Contents lists available at ScienceDirect



Technological Forecasting & Social Change



journal homepage: www.elsevier.com/locate/techfore

Causation processes and innovation strategy in small- and medium-sized firms in emerging countries: The moderating role of founder-CEOs' human capital

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ARTICLE INFO

Keywords: Innovation Human capital Founder-CEO Causation Marketing experience Technological experience SME Emerging countries

ABSTRACT

In the dynamic and resource-constrained environment of emerging countries, small- and medium-sized enterprises (SMEs) face unique challenges in pursuing innovation strategy. This study addresses a critical gap in understanding how founder-CEOs' causation processes interact with human capital to shape SMEs' innovation strategy. While previous research has separately explored the impact of causation processes on innovation and the influence of founder-CEOs' managerial experience, these streams remain disconnected. Drawing on human capital theory, we investigate how adopting causation processes affects innovation strategy in emerging country SMEs, focusing on the moderating role of founder-CEOs' human capital. Our primary analysis utilises two waves of multi-informant survey data from 103 Indian SMEs. Results reveal that founder-CEOs' specific human capital moderates the relationship between causation processes and innovation strategy. This moderating effect strengthens with rich marketing experience but weakens with extensive technological experience. We supplement our findings with qualitative insights from interviews with 14 Indian and 19 Chinese SME founder-CEOs. This additional analysis provides further context and validates the applicability of our results. Our research contributes to a nuanced understanding of SME innovation dynamics in emerging countries and offers valuable implications for both theory and practice in fostering innovation-driven growth in this vital economic context.

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https://doi.org/10.1016/j.techfore.2024.123954

Received 11 March 2024; Received in revised form 19 October 2024; Accepted 14 December 2024 Available online 27 December 2024 0040-1625/© 2024 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1. Introduction

The rise of emerging countries¹ has shifted the focus of SMEs² from manufacturing for Western brands to developing their own products. This change has made innovation strategy crucial for SMEs in these regions (Adomako et al., 2024; Wei and Wang, 2011). Founder-CEOs play a key role in shaping SMEs' innovation strategies. As "founders", they transform ideas into viable business models through strategic planning (Brinckmann and Kim, 2015). As "CEOs", they manage daily operations (Richbell et al., 2006; Wan et al., 2023). This dual role positions founder-CEOs uniquely to influence both the long-term strategic direction and the day-to-day execution of business activities. Their impact is particularly strong in emerging countries, where organisational governance is often less developed than in mature markets. Here, founder-CEOs have considerable discretion in planning and management decisions (Tang et al., 2021a; Zhou et al., 2013). Despite their critical role, current literature inadequately explores how founder-CEOs influence planning and management activities for innovation in emerging countries. Whilst research has found that several founder-CEO characteristics, such as power dynamics, passion, and risk-taking propensity (e.g., Barrett et al., 2021; Pan et al., 2024; Sewpersadh, 2019; Strese et al., 2018) shape SMEs' innovation strategies, studies lack focus on the influence of founder-CEOs' strategic planning and management activities on these strategies.

More specifically, previous studies suggest that causation processes play a crucial role in the strategic planning of SMEs (e.g., Chandler et al., 2011; Vishnevskiy et al., 2016). These processes involve a deep engagement in strategic planning, emphasising the importance of selecting the most appropriate methods to achieve predetermined goals. Human capital theory suggests that founder-CEOs' strategic planning capacity links to their skill in analysing the business environment, setting achievable targets, and developing tactics (Brinckmann et al., 2019). However, the impact of causation processes on SMEs' innovation remains debated. Some studies show positive effects (e.g., Batra et al., 2018; Vanderstraeten et al., 2020), while others find less favourable outcomes (e.g., Arend et al., 2017; Song et al., 2011). These conflicting findings suggest a complex relationship, likely contingent on other factors. Although previous research has indicated that top management plays contingent roles in how strategic planning influences firms' innovation strategy (e.g., Posch and Garaus, 2020), these studies have been limited in scope and have not specifically focused on SMEs. Addressing this gap is crucial. It would help policymakers improve SME innovation programmes and identify founder-CEO best practices, boosting sustainable development and competitiveness while addressing environmental concerns.

This study posits that founder-CEOs' management activities can act as a contingent factor in the relationship between causation processes

and SME innovation in emerging countries. This perspective draws on human capital theory, which suggests founder-CEOs' management engagement is influenced by their specific human capital and specialised experience. Human capital theory distinguishes between general and specific human capital in SMEs. General human capital comprises broad skills and knowledge, while specific human capital refers to founder-CEOs' ability to manage effectively in areas like strategic planning (Wiklund and Shepherd, 2003). This specific human capital typically develops through applying knowledge and skills to solve particular problems (Davidsson and Honig, 2003; Ganotakis et al., 2021). It often includes startup, management, and rapid-growth organisational experience, equipping founder-CEOs with insights relevant to SMEs' strategic planning challenges. Specialised experience, another key aspect, refers to subject-specific know-how and experience (Gruber et al., 2012, 2008), such as expertise in marketing (Rajagopal, 2019) or technology (Blank and Carmeli, 2021). Such specialised experience significantly influences how founder-CEOs approach management activities and, by extension, how they plan with a focus on attaining strategic goals within their SMEs.

To investigate our thesis, we collected and analysed two-wave multiinformant quantitative survey data from 103 Indian SMEs. To gain deeper insights and enhance the generalisability of our findings, we supplemented this data with qualitative analyses. These qualitative analyses involved interviews with founder-CEOs from 14 Indian SMEs and 19 Chinese SMEs. This methodological approach allowed us to triangulate our data and provided a more comprehensive understanding of the impact of causation processes and human capital on the strategic planning and innovation within SMEs. In general, this research addresses the gap in understanding how founder-CEOs influence planning and management activities for innovation in SMEs within emerging countries. The study's objective is to investigate the complex relationship between causation processes and SME innovation, with a specific focus on the contingent role of founder-CEOs' management activities. The novelty lies in its exploration of how founder-CEOs' human capital and specialised experience moderate the impact of strategic planning on innovation outcomes in SMEs. By combining quantitative survey data from Indian SMEs with qualitative insights from both Indian and Chinese SMEs, this study offers a unique and comprehensive perspective on the dynamics of SME innovation in emerging countries.

2. Theory and hypotheses

2.1. Literature background

This research intersects two key literature streams: 1) entrepreneurial decision-making in innovation and 2) the role of human capital in fostering innovation. Fig. 1 provides a visual representation of these streams and situates our study within this academic landscape.

The entrepreneurial decision-making literature identifies two fundamental processes: causation and effectuation. Causation is a goaldriven, predictive approach focusing on strategic planning, while effectuation is a means-driven, non-predictive approach leveraging available resources (Chandler et al., 2011; Cherbib, 2024; Racat et al., 2024). Researchers have categorised this stream into three main areas. The first examines causation processes' impact on innovation outcomes (e.g., Posch and Garaus, 2020; Vanderstraeten et al., 2020), yielding mixed results. More specifically, some studies find positive correlations (Batra et al., 2018; Kristinsson et al., 2016), while others report negative impacts (Arend et al., 2017; Song et al., 2011). The second category explores effectuation processes' influence on firms' innovation outcomes, generally indicating a positive correlation (e.g., Ko et al., 2021; Li et al., 2024; Ryman and Roach, 2024). The third category investigates both decision-making processes simultaneously, addressing whether firms should select one form or pursue them concurrently (e.g., Harms et al., 2021; Kamble et al., 2023; Khan et al., 2024). For example, Alzamora-Ruiz et al. (2021) suggest that combining effectuation and

¹ Emerging countries are classified differently by organisations like the IMF, the World Bank, and financial institutions. Nevertheless, they tend to agree that the emerging countries are nations in the process of transitioning from the developing to the developed stages of their development, with rapid growth, increased global integration, and changing market structures (Duttagupta and Pazarbasioglu, 2021). Market-oriented reforms and high growth rates are typical characteristics of these countries. Even though these countries are becoming significant players in the global economy, they often suffer from greater volatility, political instability, and less developed regulatory systems than mature economies (Knoop, 2013).

² SME refers to businesses that fall below certain thresholds in terms of personnel, revenue, or assets, and their definitions differ from country to country. For example, in India, SMEs are referred to as small and medium-scale industrial units (SSI) and industrial units of the medium size. An industrial unit that has invested up to 10 million Rupees in its fixed assets, leases, or hire-purchases is considered an SSI unit, while an industrial unit that invests up to 100 million Rupees is considered a medium unit (DSIR, 2004). In China, the classification depends on the industry sector. A retailer, for instance, is defined as an SME if it employs <500 employees and earns <150 million Renminbi annually, while an industrial firm is defined as an SME if it employs <2000 employees and earns <300 million Renminbi annually (Chen, 2023). Because of their smaller size, they often face resource constraints and difficulty attracting and retaining qualified employees (Gimenez-Fernandez et al., 2020; Ko and Liu, 2017).</p>



The connection between these two literature streams is the focus of this research



causation is beneficial for product innovation in technology SMEs, while an ambidextrous strategy may be more effective for process innovation. Berends et al. (2014) propose that effectuation drives early-stage product innovation, with causation becoming more prominent later. Futterer et al. (2018) argue that both processes contribute to business model innovation, with their effectiveness varying based on industry growth rates.

