

International entrepreneurial culture of born global and non-born global family firms: a configurational approach

Md Imtiaz Mostafiz

*School of Business, University of Leicester, Leicester, UK and
Miyan Research Institute,
International University of Business Agriculture and Technology,
Dhaka, Bangladesh*

Nazha Gali

University of Windsor, Windsor, Canada

Mathew Hughes

School of Business, University of Leicester, Leicester, UK

Alfredo De Massis

*Gabriele d'Annunzio University of Chieti and Pescara, Pescara, Italy;
International Institute for Management Development, Lausanne, Switzerland;
Lancaster University, Lancaster, UK and
Institute of Family Business, Institute for Entrepreneurs, Zhejiang University,
Hangzhou, China, and*

Puteh Noraihan A Rahman

*Pusat Pengajian CITRA Universiti, Universiti Kebangsaan Malaysia,
Bangi, Malaysia*

Abstract

Purpose – Delving into family business heterogeneity, this study applies fuzzy-set qualitative comparative analyses (fsQCA) to explain overlooked differences in the international performance of born global family firms (BGFFs) and non-born global family firms (n-BGFFs); through the lens of assemblage theory of family business internationalization, the study develops distinctive configurations of international entrepreneurial culture (IEC) for BGFFs and n-BGFFs.

Design/methodology/approach – This study compares the theoretical tenets of IEC among 167 BGFFs versus 192 n-BGFFs in Malaysia using fsQCA – a configurational method. The study further deploys necessity analysis of fsQCA (NCA) to determine the necessity conditions within the identified configurations.

Findings – BGFFs manifest elevated levels of international entrepreneurial orientation, international motivation and international non-competitor network orientation. In contrast, n-BGFFs rely on international markets, learning and competitor network orientations to secure international performance. Furthermore, necessary condition analysis (NCA) reveals that international entrepreneurial orientation and international motivation are the necessity conditions for BGFFs. In contrast, international market, learning and competitor network orientation are all required for n-BGFFs' international performance.



Originality/value – This study is timely and contributes to advancing the international business theory of family firm internationalization. It also offers better theorizing for family firms' heterogeneity, locating the source of that heterogeneity not just in the speed of internationalization but also in the composition of their different IECs.

Keywords Family firm internationalization, International entrepreneurial cultures, Born global, Configuration

Paper type Research paper

Introduction

Despite progress, the internationalization of family businesses remains underexamined and undertheorized in management research (Arikan and Shenkar, 2021; Debellis *et al.*, 2024), and what exists as the research body on the internationalization of family firms is fragmented (Arregle *et al.*, 2021). There are two prevailing perspectives argued by Arregle *et al.* (2017): (1) family firms tend to internationalize less than other types of firms due to limited capital, fewer resources, family conflicts, fear of losing control, and resistance to change; and (2) family firms may internationalize more quickly because the family element enables swift decision-making, a long-term outlook, and enhanced flexibility and stewardship (Arregle *et al.*, 2017). These two schools of thought point clearly toward family business heterogeneity in the form and composition of their international behavior. Among existing studies, contextualization has received greater attention when examining family firms' international operations. For instance, the incremental internationalization of family firms (Pukall and Calabrò, 2014) is associated with manifesting strong stewardship. In contrast, a “born global” pattern of internationalization among family firms is attributed to weak stewardship (Kontinen and Ojala, 2012). This dichotomy oversimplifies family firm heterogeneity and leaves behind an enduring puzzle: if family firm heterogeneity in their internationalization is binary to stewardship, why is family firm internationalization so difficult to anticipate and explain? Overly reliant on qualitative cases and traditional regression analyses, the literature omits configurations of conditions that characterize family firm heterogeneity and explain why seemingly similar firms behave differently. Moreover, management literature remains eerily silent, and inconclusive, in theorizing and explaining the facets of international performance for both born global family firms (BGFFs) (Stieg *et al.*, 2017) and non-born global family firms (n-BGFFs) concerning their international business culture and its behavioral composition (Cesinger *et al.*, 2016; Hughes *et al.*, 2019).

Cavusgil and Knight (2015) define born global firms as “entrepreneurial start-ups that, from or near their founding, seek to derive a substantial proportion of their revenue from the sale of products in international markets (p. 4)”. Concurrently, some scholars suggest that a true born global exports from inception or within two to three years of their establishment (e.g. Andersson and Wictor, 2003; Rialp *et al.*, 2005; Moen *et al.*, 2008; Schwens and Kabst, 2009). This study adopts this view (i.e. export within three years). Compared to n-BGFFs, studies suggest that BGFFs exhibit greater long-term orientation complemented by self-actualization (i.e. a motivation) and prior international experiences (Stieg *et al.*, 2017), and manifest strong international entrepreneurial orientation to achieve rapid internationalization (Calabrò *et al.*, 2017). This debate points to the potential and overlooked significance of international entrepreneurial culture (IEC) (Buccieri *et al.*, 2020). IEC is defined as the culture of firms manifesting entrepreneurial activities to operate internationally (Zahra *et al.*, 2005). IEC embodies a firm's culture and promotes innovation and creativity in exploring new international opportunities. It comprises international entrepreneurial orientation (IEO), international market orientation (IMO), international learning orientation (ILO), orientation towards international competitors (ICNO) and non-competitors (IncNO), and international motivation (IM) (Dimitratos *et al.*, 2012). Recent studies observe that the effects of the

