

MODEL OF THE MEDIATING ROLE OF OPEN INNOVATION BETWEEN SOCIAL CAPITAL AND SMES PERFORMANCE SUCCESS IN GUANGDONG, CHINA

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ABSTRACT

This study presents a comprehensive model examining the mediating role of open innovation in the relationship between social capital and the performance success of Small and Medium-sized Enterprises (SMEs) in Guangdong, China. In the context of an increasingly globalized world and rapid advancements in technology, it is crucial to comprehend the intricate interplay among social capital, open innovation, and the performance of Small and Medium-sized Enterprises (SMEs). Through a structured survey of SMEs in Guangdong, data were collected and analyzed using a structural equation model. The results reveal a significant positive correlation between social capital and SMEs' performance success. Notably, open innovation emerges as a crucial mediator in this relationship, signifying its pivotal role in channeling the influence of social capital towards enhanced SME performance. These findings contribute valuable insights for practitioners and policymakers seeking to optimize the interplay between social capital and open innovation, fostering a conducive environment for SME performance success in Guangdong, China.

Keywords: Social Capital, Open Innovation, Small and Medium Enterprises (SMEs) Performance Success

INTRODUCTION

In the contemporary business landscape characterized by globalization and rapid technological progress, Small and Medium-sized Enterprises (SMEs) play a pivotal role in driving economic growth and innovation. Within this dynamic environment, understanding the intricate relationships between various business elements is essential for sustaining and enhancing SMEs' performance. However, what is the relationship between social capital, open innovation and SMEs performance success? This research focuses on the nexus of social capital, open innovation, and the success of SMEs in Guangdong, China.

As a significant economic center, Guangdong offers a distinctive setting for examining the elements that impact the performance of Small and Medium-sized Enterprises (SMEs). McCallum & O'Connell

(2009) argued that actively cultivating elements, such as establishing relationships, promoting trust, goodwill, and reciprocity, is necessary for organizations to fully enhance their leadership capabilities. Social capital consists of the connections between individuals, the trust between individuals, and the common goals and objectives held by individuals (cognitive) (Butticè et al., 2017). Concurrently, Open innovation, distinguished by collaborative and outward-oriented methods in innovation, has become increasingly important as a crucial strategy to maintain competitiveness in a globalized economy. Proposed classifications for open innovation include OI behavior and cognition, OI strategy and design, OI stakeholders, OI ecosystem, and open governance (Bogers et al., 2017). Expanding on these principles, Open Innovation represents a paradigm that urges organizations to incorporate both external and internal ideas and avenues for market access. This approach entails the integration of internal and external knowledge to generate innovations, creating a bidirectional process where knowledge is exchanged both within and beyond the firm's confines (Asada et al., 2020).

The success of Small and Medium-sized Enterprises (SMEs) encompasses operational aspects, including elements related to products, process quality, efficiency, and productivity. Additionally, it involves financial performance indicators such as profitability, return on investment, and share price (Rumanti et al., 2022). Kamall Khan et al. (2022) emphasized the categorization of SME firm performance into clear divisions, specifically focusing on firm efficiency, effectiveness, and growth. In their research, Doan et al. (2023) segmented the evaluation of SMEs' performance based on gross profit and labor productivity. Duke et al. (2023) shed light on the sustainability of a firm's operations.

This research aims to explore the intricate relationships between social capital and the performance of Small and Medium-sized Enterprises (SMEs), with a particular emphasis on the mediating role of open innovation. By doing so, it seeks to unravel how social capital, embedded in the local context of Guangdong, influences SMEs performance success, and how open innovation acts as a catalyst in this relationship. The insights generated from this research are anticipated to provide valuable guidance for SMEs, policymakers, and researchers interested in optimizing the interplay of social capital and open innovation for sustainable business success in the region and beyond.

OBJECTIVE

To investigate and understand the relationships among social capital, open innovation, and the performance success of Small and Medium-sized Enterprises (SMEs) in Guangdong, China. The study aims to provide valuable insights into how social capital influences SMEs' performance success and how open innovation acts as a mediating factor in this relationship.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Social Capital

Social capital emerges from the collaboration among individuals or teams who exchange their opinions (Lins et al., 2017). It encompasses the relationships and networks among organizations and individuals, entailing significant importance in the success and growth of contemporary organizations because networking and relationship management has become the need of intangible assets to survive and succeed in the long term (Rababah et al., 2022).

