International Business Review 34 (2025) 102422

Contents lists available at ScienceDirect

International Business Review

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

International marketing agility and cost leadership strategies of frontier emerging market exporters in advanced economy markets

Huda Khan [a,b], Zaheer Khan [a,c,*], Gary Knight [d]

[a] Africa Asia Centre for Sustainability, Business School, University of Aberdeen, UK
[b] InnoLab, University of Vaasa, Finland
[c] International Business, School of Marketing and Communication, University of Vaasa, Finland
[d] Atkinson Graduate School of Management, Williamette University, United States

ARTICLE INFO

Keywords:
International marketing agility
Cost leadership strategy
Environmental pressure
Crisis
Business model innovation
Exporting firms
Frontier emerging markets

ABSTRACT

Amid external crisis, cost-based strategies have become a growing concern for practitioners and an increasingly important area of scholarly inquiry. This is particularly true for frontier exporting firms from less advanced emerging markets (Pakistan), which often adopt cost-led strategies to succeed in the highly competitive and distinct environments of advanced economy markets. Despite its importance, the role of international marketing capabilities in driving these cost-based strategies has been largely overlooked in the existing literature. This study examines a sample of Pakistani exporting firms and demonstrates that international marketing agility, as a meta-dynamic capability, exerts both direct and indirect effects on business model innovation (BMI) through the mediation of cost leadership strategy when targeting advanced economy markets. Furthermore, environmental pressures positively moderate these relationships. The findings contribute to the dynamic capabilities perspective and highlight the crucial roles of international marketing agility and cost leadership strategy in supporting the BMI of exporting firms managing the complex and competitive environments of advanced economy markets. Additionally, the study provides valuable insights for emerging market exporting firms seeking to adapt and innovate their business models in response to the environmental pressure.

1. Introduction

In the ever-evolving landscape of international business, exporting remains a fundamental strategy for firms, particularly those from emerging markets to access and compete in advanced economy markets. This is especially important for less advanced (frontier) emerging market exporting firms (EMEFs), which, despite facing significant resource constraints, often turn to exporting as an initial step in their internationalisation journey (Leonidou & Katsikeas, 1996; Xie & Li, 2018). The global business environment, marked by challenges such as heightened competition, lack of brand recognition, and the absence of established networks, demands that these firms adapt quickly in order to thrive. Furthermore, external crises can amplify these challenges, forcing firms from frontier markets to prioritise cost concerns while simultaneously needing to innovate to maintain their competitive edge. This is because exporting firms in markets like Pakistan (the context of this study) have fewer large exporters compared to advanced emerging economies such as China, India. Understanding how such EMEFs can leverage their capabilities to navigate these complexities and succeed in international markets is crucial for both scholarly and practical purposes.

Scholarly research in international business has largely focused on advanced forms of internationalisation, such as strategic alliances and joint ventures, leaving exporting as a relatively underexplored area. Meanwhile, IB scholars are increasingly re-emphasizing the critical role of marketing capabilities in exporting (Samiee et al., 2021). Importantly, the role of cost leadership strategies of frontier EMEFs, particularly when targeting competitive advanced economy markets, remains less examined. This is despite a cost leadership strategy is likely more relevant and effective for such firms targeting advanced economy markets (Aulakh et al., 2000b). A key gap in the literature is the understanding of the capabilities that enable frontier EMEFs to implement cost leadership strategies, which are often necessary for survival under environmental pressures. Meanwhile, firms often innovate their business models in response to environmental shifts, particularly during external crisis situations (Sabaruddin et al., 2023). However, there is a lack of research

* Corresponding author at: Africa Asia Centre for Sustainability, Business School, University of Aberdeen, UK.
E-mail addresses: huda.khan@abdn.ac.uk (H. Khan), zaheer.khan@abdn.ac.uk (Z. Khan), gknight@williamette.edu (G. Knight).

https://doi.org/10.1016/j.ibusrev.2025.102422
Received 20 March 2023; Received in revised form 14 February 2025; Accepted 15 February 2025
Available online 26 February 2025

that explores the key capabilities and strategies of EMEFs' business model innovation (BMI) (Najafi-Tavani et al., 2023), particularly those in frontier economies.

Amid external crises, or other disruptive events that force firms to adopt radical economic measures (Tung, Knight, et al., 2023; Tung, Zander, et al., 2023), frontier EMEFs are often driven to pursue cost leadership strategies and frequently revise their business models for competitiveness. Kunc and Bhandari (2011) findings on crisis management specifically suggest that, in highly uncertain environments, managers often prioritise cost leadership strategies as a means of survival.

During environmental pressures, such as economic downturns, or geopolitical disruptions, buyers (importers in our context) in advanced economies often become more price-sensitive due to reduced consumer confidence and purchasing power. While such pressures may not affect both the importing and exporting countries simultaneously, they can still lead to heightened pressure on frontier EMEFs from international buyers to offer competitive pricing (Myers, 1997; Obadia, 2013; Tan & Sousa, 2011). In response, frontier EMEFs, particularly those with limited resources, are more likely to adopt cost leadership strategies to remain competitive in these price-sensitive markets.

At the same time, these environmental pressures may force frontier EMEFs to divert resources away from long-term investments, such as research and development (R&D), in favour of short-term cost-cutting measures. This reduction in R&D investments is a strategic choice aimed at ensuring immediate survival and cost control, as firms prioritise staying afloat in uncertain environments (Guderian et al., 2021; Trunschke et al., 2024). Thus, the inclination toward cost leadership is not only driven by external environmental pressures but also by internal constraints that limit the ability to focus on innovation and product development (Cohen & Levinthal, 1990).

Additionally, the dynamic nature of international markets, especially under environmental pressures exacerbated by crises, forces frontier EMEFs to continually reassess their offerings, value architectures, and revenue mechanisms to align with evolving market demands (Christofi et al., 2021). This constant adaptation is crucial for maintaining competitiveness and addressing shifts in consumer behaviour in advanced economy markets. In times of external environmental pressure, international marketing agility—a composite capability encompassing market sensing, speed, responsiveness and flexibility (Khan, 2020)— becomes crucial as it enables firms to adapt to rapidly changing environments (Forbes, 2020a; Hughes & Chandy, 2021). Drawing on dynamic capability theory (Teece et al., 2016; Teece et al., 1997), it can be argued that international marketing agility enhances a firm's ability to sense market shifts, seize emerging opportunities, and reconfigure its business model to respond to external pressures (Teece et al., 2016). In highly uncertain environments, the ability to swiftly adapt marketing strategies—such as adjusting product offerings, pricing models, or customer engagement methods—becomes instrumental in driving BMI.

However, the relationship between agility and BMI may not be direct. This is because BMI is often driven by particular strategic objective (Forbes, 2018). Through international marketing agility, frontier EMEF can develop more effective strategic alternatives by leveraging market knowledge and identifying new opportunities. This sensed knowledge, coupled with flexibility, allows firms to reconfigure their resources and craft cost-effective strategies that align with the foundational components of their business models. As a result, cost leadership strategies may act as a mediator, influencing the relationship between international marketing agility and BMI, particularly among frontier EMEFs. Gao et al. (2010) suggested that cost leadership strategies, on their own, are insufficient for gaining a competitive advantage in foreign markets. To succeed, firms need to complement these strategies with specific capabilities (Gao et al., 2010; Knight et al., 2020). In this context, it can be argued that capabilities such as agile market opportunity identification and speedy responsiveness can significantly influence a firm's cost-based strategies, facilitating the rejuvenation of business models. Successful companies proactively leverage their agile capabilities, directing them towards strategies that support the renewal and adaptation of their business models (Battistella et al., 2017). Accordingly, the study aims to address the following research questions: Among frontier emerging market exporting firms, to what extent cost leadership strategies mediate the relationship between international marketing agility and BMI? Additionally, to what extent is this mediation effect moderated by environmental pressure?

Our findings contribute to the dynamic capability perspective (Teece et al., 2016; Teece et al., 1997) by highlighting the important role of international marketing agility—a relatively emergent meta-dynamic capability—offering significant managerial value for frontier EMEFs targeting advanced economy markets. Furthermore, we extend the literature on cost leadership strategies, highlighting their increased relevance and validity for frontier EMEFs targeting distant and complex advanced economy markets. The study focusses on the unique context of frontier EMEFs mainly exporting to advanced economy markets, these firms which prioritise exporting as a key driver of economic growth. To succeed, these firms must develop greater agility than their foreign competitors. Simultaneously, they must contend with the challenge posed by low-cost rivals also targeting advanced economy markets. Our findings contribute to existing knowledge by uncovering the mechanisms that enable frontier EMEFs to adopt cost leadership strategies, which, in turn, positively influence BMI to cater the advanced economy markets.

While cost leadership has been extensively discussed in strategy literature, this study highlights its role in driving BMI, especially when frontier EMEF are targeting advanced economy markets. By focusing on cost leadership as a strategic response to environmental pressure, this study fills a critical gap in the literature by showing how international marketing agility—by facilitating the identification of market opportunities and enabling a flexible, rapid response—leading frontier EMEFs to achieve cost advantages that, in turn, lead to BMI. This contribution underscores that cost leadership strategies are not only about cutting prices but also about reconfiguring business models, aligning them with competitive needs in advanced economy markets. Finally, by focusing on the context of Pakistani exporting firms, this study offers important insights on the role of international marketing agility and BMI for international business research in frontier economies.

2. Literature review and hypotheses development

According to Teece (2007, p. 1344), "*dynamic capabilities are high-level abilities to sense and seize opportunities, navigate threats, and combine and reconfigure specialized and cospecialized assets to meet changing customer needs in order to sustain and amplify evolutionary fitness.*" In this regard, dynamic marketing capabilities are known to enhance the performance of emerging market firms (Khan, 2020). International marketing agility is a relatively emergent concept that is conceptualised as a meta capability encompassing foreign market sensing, flexibility, speed, and responsiveness (Gomes et al., 2020; Osei et al., 2019). Recently, practitioners have exhibited an interest in understanding the efficacy of this meta-dynamic capability (Forbes, 2020b). Accordingly, scholarly work aimed at understanding the role it plays in internationalisation has also increased in recent years (Asseraf et al., 2019; Elo & Silva, 2022; Gomes et al., 2020), including for frontier EMEFs targeting advanced economies (Khan, 2020).