dimensions of IEC are context-specific (Mostafiz *et al.*, 2022). For example, born global firms tend to exhibit market and entrepreneurial orientations and motivation (Gabrielsson *et al.*, 2014). In contrast, non-born global firms often focus on networks, market knowledge, and a general learning orientation (Hughes *et al.*, 2019). Given the family business heterogeneity assumptions, this study posits that BGFFs and n-BGFFs are unlikely to achieve homogeneous performance success by manifesting all dimensions of IEC simultaneously or in the same configuration, and in which attempting so would exhaust scarce resources, being costly, daunting, and suboptimal.

Family firms operate to fulfill socio-emotional (Schepers *et al.*, 2014) and entrepreneurial objectives (Hernández-Perlines and Xu, 2018), but to varying degrees (Hu *et al.*, 2022). Similarly, born global family firms internationalize rapidly without owning all of the critical resources they need, unlike their non-born global counterparts (Hughes *et al.*, 2019). Therefore, a one size fits all framework of IEC cannot promise successful international performance for BGFFs and n-BGFFs and should not form a basis to theorize family business internationalization. Hence, to identify IEC dimensions necessary to successfully operate internationally, this study embraces equifinality theorizing and proposes different configurational combinations between BGFFs and n-BGFFs. The authors expect that the dimensions of IEC need to be configured differently between BGFFs and n-BGFFs in ways that can deliver international performance for each type of international family business.

The study adopts fuzzy set qualitative comparative analysis (*fsQCA*) to investigate and establish these arguments. Moreover, the authors apply necessity analysis of *fsQCA* (NCA) because *fsQCA* can only reveal the sufficiency of IEC configurations; NCA overcomes this limitation and reveals the necessity conditions for BGFFs and n-BGFFs' successful international performance. *FsQCA* is a method that has its roots in set-theory and is used for exploring the causal complexity of cases in a dataset and for managing complexity, equifinality, and asymmetry in causal relationships (Ragin, 2009b; Schneider and Wagemann, 2012). It has specific advantages for treating complex systems where reductionist traditional quantitative methods fall short. For this study, it is vital to use the *fsQCA* method as a set-theoretic exploratory application is required to resolving the family firm heterogeneity conundrum and in comparing IEC configurations for two starkly different types of family firms: born global versus non-born global family firms.

By addressing the international component of family business heterogeneity, the study responds to the call by Arikian and Shenkar (2021) and Arregle *et al.* (2021) to answer how and what configurational combinations of IEC are required for BGFFs and n-BGFFs' international performance. The study adopts IEC's six sub-dimensions to evidence a comprehensive portrayal of family firms' international strategizing required for achieving international performance success. Departing from agency (Chrisman *et al.*, 2004), stewardship (Davis *et al.*, 1997), and socioemotional wealth (Gómez-Mejía *et al.*, 2007) theory traditions, this study applies assemblage theory (DeLanda, 1997; Deleuze and Guattari, 1980) as a lens to explicate a process-based explanation of the post-internationalization phase of BGFFs and n-BGFFs, and demonstrate how international strategizing would vary in these two different contexts. Assemblage theory emphasizes fluidity and the ability to rearrange components to respond to changing environments, which is crucial for understanding how family firms dynamically integrate and reconfigure resources to adapt to international markets (DeLanda, 2006). Embracing family firm heterogeneity, assemblage theory allows for an exploration of how diverse elements such as managerial practices come together in unique ways to form a whole that is distinct in each firm. This is particularly relevant when analyzing the heterogeneous nature of BGFFs and n-BGFFs, as it respects the individuality of each firm's path and practices (DeLanda, 2006). A configurational approach also aligns well with assemblage theory, which inherently examines how various elements configure together to impact outcomes. Assemblage theory

can help identify how different configurations of resources, capabilities, and external conditions lead to successful international entrepreneurship (Farías and Bender, 2012).

This study contributes to the literature by enriching the theoretical scaffolding of the scant literature around IEC's implementation and execution (Bucciari *et al.*, 2020) in the family business context and informs family business practitioners concerning the management of IEC practices to operate globally. Utilizing *fsQCA*, the study demonstrates the importance of a set-theoretic configurational approach to understand the role of IEC in family business internationalization and its adequacy for attaining international performance. Significantly, *fsQCA* has gained prominence as an exceptionally objective method for deriving predictive outcomes, owing to its reliance on a statistically informed configurational approach (Harms *et al.*, 2009). Furthermore, the authors expand their analysis by incorporating NCA alongside *fsQCA* to pinpoint essential conditions within these configurations, identifying which IEC components are crucial for the international success of various entrepreneurial family firms (i.e. BGFFs versus n-BGFFs). The study advances family business literature by demonstrating the power and usefulness of assemblage theory (DeLanda, 1997; Deleuze and Guattari, 1980) to explain family business heterogeneity and the international level, proposing two views of IEC in post-internationalization strategizing. The first view considers that IEC facilitates superior international performance, which relies on IEO and IM to ensure success among BGFFs. The second view emphasizes IMO, ILO and ICNO as a learning-based internationalization for n-BGFFs, which have less propensity to internationalize rapidly and are more focused on the assemblage of knowledge and learning to, follow an incremental international expansion strategy.