Samad (2020) had confirmed two dimensions of social capital: communication and teamwork. Furthermore, it can be divided into three dimensions: structural capital, relational capital, and cognitive capital. These dimensions encompass factors such as social networks, trust, and shared norms and values (Jahanshahi et al., 2020; Lang et al., 2023; Laxamanan & Rahim, 2018). Social Capital dimensions were grouped into the internal and external social capital by Rababah et al. (2022) and Al-Tit et al. (2022). In the manufacturing sector of Pakistan, shared goals, networks, and trust were identified as three major constructs of social capital (Ullah et al., 2022). In Tanzania, social capital is also measured by membership in a business association and trust (Seluhinga, 2022); In the context of micro, small, and medium-sized restaurants, Borazon et al. (2022) investigated various aspects of social capital concerning the entrepreneur's educational background, professional experience, and age. Furthermore, the study identified associations between the entrepreneur's age and the duration of work experience with the firm's growth. Additionally, the age of the entrepreneur was found to be connected to the competitiveness of the firm. As a result, a direct correlation between social capital and both the growth and competitiveness of the firm was established. Furthermore, social capital serves as a mediator in the impact of human capital on the growth and competitiveness of the firm (Borazon et al., 2022). In crafted business groups, social capital, including beliefs, norms, and networks, fosters sustainable relationships between craftsmen (Putro et al., 2022). In China, institutional social capital, technological social capital and market social capital are three major dimensions (Zhu et al., 2023); on the tourism sector in Southeast Asian countries, Annamalah et al. (2023) focused that human capital, structural capital, and relational capital all play a positive role in the development of social capital; Acquah et al. (2023) examined the social capital in two aspects: structural social capital and relational social capital; Doan et al. (2023) revealed that social capital, encompassing both financial social capital and political social capital, emphasizing the importance of social interactions with creditors, politicians, and civil servants.

The literature on social capital delineates diverse dimensions, including communication, teamwork, structural, relational, and cognitive aspects. Internal and external social capital categories are explored, with studies examining its measurement in various sectors and contexts.

SMEs Performance Success

The dimensions of SMEs' performance success explored in the referenced studies encompass various critical aspects of business success and effectiveness. Some of these dimensions are as followed:

Duygulu et al. (2016) analyzed three facets of performance, encompassing financial, market, and production dimensions. Zuhir et al. (2019) evaluated the performance of SMEs, specifically focusing on factors such as growth, profitability, and sales. Enterprises with a strong market orientation enjoy benefits in two essential aspects. These include non-financial performance metrics such as the launch of innovative products, sales volume, market share, market advancements, and workforce developments. Furthermore, these advantages extend to political and public affairs, as well as financial performance indicators, comprising return on investment, profit, operational cash flow, solvency (equity ratio and gearing), and cost control (Länsiluoto et al., 2019). Similarly, different dimensions of entrepreneurial marketing, specifically emphasizing opportunity focus, resource leveraging, and value creation, are directed towards the unique aspects of SME performance (Sadiku-Dushi et al., 2019). Furthermore, there were also a set of other ten key indicators, including Value Added at Factor Costs; Corruption Perceptions Index; Rate of Fund Absorption; Gross Domestic Product at Market Prices; Expenditure by the General Government; Rate of Inflation; Life Expectancy at Birth; Individuals Facing the Risk of Poverty or Social Exclusion; Unemployment (Annual Average) (Cicea et al., 2019). Given the inclination of SMEs to neglect competitive factors, this study explores the connection between competitor orientation and organizational performance. It underscores that SMEs aiming for optimal organizational performance should give priority to a vigilant consideration of competitors, establishing and sustaining competitive enterprises for

long-term success (Al-Hakimi et al., 2023; O'Dwyer & Gilmore, 2019). The delineation of organizational performance involved two dimensions, specifically, non-financial performance incorporating innovativeness, competitive advantage, and customer satisfaction, alongside financial performance (Samir, 2020). The success of firm performance involves operational aspects, covering elements related to product characteristics, process quality, efficiency, and productivity. Additionally, it includes financial performance indicators such as profitability, ROI, and share price (Rumanti et al., 2022). Kamall Khan et al. (2022) highlight the delineation of SME firm performance into distinct categories, namely firm efficiency, effectiveness, and business growth.