Frontier EMEFs are often burdened by liabilities such as limited resources, lesser-known brands, and country-of-origin effects, in addition to the complex conditions of foreign markets—especially those shaped by well-established competitors from advanced economy markets. Understanding how these firms can develop a cost-leadership strategy for BMI is both important and relevant. Firms from emerging markets are often resource-constrained and emphasize cost-leadership strategies, focusing on operational excellence and cost efficiency (Hughes et al., 2010). Firms often shift their strategic focus to cost savings in response to unexpected market conditions arising from environmental crises (Hitt

et al., 2021). For example, our sample firms predominantly operate in the textile and food sectors. Other emerging markets, such as Bangladesh, are prominent low-cost exporters (competitors) in the textile sector, actively targeting the same advanced economy markets (e.g., the UK, USA) (OEC, 2021; Textile-today, 2023). China, Bangladesh, Vietnam, Türkiye, and India are leaders in global export shares in this industry. Similarly, among emerging markets, India is a key exporter of food products, catering to both the US and the UK—i.e., the same markets targeted by our sample firms (World Bank, 2021). To become more competitive and secure a stronger foothold in advanced economy markets, frontier EMEFs originating from Pakistan need to produce and sell at lower prices.

The relevance of cost leadership strategy for emerging market exporting firms is also supported by existing literature (Ramamurti (2012). For example, Ramamurti (2012) suggests that these firms possess this ability due to their home country advantages, such as low-cost labour and the capability to economize on capital equipment, space, land, construction costs, and facilities located in second-tier cities. Similarly, the cost-led strategy of emerging market exporting firms is found to be more effective when targeting developed markets rather than developing markets (Brouthers & Xu, 2002). This is because established brands make it difficult for many firms based in emerging markets to compete on branding or differentiation. Furthermore, most firms reduce spending as their first line of defence during an external crisis (Forbes, 2022). Hence, cost leadership is arguably even more pertinent for frontier EMEFs, as it enables them to effectively compete with their rivals.

It is widely acknowledged that agility enables firms to mobilize resources and expertise to adapt and respond to changes in the external market, particularly by exploiting market opportunities in a timely manner (Ahammad et al., 2021; Christofi et al., 2021). However, for EMEFs originating from frontier economies, the challenge lies in acquire the capabilities necessary to navigate complex international markets, especially when they face significant resource constraints. Unlike firms in developed economies, which often have access to substantial capital, human resources, and sophisticated market intelligence, many firms in frontier emerging markets are resource-poor and struggle to access the capabilities typically associated with successful international expansion.

For such firm, developing international marketing agility often involves incremental learning, innovation, and strategic partnerships, networking and informal knowledge, enabling them to quickly adjust their strategies in response to new market conditions (Adomako et al., 2022; Ahammad et al., 2021), rather than making large investments in international operations. In some cases, frontier EMEFs may also form alliances with larger, more resource-rich firms, allowing them to access expertise and resources they might otherwise lack. Thus, while resource-poor firms may not possess the extensive organizational capabilities of their counterparts in developed economies, they can still demonstrate considerable agility by leveraging informal learning, flexibility, and innovative solutions to navigate international markets.

The argument for international marketing agility is especially pertinent for frontier EMEFs targeting advanced economy markets, where differences in market conditions, consumer behaviour, and regulatory environments are particularly pronounced (Aulakh et al., 2000b; Christofi et al., 2021; Hughes & Chandy, 2021). In these complex and dynamic markets, frontier EMEFs need to adapt their marketing strategies to align with local demands. This adaptation does not always require sophisticated tools or significant resources, but rather the ability to respond quickly to market feedback, adjust the marketing mix, and adapt to competitive pressures. For example, smaller firms might adjust pricing strategies based on customer preferences or rapidly changing demand conditions, even if they lack detailed market intelligence (Ranjan & Nayak, 2023). Moreover, the concept of international marketing agility in this context should be viewed as reactive and flexible, rather than highly strategic or proactive, which is often associated with larger firms (Gomes et al., 2020). For resource-constrained firms, agility may not involve sophisticated market sensing or forecasting but rather the ability to quickly adapt to emerging opportunities or threats. In other words, speed and flexibility become key competitive advantages for frontier EMEFs that are otherwise limited by financial or organizational resources. This reactive agility allows them to overcome some of the disadvantages of being resource-poor by quickly responding to market signals and adjusting their offerings as needed.

It is important to note that the international marketing agility described here is not universal to all exporting firms in emerging markets; rather, it is more likely to apply to a subset of firms—particularly those with an entrepreneurial mindset and a focus on advanced economy markets. These firms are better positioned to adapt to market needs, as they specifically choose to export to advanced economy markets (Khan, 2020). Thus, the argument for agility is particularly relevant for frontier emerging markets, which are predominantly dominated by small and medium-sized firms, with fewer larger firms that usually have access to greater resources and more sophisticated strategies.

Thus, while EMEFs face significant challenges in acquiring the capabilities for international marketing agility—defined as the ability to react quickly and adapt to new market conditions—this agility can serve as a valuable capability (Khan, 2020). By leveraging flexibility, informal knowledge, and strategic partnerships, these firms can navigate complex international environments and align their strategies with the demands of advanced economies. However, it is crucial to recognize that this form of agility applies primarily to a specific subset of exporting firms, and understanding the context in which it is deployed is key to interpreting its role in the internationalisation process.

Despite the theoretical rationale provided above and the challenges associated with identifying key drivers of competitive advantage in frontier EMEFs—such as cost-leadership strategy—scholarly knowledge in this area remains relatively sparse. Furthermore, emerging market firms typically emphasize large volumes and low-margin strategies to generate profits. Many of these firms pursue low-cost strategies by reengineering products, employing cheap labour, and using low-cost raw materials and supplies (Agnihotri, 2015; Luo & Zhao, 2004), rather than leveraging production automation and other more costly approaches that are more accessible to competitors from advanced economies (Lee et al., 2011).

Studies have highlighted the importance of international marketing agility in product innovation (Zhou et al., 2019). Practitioners often believe that agility is critical for adopting new business operating models in the wake of crises (Mckinsey, 2021). Despite its relevance for understanding the role of international marketing agility in BMI, this issue has largely been overlooked in the context of frontier EMEFs. Specifically, when faced with environmental pressure, exporting firms need to develop key capabilities to respond to the complexities of foreign markets (Khan, 2020). Emerging market firms need to adopt novel strategies to effectively deal with the substantially different competitive landscapes of advanced economy markets (Hernandez & Guillén, 2018). At the same time, under environmental pressure during crises, firms are often inclined to develop business models focused on the creation, capture, and delivery of value, enabling them compete effectively on the basis of cost (Autio & Zander, 2016; Mihailova, 2022; Monaghan et al., 2020).

A review of the literature suggests that BMI is driven by firm-level capabilities (Foss & Saebi, 2017). Unlike typical capabilities, which focus on converting resources into value propositions, creation, and capture—dynamic capabilities enable firms to reconfigure and transform resources and competencies into innovation (Teece et al., 2016). In this context, marketing agility plays a vital role, as it allows frontier EMEFs to capitalise on market insights and respond swiftly to changing market conditions. To illustrate this within the frontier EMEF context, international marketing agility can help develop effective cost leadership strategies. By enabling firms to sense advanced market trends—such as identifying low-cost suppliers with appropriate quality—and understand how resources can be flexibly reconfigured,

international marketing agility allows frontier EMEFs to generate more value. This, in turn, enables them to strategize and develop cost-effective offerings, facilitating the rejuvenation of their business models, explained as *a transformation of the core business logic, which occurs through: (i) value offering—what a firm offers its customers; (ii) value architecture—how this offering is realised within the firm and its network; and (iii) revenue mechanism—revenue logics and cost structures* (Miroshnychenko et al., 2021; Spieth & Schneider, 2016).

Alongside marketing capabilities, many firms develop a cost leadership orientation (Naidoo, 2010). These firms continuously exploit opportunities to improve strategy creation, and adapt quickly in response to emerging threats, maintaining a defensive posture to sustain competitive advantage (Teece, 2007). Thus, international marketing agility is likely to influence cost leadership strategies. Similarly, given its connection to various forms of innovations, marketing agility may also contribute to BMI (Zhou et al., 2019). Firms' strategies are often driven by firm cognition and the interpretation of changes in the external environment (Saebi et al., 2017). Teece (2010) notion of what customers want and of how business can best organise to deliver those values to remain profitable draws attention to the potential link between international marketing agility and BMI. International marketing agility enables emerging market firms to sense market requirements, adapt to the demands of international markets, anticipate opportunities, and respond to concomitant threats, specifically in highly competitive and dynamic markets (Ahammad et al., 2021). One such dynamic and competitive arena is the context of this study—frontier EMEFs that export to advanced economy markets, where agility can play a key role in shaping firms strategic responses and helping them gain a foothold in foreign markets (Ahammad et al., 2021). The competencies of emerging market firms lies in their ability to identify niche markets and leverage innovation capabilities to overcome the liability of emergingness in their host markets (Kotabe & Kothari, 2016).

Marketing agility enhances frontier EMEFs' ability to understand and respond to the competitive and dynamic environments of advanced economy markets (Khan, 2020). It can sharpen their foresight and enable the strategic framing of innovative and competitive business models (Doz & Kosonen, 2010). Miroshnychenko et al. (2021) argue that BMI is driven by the renewal of a firm's knowledge and flexibility—key components of marketing agility. It can be further argued that exporting firms often change their business models in response to industry conditions that render their previous models untenable due to lower growth or decreased profitability (Abrahamsson et al., 2019). Hence, international marketing agility—the meta-dynamic capability to sense and respond swiftly and flexible—may be a key driver of frontier EMEFs' BMI in advanced economy markets.