Theory

The internationalization of a family firm is a process that involves destabilization and restabilization; it is inherently disruptive and involves a creative leap with the aim of identifying new possibilities for growth and expansion. Thus, the process of family firm internationalization is a dynamic one, in which family firms do not uniformly follow a linear path of internationalization or exhibit the same set of characteristics at any one time. Instead, these firms may exhibit a variety of patterns, including phases where they may withdraw from international markets (de-internationalize) and later re-enter them (re-internationalize) (Calabrò *et al.*, 2023; Miroshnychenko *et al.*, 2023).

While there are advantages to internationalization, the process itself is riddled with risks to the family firm from the loss of socioemotional wealth to the loss of family harmony (Gomez-Mejia *et al.*, 2010; Scholes *et al.*, 2016). The process of internationalization is more disruptive for a family firm than a non-family firm due to stronger and more persistent imprinting (Oon *et al.*, 2015). This dynamic stems from the tensions or conflicts that occur between family versus business interests, and the paradox between family and business logics (Reay *et al.*, 2015; Sharma *et al.*, 2012). This study suggests that, among family firms, BGFFs may face less disruption in comparison to n-BGFFs due to their rapid familiarity with the foreign market and the fact that they have been expanding globally since their inception (or shortly thereafter) (Knight and Cavusgil, 2004; Lin and Si, 2019). BGFFs can achieve superior international growth by leveraging their tendency to venture into multiple culturally similar countries. Their competitive advantages tend to form around accumulated market knowledge and the speed at which they acquire this knowledge (Autio *et al.*, 2000; Nguyen and Mort, 2021). The most prominent previous theoretical frameworks used to explain the internationalization of family firms and understand the decisions made by its focal actors have been agency theory, stewardship theory, and resource-based view (Casprini *et al.*, 2020). Yet, these theories do not provide a process-based explanation for family firm

internationalization (Debellis *et al.*, 2021) and overlook what configurations of essential elements must assemble, integrate, and reconfigure for successful internationalization. Hence this study adopts assemblage theory (DeLanda, 1997; Deleuze and Guattari, 1980) to explain family business heterogeneity and to anticipate how the configurational combination of IEC dimensions differs between BGFFs and n-BGFFs.

An assemblage theory on born global and non-born global family firm internationalization

Under an assemblage perspective, a family firm is an assemblage of heterogeneous elements related to the family and its business, characterized by distributed agency: employees, local community, products, customers, values, and governing principles. The elements that constitute the assemblage can vary from being solely expressive (e.g. beliefs, values) to solely material (e.g. products). Assemblages are dynamic and are subject to change over time. According to DeLanda (2006), the various elements of a family firm may interact in ways that can destabilize and subsequently restabilize the family firm's assemblage, altering its composition and boundaries. An assemblage component becomes destabilized through processes that reduce its internal uniformity and open its boundaries, such as conflicts in values and beliefs. Conversely, an assemblage is restabilized through processes that enhance its internal uniformity and coherence and sharpen its boundaries, like those involving shared beliefs and routines (Anderson and McFarlane, 2011).

When a family firm undertakes internationalization, it may experience destabilization of its assemblages for several reasons: (1) the changes imposed by international activities may conflict with the inherent family logics, (2) internationalization extends the geographic reach of the family firm, (3) it introduces greater cultural diversity within the family firm, and (4) it places the family firm in unfamiliar markets. These lead to the destabilization of the family firm's assemblages since the heterogeneity of the assemblage components increases once the family firm establishes ties with new assemblages and the boundaries of the family firm's assemblages are no longer delineated (Reuber, 2016).

During internationalization, both BGFFs and n-BGFFs undergo changes in scope and territory, yet the destabilizing and restabilizing processes they experience differ. This perspective aligns with the principles of configurational theorizing (Furnari *et al.*, 2021; Misangyi and Acharya, 2014; Misangyi *et al.*, 2017). The concept of conjunction suggests that outcomes are typically the result of multiple conditions rather than a single factor, meaning no one condition is 'sufficient or necessary' alone to achieve a high score in an outcome condition (Pandey *et al.*, 2022). Aligning with set-theory and the principles of *fsQCA*, assemblage theory implies equifinality. Equifinality posits that the same outcome can be reached through different combinations of conditions (Misangyi *et al.*, 2017) and various combinations of conditions may co-exist and be sufficient to reach a high outcome score (Wu *et al.*, 2014). Equifinality can occur when there is a balance between the strengths and weaknesses of different input conditions or varying interaction effects of these conditions on the outcome (Gresov and Drazin, 1997). For instance, international proclivity and intensity might both maximize the degree of internationalization in family firms (Arikan and Shenkar, 2021) depending on their combination towards achieving the internationalization goal. BGFFs are viewed as more formidable players in international markets; they have a greater capacity to attract high-quality partners, specifically multinational firms that conduct their business in accordance with global norms (Couper and Reuber, 2013). Hence, BGFFs may rely on their innovativeness and IEO to attract such partners (Knight and Cavusgil, 2004) and lessen the uncertainty in cultural differences upon operating in foreign markets. Therefore, BGFFs are more likely to exhibit or accrue technological advantages and, as a result, attract multinational partners and an extensive network, becoming industry standards-setters (Banalieva and Dhanaraj, 2013). This is contrasted to n-BGFFs who are more likely to exhibit