The human capital - innovation literature explores human capital's role in affecting innovation outcomes, categorised into five main areas. The first area adopts a macro perspective, examining human capital's impact on economic development through innovation at regional or global levels. This perspective considers how the overall education, skills, and expertise of the workforce contribute to the innovative capacity of a region or country (e.g., Alfalih and Hadi, 2024; Alvarado et al., 2023; Danquah and Amankwah-Amoah, 2017). The second area examines the human capital development processes and systems that firms have implemented to enhance their human capital, such as training and development programs, and the impact these processes and systems have on innovation performance. These studies focus on the investment firms make in their employees' skills and knowledge in order to enhance their innovative capabilities (e.g., Nagshbandi et al., 2023; Van Uden et al., 2017; Yao et al., 2023). The third area explores how the specific qualifications and backgrounds of leaders within firms (e.g., founders, CEOs, or the top management team) serve as crucial elements of a firm's human capital that influence the firms' ability to innovate. This research focuses on understanding how the education, skills, and experiences of these leaders impact the firm's innovative capabilities and outcomes (e.g., Chin et al., 2021; Grilli et al., 2023; Kato et al., 2015; Tzabbar and Margolis, 2017). The fourth area examines how the collective human capital of employees impacts firm-level results such as patents, new product development, and overall innovation (e.g., Demircioglu et al., 2024; Hang et al., 2024; Prajogo and Oke, 2016). The fifth area focuses on employee results, exploring how their (individual- or team-based) educational backgrounds, skills, and professional experiences enhance their ability to develop novel ideas and solutions. (e.g., Han et al., 2014; Huang et al., 2023; Sujatha et al., 2023).

Our research aims to bridge two streams of literature, particularly focusing on causation processes within the entrepreneurial decisionmaking and innovation literature, and the human capital of leaders within the human capital and innovation literature. We seek to explain that the conflicting findings regarding the relationship between causation processes and innovation are contingent on founder-CEOs' human capital. Our study is unique in several ways. First, we argue that founder-CEOs' decisions to adopt causation processes in decisionmaking can lead to the pursuit of innovation strategies. Second, we propose that founder-CEOs' specific human capital moderates this association, amplifying the relationship. Third, we identify that the key determinant of these conflicting findings is based on founder-CEOs' specialised experience. Specifically, founder-CEOs' marketing experience enhances the positive moderating effect of specific human capital, thereby strengthening the impact of causation processes on SME innovation strategy. In contrast, founder-CEOs' technological experience reduces this positive moderating effect, diminishing the impact of causation processes on innovation strategy. Fig. 2 depicts the proposed framework. Causation processes serve as the independent variable, with innovation strategy as the dependent variable. Specific human capital moderates the relationship between causation processes and innovation strategy. Furthermore, marketing and technological experience act as additional moderators, influencing the moderating effect of specific human capital on the causation-innovation relationship. We will elaborate on our arguments below.

2.2. Human capital theory and causation processes

Human capital theory provides a valuable framework for understanding how individuals' skills, knowledge, experiences, and other attributes influence their performance in specific tasks (Danquah and Amankwah-Amoah, 2017). This theory has been applied in numerous studies to investigate the impact of top managers, employees, and executives on the strategic decisions of SMEs (e.g., Ganotakis et al., 2021; Kato et al., 2015). When examining the role of founder-CEOs in SMEs, human capital theory is particularly relevant due to the unique knowledge and experience these individuals bring to strategic planning initiatives. Research building on human capital theory indicates that founder-CEOs' knowledge and experience guide their strategic planning decisions through causation processes (Brinckmann et al., 2019; Brinckmann and Kim, 2015). These processes involve deliberate, goaloriented planning, as opposed to more flexible, adaptive approaches (Chandler et al., 2011; Vanderstraeten et al., 2020).

When pursuing innovation strategy through causation processes, two main approaches emerge. Firstly, comprehensive strategic planning facilitates thorough business environment analysis, enabling companies to identify new market opportunities (Batra et al., 2018). This systematic approach allows firms to spot gaps in current offerings or emerging customer needs, potentially leading to new product development. Secondly, internal organisation and resource management involve assessing available resources and optimising their use (Brinckmann et al., 2019; Brinckmann and Kim, 2015). This review helps identify resource gaps and design coordination activities to enhance firm-wide collaboration. These strategic planning logics hold particular importance for SMEs in



Fig. 2. Theoretical Framework.

emerging countries due to institutional voids and market volatility. Institutional voids, such as underdeveloped legal systems and immature regulatory mechanisms, necessitate systematic business analysis to navigate complexities (Adomako et al., 2019). Moreover, the rapid transformations often experienced in emerging countries require SMEs to be agile and innovative (Hilmersson, 2014). Through systematic planning and resource reviews, SMEs can adapt quickly and ensure their innovations remain relevant.

Furthermore, in emerging markets where institutional voids are prevalent, SMEs' human capital can serve as a crucial differentiator and source of competitive advantage. Founder-CEOs can actively invest in developing the SMEs' human capital through training, mentoring, and knowledge-sharing initiatives (Barrett et al., 2021; Tzabbar and Margolis, 2017), thereby enhancing their innovative capabilities. Causation processes allow founder-CEOs to systematically apply their human capital in strategic planning. This approach enables them to leverage their knowledge and experience effectively when identifying innovation opportunities. Additionally, founder-CEOs can use their human capital to orchestrate resources more efficiently through causation processes, aligning the SMEs' assets with innovation goals. By leveraging their human capital through causation processes, founder-CEOs can potentially enhance their SMEs' ability to innovate effectively in challenging environments. This systematic approach to strategic planning may help SMEs navigate the complexities of emerging countries, identify opportunities for innovation, and efficiently allocate resources to support innovative initiatives. Thus, we propose:

Hypothesis 1. Causation processes positively influence SME innovation strategy in emerging countries.

2.3. Specific human capital

The relationship between causation processes and innovation strategy is complex and somewhat controversial in the academic literature. Scholars have observed both positive (e.g., Batra et al., 2018; Vanderstraeten et al., 2020) and negative links (Arend et al., 2017). For example, Song et al. (2011) argue that planning activities may suppress unexpected discoveries in research and development, potentially hindering innovative ideas. This contradiction highlights the need to consider contingent factors influencing this dynamic. Previous research, including Posch and Garaus (2020), has highlighted top management's pivotal role in determining how strategic planning affects firms' approach to innovation. In SMEs, founder-CEOs take centre stage. Studies emphasise that effective execution of managerial activities by founder-CEOs is crucial for successful implementation of planning activities (Brinckmann et al., 2019; Richbell et al., 2006).

Human capital theory suggests that founder-CEOs' managerial activities reflect their specific human capital. This capital, encompassing startup experience, management experience, and experience in rapidlygrowing organisations, represents a unique strategic asset (Davidsson and Honig, 2003; Wiklund and Shepherd, 2003). Founder-CEOs accumulate this capital through diverse experiences, shaping their decisionmaking processes and strategic choices. We posit that founder-CEOs' specific human capital can play a complementary role in implementing causation processes, enhancing innovation engagement in SMEs in emerging countries. More specifically, founder-CEOs with extensive startup experience bring crucial planning expertise, particularly valuable in emerging markets where institutional voids often hinder capital access (Scheela and Jittrapanun, 2012). This expertise maximises resource use (Brinckmann and Kim, 2015) and enhances external funding prospects (McAdam and Marlow, 2011). Management experience further enhances planning effectiveness, as founder-CEOs who have navigated various business challenges possess refined skills in coordinating people and resources efficiently (Hamori and Koyuncu, 2015). This accumulated experience proves invaluable for crafting realistic plans and setting attainable objectives (Arend et al., 2017; Richbell et al., 2006). In emerging markets, characterised by resource scarcity and business uncertainty (Hilmersson, 2014), strategic planning becomes essential for successful innovation. This human capital aspect contributes to knowledge application, facilitating more effective implementation of causation processes. Experience in rapidly-growing organisations equips founder-CEOs with insights into strategic planning's fluid nature. This adaptability is crucial in emerging countries' fast-paced markets, where shifting competitive landscapes often render existing plans obsolete (Adomako et al., 2019; Hilmersson, 2014). The ability to revise and execute strategic plans effectively (Jolly, 2015) contributes to developing dynamic capabilities within the SME.

These three aspects of founder-CEOs' specific human capital

collectively enhance the effectiveness of causation processes in driving innovation. This perspective aligns with the concept of human capital specificity, where different types of specific human capital (e.g., industry-specific, task-specific) exert varying effects on the causationinnovation relationship (Davidsson and Honig, 2003; Wiklund and Shepherd, 2003). The integration of these factors refines the connection between causation processes, human capital, and innovation strategy. Founder-CEOs' specific human capital enables more effective implementation of causation processes, leading to better-informed and more innovative strategic decisions. In light of this integrated perspective, we posit that emerging country SME founder-CEOs with high levels of specific human capital are more likely to leverage planning effectively in pursuing innovative strategies. This enhanced ability to plan and adapt strategically serves as a moderating factor in the relationship between causation processes and innovation outcomes, amplifying positive effects while mitigating potential rigidities from overly formalised processes.

Hypothesis 2. Founder-CEOs' specific human capital positively moderates the relationship between causation processes and SME innovation strategy in emerging countries, such that this positive relationship is stronger when founder-CEOs possess higher levels of specific human capital.

2.4. Specialised experience

Human capital theory emphasises the crucial role of specific human capital and specialised experience in facilitating effective management activities. While earlier discussions centred on the specific human capital of founder-CEOs, the theory also highlights the significant role of specialised experience within their skill set (Gruber et al., 2012, 2008). This research focuses on how these two aspects of expertise interact within founder-CEOs to influence SME innovation strategies in emerging markets characterised by institutional voids and turbulent marketplaces (Adomako et al., 2019; Hilmersson, 2014). The focus is on two particular specialised experiences: marketing and technological experience. These experiences are especially important for SMEs navigating emerging countries with challenging business environments (Clark et al., 2016; Gruber et al., 2012).