Despite the importance of marketing agility and its potential role in cost leadership strategy and BMI for frontier EMEFs in advanced economy markets, there has been little research on this topic to date. Most studies on international marketing agility have mainly linked it to product innovation and adaptation (Asseraf et al., 2019; Osei et al., 2019). Cost leadership strategies have received relatively little attention in the exporting marketing literature (Chung & Ho, 2021; Gao et al., 2010; Leonidou et al., 2015), particularly in the context of emerging market firms, despite the greater relevance of these strategies for them. Gao et al. (2010) examined the leadership strategies of exporting firms and suggested that simply adopting a cost leadership will not drive performance. Instead, exporting firms must possess distinct competencies to perform satisfactorily. This supports the linkages we propose below between international marketing agility (a dynamic capability) and cost leadership strategies. Similarly, despite its potential as a key source of innovation, the role played of international marketing agility has been rarely investigated in the BMI literature (Mckinsey, 2021). Furthermore, firms that export to advanced economies tend to innovate their processes (de Oliveira et al., 2021). Collectively, the aforementioned arguments support the following hypotheses.

H1. **:** International marketing agility positively influences the cost leadership strategies of frontier EMEFs targeting advanced economy markets.

H2. **:** *International marketing agility positively influences the BMI of frontier EMEFs targeting advanced economy markets.*

The existing review of the efficacy of cost leadership strategies in the exporting context has hitherto yielded fragmented results. For example, Chung and Ho (2021) found that cost leadership drives the market share performance of exporting firms, with its effect strengthened by exploitative learning and reduced by exploratory learning. They also found that cost leadership influences strategic performance, although this relationship is unaffected by either exploitative or exploratory learning. According to Heredia et al. (2017), differentiation has a stronger impact on the market orientation of exporting firms than cost leadership strategies. Furthermore, Gao et al. (2010) argued that cost leadership strategies alone are insufficient to attain competitive advantages in foreign markets; firms must complement them with specific capabilities. In this regard—and consistent with our H1—we argue that international marketing agility, as a dynamic capability, will drive effective cost leadership strategies. This is because international marketing agility plays an important role in this process by enabling EMEFs firms to quickly respond to environmental pressures and market dynamics. Through international marketing agility, firms can adjust their marketing strategies and operational procedures to support their cost leadership goals, ensuring that they remain both flexible and cost-effective in changing international environments.

BMI requires a clear purpose or drive (Hacklin et al., 2018); this, may necessitate the meta-dynamic capability to sense, seize, and reconfigure the strategic direction for value capture and delivery. Although BMI can be considered as a constant source of value creation, it requires a clear strategic focus (Forbes, 2018). Similarly, BMI enables the execution of strategy (Richardson, 2005). To further exemplify and contextualise, EMEFs often have advantages in terms of low labour and raw material costs (Aulakh et al., 2000a). To become price leaders in their target advanced markets, firms need the ability to match their competitors' offerings at a lower price. As a result, successful firms are likely to gather and analyse data—such as pricing information—on their key rivals and target market demands (Murray et al., 2011). The strategic goals of exporting firms often depend on their marketing capabilities (Kaleka & Morgan, 2019) and on a strategic focus that supports efficiency in the BMI dimension (Najafi-Tavani et al., 2023).

Frontier EMEFs may need to adopt a cost leadership strategy to compete in advanced economy markets, particularly during times of crisis. However, just focusing on cutting costs is not enough. These firms need to innovate their business models to align with their low-cost strategy while staying competitive (Najafi-Tavani et al., 2023). This innovation is not always about new products, but involves rethinking their operations, value propositions, and market approaches (Najafi-Tavani et al., 2023). To achieve this, firms need to develop international marketing agility—the ability to quickly adapt and respond to changes in international markets. This agility helps firms implement their cost leadership strategy effectively, as this capability is known for enabling such firms to adjust their marketing and operational approaches for the advanced markets (Khan, 2020). Hence, the three factors—international marketing agility, cost leadership, and business model innovation—arguably enable firms to navigate the challenges posed by environmental pressures. These pressures often push firms to innovate in ways that maintain their competitiveness while keeping costs low. These aforementioned arguments collectively assert the mediating role of cost leadership strategies between international marketing agility and BMI.

H3. **:** Cost leadership strategy mediates the relationship between international marketing agility and BMI for frontier EMEFs targeting advanced economy markets.

2.1. The moderating role of environmental pressure

In the literature, environmental pressure is captured through several aspects related to target market environment, including market dynamism, heterogeneity, hostility, and network pressure. Market dynamism refers to the unpredictability of environmental change. Market heterogeneity refers to the diversity of external factors such as customers and competitors. Market hostility emphasises the degree of competition (Newkirk & Lederer, 2006). Lastly, firms often face international network pressure, which includes the pressure exerted by competitors and customers to adopt new business operating procedures (Morgan-Thomas & Bridgewater, 2004). Innovation and exporting are complementary strategies for growth (Golovko & Valentini, 2011). Environmental turbulence affects most industries globally, driving firms to engage in BMI (Clauss et al., 2019). This is particularly relevant for frontier EMEFs, which face foreign market complexities, often arising from external environmental pressures. At the same time, dynamic capabilities are well-suited to turbulent conditions due to their underlying features of adaptivity and responsiveness (Teece et al., 2016). In particular, international marketing agility is known to influence international performance (Ahammad et al., 2021). This capability is also effective in driving innovations in highly turbulent environments (Zhou et al., 2019). The key effect of international marketing agility is its ability to enable organisations to recognise, assimilate, and new knowledge to their offerings and operating systems. Similarly, among exporting firms, international marketing agility influences marketing mix adaptations and performance in highly complex market (Khan, 2020). Collectively, studies suggest that environmental turbulence plausibly moderates the relationship between agility and BMI.

Firms engaged in BMI develop new ideas and redeploy capabilities to create value offerings (Clauss et al., 2019), navigating specific environmental conditions (Zott & Amit, 2010). The possession of dynamic capabilities supports such comprehensive change (Miroshnychenko et al., 2021). Adopting a dynamic capability perspective, businesses introduce new models to navigate environmental demands—effectively uncovering these demands through market sensing capabilities. This enables firms to flexibly reconfigure and redeploy resources to efficiently respond to changing environments (Teece et al., 2016). Given that BMI requires agility for transformation (Teece et al., 2016), firms are likely to emphasise their agility to effectively implement BMI under substantial environmental pressures. Thus, we propose that:

H4. : *Environmental pressure positively moderates the relationship between international marketing agility and BMI for frontier EMEFs targeting advanced economy markets.*

In today's business environment, high-performing companies continuously adapt to external changes and find innovative ways of doing business to remain competitive amid market environment changes. Some of these changes are triggered by environmental pressures during crises—which led to interconnected shifts in the external environment. In such complex conditions, the development of dynamic capabilities equips firms with the agility needed to maintain their competitiveness in international markets (Christofi et al., 2021; Tarba et al., 2023).

According to Teece (2010), firms that (i) possess a deep understanding of market needs, (ii) evaluate various strategic options, (iii) conduct thorough analysis to determine how best to satisfy market demands in a timely and cost-effective manner, (iv) adopt a perspective of relative efficiency, and (v) are quick learners and listeners, are more likely to devise effective and efficient business models. In other words, BMI requires dynamic capabilities—such as sensing, seizing, and reconfiguring—to stay aligned with the changes occurring in the market environment. Moreover, firms are often confronted with strategic discontinuities triggered by disruptions, where agility becomes a critical factor in helping them not only survive but thrive (Weber & Tarba, 2014). This involves exploring novel approaches to business transformation (Tarba, 2014). To adopt to a constantly changing environment, agility enables a process of continuous renewal and reconfiguration aimed at ensuring survival. Agility also provides managers with insights into the strategies best suited to address needs that arise under conditions of uncertainty (Teece et al., 2016), with BMI representing the execution of these strategies (Richardson, 2005). In the specific context of EMEFs, there is a gap in the literature regarding how, under conditions of high environmental pressure, international marketing agility influences strategies that drives BMI. Building on the findings of Khan (2020), which suggest that the effects of international marketing agility on market adaptation are stronger under conditions of high market complexity, it can be inferred that, under high environmental pressure, the impact of frontier EMEF international marketing agility on cost leadership strategy may be more pronounced in advanced markets. This argument is further supported by a practitioners' perspective on the need for agility in developing effective strategies under crisis conditions (Forbes, 2020a). Additionally, it is widely argued that, in times of crisis and environmental uncertainty, firms need to adapt their business models to achieve their strategic objectives (McKinsey, 2020). We argue that cost leadership strategies driven by agility and translated into BMI can be particularly effective and relevant for frontier EMEFs. Given the limited attention in the existing literature to the interplay between international marketing agility, cost leadership strategies, and BMI under environmental pressure, we hypothesise:

H5. : *Environmental pressure positively moderates the proposed indirect effects of international marketing agility on the BMI via cost leadership strategies of frontier EMEFs targeting advanced markets,* such that the indirect effects will be stronger under high environmental pressure.

In Fig. 1, we present the conceptual framework of this study.

3. Methodology

3.1. Context

Pakistan is considered a less advanced emerging market (Kauser & Khan, 2018), faces unique challenges when it comes to international trade and export. Compared to advanced emerging markets like Taiwan and South Korea (Kalasin et al., 2014), or large emerging economies such as China and India, Pakistan is often classified as a frontier emerging market—a designation that reflects its relatively lower level of economic development and higher market volatility (Financial-Times, June 2024). This volatility, coupled with domestic market uncertainty, makes Pakistan an interesting and relevant context for studying how firms from such markets can develop strategies to compete in advanced economy markets like the US and UK (Financial Times, 2024). Despite the strong export orientation of Pakistani firms, the country faces a significant trade deficit (USD 240 million) (Trading-Economics, 2023) and is under immense pressure to grow its exports. A major challenge for these firms is the tendency of their products to be perceived as of lower quality in developed markets. However, little is known about how firms based in less advanced frontier markets such as Pakistan design business models tailored to advanced economy markets. In contrast to the literature on large emerging market exporters (e.g., China and India) and their internationalization strategies, the capabilities of Pakistani exporters—especially when targeting developed markets—remain underexplored. It is important to note that Pakistani firms, often characterized by limited financial and organizational resources, may not have the large-scale capabilities of firms in larger emerging markets. However, these firms can still demonstrate remarkable agility, which allows them to adapt and respond to international market demands quickly (Khan, 2020). This agility may not require substantial investments in resources but can instead be attributed to flexible decision-making and quick adjustments to shifting market conditions during crises.