elements that trade first-mover advantages for risk reduction, refinements, and late-entrant advantage (Knight and Liesch, 2016).

n-BGFFs face more of a liability of outsidership (Johanson and Vahlne, 2009) (due to being outside of relevant business networks) and foreignness (due to cultural differences), and, commensurate with risk-reduction strategies, are far more likely to depend more on their ILO to internally generate new knowledge about overseas markets as they navigate the uncertainties of such markets (e.g. Cesinger *et al.*, 2016). n-BGFFs require a longer length of time as they apply a safety-first approach to internationalization and this conditions their need for trusting relationships; thus, their ILO would be critical to building and strengthening their position in the foreign market as a primary means of ensuring international market success (Johanson and Vahlne, 2009). This logic aligns with the Uppsala stage model, a behavior traditionally seen among family firms (Pukall and Calabrò, 2014; cf. Cesinger *et al.*, 2016).

Vahlne's (2020) work emphasizes an evolutionary perspective on the internationalization process, in which the Uppsala model explains how firms internationalize but also how they evolve over time in response to changing environmental conditions and strategic decisions. This view shifts the focus from static models to more dynamic considerations of how firms adapt and change. This difference highlights the model's relevance in understanding how firms engage in international markets through various forms of exchange and competition (Hult *et al.*, 2020) and specifically how internationalizing firms face difficulties arising from not being embedded within crucial local networks, termed as "outsidership" (Verbeke, 2020).

Compared to a BGFF, a n-BGFF may face more significant destabilization of their logics and routines due to their liabilities (of outsidership, greater geographic distance, market unfamiliarity and foreignness); a greater destabilization would require a greater restabilization. This logic aligns with the causal asymmetry of configurational theorizing (Furnari *et al.*, 2021). Under this assumption, the conditions that contribute to higher international performance should be different from those that result in lower international performance or have no effect on it. This idea from configurational theorization stands in contrast to traditional correlation-based thinking, which assumes a symmetric relationship among variables (Fiss, 2011). In essence, the internationalization of a family firm is a path-dependent process. In the case of a BGFF, early or frequent experience with organizational change that a family firm faces would likely increase its occurrence (Amburgey *et al.*, 1993). A BGFF may have more experience associated with internationalization and the need for organizational change; this experience decreases ignorance, conflicts, and exposure to surprises and is likely to increase the family firm's open-mindedness (Orr and Scott, 2008), leading to less (relative) destabilization. Conversely, a n-BGFF may face more significant destabilization due to a pronounced liability of outsidership and foreignness. Viewing this through an assemblage theoretical lens suggests that path dependencies exist in the internationalization processes of born global and non-born global family firms. BGFFs develop routines for managing change and these become stabilized within the family firm's assemblages over time. In contrast, a n-BGFF experiences more intense destabilization linked with internationalization as these family firms undergo less internationalization and organizational change to create the spread of routines needed to restabilize their assemblages. For instance, previous research has shown that young start-ups operating globally in new uncertain markets heavily depend on learning orientation for them to generate new dynamic market-related capabilities (Autio *et al.*, 2011). Leveraging an ILO to equip family firms to better gather and utilize knowledge is essential for deploying their marketing resources in a manner that aligns with global markets (Bucciari *et al.*, 2021). Therefore, n-BGFFs might tap into foreign learning and knowledge when significant resource endowments are lacking (Forsgren, 2002), commensurate with a gradual approach to internationalization.

Pouring into IEC, IEC enhances the family firm's entrepreneurial endeavors on a global scale (Zahra *et al.*, 2005) and stimulates new and innovative ideas and creativity in seeking novel international opportunities (Dimitratos *et al.*, 2012). The temporality of the destabilization and restabilization process differs from a BGFF to a n-BGFF, and thus each family firm would require different configurations of IEC dimensions to ensure positive returns to international firm performance. First, IMO captures family firm's proclivity to seek superior values for international customers (Gabrielsson *et al.*, 2014; Mostafiz *et al.*, 2024b). IMO considers international customer orientation, inter-functional coordination of resources and competitors orientation in developing core competencies by locating the weakness of competitors with an intention to exploit foreign opportunities (Hallbäck and Gabrielsson, 2013; Narver and Slater, 1990; Narver *et al.*, 2004). Second, IEO is a forward-looking and risk-taking behavior of the family firm to stay ahead of the competition (Mostafiz *et al.*, 2022). In this process, family firms actively innovate, proactively seek novel opportunities, and engage in risky commitments (Covin and Miller, 2014). Third, IM acts as a driving force for entrepreneurial ventures in internationalized family firms (Nummela *et al.*, 2005), initiating and energizing enterprise management and employee behavior towards foreign ventures (Gabrielsson *et al.*, 2014). Fourth, ILO inclines family firms toward the international market to actively attain foreign intelligence and utilize it in strategizing foreign operations (Dimitratos *et al.*, 2016). However, these ILO-driven efforts are time-consuming because international family firms may face learning impediments due to outsidership (Orr and Scott, 2008). Finally, both ICNO and InCNO refer to network orientations where ICNO focuses on the degree of engagement with the competitors' networks, and InCNO includes networking with non-competitors to access valuable resources for its international activities through partnership (Dimitratos *et al.*, 2012; Gabrielsson *et al.*, 2014). Both networks (competitor versus non-competitors) provide inputs into opportunity recognition and exploitation processes (Coviello, 2006).

