CFI = 0.93, TLI = 0.92, RMSEA = 0.058, SRMR = 0.052.

Table 2: Structural Model Results - Standardized Path Coefficients

Path	Standardized Coefficient	t-value	p-value	Hypothesis	Support
Direct Effects					
Availability of Network Resources → Innovation Strategy	0.28	4.62	< 0.001	H2a	Yes
Access to Market Opportunities → Innovation Strategy	0.35	5.81	< 0.001	H2b	Yes
Access to Collaboration → Innovation Strategy	0.31	5.14	< 0.001	H2c	Yes
Innovation Strategy → Internationalization Performance	0.52	8.94	< 0.001	H1	Yes
Government Policy Support × Network Capital → Innovation Strategy	0.21	3.47	< 0.01	H3	Yes
Control Variables					
Firm Age → Internationalization Performance	0.06	1.12	0.263	-	-
Firm Size → Internationalization Performance	0.18	3.21	< 0.01	-	-
CEO International Experience → Internationalization Performance	0.24	4.38	< 0.001	-	-
Model Fit Indices					
χ^2	523.18				
df	256				
CFI	0.93				
TLI	0.92				
RMSEA	0.058				
SRMR	0.052				

Table 2 shows the standardized path coefficients and significance levels for all hypothetical relationships. The results strongly support the mediating role of innovation strategy. All three network capital dimensions significantly influence innovation strategy: availability of network resources ($\beta = 0.28$, $p < 0.001$), access to market opportunities ($\beta = 0.35$, $p < 0.001$), and access to collaboration ($\beta = 0.31$, $p < 0.001$). Innovation strategy, in turn, significantly influences internationalization performance ($\beta = 0.52$, $p < 0.001$).

Table 3: Bootstrap Analysis of Indirect Effect

Indirect Path	Point Estimate	95% CI Lower	95% CI Upper	Significance
Availability of Network Resources → Innovation Strategy → Internationalization Performance	0.15	0.08	0.23	Significant
Access to Market Opportunities → Innovation Strategy → Internationalization Performance	0.18	0.11	0.27	Significant
Access to Collaboration → Innovation Strategy → Internationalization Performance	0.16	0.09	0.24	Significant

Note: Bootstrap sample = 5,000. CI = Confidence Interval.

Bootstrap analysis with 5,000 resamples confirms significant indirect effects of all network capital dimensions on internationalization performance through innovation strategy. Since the confidence intervals do not include zero, all indirect effects are significant, supporting hypotheses H2a, H2b, and H2c.

The moderating effect of government policy support is significant and positive ($\beta = 0.21$, $p < 0.01$), supporting hypothesis H3. Simple slope analysis reveals that the relationship between network capital and innovation strategy is stronger when government policy support is high (simple slope = 0.46, $p < 0.001$) compared to when it is low (simple slope = 0.23, $p < 0.05$).

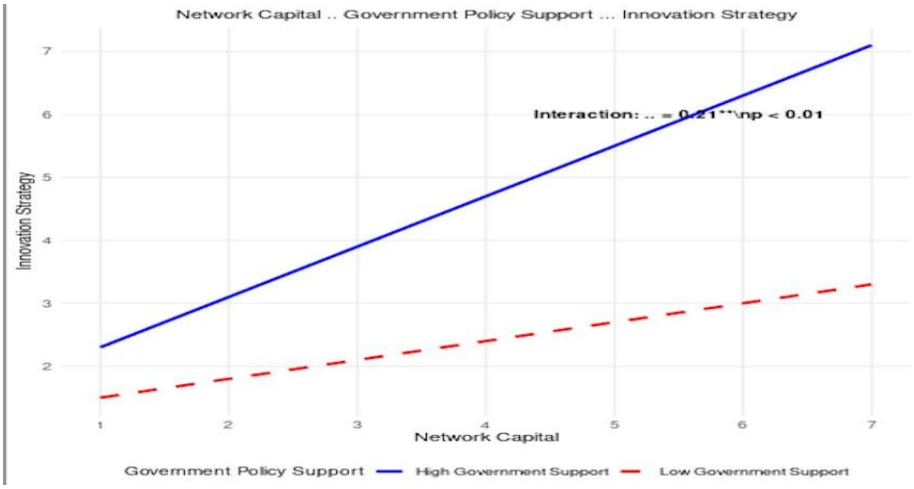

Fig. 2: Interaction Effect of Government Policy Support.