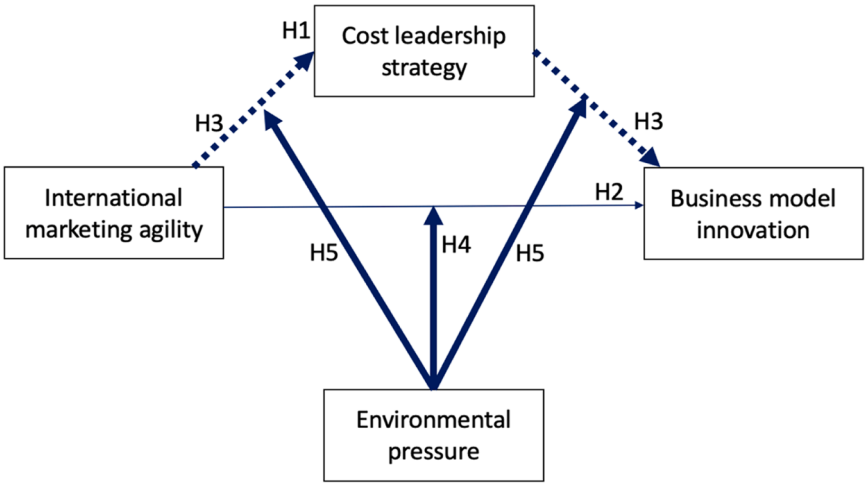

Fig. 1. Conceptual Framework of Emerging Market Exporting Firms in Advanced Markets.

3.2. Data collection procedure

As a comprehensive, centralized database is often unavailable for emerging economies like Pakistan (Zahoor et al., 2022), we initially identified a list of exporting firms using the Pakistan Chamber of Commerce and Export Directory. We focused primarily on firms manufacturing goods across diverse industrial sectors. A convenience sample of 400 firms was selected by reviewing company websites, LinkedIn profiles, and through personal contacts to ensure these firms were exporting to advanced economy markets. During this process, 117 firms were excluded because they did meet the criteria of exporting to the advanced economy markets.

In 2021, we contacted 283 firms that were actively exporting to such markets. We initially reached out to company managers via LinkedIn, where we provided a link to an online survey. Subsequently, for the purpose of achieving a sufficient and reasonable sample size for this study, we appointed trained research assistants in Pakistan who conducted personal visits using paper-based surveys to collect further data. Previous studies have highlighted that Pakistani firms prefer a personalized approach when responding to survey questionnaires and are often reluctant to share information through more impersonal methods (Khan et al., 2015). Therefore, data collected through online survey method was complemented with the subsequent data collected through face-to-face method mainly for the purpose of achieving an adequate sample size (Lew & Sinkovics, 2013).

Out of the 283 firms contacted, 153 completed the questionnaire. However, 28 responses were deemed unusable due to incomplete information. Additionally, one outlier was identified, leaving a final usable sample of 124 responses, representing a 44 % response rate. This sample size was comparable to those of prior survey-based studies on EMEFs (Oura et al., 2016). Furthermore, we performed a post-hoc G*Power analysis for our hypothesised relationships based on path-by-path correlations. The lowest calculated power value was 0.865, which exceeds the 0.800 threshold, indicating sufficient statistical power. A similar post-hoc test has been employed in previous studies (Von Delft et al., 2019).

3.3. Common method bias

Since data were collected from a single respondent per firm, we were aware that this could introduce common method bias. To mitigate this potential issue, we implemented several procedural and analytical steps. Prior to data collection, we ensured that the questionnaire was written in clear, simple, and easy-to-understand language to reduce any ambiguity. We also carefully mixed the constructs in the questionnaire to prevent respondents from easily inferring the relationships between the independent and dependent variables. Additionally, we included a theoretically unrelated measure (restaurant performance) as a marker variable, which served as a proxy to adjust for any potential common method bias (Lindell & Whitney, 2001). As explained in the results section, our analysis indicated that common method bias did not significantly impact the findings.

3.4. Measures

We adopted the measurement for our study from relevant literature published in high-quality journals. Respondents were asked to indicate their level of agreement or disagreement with each statement using a 1–7 scale (1 = strongly disagree; 7 = strongly agree) for all the main constructs in the study. For the latent factor related to restaurant performance, respondents were asked to rate their level of satisfaction with a restaurant on the 1–7 scale. In responding to the survey questions, respondents were asked to consider their respective companies' situations during an external crisis such as the COVID-19 pandemic.

3.4.1. International marketing agility (IMA)

We adapted the scale items of IMA from (Khan, 2020). One item failed to load onto the factor, and was therefore removed from the final analysis. The scale comprised four meta-dynamic capabilities: marketing sensing (five items), responsiveness (six items), speed (three items), and flexibility (three items). Consistent with Khan (2020), it is used as a second order construct.

3.4.2. Cost leadership strategy (CLS)

We adapted a three-item scale from Hughes et al. (2010).

3.4.3. Business model innovation (BMI)

We adapted a nine-item scale from Miroshnychenko et al. (2021) to measure BMI as a second order construct, based on value offering, value architecture, and revenue model (Spieth & Schneider, 2016).

3.4.4. Environmental pressure (EP)

We borrowed and adapted a ten-item scale items from Newkirk and Lederer (2006) and Morgan-Thomas and Bridgewater (2004) to measure EP. The scale includes items assessing international network pressure, market dynamism, market heterogeneity, and environmental hostility. This scale is also used as a composite measure, similar to prior studies that used composite measures for environmental uncertainty (Dimitratos et al., 2004).

3.4.5. Latent Factor

To test for common method bias, we included a theoretically unrelated four-item scale measuring respondents' level of satisfaction with their last visited restaurant (restaurant performance). This scale was adapted from Zhou et al. (2019).

3.4.6. Control Variables

To account for and control potential confounding effects, we included industry, firm age, size, and export market as control variables.

4. Results

4.1. Factor analysis, correlations, and discriminant validity

First, we assessed the factor loadings and reliabilities of the scales (see Table 2). The scale items loaded onto their respective factors, with the lowest loading value being 0.598. We also computed Cronbach's alpha values for the scales, with the lowest value being 0.834, indicating that all scales demonstrated adequate reliability.

Next, we assessed discriminant validity, means, and the squared correlations between the factors (see Table 3). We found the lowest average variance extracted to be greater than the highest square of the correlations between any two factors (Fornell & Larcker, 1981). We evaluated discriminant validity using the Heterotrait-Monotrait (HTMT) ratios (Henseler et al., 2015; Voorhees et al., 2016). All HTMT ratios were below the 0.850 threshold, confirming adequate discriminant validity (Henseler et al., 2015).

4.2. Common method bias assessment

To assess the presence of common method bias, we followed the approach suggested by Lindell and Whitney (2001) and examined the correlations between the marker variable (*restaurant performance*, mean = 5.02; S.D =1.28) and the other variables in the study. We found that the marker variable was not strongly correlated with the main variables, with the lowest p-value being 0.095. This satisfied the criterion for using the marker variable as a proxy to test for common method bias.

Next, we took the absolute value of the smallest correlation coefficient (r = 0.005) as a proxy to adjust for any potential common method bias. After adjusting the correlations, all previously significant correlations remained significant. Collectively, these results provide no evidence of common method bias.

4.3. Moderated mediation model (Process Macro 59)

To test hypotheses H1-H5, we utilized Process Macro 59 with 5000 bootstrap samples with a 95 % confidence interval (Hayes, 2017). This model is appropriate for examining moderation between the independent variables and mediator, mediator and outcome variables, and independent and dependent variables. The absence of a 95 % confidence interval or the presence of zero within the lower and upper bounds suggests non-significance (Preacher & Hayes, 2008). The precision of the confidence intervals confirms the model's validity and predictive accuracy (Nayak et al., 2021).

The results (Table 4) indicate that international marketing agility positively and significantly influences the cost leadership strategy (β = 0.371; LLCI = 0.202; ULCI = 0.541), supporting H1. Additionally, international marketing agility interacts with environmental pressure to enhance cost leadership strategies (β = 0.188; LLCI = 0.038; ULCI = 0.339). The positive effect of international marketing agility was found to be stronger under moderate (β = 0.397; LLCI = 0.224; ULCI = 0.570) and high (β = 0.549; LLCI = 0.318; ULCI = 0.781) environmental pressure. These effects are visually depicted in the moderation plot in Fig. 2a. Further results (Table 4) show the significant effect of international marketing agility on business model innovation (BMI) (β = 0.248; LLCI = 0.086; ULCI = 0.409), supporting H2.

To confirm the mediation effect of cost leadership between international marketing agility and BMI, we ran Process Macro 4 (mediation-only model). The effect of international marketing agility on BMI remained positive and significant with cost leadership as a mediator, which was also positive and significant (β = 0.293; LLCI = 0.118; ULCI = 0.467). The total effect was significant (β = 0.367; LLCI = 0.196; ULCI = 0.538), the direct effect was significant (β = 0.264; LLCI = 0.089; ULCI = 0.440), and the indirect effect was significant (β = 0.103; LLCI = 0.024; ULCI = 0.205). Thus, H3 was supported.

International marketing agility (β = 0.137; LLCI = 0.001; ULCI = 0.273, p = 0.048) and cost leadership strategies (β = 0.325; LLCI = 0.171; ULCI = 0.479) were found to interact with environmental pressure in influencing BMI. The positive effect of international marketing agility was stronger under moderate (β = 0.266; LLCI = 0.100; ULCI = 0.432) and high (β = 0.377; LLCI = 0.154; ULCI = 0.601) environmental pressure, as depicted in the moderation plot in Fig. 2b. Therefore, H4 was supported. Similarly, the positive effect of cost leadership strategy was stronger under moderate (β = 0.225; LLCI = 0.063; ULCI = 0.387) and high (β = 0.488; LLCI = 0.290; ULCI = 0.686) environmental pressure, with the corresponding plot in Fig. 2c supporting these findings. Furthermore, the indirect effect of international marketing agility on BMI via cost leadership strategy was stronger under moderate (β = 0.089; LLCI = 0.022; ULCI = 0.185) and high (β = 0.268; LLCI = 0.100; ULCI = 0.461) environmental pressure (Table 5), supporting H5.