Drawing on assemblage theory, both BGFFs and n-BGFFs may benefit from IEC dimensions differently:

Assumption 1. IEC may facilitate superior international performance for family firms; such that these configurational combinations of IEC dimensions differ for born global versus non-born global family firms.

The study considers that BGFFs and n-BGFFs adopt different IEC configurations in the event of their internationalization process—but further theorizes that multiple configurations will exist and their content will vary apart from specific anchoring elements. Due to a high level of outsidership, n-BGFFs will adopt IEC dimensions geared mainly to contending with resource deficiencies. Therefore, n-BGFFs are expected to heavily rely on their ILO and IMO, in which ILO would strengthen their position in the foreign market (e.g. Adomako *et al.*, 2019) and IMO can mitigate the gap between family firms and their customers (e.g. Yayla *et al.*, 2018). Conversely, the authors expect BGFFs to rely heavily on an IEO (Knight and Cavusgil, 2004; Mostafiz *et al.*, 2024a), enabling them to act proactively on opportunities in the international marketplace to achieve rapid internationalization (Calabrò *et al.*, 2017). BGFFs need a willingness to embark on experimentation, a proactive international strategy, nimbleness, and innovative product and service offerings to survive and thrive in global international markets, especially when internationalizing rapidly and globally from an ostensibly smaller resource base than market incumbents (Knight and Cavusgil, 2004; Rialp *et al.*, 2005). IEO sets in place agility; BGFFs will need to cope with the circumstances of rapid international expansion in their formative years. Configurationally, it is suggested this nimbleness requires assertiveness. In this context, possessing IM could prove highly advantageous because of the tendency of top management to launch and encourage assertive approaches to international venturing

(Buccieri *et al.*, 2020; Dimitratos *et al.*, 2016). Concerning the network dimensions of IEC, a n-BGFF may be required to collaborate with existing competitors, MNEs, and foreign partners to secure their international expansion and circumvent barriers to their successful internationalization (Acs and Terjesen, 2015). A BGFF proactively pursues rapid internationalization (Stieg *et al.*, 2017) and might want to secure a first-mover advantage by utilizing any form of networks available to them (Dzikowski, 2018). This suggests that, in general, ICNO and InCNO will be of value to BGFFs, but not strictly essential owing to the advantages offered by IEO and IMO. The value of networks to n-BGFFs is less clear because of their reliance first and foremost on gradual knowledge accumulation driven by an ILO. This is in part because these traditionally oriented family firms value only trustful relationships and will not network expansively (Cesinger *et al.*, 2016). In general, non-born global firms can benefit from sizeable networks but tend to collaborate less intensely (Hughes *et al.*, 2019), suggesting the likelihood of the network dimensions of IEC featuring in configurations of IEC elements necessary for high international performance is ambiguous.

Consistent with the idea of family business heterogeneity and due to the varieties in strategizing international operations and in the destabilizing and restabilizing internationalization processes executed by BGFFs versus n-BGFFs, this theorizing leads to two additional assumptions:

Assumption 2. Born global family firms will exhibit different multiple IEC configurations for successful international performance, having IEO, IMO and IM as their anchor points.

Assumption 3. Non-born-global family firms will exhibit different multiple IEC configurations for successful international performance, having ILO as their anchor point and with little reliance on IEO.