Founder-CEOs who possess both rich specific human capital and marketing experience in emerging countries are uniquely positioned to leverage this combination in affecting causation processes, thereby further enhancing their firms' innovation capacity. This proposition stems from the critical role that environmental understanding plays in strategic planning and innovation strategy formulation. The ability to gather and analyse crucial environmental information forms the cornerstone of effective strategic planning, enabling founder-CEOs to set realistic objectives and devise strategies to achieve them (Arend et al., 2017; Song et al., 2011). Founder-CEOs with substantial marketing experience possess a nuanced understanding of the business landscape, owing to their familiarity with tools like market research and big data analysis (Rajagopal, 2019; Whitler et al., 2018). The combination of specific human capital and marketing experience enhances the founder-CEO's absorptive capacity, allowing them to better recognise, assimilate, and apply external information. This increased absorptive capacity amplifies the effectiveness of causation processes in driving innovation. Furthermore, this deepened environmental awareness allows founder-CEOs to more effectively apply their specific human capital to guide strategic planning and operations amidst environmental turbulence (Gruber et al., 2012, 2008).

In the context of emerging country SMEs, the synergy between a founder-CEO's specific human capital and marketing experience proves invaluable. It empowers them to craft more feasible plans by accounting for environmental challenges and potential pitfalls that could adversely impact resource-limited businesses (Ipek, 2021). Moreover, this combination reduces information asymmetries in emerging markets

characterised by institutional voids, enhancing the founder-CEO's ability to make informed strategic decisions. The interplay between marketing experience and specific human capital is particularly crucial in the turbulent marketplaces characteristic of emerging countries. The enhanced ability to read and respond to the market environment amplifies the benefits of their specific human capital in the causation processes (Dekel-Dachs et al., 2021; Rajagopal, 2019). Their startup experience becomes more valuable when combined with a deep understanding of current market dynamics. Similarly, their management experience and experience of working in rapidly-growing organisations can be more effectively applied when guided by a clear picture of market demands and competitive pressures. The complementarity between specific human capital and marketing experience leads to superior outcomes in strategic planning and innovation. It contributes to developing dynamic capabilities, enabling SMEs to adapt their innovation strategies in volatile emerging markets. A founder-CEO's marketing experience is expected to complement and amplify the impact of their specific human capital on the causation-innovation strategy relationship. This interaction enhances the effectiveness of causation processes in driving innovation, ultimately contributing to superior firm performance.

Hypothesis 3. Founder-CEOs' marketing experience enhances the positive moderating effect of specific human capital on the relationship between causation processes and SME innovation strategy in emerging countries, such that the relationship between causation processes and innovation strategy is strengthened in the presence of marketing experience and specific human capital.

Human capital theory, while generally emphasising the positive impact of diverse skills and experiences, acknowledges that the interplay between different forms of human capital can be complex and sometimes counterintuitive (Sarto et al., 2019; Van Uden et al., 2017). This research examines how technological experience interacts with specific human capital (startup, management, and rapid-growth experience) in emerging markets. This interaction highlights potential trade-offs between different forms of human capital specificity, particularly in environments characterised by institutional voids and market turbulence (Adomako et al., 2019; Hilmersson, 2014). Founder-CEOs of emerging country SMEs with rich technological experience might encounter challenges in effectively leveraging their specific human capital to facilitate causation processes crucial for innovation.

The core of this argument lies in the potential for deep technological expertise to create cognitive bias. Human capital theory recognises that accumulated knowledge and experience can shape cognitive processes (Brinckmann and Kim, 2015; Han et al., 2014). Technological expertise, as a form of human capital, may lead to cognitive biases affecting strategic decision-making in innovation processes. Founder-CEOs with extensive technological backgrounds may become overly focused on pursuing specific technological advancements, inadvertently narrowing their strategic vision (Clark et al., 2016). This narrow focus can reduce adaptability in the face of dynamic, unpredictable marketplace changes - a critical weakness in turbulent emerging countries. While founder-CEOs with specific human capital are generally well-equipped to set objectives supporting business growth (Davidsson and Honig, 2003; Wiklund and Shepherd, 2003), their technological predisposition might limit strategic flexibility. This rigidity could manifest as an overemphasis on technological solutions at the expense of market-driven innovations, or a reluctance to pivot from established technological trajectories, even when market signals suggest the need for change.

Furthermore, technological experience may enhance absorptive capacity for technical information but reduce it for market-related information, potentially hindering the development of dynamic capabilities crucial in volatile emerging markets (Gruber et al., 2012). In rapidly changing emerging markets, the value of technological human capital may depreciate more quickly than other forms of human capital, potentially explaining why its influence on innovation strategies might be less positive than expected. This underscores the critical role of context in human capital theory. The unique challenges of emerging markets may alter the relative value and impact of different forms of human capital (Alfalih and Hadj, 2024; Van Uden et al., 2017). By potentially limiting strategic flexibility and innovation adaptability, the interaction between technological experience and other forms of specific human capital may lead to suboptimal firm performance in emerging markets, contrary to traditional expectations in human capital theory. In emerging countries with institutional voids and turbulent business environments (Adomako et al., 2019; Hilmersson, 2014), this lack of strategic flexibility could prove particularly problematic, potentially stifling SME innovation efforts.

Hypothesis 4. Founder-CEOs' technological experience dampens the positive moderating effect of specific human capital on the relationship between causation processes and SME innovation strategy in emerging countries, such that the relationship between causation processes and innovation strategy is weakened in the presence of technological experience and specific human capital.

3. Research method

Fig. 3 illustrates our two-part methodology: a primary quantitative survey testing our hypotheses, and a supplementary qualitative interview study providing context and enhancing generalisability. This section elaborates on the quantitative survey method, while the qualitative interview method is discussed later on.

3.1. Quantitative research setting and measurement

We examined our hypotheses by collecting and analysing survey data in India, a leading emerging country with significant growth potential and increasing global influence. Business leaders there face considerable uncertainty and difficulty pursuing innovation as their firms' strategy (Singh et al., 2010). SMEs constitute the majority of business practices in India (Shah et al., 2014), providing a suitable context for examining our framework. We adopted measurement items from previous studies. Causation processes refer to the extent to which SMEs engage in planning activities. We modified 7-item reflective Likert measurement scales (1 = strongly disagree, 7 = strongly agree) from Chandler et al. (2011) (Cronbach's α = 0.907; Composite Reliability = 0.909; Average Variance Extracted = 0.590). Specific human capital refers to a specific domain of knowledge and experience. Following Wiklund and Shepherd (2003), we focus on founder-CEOs' startup experience, management experience, and experience in rapidly-growing organisations. We coded each type of experience as "0" for no experience and "1" for experience. We summed the total scores into an experience index (0–3). Marketing/ technological experience reflects the founder-CEOs' know-how in managing relevant resources and activities. We used a single-item Likert scale (1 = very low, 5 = very high) to assess these experience levels, as per Gruber et al. (2008). An innovation strategy refers to the extent an SME values and promotes innovation. We modified 4-item reflective Likert scales (1 = strongly disagree, 7 = strongly agree) from Wei and Wang (2011) (Cronbach's α = 0.855; Composite Reliability = 0.857; Average Variance Extracted = 0.600).

We employed several control variables. Founder-CEOs' education level (1 = some high school or less, 7 = doctorate or equivalent) and age (years since birth) serve as proxies for general human capital, affecting innovation strategy engagement (Marvel and Lumpkin, 2007). We also controlled for firm size (number of employees) and age (years of operation). Previous studies recognise their influence on SMEs' innovation strategy (Withers et al., 2011). We log-transformed founder-CEOs' age, firm size, and age. We controlled for regions (Ludhiana, Jalandhar, Barnala, Amritsar, Chandigarh - baseline) and industrial sectors (E-Commerce, Energy, Automotive, Biotechnology, Information Technology, Natural Resources, Textile, Paper and Printing, Agriculture, Chemical, other - baseline). Research indicates regional (Hervás-Oliver et al., 2021) and sectoral (Parrilli and Elola, 2012) factors may affect SME innovation strategy. An SME's R&D expenditure affects innovation strategy engagement (Shefer and Frenkel, 2005). We asked respondents to indicate their firm's internal R&D expenditure and log-transformed this data. Finally, we controlled for indirect network externality, as the availability of complementary products or services may affect innovation decisions (Podoynitsyna et al., 2013). We used a modified single-item Likert scale (1 = not at all important, 7 = extremelyimportant) to assess this factor's importance for SMEs' product/service success. Table 1 provides descriptive statistics for the variables.

3.2. Data collection

We developed the survey instrument using well-established psychometric measures. We pretested it with ten founder-CEOs of SMEs (not included in the primary sample) to check face validity. These CEOs



Supplementary Study

Fig. 3. Graphical presentation of the methodology.

Table 1Descriptive statistics.