5. Discussion and implications

The aim of this study was to explore how frontier emerging market firms (EMEFs) that targets advanced markets can leverage cost leadership strategies to navigate the environmental pressure during external crises. While previous IB studies have predominantly focused on differentiation strategies, this study fills an important gap by examining the role of cost leadership in driving business model innovation (BMI) for EMEFs targeting advanced economy markets. Specifically, we investigated how international marketing agility—conceived as a meta-dynamic capability—shapes both cost leadership strategies and BMI, particularly in the face of environmental pressures.

The business model of exporting firms originating from frontier emerging markets (EMEFs) that target the substantially different competitive landscape of advanced markets, require not only specific skills and capabilities but also well-developed and executed strategies that drive operational processes for value creation. Amid external crises (Tung, Knight, et al., 2023; Tung, Zander, et al., 2023), understanding how EMEFs can achieve a cost-leadership focus in their target advanced

Table 1
Firm and Respondent Profiles.

Respondent	n	Export Market	n	Firm age in years	n	Firm size (# of employees)	n	Industry	n
CEO	10	UK	66	< 5	5	< 50	15	Textile/Cotton/Clothing	70
Export Manager	114	USA	19	> 5–10	14	50–250	90	Food	36
		Both	39	> 10–15	46	250–500	14	Technology product	7
				> 15	59	> 500	5	Other	11
Total	124		124		124		124		124

Table 2
Factor Analysis.

Scales	Loading
International Marketing agility (α =.934). In our advanced host market,	
1. *Market sensing*	
2. 1. We continuously sense and scan emerging market trends and events in our export markets	0.629
3. 2. We are quite alert to changing market conditions in our export markets	0.682
4. 3. Everyone in our company is sensitised to listen to latent problems and opportunities in export markets.	0.703
5. 4. We anticipate our export markets trends and events accurately before they are fully apparent.	0.726
5. We effectively listen to, understand, and rapidly respond to relevant export market conversations	0.659
1. *Speed to the market*	
2. 6. We can meet changing market needs faster than our competitors	0.690
3. 7. We compress time from product concept to marketing to respond quickly to changing customer needs.	0.598
4. 8. We are fast at changing activities that do not lead to desired effects.	0.601
Flexibility	
9. We are flexible when dealing with the changes in market requirements.	0.752
10. We make adjustments in dealing with the requirements to cope with changing circumstances.	0.764
1. 11. When some unexpected situation arises, we would rather work out with creation/adjustment rather than keeping the original offering.	0.639
Market Responsiveness	
12. We quickly decide how to respond to competitor price changes.	0.684
13. We respond to customers' products/service needs.	0.760
1. 14. We periodically review our product/service development efforts to ensure that they are in line with what customers want.	0.709
2. 15. If a major competitor takes an initiative for meeting market needs, we would implement an immediate response.	0.761
3. 16. Customers' feedback are given consideration in all business units.	0.775
4. 17. When we came up with a great marketing plan, we are able to implement it in a timely manner.	0.744
Cost Leadership Strategy (α =.834). Our business strategy in advanced export market is to	
1. Be the low-cost provider in export market	0.901
2. Provide export market with lower prices than competitors	0.887
3. Emphasise export market operating efficiency	0.810
1. **Business model innovation (α =.940).** In our advanced export market,	
2. *Value offering*	
3. 1. Target customers have changed	0.719
4. 2. The product and service offering has changed	0.828
5. 3. The firm's positioning in the market has changed	0.818
6. *Value architecture*	
7. 4. The firm's core competences and resources have changed	0.854
8. 5. Internal value creation activities have changed	0.830
9. 6. Role and involvement of partners into the value creation process has changed	0.820
10. 7. Distribution has changed	0.812
11. *Revenue mechanism*	
12. 8. Revenue mechanisms have changed	0.862
13. 9. Cost mechanisms have changed	0.858
14. **Environmental Pressure (α =.950).** In our advanced export market,	
15. *Network pressure*	
1. We are under pressure from our customers that requires us to change our business model	0.735
2. Many of our competitors has redesigned their business models for competitiveness	0.848
Market Dynamism	
3. Products and services in our industry become obsolete very quickly	0.822
4. The product/services technologies in our export markets change very quickly	0.827
Market Heterogeneity	
5. There is considerable diversity in: customer buying habits	0.872
6. There is considerable diversity in: nature of competition	0.838
7. There is considerable diversity in: product lines	0.848
Market Hostility	
8. It is very risky; a false step can mean my firm's undoing.	0.832
9. 9. There are very few 'free' opportunities, it is very stressful, demanding, hostile, hard to keep afloat.	0.855
10. We deal with a dominating environment in which my firm's initiatives count for very little against tremendous competitive, political, or technological forces.	0.847
Marker variable (restaurant performance) (α =.880)	
1. Friendliness of service personnel.	0.792
2. Availability of healthy meals.	0.864
3. Cleanliness of the place.	0.879
4. Presentation of meals.	0.894

Table 3
Descriptive statistics of scales and HTMT ratios.

Factors	Mean (S.D)	IMA	CL	BMI	EP
1. IMA	5.18 (0.92)	–	***0.*336** *(0.111 **)*	***0.*354** *(0.127 **)*	**0.018** *(<0.01)*
2. CL	4.76 (1.36)			**0.375** *(0.138 **)*	**0.017** *(<0.01)*
3. BMI	4.70 (1.34)				**0.211** *(0.045 *)*
4. EP	4.91 (1.35)				

IMA= international marketing agility; CL = cost leadership; BMI = business innovation model; EP = environmental pressure.
Square of correlations are reported in brackets with * and * * representing significance of correlations (r) at.05 and.01 levels, respectively.
HTMT ratios are in bold.

Table 4
Moderated-Mediation (Process Model 59).

	Cost Leadership			
Variables	**β**	**p-value**	**LLCI**	**ULCI**
IMA	0.371	< 0.01	0.202	0.541
EP	−0.024	0.784	−0.194	0.147
IMA X EP	0.188	0.015	0.038	0.339
Controls				
Export Market	0.002	0.987	−0.187	0.190
Age	0.105	0.337	−0.111	0.321
Firm size	−0.144	0.316	−0.428	0.140
Industry	−0.046	0.051	−0.092	0.0001
EP	**β**	**p-value**	**LLCI**	**ULCI**
Low	0.175	0.117	−0.045	0.395
Moderate	0.397	< 0.01	0.224	0.570
High	0.549	< 0.01	0.318	0.781
Business Innovation Model				
	β	**p-value**	**LLCI**	**ULCI**
IMA	0.248	0.003	0.086	0.409
CL	0.181	0.031	0.016	0.346
EP	0.117	0.133	−0.036	0.267
IMA X EP	0.137	0.048	0.001	0.273
CL X EP	0.325	< 0.01	0.171	0.479
Controls				
Export Market	−0.122	0.147	−0.288	0.043
Age	−0.0003	0.998	−0.192	0.191
Firm size	0.064	0.614	−0.186	0.314
Industry	0.017	0.421	−0.025	0.058
IMA X EP	**β**	**p-value**	**LLCI**	**ULCI**
Low	0.105	0.292	−0.091	0.300
Moderate	0.266	< 0.01	0.100	0.432
High	0.377	< 0.01	0.154	0.601
CL X EP	**β**	**p-value**	**LLCI**	**ULCI**
Low	−0.158	0.216	−0.410	0.093
Moderate	0.225	< 0.01	0.063	0.387
High	0.488	< 0.01	0.290	0.686

IMA= international marketing agility; CL = cost leadership; EP = environmental pressure.

economy markets is a critical issue for practitioners. This is particularly significant because cost-based strategies are essential for frontier EMEFs, who often face intense competition from low-cost rivals in these

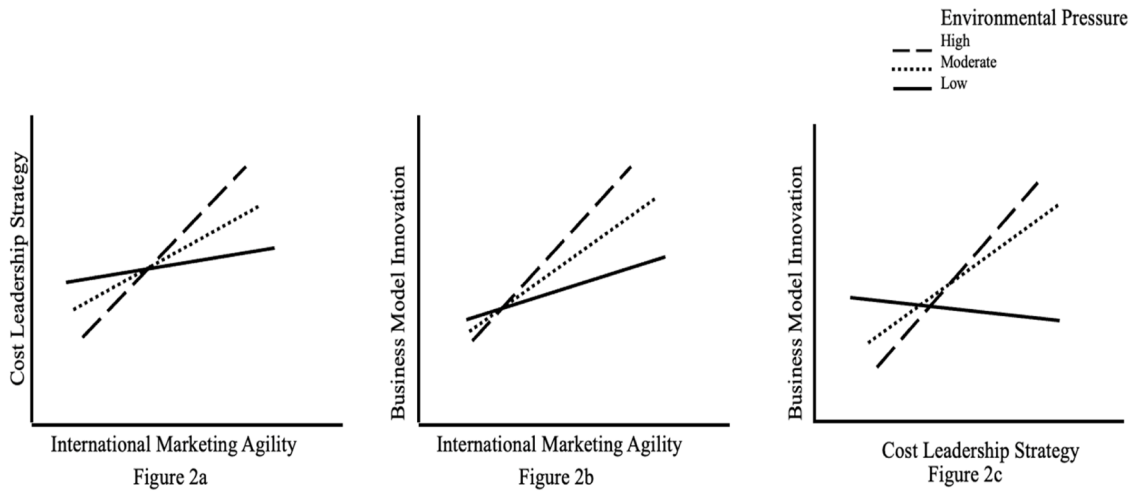

Fig. 2. Moderation Plot.

Table 5
Moderated-mediation effects.