Research methodology

Research context, sample, and data collection

This study is based on time-lagged survey data from Malaysian family entrepreneurial firms. In Malaysia, nearly 80% of small and medium-sized firms are family firms (Yew, 2021). According to Yew (2020), more than 50% of Malaysia's GDP is contributed by family firms. Such family firms manifest vigorous entrepreneurialism (PWC, 2018), becoming significant actors in the global value chain (Arzubiaga *et al.*, 2022). Moreover, the Malaysian Government instills innovation by pouring resources to integrate these family firms into the global supply chain under the Global Supplier and Industrial Linkage Programs (Malaysian SME Corp, 2017). Since these family firms manifest a very high level of entrepreneurialism (Mostafiz *et al.*, 2021) along with the propensity to expand internationally (Falahat *et al.*, 2018; Falahat *et al.*, 2021), such family firms offer a suitable context to examine the study's research question selected the sample from the Malaysia External Trade Development Corporation (MATRADE, 2019) directory. To date, 23,618 exporting family firms are listed in the directory. The authors randomly selected 3,000 family firms from the directory to administer the first round of a questionnaire (in English) through email to collect data on IEC. In total, 401 exporting family firms responded to the call (response rate 13.3%). In this round, the authors also aimed to confirm the status of family firms and their international entrepreneurial actions. We requested responses from the owner/entrepreneurs of the family firms who must also be a family member. We ensured this by asking the respondents whether they are the owner/entrepreneur of the family firm (yes/no), and whether they have any other family member(s) owning the family firm (yes/no). No survey in the first round was filled out by a non-entrepreneur or non-owner. The study applied two criteria from Zahra (2012) to determine the status of family firms: (1) concentration of control within a single

family (the percentage of the family firm's capital—family ownership-share—held by the family); (2) the percentage of management positions occupied by family members. First, the authors only considered a firm as a family-owned business if such a firm qualifies for single-family ownership of 50% or more capital and at least 50% of managerial positions were occupied by family members. In addition, the question to the respondent *whether you are a family member* ensured that data arrived solely from a family member. These are previously validated measures to determine the status of family firms (Jiménez-Jiménez *et al.*, 2020; Mostafiz *et al.*, 2021). Second, the authors determine the status of international entrepreneurial activities by following the criteria of Shir *et al.* (2019) and Mostafiz *et al.* (2022). The study asked the respondent “whether the firm introduced any new products/services in the international market in the last three years”; and “whether the firm exported new/existing products in the *new international market* in the last three years”. A total of 389 exporting family firms qualified as internationally entrepreneurial family business.

In the second round of data collection, the authors accumulate data on the degree of internationalization and international performance. The study followed Andersson and Victor (2003) to collect data on the first international operation (exporting) to set the status of born-global. In total, 359 exporting family firms responded to the second call; out of that, 167 family firms had started their exporting within the first three years of inception, and 192 family firms were traditional exporters as they began exporting late (after three years from inception). This criterion is a well-established measure to determine the status of born-global family firms (Cavusgil and Knight, 2015) and in the Malaysian context (Falahat *et al.*, 2018).

Measures

All construct and the items are presented in Appendix 1. Concerning the input conditions, the IEC construct is measured by six dimensions of IEO, IMO, IM, ILO, ICNO, and InCNO sourced from Dimitratos *et al.* (2012) and Bucciari *et al.* (2020). This data was collected in the first data collection round. Sample items of IEO are: “favor high-risk (foreign) projects (with chances of very high return)”; “typically initiates actions to which foreign competitors then respond”; “typically adopts a very competitive ‘beat-the-competitors’ postures”. Sample items of IMO are: “has many routine or regular measures of foreign customer service”; “always collects information on the foreign customers through any means”. Sample items of IM are: “in regard to the management philosophy for firm activities in foreign markets, top management is ignorant and unreceptive towards ideas and suggestions of employees”. Sample items of ILO are: “have many formal information links established between departments functions”; “have many formal/informal processes that provide direction on the implementation of international activities”. Sample items of ICNO are: “cooperates with international competitors in joint manufacturing agreements”; and for InCNO: “cooperates heavily with foreign non-competitors in joint advertising and marketing”. The output condition, international performance, is operationalized with five items sourced from Lu *et al.* (2010). This data was collected in the second data collection round. Sample items are: “growth in overseas markets; market shares in the overseas market”; “increase in foreign customer satisfaction”. All constructs are measured on a 5-point Likert scale, whereby 1 = strongly disagree/very low, and 5 = strongly agree/very high.

Results and analyses

Descriptive statistics

Tables 1 and 2 highlight the correlation, normality, multicollinearity, reliability and validity of the study constructs. The data is normally distributed, ranging from +2 to −2 (Shapiro and Wilk, 1965), and the constructs are adequately correlated. Furthermore, the VIF values

International entrepreneurial orientation	0.766						
International market orientation	0.292	0.768					
International motivation	0.288	0.266	0.726				
International learning orientation	0.276	0.278	0.378	0.722			
International competitor network orientation	0.252	0.395	0.295	0.318	0.763		
International non-competitor network orientation	0.253	0.340	0.363	0.389	0.423	0.769	
International performance	0.215	0.309	0.333	0.284	0.361	0.301	0.781
Mean score (constructs)	31.57	22.94	8.17	13.53	12.86	13.11	32.96
Standard deviation	2.18	2.58	1.08	1.46	1.12	1.07	2.63
Skewness: statistics	0.716	-0.670	0.468	-0.686	-0.764	0.694	0.741
Kurtosis: statistics	0.781	0.898	-0.653	0.724	0.908	-0.811	0.768
Cronbach alpha	0.757	0.719	0.778	0.715	0.710	0.755	0.711
Composite reliability	0.801	0.708	0.792	0.802	0.788	0.789	0.746
AVE	0.588	0.591	0.529	0.522	0.583	0.592	0.611
MSV	0.247	0.291	0.246	0.249	0.291	0.208	0.262