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	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Founder-CEO Level	4.311	1.540	1.000											
2. Founder-CEO Age	1.612	0.721	-0.173	1.000										
3. Firm Age	0.948	0.204	-0.006	0.484*	1.000									
4. Firm Size	1.493	0.345	-0.105	-0.028	-0.056	1.000								
5. Ludhiana	0.282	0.452	0.084	0.155	0.118	0.117	1.000							
6. Jalandhar	0.175	0.382	0.023	-0.146	-0.074	-0.025	-0.288*	1.000						
7. Barnala	0.185	0.390	0.051	-0.094	0.046	0.002	-0.298*	-0.219*	1.000					
8. Amritsar	0.301	0.461	-0.119	0.025	-0.090	-0.137	-0.411*	-0.302*	-0.312*	1.000				
9. E-Commerce	0.097	0.298	0.126	-0.093	-0.017	0.035	0.013	-0.065	-0.071	0.071	1.000			
10. Energy	0.078	0.269	0.225*	-0.167	-0.068	-0.006	-0.101	0.057	0.143	-0.032	-0.095	1.000		
11. Automotive	0.272	0.447	-0.095	0.124	0.100	0.086	-0.043	0.293*	0.047	-0.258*	-0.200*	-0.177	1.000	
12. Biotechnology	0.087	0.284	0.229*	-0.009	-0.050	-0.070	-0.041	-0.052	0.030	0.022	-0.101	-0.090	-0.189	1.000
13. Information Technology	0.126	0.334	-0.134	0.037	-0.002	-0.086	-0.043	-0.175	0.045	0.197*	-0.125	-0.110	-0.232*	-0.118
14. Natural Resources	0.087	0.284	0.049	-0.118	-0.007	-0.052	0.189	-0.052	-0.059	-0.053	-0.101	-0.090	-0.189	-0.096
15. Textile	0.097	0.298	-0.238*	0.110	0.047	-0.010	0.086	-0.151	-0.156	0.214*	-0.108	-0.095	-0.200*	-0.101
16. Paper and Printing	0.097	0.298	-0.109	0.009	-0.037	0.057	0.013	-0.065	0.098	-0.001	-0.108	-0.095	-0.200*	-0.101
17. Agriculture	0.039	0.194	0.025	0.008	-0.098	-0.021	-0.126	0.172	-0.096	-0.022	-0.066	-0.058	-0.123	-0.062
18. Chemical	0.010	0.099	0.045	0.095	0.137	0.132	0.158	-0.046	-0.047	-0.065	-0.032	-0.029	-0.0600	-0.031
19. R&D Expenditures	3.895	1.268	-0.141	0.062	-0.053	0.179	-0.048	-0.033	0.012	0.037	0.018	-0.159	0.050	-0.048
20. Indirect Network Externality	3.932	1.875	-0.227*	0.202*	0.193	0.237*	0.115	-0.216*	-0.117	0.092	0.030	0.011	0.081	-0.026
21. Causation Processes	4.082	1.464	0.408*	-0.189	-0.198*	0.028	0.005	0.004	0.162	-0.186	-0.006	-0.027	0.047	0.097
22. Specific Human Capital	2.078	0.915	0.365*	0.070	0.031	0.042	0.207*	-0.123	0.014	-0.126	0.080	0.055	0.140	-0.026
23. Marketing Experience	3.068	1.301	0.484*	-0.100	0.020	-0.006	-0.033	0.035	-0.006	0.031	0.059	0.181	-0.184	0.090
24. Technological Experience	2.806	1.129	0.441*	-0.197*	-0.016	0.120	-0.065	-0.057	0.060	0.057	0.086	0.050	-0.030	0.145
25. Innovation Strategy	3.803	1.610	0.470*	-0.210*	0.018	-0.017	-0.041	-0.007	0.074	0.011	0.163	0.047	-0.058	0.151
	13	14	15	16	17	18	19	20	21	22	23	24	25	
13. Information Technology	1.000													
14. Natural Resources	-0.118	1.000												
15. Textile	-0.125	-0.101	1.000											
16. Paper and Printing	-0.125	-0.101	-0.108	1.000										
17. Agriculture	-0.076	-0.062	-0.066	-0.066	1.000									
18. Chemical	-0.038	-0.031	-0.032	-0.032	-0.02	1.000								
19. R&D Expenditure	0.002	-0.007	-0.020	0.076	0.033	0.008	1.000							
20. Indirect Network Externality	0.030	-0.191	0.065	-0.058	-0.047	-0.049	0.135	1.000						
21. Causation Decision-Making Processes	0.042	0.128	-0.250*	-0.051	-0.036	0.082	0.054	-0.292*	1.000					
22. Specific Human Capital	-0.161	0.011	0.008	-0.100	-0.183	0.100	-0.057	0.032	0.019	1.000				
23. Marketing Experience	-0.088	0.010	-0.093	0.160	-0.166	0.148	-0.070	-0.151	0.190	0.333*	1.000			
24. Technological Experience	-0.090	-0.038	-0.148	0.057	-0.144	0.105	-0.080	-0.164	0.331*	0.176	0.570*	1.000		
25. Innovation Strategy	-0.045	0.108	-0.241*	-0.021	-0.195*	0.120	-0.059	-0.228*	0.477**	0.207*	0.415	0.345*	1.000	

Notes. N = 103; *p < 0.05. SD = Standard Deviation.

reviewed the items for content, clarity, meaningfulness, and construct measurements, identifying any confusing expressions. They deemed no modifications necessary. We obtained a list of SMEs from five Indian municipalities (Ludhiana, Jalandhar, Barnala, Amritsar, and Chandigarh) in varying stages of economic development. We randomly selected 500 firms and sought permission to conduct an academic survey with their founder-CEO and top managers on two separate occasions. An initial sample of 453 SMEs agreed to participate.

Following previous surveys (e.g., Nadkarni and Herrmann, 2010), we delivered questionnaires to a designator within each firm in person. The designator explained the data collection process, assured response confidentiality, administered the surveys in paper-and-pencil format, and followed up with responses from CEOs and top managers in sealed envelopes. We collected data from two key informants on two separate occasions. At Time 1, founder-CEOs responded to questions about causation processes, specific human capital, marketing experience, technological experience, and control variables. They also provided names of top executives involved in strategic decision-making. At Time 2, a year later, we asked one top executive per firm to report the innovation strategy. This one-year time lag aligns with past multiple-wave studies on founder-CEOs' influence on firm-level strategy (Nadkarni and Herrmann, 2010). We obtained 103 complete responses, vielding a response rate of 22.737 % (103/453), significantly higher than the 12-14 % average reported in prior studies (Hambrick et al., 1993). We found little nonresponse bias when comparing early and late respondents' answers. To mitigate common method variance (CMV), we collected data from two informants on two occasions. We performed Harman's single-factor test, finding that a single factor did not explain the majority of variance. We also selected Stage Investments Real Option (Tiwana et al., 2007) as a marker variable. Comparing the Baseline, Method-C, Method-U, and Method-R showed that CMV did not bias the relationship among the substantive variables (Williams et al., 2010). These results suggest that CMV is not a serious threat.

Using quantitative method to examine key determinants of innovation in an emerging market context, offering significant societal benefits. Policymakers and business leaders can gain valuable insight into SME innovation, which is essential for economic growth and job creation, by examining factors such as causation processes, specific human capital, and marketing/technological experience. By focusing on India, knowledge gaps between developed and emerging countries can be bridged, leading to more tailored policies for fostering innovation in developing countries. This longitudinal study' methodological rigor and practical implications for SMEs on improving their innovation strategies and resources can be attributed to its reliability. Research like this ultimately contributes to better policies and improved business practices. SME sectors, which play an important role in many economies worldwide, could benefit from enhanced economic development, increased innovation capacity, and improved competitiveness.

3.3. Analysis and results

Due to the use of non-randomised data, endogeneity may be an issue. In order to alleviate potential endogeneity concerns, we performed a two-stage analysis using the method proposed by Hamilton and Nickerson (2003). We first regress causation processes against specific human capital to obtain residuals free of management experience. The residuals for causation were then used as a new independent variable in the regression. Table 2 shows the results of the regression models. Model 1 illustrates our baseline assumptions about causation processes and innovation strategy ($\beta = 0.397$, p < 0.010). According to Hypothesis 1, specific human capital positively moderates the relationship between causation processes and specific human capital positively affects innovation strategy (Model 2: $\beta = 0.233$, p < 0.050). Fig. 4a illustrates this relationship further. The graph shows that the slope becomes more positive and steeper as specific human capital levels increase. Thus, we

Table 2 Findings.

	Model 1	Model 2	Model 3
Control			
Founder-CEO Level	0.240 (2.153)*	0.188 (1.566)	0.218 (1.679)†
Founder-CEO Age	-2.869	-3.662	-3.740
0	(-1.267)	(-1.645)	(-1.566)
Firm Age	1.437 (1.805)†	1.802 (2.288)*	1.426 (1.747)†
Firm Size	0.294 (0.695)	0.386 (0.931)	0.451 (1.071)
Ludhiana	0.518 (0.737)	0.459 (0.672)	0.439 (0.615)
Jalandhar	0.675 (0.939)	0.679 (0.965)	0.248 (0.326)
Barnala	0.586 (0.816)	0.500 (0.715)	0.262 (0.362)
Amritsar	1.153 (1.637)	1.037 (1.501)	1.056 (1.453)
E-Commerce	-2.051	-1.865	-1.899
	(-1.312)	(-1.227)	(-1.232)
Energy	-2.725	-2.444	-2.653
	(-1.711)†	(-1.575)	(-1.673)†
Automotive	-2.690	-2.653	-2.463
	(-1.739)†	(-1.766)†	(-1.599)
Biotechnology	-2.275	-2.060	-2.294
	(-1.455)	(-1.350)	(-1.460)
Information Technology	-2.877	-2.808	-2.982
	(-1.798)†	(-1.801)†	(-1.869)†
Natural Resources	-2.518	-2.436	-2.734
	(-1.549)	(-1.542)	(-1.686)†
Textile	-3.248	-3.127	-3.195
	(-1.998)*	(-1.979)†	(-1.984)†
Paper and Printing	-2.568	-2.411	-2.617
	(-1.591)	(-1.534)	(-1.635)
Agriculture	-3.925	-3.566	-2.817
	(-2.428)*	(-2.246)*	(-1.677)†
Chemical	-1.571	-1.970	-2.359
	(-0.736)	(-0.947)	(-1.142)
R&D Expenditures	-0.047	-0.058	-0.054
	(-0.424)	(-0.537)	(-0.484)
Indirect Network	-0.088	-0.093	-0.137
Externality	(-1.017)	(-1.102)	(-1.602)
Predictors			
Causation Processes (CP)	0.397 (3.525)	0.419 (3.758)	0.339 (2.846)
Specific Human Capital		0.204 (1.189)	0.176 (0.984)
(SHC)		0.201 (1.103)	011/0 (01501)
Marketing Experience			0.251 (1.750)†
(MC)			
Technological Experience			-0.177
(TC)			(-1.104)
Interactions			
CP x SHC		0.233 (2.287)*	0.210 (1.804)†
CP x MC			0.025 (0.249)
CP x TC			0.007 (0.076)
SHC x MC			0.095 (0.656)
SHC x TC			-0.139
			(-0.826)
CP x SHC x MC			0.236 (2.398)*
CP x SHC x TC			-0.289
			(-2.638)*
Constant	6.438 (1.718)†	9.082 (2.489)*	9.596 (2.407)*
Model Summary			
F-Value	3.234	3.434	3.124
P-Value	0.000	0.000	0.000
R-Square	0.456	0.500	0.577

Note: *** p < 0.001; ** p < 0.010; * p < 0.050; † p < 0.100. Dependent Variable = Innovation Strategy. Unstandardized coefficients are reported with t-value in parentheses.

confirm Hypothesis 1. (See Fig. 4.)