Business Innovation Model (BMI)			
Variables	**β**	**LLCI**	**ULCI**
Conditional direct effects of IMA			
Low EP	0.105	−0.091	0.300
Moderate EP	0.266	0.100	0.432
High EP	0.377	0.154	0.601
Conditional indirect effects (IMA→ CL → BMI)			
Low EP	−0.028	−0.104	0.044
Moderate EP	0.089	0.022	0.185
High EP	0.268	0.100	0.461

IMA= international marketing agility; CL = cost leadership; EP = environmental pressure.

markets. However, much of the existing IB research has primarily focused on differentiation strategies (Knight et al., 2020), overlooking the contextually relevant importance of cost leadership strategies for frontier EMEF. By examining the role of cost leadership in the IB setting, this study highlights the strategic value of cost leadership for frontier EMEFs' business models, particularly when competing in advanced economy markets.

Our findings contribute to the exporting literature by elucidating the relationships between international marketing agility, cost leadership strategy, and BMI. Specifically, this study finds that the international marketing agility of EMEFs targeting advanced economy markets has both direct and indirect relationships with BMI, with cost leadership strategy acting as a mediator in this relationship. Additionally, both the direct and mediated effects of international marketing agility on BMI are positively moderated by environmental pressure. While international marketing agility is recognized as a critical dynamic capability for frontier EMEFs in advanced economy markets (Khan, 2020), its role in driving cost leadership strategies and BMI, especially under environmental pressure during crisis, has not been adequately explored. Thus, our work extends the emerging literature on BMI in exporting firms (Najafi-Tavani et al., 2023), offering new insights into how frontier EMEFs can adapt and innovate their business models to remain competitive.

As mentioned earlier, the findings suggest a significant interaction between international marketing agility and environmental pressure in influencing both cost-leadership strategies and BMI. These findings can be supported by secondary data, which indicate that during external crises, exporting firms introduce new products and shift to digital business models. For example, during the crisis, many Pakistani textile-exporting firms pivoted from traditional products to essential items, such as masks and personal protective equipment (PPE), for their exporting partners. These firms also transitioned to digital business model, leveraging their existing capabilities to quickly meet new market demands. Such adaptability showcases innovation in terms of marketing strategies, infrastructure, and agility, which are crucial forms of innovation for frontier EMEFs in navigating through external pressures (DailyTimes, 2021).

This illustrative example can be further supported by existing studies, which highlight that Pakistani firms catering to local markets have an innovation rate of 41 %, compared to those exporting to foreign markets, which exhibit innovation rates ranging from 80 % to 100 %, encompassing both technological and non-technological innovations (Wadho & Chaudhry, 2016). Hence, there is a strong link between frontier EMEFs' and innovation (Business Recorder, 2024; Wadho & Chaudhry, 2018). Below, we discuss the theoretical and practical implications of the study.

5.1. *Theoretical implications*

The findings of the present study present important theoretical contributions and implications in the following ways:

First, our study contributes to the literature by emphasizing the crucial role of firm-level meta-dynamic capabilities—specifically international marketing agility (comprises of sensing, flexibility, speed and responsiveness)—in shaping cost leadership strategies and enabling BMI for frontier EMEFs targeting advanced economy markets. The findings imply that international marketing agility not only enhances frontier market firms' ability to develop cost leadership strategies but also facilitates necessary business model adjustments, making them competitive in advanced markets. The role of marketing agility in conjunction with cost leadership strategies and BMI has been underexplored, despite its plausbile relevance for EMEFs that dominantly compete on a cost advantage basis. By extending the literature on exporting firms' BMI (cf. Najafi-Tavani et al., 2023), this study uniquely integrates international marketing agility with cost leadership strategies, emphasising how dynamic capabilities can lead to effective strategies (cost leadership, in our case) that influence BMI.

Second, our study provides new insights into how dynamic capabilities—like international marketing agility—support frontier EMEFs in adapting their business models through cost leadership strategies under high environmental pressure. These findings contribute to the dynamic capability perspective (Teece et al., 2016; Teece et al., 1997) by asserting that meta-dynamic capabilities are effective in turbulent and pressurised environments, particularly for frontier EMEFs, which are largely comprised of small- and medium-sized firms, with fewer larger

firms, navigating hostile and competitive pressures while targeting advanced economy markets. By leveraging sensing, responsiveness, speed, and flexibility, EMEFs can create competitive advantages in cost leadership, enabling them to refine their business models and achieve success in advanced economy markets. By showing that international marketing agility becomes more important for BMI under high environmental pressure, the study enriches the dynamic capabilities perspective by validating the importance of external factors in understanding BMI.

Third, while BMI has been shown to offer cost advantages when firms develop strong relationships with customers and buyers (Najafi-Tavani et al., 2023), our study further underscores that BMI is a process requiring a combination of capabilities, not just a singular focus. In particular, findings highlight the efficacy of cost leadership strategies in enhancing the effects of agility on BMI of EMEFs targeting advanced economy markets. The ability to adapt through both strategic and operational capabilities is crucial for long-term success in highly competitive advanced markets. Furthermore, given that international marketing agility influences BMI both directly and indirectly, it can be inferred that dynamic capabilities drive the critical strategies (such as cost leadership) and effective business models of frontier EMEFs. Hence, international marketing agility and cost leadership are mutually reinforcing, and their combination is essential for frontier EMEFs to remain relevant and competitive under environmental pressures.

Fourth, our research presents context-specific findings for frontier EMEFs targeting advanced economy markets that are predominantly composed of small and medium-sized firms, and a fewer larger firms. This research emphasises the importance of cost leadership strategies in BMI. These findings extend research on international business from emerging markets (Kotabe & Kothari, 2016; Ramamurti, 2012) by demonstrating how firms from resource-constrained environments can successfully navigate advanced economy markets through cost leadership. As these firms face increasing competition in advanced economy markets, leveraging cost leadership as part of a broader business model innovation strategy becomes key to sustaining a competitive advantage.

Finally, this study makes an important contribution to the internationalization literature by addressing a gap at the interface of marketing and exporting (Samiee et al., 2021). Overall, the findings show how international marketing agility can be leveraged for cost leadership strategies, which, in turn, facilitate frontier EMEFs in innovating their business models under environmental pressure.

5.2. Practical implications

Our study offers three important practical implications, which are particularly relevant to frontier emerging market firms from Pakistan that targets the advanced economy markets specifically.

First, frontier emerging market firms are often viewed as flexible and adaptable. Being predominantly small and medium enterprises, they tend to implement changes faster than their competitors. When these firms export to advanced markets with substantially different competitive landscapes, these firms must develop and invest in dynamic capabilities, including market sensing, flexibility, speed, and responsiveness. These capabilities are critical for adjusting strategies effectively, especially during periods of disruption.

Second, as frontier EMEFs face intense competition from low-cost providers in advanced economy markets, the effective application of cost-based strategies becomes essential for their business models. Managers of frontier EMEFs need to pay closer attention to environmental pressures and adjust their marketing agility and cost leadership strategies accordingly.

Third, when confronted with environmental pressure, frontier EMEFs should focus their marketing agility efforts on maintaining cost leadership in their business models. Our findings suggest that international marketing agility enables managers to stay attuned to market shifts, identify emerging opportunities, and maintain cost leadership. Managers of frontier EMEFs should utilize market intelligence to track competition and accordingly adjust their corporate strategies. As such, managers of frontier EMEFs should participate in international trade shows and networking events, which can enhance marketing agility and competitive intelligence, helping frontier EMEFs refine their business models and stay competitive in advanced economy markets.

Finally, given that this study focuses on external crises, managers of frontier EMEFs should prioritize the development of international marketing agility, cost leadership strategies, and BMI in such complex and pressurized situations—all of which are particularly relevant for frontier EMEFs targeting advanced economy markets. Moreover, as the societal relevance of international business continues to grow (Tung, 2023), the societal impact can be framed in terms of innovation and economic outcomes (Tung, Knight, et al., 2023). We hope that the findings of this study contribute to a better understanding of how frontier EMEFs (from Pakistan and similar frontier economies) can create more effective business models.

5.3. Implications for policy, exporting and trade bodies

Our study offers three implications for the policy makers, exporting and trade bodies.

First, policymakers, along with exporting and trade bodies, can facilitate frontier EMEFs' knowledge acquisition and networking opportunities, as global networks play a vital role in supporting innovation and growth within emerging market firms (Khan et al., 2018). They can do so by encouraging these firms to participate in international trade events and conferences. Such platforms can serve as a basis for market knowledge for export development. Trade and Exporting bodies can design educational and knowledge exchange programs for the frontier EMEFs exporting firms that can facilitate their adoption of relevant technologies and infrastructures for enhancing their cost and operational efficiency. This will assist firms in developing flexible, cost-effective strategies and improve their ability to compete in international markets.

Second, they should encourage cost leadership strategies and agility in frontier EMEFs, particularly those looking to expand into advanced markets. This could involve subsidised training programs regarding adoption of automation technologies and infrastructure for cost efficiencies and supporting research and development in cost-reduction innovations. This can foster the environment for the frontier EMEFs for developing cost-effective solutions and competitiveness in the advanced economy markets.

Third, under the heightened environmental pressures faced by the frontier EMEFs, particularly during crises, they should consider providing targeted interventions, such as trade facilitation measures and information pertinent to the advanced economy markets. These initiatives can help the frontier EMEFs in effectively maintaining their presence in advanced economy markets while mitigating the negative effects of external disruptions.

5.4. Limitations and future research directions

This study has several limitations, which provide important opportunities for future research on this important topic.

First, future studies could explore the underlying sources and drivers of international marketing agility. Given rising geopolitical tensions, such as the China-U.S. rivalry, future research could examine the managerial challenges and capabilities of exporting firms operating in such conflicting environments (Tung, Zander, et al., 2023).

Second, non-market strategies may play an important role in helping firms navigate complex environments, manage risks, and pursue opportunities beyond the immediate business environment (Doh et al., 2012; Tung, Zander, et al., 2023). In this context, future studies could explore how exporting firms from both frontier and advanced emerging markets employ non-market strategies—such as lobbying,

coalition-building, or collaboration with NGOs, to influence or capitalize on export-related policies and developments, particularly in advanced economy markets. Scholars should consider the broader political context, including home and host country conditions, supranational institutions, and global challenges, to understand how exporting firms adapt in international markets (Gammeltoft & Panibratov, 2024). Future studies could also explore the impact of disruptive events, such as trade wars and climate change, on the market and nonmarket strategies of exporting firms.