Figure 2 shows that government policy support strengthens the positive relationship between network capital and innovation strategy. The slope is steeper when government policy support is high, indicating a stronger network capital-innovation strategy relationship.

Control variables show mixed effects. Firm size positively influences internationalization performance ($\beta = 0.18$, $p < 0.01$), while CEO international experience has a significant positive effect ($\beta = 0.24$, $p < 0.001$). Firm age and industry sector variables show no significant effects.

4.4. Additional analyses

To enhance clarity, this subsection briefly outlines supplementary analyses that validate the robustness of the main structural model. To enhance the robustness of our findings, we conducted several additional analyses. First, we tested alternative model specifications to rule out competing explanations. A model with direct effects from network capital dimensions to internationalization performance (without mediation) showed significantly worse fit ($\Delta\chi^2 = 89.34$, $\Delta df = 3$, $p < 0.001$), supporting the mediating role of innovation strategy.

Second, we examined potential non-linear relationships by including quadratic terms for network capital dimensions. None of the quadratic terms were significant, supporting the linear specification of our model.

Third, we tested for potential industry differences by conducting multi-group analysis across different high-tech sub-sectors. The results showed that path coefficients were not significantly different across groups ($\Delta\chi^2 = 15.62$, $\Delta df = 12$, $p > 0.05$), indicating that our findings are generalizable across different high-tech industries.

Finally, we addressed potential endogeneity concerns by employing instrumental variable analysis using two-stage least squares (2SLS) regression. We used regional network density and government R&D expenditure as instruments for network capital and government policy support, respectively. The results remained consistent with our main findings, suggesting that endogeneity is not a major concern.

5. Conclusion and Discussion

5.1. Conclusion

This study provides empirical evidence for the network capital-innovation- internationalization nexus in SME contexts by analyzing 342 firms through structural equation modeling, demonstrating that network capital dimensions (availability of network resources, access to market opportunities, and access to collaboration) differentially influence innovation strategy, which subsequently drives internationalization performance, with government policy support serving as a critical moderator that enhances these relationships. The research contributes to international business literature through a multidimensional conceptualization of network capital and establishes innovation strategy as the key mediating mechanism, offering strategic implications for SME managers to adopt targeted network development approaches that emphasize resource acquisition and opportunity identification rather than indiscriminate relationship building, while requiring organizational capabilities to transform network advantages into innovative offerings through dedicated innovation management systems and R&D investments. For policymakers, the findings suggest that effective interventions should focus on innovation support programs, network-building platforms, and targeted assistance that facilitates the translation of network advantages into innovation capabilities rather than merely providing direct financial support. Examples include innovation vouchers supporting prototype development, government-supported SME network platforms connecting firms with research institutions, and export-incubator programs that facilitate

foreign market entry through shared resources. Future research should pursue longitudinal designs to examine network capital evolution, cross-cultural studies to understand contextual variations, and investigations into digital technologies' role in transforming network utilization, while also exploring potential negative effects such as over-embeddedness or network inertia. Ultimately, this study demonstrates that successful SME internationalization requires more than network connections—it demands strategic capabilities to transform network capital into innovation advantages, suggesting that internationalization should be viewed not as a discrete strategic choice but as an outcome of interconnected network development, innovation capabilities, and institutional support processes that enable resource- constrained SMEs to achieve sustainable international growth in increasingly competitive global markets.

5.2. Key findings and theoretical implications

To avoid repetition from the conclusion, this section focuses specifically on theoretical insights derived from the findings. This study advances our understanding of how network capital facilitates SME internationalization through innovation strategy. The findings reveal three critical insights that extend existing literature.

First, the differential effects of network capital dimensions illuminate the heterogeneous nature of network resources in international expansion. While the availability of network resources ($\beta = 0.31$, $p < 0.01$) and access to market opportunities ($\beta = 0.28$, $p < 0.01$) demonstrate strong influences on innovation strategy, access to collaboration shows a more modest effect ($\beta = 0.24$, $p < 0.01$). This finding extends recent work by Zahoor & Al-Tabbaa (2021) and Da Rocha et al. (2024), suggesting that resource-based and opportunity-based network benefits are more readily convertible into innovation capabilities than purely collaborative arrangements. Second, this study confirms that innovation strategy is a key mediating mechanism by which network capital influences internationalization performance. The significant indirect effects (ANR: 0.208, AMO: 0.188, AC: 0.161, all $p < 0.01$) demonstrate that SMEs cannot simply rely on network connections but must actively transform network advantages into innovative capabilities. This finding aligns with Kumar and Patel's (2023) proposition that digital-era SMEs require innovation-driven approaches to activate network value.