Hypothesis 2 predicts that marketing experience strengthens the moderating effect of specific human capital on causation processes and innovation strategy. In Model 3, the three-way interaction effect of causation processes, specific human capital and marketing experience on innovation strategy is positive and significant (Model 3: $\beta = 0.236$, p < 0.050). Fig. 4b shows the steepest positive slope when specific human capital and marketing experience are high. Thus, we confirm Hypothesis 2. Hypothesis 3 predicts that technological experience weakens specific human capital's moderating effect on causation processes and

a.







c.



Fig. 4. Moderating effects.



Fig. 4. Qualitative findings.

innovation strategy. In Table 2, Model 3, the three-way interaction effect of causation processes, specific human capital and technological experience on innovation strategy is negative and significant (Model 3: $\beta=-0.289,\,p<0.050$). Fig. 4c shows the steepest negative slope in the situation of high specific human capital and technological experience. Thus, we confirm Hypothesis 3.

Overall, these findings address the gap in understanding how founder-CEOs influence innovation in SMEs within emerging countries. The study investigates the relationship between causation processes (strategic planning) and innovation, focusing on the moderating effects of founder-CEOs' human capital and specialised experience. Using a two-stage analysis to mitigate endogeneity concerns, the study finds that specific human capital positively moderates the relationship between causation processes and innovation strategy. Furthermore, it reveals that marketing experience strengthens this moderating effect, while technological experience weakens it. These findings provide insights into the complex interplay of factors affecting innovation in SMEs, offering valuable implications for management and policy-making in emerging countries. The study provides a context-specific view of human capital's influence on SME innovation, showcasing the theory's versatility and relevance in emerging country SMEs. It also highlights founder-CEOs' roles in strategic planning and managing to facilitate innovation strategy.

4. Supplementary qualitative analyses

4.1. Motivation and data collection

Our quantitative approach has two significant limitations. First, it may oversimplify complex realities and fail to capture the intricate factors influencing SME innovation strategy (Creswell and Creswell, 2017). This approach might not fully explain the interplay among strategic planning (causation processes) and management activities in shaping SMEs' innovation strategy. Secondly, conducting our survey

only in India raises concerns about the generalisability of our results to other emerging countries. To address these limitations, we have adopted supplementary qualitative analyses.

We conducted in-depth interviews with founder-CEOs from SMEs in India to provide deeper insights into our conceptual framework (Fig. 2). We also interviewed founder-CEOs from China for following reasons. First, it provides a broader perspective on SME innovation (Tang et al., 2021b). By examining firms from these diverse contexts, we aim to capture a wider range of innovative strategies employed by SMEs. Sahasranamam and Nandakumar (2020) noted in their study of innovation in emerging markets that SMEs often develop unique approaches to innovation that may transcend national boundaries. Our approach allows us to identify these strategies regardless of the specific country context, providing a more comprehensive view of SME innovation in emerging economies. Secondly, this approach enhances generalisability at the firm level. Including firms from two different contexts enables us to identify common patterns in SME innovation strategies that are not tied to a particular national setting. This method aligns with recent calls in the literature for more robust examinations of firm-level innovation strategies in emerging markets (e.g., Boso et al., 2019). By focusing on similarities across diverse contexts, we can develop insights that are potentially applicable to a broader range of emerging market SMEs. Thirdly, our study benefits from rich data on founder-CEO experiences. The inclusion of data from both countries provides us with a diverse pool of founder-CEO experiences, allowing us to explore how various types of human capital and decision-making processes influence innovation strategies across different SMEs. This diversity enhances our ability to develop more comprehensive insights into the factors shaping SME innovation strategies. By examining a wide range of experiences and approaches, we can identify key factors that contribute to successful innovation strategies across different emerging market contexts. This multi-faceted approach enables us to develop a more nuanced understanding of SME innovation strategies in emerging economies. It allows us to identify both common threads and context-specific factors that

influence innovation, providing a richer and more comprehensive picture of how SMEs in these dynamic environments approach innovation.

Our qualitative study involved interviews with 32 SME founder-CEOs: 14 from India and 19 from China (see Fig. 3). We conducted semi-structured interviews lasting 45-60 min, exploring how these founder-CEOs engage in strategic planning and leverage their experience in daily operational management. Participants had diverse experience in startup ventures, general management, rapid organisational growth, marketing, and technology. We encouraged founder-CEOs to discuss how their strategic planning and management activities influenced their firms' innovation strategy. By comparing our quantitative findings with these qualitative insights, we aimed to enhance our understanding of how founder-CEOs shape innovation strategy in emerging market SMEs. This mixed-methods approach improves our findings' validity and offers a nuanced understanding. Including perspectives from both India and China enhances generalisability, providing a comprehensive view of SME innovation challenges in diverse emerging countries.

4.2. Data analysis

Our research employed a systematic thematic analysis of qualitative interviews with SME founder-CEOs from two emerging economies: India and China. The analysis followed the guidelines of Finlay (2021) and Guest et al. (2011), consisting of four key phases. The first phase involved data immersion, where we thoroughly examined interview transcripts from both Indian and Chinese SME founder-CEOs. This process focused on understanding how strategic planning activities influence innovation strategy, and how management activities shape these processes across both contexts. The second phase entailed systematic organisation of the data corpus. We identified coherent groupings and generated initial descriptive codes, conducting this process separately for Indian and Chinese data before comparing and integrating them. The third phase, we analysed coded extracts to identify patterns across interviews from both countries, pinpointing areas of convergence and divergence. This approach allowed us to distinguish between countryspecific and universal themes. The analysis culminated in identifying shared themes that reflected the collective insights from our participants.

The final phase involved examining interrelationships among identified themes, refining boundaries and constructing a cohesive narrative that encompassed insights from both Indian and Chinese contexts. To ensure the robustness of our findings, we paid careful attention to theoretical saturation. We conducted data collection and analysis concurrently, allowing emerging themes to inform subsequent interviews and analysis. This iterative process continued until we reached saturation not only within each country context but also across both contexts, ensuring that our themes were robust across different emerging market settings. We actively sought out and analysed cases that did not fit emerging patterns, ensuring a comprehensive understanding of the phenomena under study. Additionally, we consulted with experts in both Indian and Chinese business contexts to validate our interpretation of the data and the resulting themes. The resulting themes highlight the influence of causation processes, human capital, and specialised experience on SME innovation strategies in emerging countries. This analytical process illustrates how SMEs in emerging countries pursue innovation strategy, guided by their founder-CEOs' strategic planning and management activities, while also capturing the nuances and differences that may exist between the Indian and Chinese contexts.

Fig. 4 uses a fishbone diagram to illustrate our quantitative findings. The main spine (thick arrow) shows associations among causation processes, specific human capital, specialised experience, and innovation strategy. Dashed branches represent interview findings about main constructs, while solid branches capture interview insights explaining relationships among these constructs.

Our supplementary qualitative analyses also offer significant societal

benefits. It provides deeper insights into SME innovation strategies, addressing limitations of quantitative methods that may oversimplify complexities. This nuanced understanding can lead to more effective, tailored support for SMEs in emerging countries. Including perspectives from both India and China enhances the generalisability of findings across different emerging country contexts. This allows for a more comprehensive view of SME innovation challenges in diverse emerging countries. Such insights can inform policymakers and business leaders in developing adaptable strategies to support SME innovation across various cultural and economic settings. Semi-structured interviews exploring how founder-CEOs engage in strategic planning and leverage their experience provide valuable, practical knowledge. This qualitative approach provides a depth of understanding that can contribute to more effective economic policies, improved support for entrepreneurs, and ultimately, stronger, more innovative SME sectors.

4.3. Results

Interviews highlight strategic planning's crucial role for SME founder-CEOs in emerging countries. This proactive approach helps navigate complexities and seize opportunities. It fosters a forward-thinking mindset, enabling SMEs to anticipate future challenges. As Founder-CEO (#1) states.

"We are preparing for an IPO this year, and in our business operations, we are going into analytics and artificial intelligence-driven machine learning. We always look for ways to make ourselves more relevant and provide our customers with added value. We take these important decisions into account during the strategic planning process, as well as the changes that our organisational function must undergo, as well as new markets and segments that have not been explored and have huge potential".

Strategic planning involves evaluating internal resources and external market conditions (Vishnevskiy et al., 2016). This proactivity is essential for resource-constrained SMEs in volatile emerging countries.

SMEs in these markets face challenges due to underdeveloped intermediaries, legal systems, and regulations. Founder-CEO (#32) suggests:

"Lacking the proper rules and regulations can really bound the information access, penetration of the market, and effect in a considerably raised operational cost. This cost can be overwhelming for us. That is to say, indispensable strategic planning in the organisation will give nothing but overcome such hurdles. A thorough understanding of the local environment enables innovation and problem-solving".

These institutional voids create barriers and increase transaction costs (Dekel-Dachs et al., 2021). Strategic planning helps navigate these voids, empowering SMEs to innovate, craft unique value propositions, and identify untapped markets. Through this process, founder-CEOs can address challenges and leverage local knowledge for innovation.

SME innovation strategies in emerging countries offer significant benefits. Innovation helps SMEs distinguish their offerings. As Founder-CEO (#10) states:

"It is my goal to pursue lingual orthodontics, a type of innovation in braces that you cannot see because they are hidden behind the teeth. Youth are becoming increasingly conscious of their appearance, so there is a demand for it. Additionally, this position helps my clinic position in a very niche, specialised field, making us known for this type of procedure".