The literature on SMEs' performance success covers various dimensions, including financial, market, and production aspects. Researchers have explored growth, profitability, and sales as key indicators. Market-oriented firms are found to benefit in both non-financial aspects, such as the creation of new products, sales volume, market share, and workforce developments, as well as financial performance indicators like ROA, profit, and cash flow. Entrepreneurial marketing dimensions, competitor orientation, and organizational sustainability have also been examined. Overall, this comprehensive synthesis underscores the diverse perspectives contributing to our understanding of SMEs' performance success.

Open Innovation

According to Asada et al. (2020), Open Innovation (OI) is a paradigm that encourages organizations to utilize both external and internal ideas and pathways to the market. It entails integrating internal and external knowledge to innovate, leading to a bidirectional process where knowledge circulates both within and beyond the confines of the firm.

Dimensions

To broaden the scope of OI research, other studies have introduced additional indicators to assess its impact. For instance, indicators like the degree of technology use, utilization, and recognition have been incorporated into the study of OI. Bogers et al. (2017) a framework for future Open Innovation, encompasses key dimensions: OI behavior and cognition, OI strategy and design, OI stakeholders, OI ecosystem, and open governance. In Portuguese SMEs, Almeida (2021) conducted a quantitative study to explore the diversity of open-innovation practices adopted by , considering the outside-in, inside-out, and coupled paradigms. De Marco et al. (2020) focused on external challenges, intended as “proxies of non-observable engagement of SMEs in challenging dimensions of conducting OI strategies”, specifically, avoiding transaction costs of managing partnerships and opportunistic behaviors through time-intensive partner searches, negotiations and management of collaboration. Valdez-Juárez & Castillo-Vergara (2021) proposed a OI construct comprising two dimensions: inbound and outbound to examine Open Innovation. The inbound dimension focuses on exploring external sources of innovation, such as information and new technology obtained from customers, suppliers, competitors, government entities, consultants, universities, or research organizations; the outbound dimension emphasizes the development of internal innovation capabilities and the sharing of outcomes with external entities through licensing, patents, or contracts, aiming to gain financial and non-financial benefits (Rumanti et al., 2022; Wang et al., 2023; Zhu et al., 2023).

Relationships between social capital and SMEs performance success

Social capital is an important element in the success of businesses, particularly small and medium-sized enterprises (SMEs). Numerous studies have highlighted the close link between social capital and SME performance. Boohene et al. (2020) uncovered a positive association between social capital and emotional intelligence, as well as a beneficial correlation between emotional intelligence and the performance of small and medium-sized enterprises. According to another study conducted by Samad (2020), a significant correlation is evident between social capital and a firm's innovation performance, contributing to the establishment of more judicious and sustainable organizations. In various industries and countries, social capital has been found to have significant impacts on different aspects of performance. Similarly, in the manufacturing sector of Pakistan, Social capital was identified as an intermediary between ethical leadership and employees' innovative performance (Ullah et al., 2022). Moreover, Rababah et al. (2022) carried out research within manufacturing firms, the study highlighted the significance of cultivating social capital both internally and externally. This cultivation was found to have a positive influence on the comprehensive performance of manufacturing firms, encompassing financial outcomes like profitability, as well as non-financial aspects such as reputation and customer satisfaction. Doan et al. (2023) recognized a favorable synergistic impact between innovation and social capital on SME performance. Their investigation underscored that enterprises with elevated social capital levels are more inclined to participate in innovative endeavors, resulting in enhanced performance results. This indicates that social capital functions as a stimulant for innovation, empowering SMEs to navigate market dynamics, capitalize on opportunities, and attain enduring growth.