Note(s): Diagonal is the square root of the AVE

**Correlations significant at the 0.05 level

***Correlations significant at the 0.01 level

Source(s): Table created by authors'

Table 1.
Correlation matrix and
descriptive statistics of
BGFFs ($n = 167$)

International entrepreneurial orientation	0.752						
International market orientation	0.344	0.786					
International motivation	0.257	0.317	0.761				
International learning orientation	0.297	0.259	0.238	0.749			
International competitor network orientation	0.282	0.269	0.372	0.309	0.714		
International non-competitor network orientation	0.352	0.311	0.332	0.328	0.235	0.771	
International performance	0.398	0.251	0.281	0.358	0.215	0.292	0.786
Mean score (constructs)	30.93	21.58	8.38	13.01	13.44	12.68	30.17
Standard deviation	2.96	1.34	0.77	1.62	1.05	0.89	2.14
Skewness: statistics	0.988	0.953	-0.522	0.398	-0.887	0.847	0.424
Kurtosis: statistics	0.797	-0.382	0.556	-0.754	0.434	-0.264	0.333
Cronbach alpha	0.757	0.793	0.709	0.736	0.745	0.799	0.746
Composite reliability	0.792	0.758	0.719	0.784	0.789	0.751	0.784
AVE	0.566	0.617	0.579	0.562	0.511	0.595	0.618
MSV	0.273	0.202	0.289	0.263	0.278	0.291	0.285

Note(s): Diagonal is the square root of the AVE

**Correlations significant at the 0.05 level

***Correlations significant at the 0.01 level

Source(s): Table created by authors'

Table 2.
Correlation matrix and
descriptive statistics of
n-BGFFs ($n = 192$)

are below 5, representing low risk of multicollinearity (Graham, 2003). The Cronbach alpha and the composite reliability values are higher than 0.7 for both BGFFs and n-BGFFs, showing high reliability (Hair *et al.*, 2010). The AVE values of the constructs are higher than 0.5, and the values of the standard loading (i.e. Appendix 1) are higher than 0.7, confirming convergent validity (Cable and DeRue, 2002). In addition, the square root values of the AVE (diagonal values in Tables 1 and 2) are higher than the corresponding correlations, and the

AVE values are higher than the MSV values, confirming discriminant validity (Fornell and Larcker, 1981; Henseler *et al.*, 2015).

The sample characteristics show that the average number of employees is 29, ranging from 18 to 73 people, and the average family firm age is nine years, ranging from 5 to 14 years. Both for BGFFs and n-BGFFs, most of the family firms are first generation family firms; majority of the firms are owned by family members (more than 60%), and above 50% family members are in the management position following the sample criteria set during the data collection. The detailed sample characteristics is available in Appendix 2. According to SME association of Malaysia, firms generating less than 5 million USD and less than 200 employees are considered as SMEs. Both for BGFFs and n-BGFFs, the sample of family firms generates less than USD 5 million with less than 200 employees, therefore, the sample of family firms was considered as SME firms. The sample of family firms operates in various export-manufacturing sectors, such as building and construction materials, industrial electronics component manufacturing, toy and sports equipment manufacturing, chemicals and minerals production, pet food, and jewelry. Detailed demographic results are presented in Appendix 2.

Fuzzy-set qualitative comparative analysis

We adopt configurational theorization over reductionist analyses for the following compelling reasons. There are several compelling reasons to favor configurational theorization over reductionist approaches. Unlike reductionist analysis, such as regression, which examines individual conditions in isolation, configurational theorization accounts for the complex combinations necessary to address contextual variations (Beynon *et al.*, 2021; Deng *et al.*, 2019). In this approach, certain conditions only exert influence when combined with others, rather than acting independently (Iannacci and Cornford, 2018; Woodside, 2014). This is particularly important when multiple configurations lead to the same outcome, a nuance that reductionist analysis fails to capture, especially regarding equifinality (Pickernell *et al.*, 2019). For example, the dimensions of IEC such as IEO, IMO, IM, ILO, ICNO, and InCNO may play different roles depending on whether they pertain to BGFFs or n-BGFFs, as an unproductive expression of IEC can cause family firms to lose their competitive edge.

This study advocates for configurational theorization due to its capacity to handle large sets of possibilities and generate intricate combinations of configurations, which is particularly relevant for BGFFs and n-BGFFs, and cannot be achieved through reductionist, hypothesis-driven methods. Previous researchers have noted that configurational researchers should not “specify a single causal model that fits the data best (as one usually does with statistical techniques), but instead they need to determine the number and character of the different causal models that exist among comparable cases”. We, therefore, allowed the data to articulate a theoretical development of IEC by revealing any critical configurational combinations of the elements of IEC required to operate internationally by BGFFs and n-BGFFs distinctively. In equifinality theorizing, “the relationship between causal conditions and an outcome of interest does not need to be treated as crudely linear” (Iannacci and Cornford, 2018, p. 384). *FsQCA* delivers the potential of equifinality (Nikou *et al.*, 2023), and NCA validates the necessity of the conditions to establish a single condition within the configuration to the data on Malaysian BGFFs and n-BGFFs. This aligns perfectly with configurational theory, which supports a sophisticated understanding of the complex interactions within IEC. This reconceptualization aligns with a data-driven approach, emphasizing the interconnectedness of IEC and their contextual nuances, particularly when comparing BGFFs and n-BGFFs.