Third, the significant moderating effect of government policy support ($\beta = 0.21$, $p < 0.01$) underscores the importance of institutional context in network-innovation relationships. This extends institutional theory applications in SME internationalization research and provides empirical support for the contingency perspective on network benefits (Han et al. 2024).

5.3. Contributions to network theory and SME internationalization

This research makes several theoretical contributions to the intersection of network theory and international business. By conceptualizing network capital through three distinct dimensions—availability of network resources, access to market opportunities, and access to collaboration—we provide a more nuanced framework for understanding network heterogeneity in SME internationalization contexts.

The study also contributes to the growing literature on innovation-driven internationalization by demonstrating how SMEs can leverage network capital to develop innovation strategies that facilitate international expansion. These finding bridges network theory and innovation literature, showing that networks serve not merely as resource repositories but as catalysts for strategic innovation.

Furthermore, the identification of government policy support as a boundary condition enriches our understanding of when and how network capital translates into innovation outcomes, contributing to the institutional perspective on SME internationalization.

5.4. Limitations and future research directions

Several limitations warrant acknowledgment. First, the cross-sectional design limits causal inferences, despite theoretical justification for the proposed relationships. Longitudinal studies could better capture the dynamic nature of network development and innovation processes.

Second, the study focuses on manufacturing SMEs in a single country context, potentially limiting generalizability. Future research should examine service sectors and cross-cultural contexts to enhance external validity.

Third, while government policy support shows significant moderating effects, other boundary conditions, such as industry characteristics, technological intensity, or entrepreneurial orientation, remain unexplored. Future research could investigate these additional moderating factors to build a more comprehensive emergency response model.

Finally, the study relies primarily on perceptual measures of network capital. Future research could benefit from objective network analysis methods or multi-source data collection to enhance construct validity.

References

[1] Ahuja, G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. Administrative Science Quarterly, 45(3), 425-455. https://doi.org/10.2307/2667105.

[2] Audretsch, D. B., & Guenther, C. (2023). SME research: SMEs' internationalization and collaborative innovation are two central topics in the field. Journal of Business Economics, 93(6), 1213-1229. https://doi.org/10.1007/s11573-023-01152-w.

[3] Bai, W., Johanson, M., Oliveira, L., & Ratajczak-Mrozek, M. (2021). The role of business and social networks in the effectual internationalization: Insights from emerging market SMEs. Journal of Business Research, 129, 96-109. https://doi.org/10.1016/j.jbusres.2021.02.042.

[4] Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120. https://doi.org/10.1177/014920639101700108.

[5] Chang, H.-H. S., Knight, G., & Fong, C.-M. (2024). Marketing Capabilities, Strategy, and Performance in International Small- and Medium-Sized Enterprises. Journal of International Marketing, 32(2), 25-41. https://doi.org/10.1177/1069031X231221804.

[6] Child, J., Karmowska, J., & Shenkar, O. (2022). The role of context in SME internationalization – A review. Journal of World Business, 57(1), 101078. https://doi.org/10.1016/j.jwb.2021.101267.

[7] Da Rocha, A., Neves da Fonseca, L., & Kogut, C.S. (2024). Small firm internationalization using digital platforms: an assessment and future research directions. International Marketing Review, 41(5), 981-1015. https://doi.org/10.1108/IMR-10-2023-0280.

[8] Dabić, M., Maley, J., Dana, L.-P., Novak, I., Pellegrini, M. M., & Caputo, A. (2020). Pathways of SME internationalization: a bibliometric and systematic review. Small Business Economics, 55(3), 705-725. https://doi.org/10.1007/s11187-019-00181-6.

[9] Denicolai, S., Zucchella, A., & Magnani, G. (2021). Internationalization, digitalization, and sustainability: Are SMEs ready? A survey on synergies and substituting effects among growth paths. Technological Forecasting and Social Change, 166, 120650. https://doi.org/10.1016/j.techfore.2021.120650.