Third, this study focuses on frontier emerging markets, specifically Pakistan, which. are characterized by uncertain environments, limited infrastructure, and dynamic institutional conditions (Kotabe & Kothari, 2016; Ramamurti, 2012). It would be interesting to explore how the findings apply to firms from more advanced emerging markets, such as South Korea, and compare the dynamic capabilities and BMI approaches of exporting firms from frontier versus advanced emerging markets.

Furthermore, future research could benefit from a more in-depth, mixed-methods approach, incorporating case studies or interviews to examine how firms transition their business models under pressure. A longitudinal approach would further enhance our understanding of how these innovations evolve over time, offering richer insights into the sustainability of business model changes under environmental pressures.

Lastly, future studies could also incorporate additional control variables, such as the total number of export markets a firm operates in, as well as the specific characteristics of those markets (e.g., developing markets or different market segments). Additionally, future studies could examine the relationships proposed in this study by comparing small- and medium-sized enterprises (SMEs) with large firms, as well as comparing findings for business-to-business (B2B) versus business-to-consumer (B2C) firms.

Declaration of Competing Interest

There are no financial or non-financial interests that are directly or indirectly related to the work submitted for publication.

Right retention statement

"For the purpose of open access, the author has applied a Creative Commons Attribution (CC BY) [or other appropriate open licence] licence to any Author Accepted Manuscript version arising from this submission."

Funding

The project is not supported by any funding body.

Data availability

The authors do not have permission to share data.

References

Abrahamsson, J., Boter, H., & Vanyushyn, V. (2019). Business model innovation of international new ventures: An empirical study in a Swedish context. *Journal of International Entrepreneurship, 17*, 75–102.

Adomako, S., Amankwah-Amoah, J., Donbesuur, F., Ahsan, M., Danso, A., & Uddin, M. (2022). Strategic agility of SMEs in emerging economies: Antecedents, consequences and boundary conditions. *International Business Review, 31*(6), Article 102032.

Agnihotri, A. (2015). Low-cost innovation in emerging markets. *Journal of Strategic Marketing, 23*(5), 399–411.

Ahammad, M. F., Basu, S., Munjal, S., Clegg, J., & Shoham, O. B. (2021). Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms. *Journal of World Business, 56*(4), Article 101218.

Asseraf, Y., Lages, L. F., & Shoham, A. (2019). Assessing the drivers and impact of international marketing agility. *International Marketing Review, 36*(2), 289–315.

Aulakh, P., Kotabe, M., & Teegen, H. (2000a). In. *Export Strategies and Performance of firms from Emerging economies: Evidence*.

Aulakh, P., Kotabe, M., & Teegen, H. (2000b). *Export strategies and performance of firms from emerging economies: Evidence: Evidence from Brazil, Chile, and Mexico*. Routledge.

Autio, E., & Zander, I. (2016). Lean internationalization. *Academy of Management Proceedings*.

Battistella, C., De Toni, A. F., De Zan, G., & Pessot, E. (2017). Cultivating business model agility through focused capabilities: A multiple case study. *Journal of Business Research, 73*, 65–82.

Brouthers, L. E., & Xu, K. (2002). Product stereotypes, strategy and performance satisfaction: The case of Chinese exporters. *Journal of International Business Studies, 33*, 657–677.

Business Recorder. (2024). *Exporting for innovation and profitability*. Retrieved 9/02/2025 from ⟨https://www.brecorder.com/news/40295275⟩.

Christofi, M., Pereira, V., Vrontis, D., Tarba, S., & Thrassou, A. (2021). Agility and flexibility in international business research: A comprehensive review and future research directions. *Journal of World Business, 56*(3), Article 101194.

Chung, H. F., & Ho, M. H.-W. (2021). International competitive strategies, organizational learning and export performance: A match and mis-match conceptualization. *European Journal of Marketing, 55*(10), 2794–2822.

Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2019). Strategic agility, business model innovation, and firm performance: An empirical investigation. *IEEE Transactions on Engineering Management, 68*(3), 767–784.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*(1), 128–152.

DailyTimes (2021). Textile industry of Pakistan in the time of Covid-19. Retrieved 09/02/2025 from https://dailytimes.com.pk/734742/textile-industry-of-pakistan-in-the-time-of-covid-19/.

de Oliveira, R. T., Nguyen, T., Liesch, P., Verreynne, M.-L., & Indulska, M. (2021). Exporting to escape and learn: Vietnamese manufacturers in global value chains. *Journal of World Business, 56*(4), Article 101227.

Dimitratos, P., Lioukas, S., & Carter, S. (2004). The relationship between entrepreneurship and international performance: The importance of domestic environment. *International Business Review, 13*(1), 19–41.

Doh, J. P., Lawton, T. C., & Rajwani, T. (2012). Advancing nonmarket strategy research: Institutional perspectives in a changing world. *Academy of Management Perspectives, 26*(3), 22–39.

Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Longest Range Planning, 43*(2-3), 370–382.

Elo, M., & Silva, S. (2022). Who creates international marketing agility? Diasporic agility guiding new market entry processes in emerging contexts. *Thunderbird International Business Review, 64*(5), 443–463.

Forbes (2018). The first step of business model innovation: focus. https://www.forbes.com/sites/freekvermeulen/2018/01/11/the-first-step-of-business-model-innovation-focus/?sh= 30a909ef5022.

Forbes (2020). Agility: The key to surviving a crisis. https://www.forbes.com/sites/forbesfinancecouncil/2020/06/25/agility-the-key-to-surviving-a-crisis/?sh= 4b1e75fe1382.

Forbes (2020). Marketing Agility: How it works and what it means for the rest of the organisation. https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2020/04/30/marketing-agility-how-it-works-and-what-it-means-for-the-rest-of-the-organization-part-one/?sh= 5abce8463792.

Forbes (2022). How The Covid Crisis Forced Small Businesses To Cut And Shift Spending Priorities. https://www.forbes.com/sites/edwardsegal/2022/03/07/how-the-covid-crisis-forced-small-businesses-to-cut-and-shift-spending-priorities-survey/.

Financial Times. (2024). Frontier emerging markets lure investors back with high yields (June). *Financial Times* ⟨https://www.ft.com/content/47cd6c6e-e9aa-41af-abc3-5a7dd44d0be2⟩.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management, 43*(1), 200–227.

Gammeltoft, P., & Panibratov, A. (2024). Emerging market multinationals and the politics of internationalization. *International Business Review, 33*(3), Article 102278.

Gao, G. Y., Murray, J. Y., Kotabe, M., & Lu, J. (2010). A "strategy tripod" perspective on export behaviors: Evidence from domestic and foreign firms based in an emerging economy. *Journal of International Business Studies, 41*, 377–396.

Golovko, E., & Valentini, G. (2011). Exploring the complementarity between innovation and export for SMEs' growth. *Journal of International Business Studies, 42*, 362–380.

Gomes, E., Sousa, C. M., & Vendrell-Herrero, F. (2020). International marketing agility: conceptualization and research agenda. *International Marketing Review, 37*(2), 261–272.

Guderian, C. C., Bican, P. M., Riar, F. J., & Chattopadhyay, S. (2021). Innovation management in crisis: Patent analytics as a response to the COVID-19 pandemic. *Rd Management, 51*(2), 223–239.

Hacklin, F., Björkdahl, J., & Wallin, M. W. (2018). Strategies for business model innovation: How firms reel in migrating value. *Longest Range Planning, 51*(1), 82–110.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*, 115–135.

Heredia, J., Flores, A., & Kunc, M. H. (2017). Drivers of the implementation of strategies in Latin American firms' export performance. *Academy of Management Proceedings*.