This differentiation helps SMEs avoid direct price competition with larger corporations (Simon et al., 2002). Innovation also enhances agility, improving decision-making speed. Founder-CEO (#26) recounts:

"We identified a burgeoning demand for sustainable products that was largely unmet in the market at that juncture. Our team promptly immersed themselves in this opportunity and, within a matter of months, conceived, developed, and launched an entirely new line of ecologically friendly products—the entire process spanning from ideation to market entry".

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This founder-CEO (#26) further attributes this:

"Expeditious decision-making processes, enabling us to seize emergent opportunities before competitors could even acknowledge and respond to the shifting market landscape. While rivals remained mired in deliberation, our firm had already capitalized on the opportunity and commenced business operations".

This agility allows SMEs to adapt quickly to market dynamics. Furthermore, innovation helps SMEs navigate institutional voids and overcome market challenges (Allocca and Kessler, 2006). Founder-CEO (#12) suggests:

"It was an innovative product in this market because there were a large number of industrial and start-up parks in the country that required AQI monitoring devices as part of statutory infrastructure requirements. The existing products, which were based on European or American designs, had problems with the coarse and rugged local conditions, especially dust accumulation in the sensors. Then we made some product changes to address these issues, and more recently, we have the added challenge of using more local components. So, we innovate on product design and to address regulatory and supply chain concerns at the same time".

Innovation enables SMEs to devise novel solutions and business models that circumvent barriers, enhancing competitiveness (Parrilli and Elola, 2012). This capability to innovate in the face of challenges underscores the resilience and ingenuity of SMEs in emerging countries.

Our interviews reveal the strong connection between causation processes and innovation strategy. Strategic planning aids firms in identifying opportunities and developing new offerings. Founder-CEO (#10) states:

"The changes we make to our clinic, its positioning, procedures, and new practices are constantly influenced by new trends and expectations. In addition, we review our capabilities and how to improve them, sometimes step by step, such as introducing a new niche service segment, a new speciality, or a new procedure".

Comprehensive analysis of market trends and consumer preferences informs innovative offerings with strong potential (Batra et al., 2018). Strategic planning also helps assess resources and capabilities. Founder-CEO (#27) explains:

"We will evaluate our R&D competences as part of our planning process. This also enables us to determine whether we are capable of implementing new product development projects and, if not, how we should acquire new expertise".

This process ensures efficient resource allocation and collaboration, supporting innovation outcomes. Leveraging insights from strategic evaluations also helps SMEs align innovations with market needs and enhance competitiveness. Founder-CEO (#3) elaborates:

"An extended analysis of our capabilities and the needs of our target market is conducted when we conduct a planning exercise. When we perform management consulting for niche or boutique businesses, for example, we examine our internal strengths, capabilities, business model, and customers' needs. In addition, we consider external factors, such as competition, and how it is unprofitable for them due to their model and overheads, as well as the unique understanding businesses need".

This approach aligns innovation efforts with internal capabilities and market demands. Consequently, it lays a robust foundation for informed and efficiently executed innovation initiatives, particularly valuable in the competitive landscape of emerging countries.

In terms of specific human capital, interviewees highlight two crucial aspects for founder-CEOs of SMEs in emerging countries. First, these markets often face volatility due to political instability, changing regulations, and fluctuating economic conditions (Hilmersson, 2014). In such environments, founder-CEOs with specific human capital—such as startup, management, and rapid-growth experience—prove invaluable. Founder-CEO (#24) comments:

"I would say leverage your unique experiences: whether that is the agility of startups, the acumen of management, or how you navigated

growth, because they are incredibly valuable assets. Build yourself a resilient and adaptable team, invest in processes that can scale up nicely, and do not be afraid to make some bold strategic decisions neither".

Founder-CEOs use their human capital to navigate challenges, making informed decisions that guide SMEs towards stability and growth in emerging countries (Chahal et al., 2023). Second, emerging countries often face resource scarcity, including limited financial resources, skilled labour, and access to technology and infrastructure (Adomako et al., 2019). Efficiently allocating and managing limited resources is crucial for SME success and survival in these environments. Founder-CEOs with relevant experience and specific human capital can optimise scarce resources through effective planning. Founder-CEO (#8) states:

"It is important for me to allocate logistics and labour capacity judiciously in our production planning. Instead of using an ad hoc approach, I aggregate logistics to our three regional business centres to minimize cost. Likewise, I split our workforce among stable and urgent projects, ensuring we have the right mix to maximize topline, maintain quality, and make production feasible and efficient".

Their expertise allows them to maximize each resource's impact, helping SMEs achieve more with less and gain a competitive advantage. By leveraging their specific human capital, founder-CEOs can navigate resource scarcity challenges and allocate resources strategically to support SME growth and success in emerging countries.

In line with our quantitative findings, the interviewees suggest that these founder-CEOs' specific human capital can amplify the impact of causation processes on innovation strategy. More specifically, founder-CEOs with extensive startup experience can foresee challenges, adapt swiftly, and make strategic decisions that support the formation of SME innovation strategy (Tzabbar and Margolis, 2017). Their planning experience enables strategic decisions that boost SME success, including innovation strategy. Founder-CEO (#4) states:

"My first business was computer systems and services. In addition to this business that has evolved with product and service extensions, I have also started two other businesses in entirely different sectors - food catering and event management, as well as a sports facility. Both of these companies are going businesses today. In that sense, I am sort of a serial entrepreneur, so I can guess which is a growing sector, with good penetration potential, which is dying or declining - sunset businesses, and how to pivot. As a result of my experiences across a number of sectors, I am able to navigate uncertainty, reduce losses when things go wrong, and capitalize on gains when the time comes".

Founder-CEOs with significant management experience bring strategic acumen that enhances planning and aligns with long-term goals (Wiklund and Shepherd, 2003). They can anticipate challenges and optimise resource allocation, resulting in resilient and financially sustainable operations. Founder-CEO (#29) notes:

"Proper managerial expertise is of prime help in planning when you are an SME with low resources, confronted by ever-turbulent markets with little clarity in regulation. My years of management mean I can evaluate operational challenges deeply. That experience also gives knowledge of how to effectively mobilise limited human, material, and financial resources for better planning".

This foresight and strategic guidance are crucial in emerging countries, where economic and regulatory conditions can change unpredictably, requiring a proactive and flexible approach to strategic planning and resource optimisation (Gaan et al., 2024). Founder-CEOs experienced in rapidly-growing organisations bring invaluable skills to adapt and execute business plans effectively in emerging country SMEs. Founder-CEO (#31) explains:

"I have over 20 years of experience working with rapidly expanding business units in these emerging countries. This has given me a good sense of whether a company's plans are implementable or not, given the constraints we will face. From my experience, I can assess if the plans we are making for the SME can be implemented. If not, I have a good sense of exactly what changes need to be made to improve those plans". Their expertise in scalability, strategic resource management, and risk mitigation guides SMEs through rapid expansion (Jolly, 2015; Wiklund and Shepherd, 2003). They understand that building a skilled team, fostering an innovation culture, and ensuring clear stakeholder communication are vital. Together, our interview results reveal that founder-CEOs with rich specific human capital implement causation processes focused more effectively. They use their startup, management, and rapid-growth experiences to navigate emerging market challenges, make informed strategic decisions, and drive innovation in their SMEs.

In terms of marketing experience, interviewees highlight that rich experience significantly benefits SMEs in emerging countries for several reasons. First, founder-CEOs with extensive marketing experience can use limited resources effectively (Whitler et al., 2018). Founder-CEO (#15) notes:

"My marketing experience allows me to make the best use of our resources productively. Particularly in the setting of modest budgets and staff, allocation of resources becomes the key to areas that will yield high dividends in investments. This strategic allocation minimises waste and ensures that we are investing in high-impact marketing initiatives".

In resource-constrained emerging countries, optimising available resources is crucial for SME survival and growth. Second, their marketing knowledge enhances SMEs' ability to make quick decisions and adapt strategies swiftly to market changes (Guru et al., 2023; Wei and Wang, 2011). Founder-CEO (#6) emphasises:

"As I mentioned, I consider my work experience with Google a cornerstone of my entrepreneurial success. I gained a lot of nontechnical experience working across a range of roles-starting with consumer behaviour in website traffic, moving on to sales, and then marketing AdWords products, while working with cross-cultural teams in the UK and Australia. But at the core, I think vegan food innovation is fundamentally technical. It is the formula for putting the ingredients together that helps us create great products".

Emerging countries often face unpredictable shifts in consumer preferences, regulatory environments, and competitive landscapes. Founder-CEOs with marketing expertise can quickly identify these changes and adapt their strategies, ensuring SMEs remain agile and responsive to dynamic market conditions. Third, marketing expertise also helps founder-CEOs build strong brand awareness and customer loyalty amid fluctuating consumer confidence or economic instability (Chauhan et al., 2023). Founder-CEO (#13) suggests:

"My business had innovative products with personalised and custom designs, which made it difficult for me to determine how much to charge at first. In my marketing experience, I gained a better understanding of how to differentiate our product based on delivery – timing, ambient conditions of the product, packaging, and emotional factors. In addition to building a loyal customer base, this helps me position my brand in the market".

Effective marketing strategies help SMEs establish a solid market presence and cultivate lasting customer relationships (Ipek, 2021; Wei and Wang, 2011). Fourth, marketing savvy helps SMEs tackle challenges posed by weak institutional frameworks in emerging countries (Dekel-Dachs et al., 2021). Founder-CEO (#20) shares his experience:

"Weak institutional frameworks, especially in traditional distribution and advertising avenues, pose a major challenge in emerging countries. Drawing from my marketing experience, we confronted these challenges by adopting digital marketing and influencer partnership programs that engage directly with target communities".

Founder-CEOs with marketing expertise can use innovative marketing tools to reach consumers directly and establish a market presence efficiently, bypassing institutional barriers.