In summary, a robust correlation exists between social capital and the performance of small and medium-sized enterprises. As a result, it is advisable for SME owners and managers to prioritize the cultivation of social capital. Social capital has been demonstrated to have a positive impact on the performance of small and medium-sized enterprises (SMEs), with some existing studies supporting this assertion. However, research on the role of open innovation as a crucial intermediary in this relationship is relatively scarce. This research addresses a gap by focusing on Guangdong, China, examining the impact of social capital on SME performance through the mediation of open innovation. Furthermore, in addition to financial, non-financial performance dimensions, and business growth, this study takes into account another dimension—performance relative to competitors—which has been relatively underexplored in recent research. Based on these considerations and the economic characteristics of Guangdong, this research is positioned to provide fresh perspectives, encompassing both theoretical and empirical aspects, to the relevant domain focused on small and medium-sized enterprises.

Development of Hypothesis

From a comprehensive review of the literature and related research, the significance of the variables can be summarized as follows. The independent variable assesses the level of social capital, encompassing three indicators: 1. social structural capital, 2. social relational capital, and 3. social cognitive capital, leading to a comprehensive examination of social capital across all three measures. The mediating variable gauges the level of open innovation, with two indicators: 1. inbound innovation and 2. outbound innovation, contributing to a thorough assessment of open innovation across both measures. The dependent variable evaluates the level of SMEs performance success, involving four indicators: 1. financial performance, 2. non-financial performance, 3. business growth, and 4. performance relative to competitors, facilitating a comprehensive exploration of SMEs performance success across all four measures. In summary, all variables are measured through 9 dimensions. The hypothesis development is as follows:

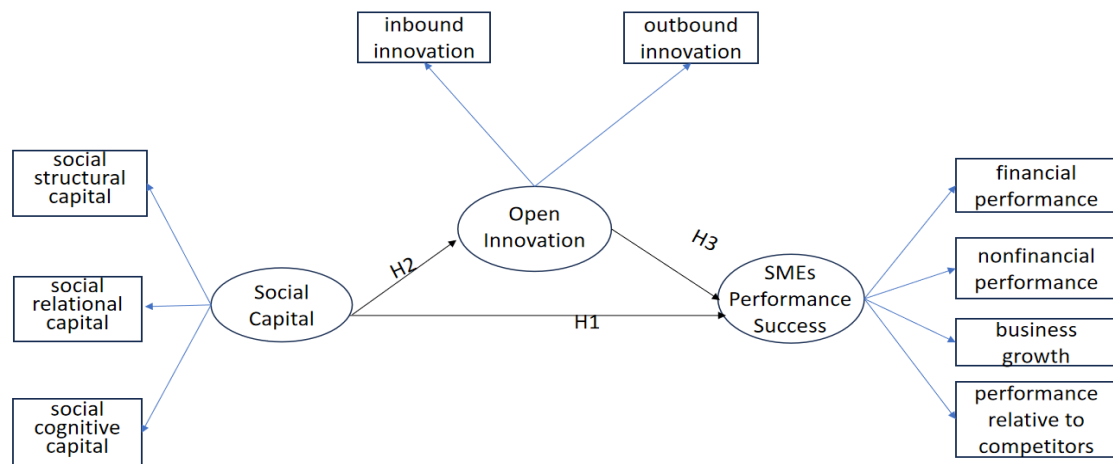
Hypothesis 1: Social capital positively influences SMEs' performance success.

Hypothesis 2: Social capital positively influences open innovation.

Hypothesis 3: Open innovation positively influences SMEs' performance success.

The overall research hypothesis framework is shown in Figure 1.

Figure 1 Overall Research Hypothesis Framework Diagram



CONCLUSION AND FUTURE WORK

This study has constructed a model of relationship among social capital, open innovation, and SMEs performance success. At the same time, the mediating role of open innovation is analyzed. The study employs both qualitative and quantitative methods to ensure a holistic understanding of the relationship between social capital and SMEs performance success. This study contributes valuable insights to the understanding of factors influencing SMEs in the contemporary business landscape, underscoring the importance of cultivating social capital and fostering open innovation initiatives to enhance the performance and competitiveness of SMEs. In the ever-changing business environment, the insights can inform strategic decisions for SMEs aiming to thrive in competitive markets. By leveraging social capital and embracing open innovation, SMEs can position themselves for performance success in the face of evolving challenges. However, it is essential to acknowledge the evolving nature of business dynamics, and future research should continue to explore emerging trends and challenges within this context.

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