Hernandez, E., & Guillén, M. F. (2018). What's theoretically novel about emerging-market multinationals? *Journal of International Business Studies, 49*, 24–33.
Hitt, M. A., Holmes, R. M., Jr, & Arregle, J.-L. (2021). The (COVID-19) pandemic and the new world (dis) order. *Journal of World Business, 56*(4), Article 101210.
Hughes, M., Martin, S. L., Morgan, R. E., & Robson, M. J. (2010). Realizing product-market advantage in high-technology international new ventures: The mediating role of ambidextrous innovation. *Journal of International Marketing*, 1–21.
Hughes, N., & Chandy, R. (2021). Commentary: Trajectories and twists: perspectives on marketing agility from emerging markets. *Journal of Marketing, 85*(1), 59–63.
Kalasin, K., Dussauge, P., & Rivera-Santos, M. (2014). The expansion of emerging economy firms into advanced markets: The influence of intentional path-breaking change. *Global Strategy. Journal, 4*(2), 75–103.
Kaleka, A., & Morgan, N. A. (2019). How marketing capabilities and current performance drive strategic intentions in international markets. *Industrial Marketing Management, 78*, 108–121.
Kauser, F., & Khan, S. M. (2018). Regional challenges and export performance of Pakistan (2004-2017). *Pakistan Journal of International Affairs, 1*(2).
Khan, H. (2020). Is marketing agility important for emerging market firms in advanced markets? *International Business Review, 29*(5), Article 101733.
Khan, Z., Rao-Nicholson, R., & Tarba, S. Y. (2018). Global networks as a mode of balance for exploratory innovations in a late liberalizing economy. *Journal of World Business, 53*(3), 392–402.
Khan, Z., Shenkar, O., & Lew, Y. K. (2015). Knowledge transfer from international joint ventures to local suppliers in a developing economy. *Journal of International Business Studies, 46*, 656–675.
Knight, G., Moen, Ø., & Madsen, T. K. (2020). Antecedents to differentiation strategy in the exporting SME. *International Business Review, 29*(6), Article 101740.
Kotabe, M., & Kothari, T. (2016). Emerging market multinational companies' evolutionary paths to building a competitive advantage from emerging markets to developed countries. *Journal of World Business, 51*(5), 729–743.
Kunc, M., & Bhandari, R. (2011). Strategic development processes during economic and financial crisis. *Management Decision, 49*(8), 1343–1353.
Lee, Y., Lin, B. W., Wong, Y. Y., & Calantone, R. J. (2011). Understanding and managing international product launch: A comparison between developed and emerging markets. *Journal of Product Innovation Management, 28*(s1), 104–120.
Leonidou, L. C., Fotiadis, T. A., Christodoulides, P., Spyropoulou, S., & Katsikeas, C. S. (2015). Environmentally friendly export business strategy: Its determinants and effects on competitive advantage and performance. *International Business Review, 24*(5), 798–811.
Leonidou, L. C., & Katsikeas, C. S. (1996). The export development process: An integrative review of empirical models. *Journal of International Business Studies, 27*, 517–551.
Lew, Y. K., & Sinkovics, R. R. (2013). Crossing borders and industry sectors: Behavioral governance in strategic alliances and product innovation for competitive advantage. *Longest Range Planning, 46*(1-2), 13–38.
Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology, 86*(1), 114–121.
Luo, Y., & Zhao, H. (2004). Corporate link and competitive strategy in multinational enterprises: a perspective from subsidiaries seeking host market penetration. *Journal of International Management, 10*(1), 77–105.
McKinsey (2020). Innovation in a crisis: Why it is more critical than ever. https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/innovation-in-a-crisis-why-it-is-more-critical-than-ever.
Mckinsey (2021). Agility in the time of COVID-19: Changing your operating model in an age of turbulence. https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/agility-in-the-time-of-covid-19-changing-your-operating-model-in-an-age-of-turbulence.
Mihailova, I. (2022). Business model adaptation for realized international scaling of born-digitals. *Journal of World Business*, Article 101418.
Miroshnychenko, I., Strobl, A., Matzler, K., & De Massis, A. (2021). Absorptive capacity, strategic flexibility, and business model innovation: Empirical evidence from Italian SMEs. *Journal of Business Research, 130*, 670–682.
Monaghan, S., Tippmann, E., & Coviello, N. (2020). Born digitals: Thoughts on their internationalization and a research agenda. *Journal of International Business Studies, 51*, 11–22.
Morgan-Thomas, A., & Bridgewater, S. (2004). Internet and exporting: Determinants of success in virtual export channels. *International Marketing Review, 21*(4/5), 393–408.
Murray, J. Y., Gao, G. Y., & Kotabe, M. (2011). Market orientation and performance of export ventures: the process through marketing capabilities and competitive advantages. *Journal of the Academy of Marketing Science, 39*, 252–269.
Myers, M. B. (1997). The pricing of export products: Why aren't managers satisfied with the results? *Journal of World Business, 32*(3), 277–289.
Naidoo, V. (2010). Firm survival through a crisis: The influence of market orientation, marketing innovation and business strategy. *Industrial Marketing Management, 39*(8), 1311–1320.
Najafi-Tavani, Z., Zantidou, E., Leonidou, C. N., & Zeriti, A. (2023). Business model innovation and export performance. *Journal of International Business Studies*, 1–23.
Nayak, B., Bhattacharyya, S. S., & Krishnamoorthy, B. (2021). Strategic advantage through social inclusivity: An empirical study on resource based view in health insurance firms in India. *Journal of Cleaner Production, 298*, Article 126805.
Newkirk, H. E., & Lederer, A. L. (2006). The effectiveness of strategic information systems planning under environmental uncertainty. *Information Management, 43*(4), 481–501.
Obadia, C. (2013). Competitive export pricing: The influence of the information context. *Journal of International Marketing, 21*(2), 62–78.
OEC. (2021). *Bangladesh*. ⟨https://oec.world/en/profile/country/bgd⟩.
Osei, C., Amankwah-Amoah, J., Khan, Z., Omar, M., & Gutu, M. (2019). Developing and deploying marketing agility in an emerging economy: The case of Blue Skies. *International Marketing Review, 36*(2), 190–212.
Oura, M. M., Zilber, S. N., & Lopes, E. L. (2016). Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review, 25*(4), 921–932.
Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891.
Ramamurti, R. (2012). Competing with emerging market multinationals. *Business Horizons, 55*(3), 241–249.
Ranjan, P., & Nayak, J. K. (2023). Examining the antecedents and consequences of pricing capability: Evidence from SMEs. *Journal of Business Industrial Marketing, 38*(1), 36–52.
Richardson, J.E. (2005). The business model: an integrative framework for strategy execution. *Available at SSRN 932998*.
Sabaruddin, L. O., MacBryde, J., & D'Ippolito, B. (2023). The dark side of business model innovation. *International Journal of Management Reviews, 25*(1), 130–151.
Saebi, T., Lien, L., & Foss, N. J. (2017). What drives business model adaptation? The impact of opportunities, threats and strategic orientation. *Longest Range Planning, 50*(5), 567–581.
Samiee, S., Katsikeas, C. S., & Hult, G. T. M. (2021). The overarching role of international marketing: Relevance and centrality in research and practice. *Journal of International Business Studies, 52*(8), 1429–1444.
Spieth, P., & Schneider, S. (2016). Business model innovativeness: Designing a formative measure for business model innovation. *Journal of Business Economics, 86*, 671–696.
Tan, Q., & Sousa, C. M. (2011). Research on export pricing: Still moving toward maturity. *Journal of International Marketing, 19*(3), 1–35.
Tarba, S. Y., Frynas, J. G., Liu, Y., Wood, G., Sarala, R. M., & Fainshmidt, S. (2023). In. In *Strategic agility in international business, 58*. Elsevier, Article 101411.
Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review, 58*(4), 13–35.
Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350.
Teece, D. J. (2010). Business models, business strategy and innovation. *Longest Range Planning, 43*(2-3), 172–194.
Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.
Textile-today. (2023). *Bangladesh's textile and garment industry to see continuous growth in competitiveness, investment, and exports*. ⟨https://www.textiletoday.com.bd/bangladeshs-textile-and-garment-industry-to-see-continuous-growth-in-competitiveness-investment-and-exports⟩.
Trading-Economics. (2023). *Pakistan Balance of Trade*. ⟨https://tradingeconomics.com/pakistan/balance-of-trade⟩.
Trunschke, M., Peters, B., Czarnitzki, D., & Rammer, C. (2024). Pandemic effects: Do innovation activities of firms suffer from Long COVID? *Research Policy, 53*(7), Article 105024.
Tung, R. L. (2023). To make JIBS matter for a better world. *Journal of International Business Studies, 54*(1), 1–10.
Tung, R. L., Knight, G., Ghauri, P., Prashantham, S., & Fang, T. (2023). Disruptive knowledge in international business research: A pipe dream or attainable target? *Journal of International Business Studies, 54*(9), 1589–1598.
Tung, R. L., Zander, I., & Fang, T. (2023). The Tech Cold War, the multipolarization of the world economy, and IB research. *International Business Review, 32*, Article 102195.
Von Delft, S., Kortmann, S., Gelhard, C., & Pisani, N. (2019). Leveraging global sources of knowledge for business model innovation. *Longest Range Planning, 52*(5), Article 101848.
Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science, 44*, 119–134.
Wadho, W., & Chaudhry, A. (2016). Innovation in the textiles sector: A firm-level analysis of technological and nontechnological innovation. *The Lahore Journal of Economics, 21*(special edition), 129–166, 129–166.
Wadho, W., & Chaudhry, A. (2018). Innovation and firm performance in developing countries: The case of Pakistani textile and apparel manufacturers. *Research Policy, 47*(7), 1283–1294.
Weber, Y., & Tarba, S. Y. (2014). Strategic agility: A state of the art introduction to the special section on strategic agility. *California Management Review, 56*(3), 5–12.
World Bank. (2021). *India Food Products Exports by country in US$ Thousand 2021*. ⟨https://wits.worldbank.org/CountryProfile/en/Country/IND/Year/LTST/TradeFlow/Export/Partner/by-country/Product/16-24_FoodProd#⟩.
Xie, Z., & Li, J. (2018). Exporting and innovating among emerging market firms: The moderating role of institutional development. *Journal of International Business Studies, 49*, 222–245.
Zahoor, N., Khan, H., Khan, Z., & Akhtar, P. (2022). Responsible innovation in emerging markets' SMEs: The role of alliance learning and absorptive capacity. *Asia Pacific Journal of Management*, 1–35.
Zhou, J., Mavondo, F. T., & Saunders, S. G. (2019). The relationship between marketing agility and financial performance under different levels of market turbulence. *Industrial Marketing Management, 83*, 31–41.
Zott, C., & Amit, R. (2010). Business model design: An activity system perspective. *Longest Range Planning, 43*(2-3), 216–226.

Dr Khan is Senior Lecturer and Associate Director of Africa Asia Centre for Sustainability at the University of Aberdeen. Huda published in high-quality academic research outlets, such as *International Business Review*, *Journal of Product Innovation Management, International Marketing Review*, *British Journal of Management, Technovation, R&D Management, IEEE, Journal of Business Research, European Journal of Marketing, Technological Forecasting and Social Change,* among others. Huda sits on the Editorial Review Board of International Marketing Review, Journal of Business Research, Journal of Knowledge Management, and Multinational Business Review Journals. She is also Associate Editor of Rutgers Business Review.

Zaheer Khan is a Professor in Strategy and International Business and the Founding Director of the Africa Asia Centre for Sustainability at the University of Aberdeen, UK. His research focuses on global technology management, alliances, non-market strategy and platform firms. His work has appeared in the Journal of International Business Studies, Journal of World Business, International Business Review, Global Strategy Journal, Long Range Planning, British Journal of Management, and Journal of Corporate Finance, among others.

Professor Knight has extensive experience in international business in the private sector, especially regarding Europe, Japan, and Mexico. For 15 years, he was professor of international business at Florida State University where he developed the university's business study abroad programs in Europe and Japan. He was a visiting Fulbright Scholar at McGill University, Canada. His research emphasizes international strategy, emerging markets, and internationalization of small and medium enterprises. Professor Knight has authored six books and 40 refereed articles in academic journals, including *Journal of International Business Studies*, *Journal of World Business*, *Journal of Business Venturing*, and *Journal of the Academy of Marketing Science*, among others. The U.S. House of Representatives' Committee on Small Business invited Professor Knight to provide expert testimony on international management topics.