To further explain quantitative findings, our interviewees reveal that rich marketing experience can complement founder-CEOs' specialised human capital, enhancing the impact of causation processes on emerging firms' innovation strategies in three ways. Firstly, marketing experience enriches founder-CEOs' startup expertise, guiding them to form practical strategies for SMEs in emerging countries. Founder-CEO (#30) states:

"My entrepreneurial [start-up] experience provides insights into launching a firm, securing capital, and building business networks. However, to effectively sell products, particularly when promoting Japanese goods in China, marketing experience is crucial. It teaches you what to pay attention to in the business environment, enabling the construction of strong strategic plans".

This dual knowledge aids in tailoring offerings to local demands and swiftly adapting to market shifts, essential for success in resourcelimited and dynamic environments (Rajagopal, 2019). In emerging countries, founder-CEOs with marketing and startup experience can align products with consumer demands and preferences, while quickly pivoting strategies to respond to changes. Secondly, the combination of marketing and management expertise in founder-CEOs allows SMEs to navigate emerging countries with strategic positioning, customercentric decision-making, and effective resource allocation. (Gruber et al., 2012, 2008). As Founder-CEO (#16) emphasises:

"Designing an effective plan is influenced by various factors. Management experience provides an understanding of the complexity of a company's procedures. When combined with marketing expertise, you gain a better grasp of consumer wants, industry trends, and product presentation. Together, these experiences allow for the creation of more effective plans and the avoidance of errors".

In spite of environmental turbulence, it gives them the ability to adapt quickly to market changes. With their marketing expertise, founder-CEOs can identify and target the most promising market segments, while their management experience allows them to coordinate internal resources and operations efficiently. Thirdly, marketing experience enriches founder-CEOs' ability to navigate SMEs in emerging countries, blending growth ambitions with market insights. Founder-CEO (#14) notes:

"It is true that marketing experience is beneficial in developing international strategies. I worked previously for furniture exports businesses targeting European and MENA markets, and I know the differences in consumer preferences and sensitivity. It is important to consider aspects such as furniture opaqueness versus transparency, as well as modern versus traditional design. By understanding these nuances, we are able to design effective product designs, marketing strategies, etc. We take into account product responsiveness and localization for international markets".

This experience aids in foreseeing scalability challenges and adapting to market demands, ensuring strategies are resilient and scalable (Rajagopal, 2019; Whitler et al., 2018). By integrating marketing experience with specialised human capital, founder-CEOs can create a synergy that amplifies the impact of causation processes on their firms' innovation strategies. This combination allows them to develop and execute innovation strategies aligned with market realities, adaptable to changing circumstances, and poised for sustainable growth in emerging countries.

Last but not least, our interviews underscore the critical importance of technological experience for founder-CEOs of SMEs in emerging countries. Firstly, technological expertise enables founder-CEOs to leverage new tools and platforms to optimise operations efficiently, crucial in resource-scarce environments (Sahaym and Nam, 2013). As Founder-CEO (#9) highlighted:

"Our biggest challenge is bridging the information gap between our customers and us. Though word-of-mouth advertising is surprisingly effective for our products, digital marketing tools have been highly effective for reaching markets outside of our state. With social media and e-commerce platforms, we can conduct business without incurring the costs of traditional marketing channels, which are relatively expensive, especially when communicating with distant markets".

By introducing innovative technological solutions, founder-CEOs streamline processes and foster an environment where innovation can thrive, strengthening SMEs' competitive advantage. Secondly, technology enables SMEs to broaden their market reach, transcending local and

regional constraints. This is vital in emerging countries, where infrastructural challenges and weak institutional frameworks can hinder business growth (Sahaym and Nam, 2013). Founder-CEO's (#28) shared:

"BBB [payment platforms] allow us to venture even in the remotest of areas, where the banking infrastructure is poor, for example. Similarly, CCC [online collaboration tools] helped our teams work seamlessly with partners or teams in another country or city, thus overcoming the limitations of physical infrastructure and talent pool development at local levels".

Technology offers alternative solutions that bridge the gaps created by lack of institutional support, enabling SMEs to operate more effectively (Rojas-Berrio et al., 2022). By adopting these technologies, SMEs overcome geographical and infrastructural barriers, harnessing the potential to innovate and compete on a larger scale. Founder-CEOs' technological expertise is crucial in leveraging these tools to expand market reach and mitigate challenges posed by weak institutional frameworks in emerging countries.

Our qualitative insights, aligned with quantitative findings, reveal a nuanced perspective on the impact of founder-CEOs' technological experience on the relationship between causation processes and innovation strategy in SMEs, particularly within emerging countries' volatile environments. While technological expertise offers undeniable advantages, it also introduces complexities that may attenuate the positive moderating effect of a founder-CEO's broader human capital on innovation strategy. A tech-centric approach can be detrimental in uncertain, resource-scarce environments where flexibility and the capacity to explore diverse strategic avenues are vital for survival and growth. This narrowed focus may reduce founder-CEOs' ability to plan strategically, as they may develop a myopic view of the market. Founder-CEO (#33) illustrates this point:

"My experience with technology sometimes makes me feel like a prisoner with certain limitations. For instance, I paid much attention to improving the functionality of my products and less attention to the changing business environment and adjusting our business strategy. Even if my prior experience [startup experience and management experience] indicated that there was no need to develop the product further, as they are currently satisfactory to our customers".

Overemphasising technological advancements may lead to neglecting other critical aspects of business, such as market expansion and customer engagement. This imbalance can hinder the SME's ability to allocate resources efficiently and adapt to changing market conditions. Founder-CEO (#2) remarks:

"If you have a lot of technological experience, you stop trying out new things, are less risk-taking, and start working in a closed-box with rigid boundaries".

This approach may reduce agility and flexibility, which are critical for firms operating in emerging countries characterised by inherent volatility and institutional voids (Adomako et al., 2019; Dekel-Dachs et al., 2021).

However, our interviews also suggest that the technological experience of founder-CEOs might, to some extent, substitute the broader spectrum of their specific human capital. Founder-CEOs with a strong technological background possess unique advantages in steering innovation. Founder-CEO (#23) states:

"My former technological background is crucial for small businesses like ours. Therefore, I can see specific innovation opportunities while developing our company plan. However, this does not negate the importance of other non-technical experience [startup experience, management experience, and experience working for a quicklyexpanding organisation]. However, this does not determine our innovation agenda".

SMEs' innovation strategy is significantly influenced by this expertise. Due to their technological background, founder-CEOs' are able to make more informed decisions about innovation projects. Moreover, when founder-CEOs possess strong technological expertise, they can shape the SMEs' culture and organisational structure to be more favourable for developing strategic plans that prioritise innovation (Shepherd et al., 2023). Founder-CEO (#21) explains:

"By leveraging my technological expertise, we are able to leverage the latest innovation tools and methodologies, thereby reducing the reliance on traditional entrepreneurial experiences [e.g., startup experience, management experience, and work with rapidly growing organisations]. Even though those experiences are valuable, the direct application of technological knowledge can speed the development of innovative solutions and streamline the strategic planning process".

Consequently, founder-CEOs' technological expertise can reduce reliance on startup, management, and rapid-growth organisational experience when developing innovation strategies for SMEs. By leveraging their tech knowledge and fostering an innovation-friendly culture, founder-CEOs can drive strategic planning that prioritises innovation, positioning SMEs for long-term success in emerging countries' dynamic landscapes. Our interviews reveal the complex influence of founder-CEOs' technological experience on causation processes and innovation strategy in emerging market SMEs. While tech expertise offers advantages in optimising operations and expanding market reach, it can also limit strategic planning by narrowing focus and potentially undermining the benefits of specific human capital.

Overall, our supplementary qualitative findings provide deeper insights into how founder-CEOs' engagement in strategic planning and management activities affects SMEs' pursuit of innovation strategy. We reveal that founder-CEOs with extensive startup, management, and rapidly-growing organisation experience are better equipped to enhance the impact of strategic planning on innovation. These experiences enable them to foresee challenges, adapt swiftly, and make strategic decisions in uncertain environments. Furthermore, founder-CEOs with rich marketing experience have a market-oriented perspective that complements broader business skills, while those with rich technological experience may develop a narrower strategic focus. These findings contribute to human capital theory by demonstrating its nuanced effects in emerging country contexts, illustrating how different types of human capital interact and influence the association of strategic planning and innovation strategy. The research offers a sophisticated understanding of the complex interplay of founder-CEOs' experiences and skills in shaping SME innovation within the resource-constrained and volatile environments in emerging countries.

5. Discussion

5.1. Theoretical implications

Our study contributes to the ongoing debate regarding the impact of causation processes on SMEs' innovation in emerging countries. While some studies have shown positive effects (e.g., Batra et al., 2018; Vanderstraeten et al., 2020), others have found less favourable outcomes (e.g., Arend et al., 2017; Song et al., 2011). These conflicting findings suggest a complex relationship, likely contingent on other factors. Our research seeks to provide a more comprehensive understanding of how founder-CEOs' engagement in strategic planning and managing activities affects their innovation strategy in the context of emerging country SMEs.

First, our quantitative findings reveal that founder-CEOs' specific human capital (startup experience, management experience, and experience in rapidly-growing organisations) positively moderates the relationship between causation processes and innovation strategy in emerging country SMEs. This finding is further supported by our qualitative data, which illustrates how these experiences enable founder-CEOs to navigate the volatile environments of emerging countries, enhance strategic acumen, and effectively execute plans. By examining this moderating role, we provide new insights into the relationship between causation processes and SME innovation strategy (Arend et al., 2017; Batra et al., 2018; Vanderstraeten et al., 2020), and extend the application of human capital theory to explain how founder-CEOs' human capital affects SME innovation in emerging countries (Brinckmann et al., 2019; Davidsson and Honig, 2003; Kato et al., 2015).

Second, our study reveals the contrasting effects of different types of specialised experience on the relationship between causation processes and innovation strategy. Quantitatively, we find that marketing experience strengthens the positive moderating effect of specific human capital, while technological experience weakens it. Our qualitative findings provide deeper insights into these effects. Marketing experience enhances founder-CEOs' ability to acquire and analyse market information, adjust strategies accordingly, and navigate uncertainties in emerging countries. Conversely, technological experience, while beneficial for optimising operations and expanding market reach, can narrow strategic focus and potentially undermine the benefits of broader human capital. These findings extend the literature on contingency factors affecting the causation processes-innovation relationship (e.g., Batra et al., 2018; Posch and Garaus, 2020; Vanderstraeten et al., 2020). Moreover, we advance human capital theory by highlighting that the interplay between different forms of human capital (Sarto et al., 2019; Van Uden et al., 2017), may not always produce desirable outcomes in the context of emerging country SMEs.

Third, our research contributes to the context-specific understanding of emerging country SMEs. Prior research has recognized the dominant role of founder-CEOs in shaping these SMEs' strategic focus (Ganotakis et al., 2021; Kato et al., 2015; Shepherd et al., 2023), leading to two distinct research streams: one focused on the impact of founder-CEOs' planning activities (Brinckmann et al., 2019) and another on their managing activities (Tzabbar and Margolis, 2017; Wiklund and Shepherd, 2003). Our study integrates these streams by exploring the interplay between planning (causation processes) and managing (specific human capital and specialised experience) activities on the innovation strategy of emerging country SMEs. This integration provides a more holistic understanding of how founder-CEOs influence innovation in these challenging environments. Furthermore, our qualitative findings offer rich contextual insights into the unique challenges and opportunities faced by SMEs in emerging countries. They highlight how founder-CEOs leverage their experiences to navigate institutional voids, resource scarcity, and market volatility – factors that are particularly prevalent in emerging countries (Adomako et al., 2019; Hilmersson, 2014). This context-specific understanding enhances the applicability of human capital theory to emerging country SMEs and provides a more nuanced view of how different types of experience interact to influence strategic planning and innovation outcomes in these challenging business environments.

5.2. Managerial implications

Our study offers several important managerial implications for founder-CEOs of SMEs in emerging countries. First, we recommend that founder-CEOs with high levels of specific human capital (startup, management, and rapid-growth organisational experience) should actively implement causation processes, as this approach is likely to promote innovation strategy effectively when coupled with their rich experiential knowledge.

Second, the application of these processes should be balanced with consideration of specialised experience. Founder-CEOs with extensive marketing experience should confidently implement causation processes, while those with primarily technological backgrounds should be more cautious about over-relying on such processes for driving innovation strategy. Given this complex interplay, we advise developing a comprehensive skill sets that balances technological expertise with marketing acumen and broader management skills. Founder-CEOs should also focus on navigating the unique challenges of emerging countries, such as institutional voids and resource scarcity, by leveraging their diverse experiences to develop flexible and responsive strategic planning processes. By implementing these recommendations, founder-CEOs can better leverage their specific human capital and specialised experience to drive innovation and growth in their SMEs, while effectively navigating the unique challenges and opportunities presented by emerging country business environments.

5.3. Public policy implications

This research offers valuable insights for policymakers aiming to support SME innovation and growth in emerging countries. Firstly, policies should be designed to encourage the development of diverse entrepreneurial experiences among founder-CEOs. This could involve creating programs that facilitate mentorship opportunities, executive education, and cross-industry exposure for entrepreneurs. Such initiatives would help build the specific human capital that our study shows are crucial for effective strategic planning and innovation.

Secondly, policymakers should consider implementing targeted support programs that recognise the different impacts of marketing and technological expertise on SME innovation. While both are important, our findings suggest that marketing experience is particularly beneficial for innovation strategy when combined with strategic planning. Therefore, policies could be developed to enhance marketing capabilities among SMEs, perhaps through subsidized training programs or marketing consultancy services.

Lastly, policymakers should consider developing tailored support mechanisms that account for the different stages of SME growth and the varying experiences of founder-CEOs. This could involve creating tiered support systems that offer different types of assistance based on the SME's stage of development and the founder-CEO's background.

5.4. Research limitations and future research opportunities

First, our quantitative study's sample size (n = 103) and empirical context (India) were limited, despite supplementary qualitative analyses through interviews with SME founder-CEOs in India and China. This limitation may affect the generalisability of our findings. Future research should aim to collect larger and more diverse data samples from different industries and countries. Expanding qualitative data collection to include founder-CEOs from multiple emerging countries will enhance the transferability of findings and provide a deeper contextual understanding of the studied phenomena. This approach would allow researchers to capture a broader range of perspectives and experiences, increasing the robustness and applicability of the results across various emerging market contexts, and enabling better cross-country comparisons of SME innovation strategy.

Second, despite employing a longitudinal survey (Hair et al., 2010) and a two-stage analysis (Hamilton and Nickerson, 2003), our study's lack of randomisation may not fully address concerns about causation and endogeneity. These limitations underscore the need for future research to adopt randomised experiments. Randomisation can more effectively ensure the equitable distribution of variables, thereby strengthening causal inferences and enhancing the reliability of findings. This approach is crucial for overcoming methodological challenges and providing more robust evidence on the causal relationships between strategic planning by founder-CEOs and SME innovation outcomes. By implementing randomised experimental designs, future studies can better isolate the effects of specific variables and control for potential confounding factors. This would allow researchers to draw more definitive conclusions about the impact of strategic planning on SME innovation.

Third, supplementary qualitative analyses provide additional insights and context to the quantitative findings, yet the study faces several limitations. The inclusion of interview data from China enhances the study's scope while introducing complexities that may impact the transferability of the findings. Despite efforts to ensure cultural sensitivity, inherent biases may exist in interpreting data from different cultural contexts. The qualitative nature of the interviews, with a relatively small sample size, limits the representativeness of the findings. A significant challenge arises from conducting interviews in multiple languages, which could potentially lead to misinterpretations or loss of nuance. While studying China and India provides valuable insights, we clearly state that the findings may not be directly applicable to other emerging economies with different cultural, economic, or institutional contexts. To address these challenges, future research could expand the sample size, employ more rigorous cross-cultural validation techniques, and explore SME innovation strategies in a wider range of emerging economies. These steps would enhance the generalisability and robustness of the findings, providing a more comprehensive understanding of SME innovation strategies across diverse emerging market contexts, aligning with approaches used in previous studies (Di Stefano et al., 2015; Schmitt et al., 2024; Veltrop et al., 2021) while addressing the limitations inherent in such methodologies.

Fourth, the data analysis approach in this study, while comprehensive, has limitations that warrant careful consideration when interpreting results. Cultural bias poses a significant challenge, as researchers may inadvertently interpret responses through their own cultural lens, potentially misunderstanding culturally specific concepts or practices in India and China. This study addresses the challenge of maintaining consistent coding practices across a diverse dataset from two different countries. Equal representation of insights from both countries in the final analysis is also a potential limitation, as one country's perspective may be overrepresented due to various factors. In identifying overarching themes, researchers might inadvertently focus on similarities between contexts, potentially overlooking important differences between Indian and Chinese SMEs' approaches to innovation strategy. This study discusses the possibility that some insights might be influenced by specific contextual factors, despite the focus on theorisation about firmlevel strategies. While efforts were made to mitigate these limitations, they cannot be entirely eliminated and may still influence the findings to some degree. The study acknowledges that while the approach provides insights into SME innovation strategies across two contexts, further research may be needed to confirm the applicability of these strategies in other emerging markets. Future research could address these issues by incorporating additional safeguards against cultural bias, employing more diverse research teams, and developing more sophisticated crosscultural analysis techniques.

Lastly, this study provides valuable insights into the influence of founder-CEOs' human capital on SMEs' innovation strategies in emerging markets. However, we recognise other CEO characteristics and factors impact SME innovation. Future research could investigate CEOs' career backgrounds, power dynamics (Sewpersadh, 2019), risk-taking propensity, and proactiveness in shaping innovation strategies (Strese et al., 2018). Examining management styles, decision-making processes, and approaches to supporting new ideas could reveal their effects on innovation outcomes (Barrett et al., 2021; Pan et al., 2024). The impact of client-focused approaches on innovation capabilities and CEOs' desire for long-term control on capital structure decisions and innovation potential also warrant exploration (Barrett et al., 2021). Addressing these factors could develop a more comprehensive framework for understanding the interplay between CEO attributes, organisational dynamics, and innovation outcomes in SMEs.

6. Conclusion

Emerging countries' SMEs are increasingly focusing on innovation strategies as they shift from manufacturing Western brands to developing their own products. In this context, founder-CEOs play a crucial role in strategic planning and management, significantly influencing their firms' innovation strategies. We found a positive relationship between causation processes and innovation strategy of emerging country SMEs. Furthermore, we found that the specific human capital of founder-CEOs moderates this relationship. This moderating effect is enhanced when founder-CEOs have rich marketing experience but may be weakened if they have extensive technological experience. These findings offer important implications for human capital theory and practical applications for SMEs in emerging countries. We hope future research continues to explore the planning and managing roles of founder-CEOs in shaping SMEs' innovation strategies in emerging countries.

Source of funding

Key project of National Science Foundation of China (Grant No. 72032008), and National Social Sciences Foundation of China.

CRediT authorship contribution statement

Gordon Liu: Writing – original draft, Conceptualization. Stephen X. Zhang: Writing – original draft, Data curation, Conceptualization. Wai Wai Ko: Writing – original draft, Conceptualization. Asghar Afshar Jahanshahi: Writing – original draft, Data curation, Conceptualization. Yantai Chen: Writing – original draft, Methodology, Data curation. Joshin John: Methodology, Data curation.

Declaration of competing interest

The authors have no conflict of interest to declare that are relevant to this article.

Data availability

The data that has been used is confidential.

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