FsQCA is designed to identify complex configurational relationships that involve combinations of different conditions (Şahin *et al.*, 2019). *FsQCA* can handle multiple

configurations and complex causality that traditional statistical methods may miss (Fiss, 2011), and this approach has been increasingly adopted to study family firms (e.g. Smith *et al.*, 2024). This is particularly useful for this study whereby there is an interplay of multiple conditions as we expect that the configurational combinations of IEC dimensions may differ for born global versus non-born global family firms. Further, unlike conventional statistical techniques that typically look at the net effect of independent variables on a dependent variable, *fsQCA* treats cases as configurations of attributes. This would allow us to examine how different combinations of attributes (or conditions) come together to produce an outcome. This method uses quantitative measures to assign fuzzy scores, blending the strengths of both approaches (Kumar *et al.*, 2022). Third, *fsQCA* acknowledges equifinality: that there can be multiple pathways (configurations of conditions) leading to the same outcome, where different combinations of factors can lead to similar results (Schneider and Wagemann, 2012). Fourth, it is inherently case-oriented, meaning it gives importance to individual cases or observations rather than treating them merely as data points. This helps in understanding the role of context and increases the depth of causal analysis (Ragin, 2009b). Recent studies have highlighted the strength of *fsQCA* in handling multifaceted causal configurations, which is particularly valuable for research where factors influencing outcomes like firm performance are complex and interdependent (Basco *et al.*, 2020; Bettinazzi *et al.*, 2024; Kumar *et al.*, 2022).

As explained, *fsQCA* recognizes the complexity and multiplicity of social phenomena (Ragin, 2009b). Assemblage theory posits that social reality is composed of heterogeneous elements that come together in dynamic configurations (DeLanda, 1997; Deleuze and Guattari, 1980). Similarly, *fsQCA* acknowledges the multiplicity of causal configurations that can lead to outcomes, allowing researchers to explore the complexity of social phenomena (Ragin, 2009b). Thus, assemblage theory emphasizes the importance of analyzing the connections and interactions between diverse elements within an assemblage. *FsQCA* adopts a similar configurational approach by examining how different combinations of conditions come together to produce outcomes. Both approaches move beyond linear causal explanations to explore the interplay of multiple factors. Further, assemblage theory highlights the contextual specificity of social phenomena, emphasizing the importance of understanding the situatedness of assemblages within broader contexts. *FsQCA* accounts for context by considering the unique configurations of conditions that lead to outcomes in different cases. This contextual sensitivity aligns with the core principles of assemblage theory (DeLanda, 2006; Ragin, 2009b). Lastly, assemblage theory rejects linear causality and recognizes the non-linear nature of social processes (DeLanda, 2006). *FsQCA* accommodates non-linearity and equifinality by allowing for multiple pathways leading to the same outcome. This flexibility enables us to capture the diverse ways in which dimensions of IEC combine to produce effects, resonating with the non-linear perspective of assemblage theory (Ragin, 2009b).

To perform the *fsQCA*, first, it is necessary to conduct a cross-tabulation analysis (Hughes *et al.*, 2019) because it locates the presence of contrarian cases.

Tables 3 and 4 highlight the results of cross-tabulation analyses. The results (i.e. grey highlighted) are shown for both BGFFs and n-BGFFs. For example, at a low level of IEO, 28 cases show high-level international performance for BGFFs. Likewise, at low-level of IEO, 26 cases show high level of international performance of n-BGFFs; therefore, it warrants the application of *fsQCA*.

The study followed Ragin (2009a) to perform the *fsQCA* using *fsQCA* software version 3. First, the authors calibrated the original score to a fuzzy score by separating the scores into three quantiles as full membership (95%), cut-off point (50%) and no membership (5%) scores. Next, the study computed the truth-table algorithm by setting the cut-off point to 0.80 (Ragin, 2009a) and only kept the cases that satisfy the suggested cut-off point for *fsQCA*. The

Conditions/Quintile	International performance					Total count	Effect size
	1	2	3	4	5		
International entrepreneurial orientation	1	3	4	0	1	0	8
	2	5	13	11	16	0	45
	3	2	17	18	30	18	85
	4	1	1	0	1	9	12
	5	0	1	0	4	12	17
Total count		11	36	29	52	39	167
International market orientation	1	2	2	0	0	0	4
	2	3	22	11	4	2	42
	3	0	1	21	16	2	40
	4	0	3	5	33	6	47
	5	2	2	2	6	22	34
Total count		7	30	39	59	32	167
International motivation	1	1	6	2	1	1	11
	2	2	23	22	23	2	72
	3	1	2	6	29	3	41
	4	0	3	2	3	4	12
	5	0	3	2	10	16	31
Total count		4	37	34	66	26	167
International learning orientation	2	2	5	3	1	2	13
	1	5	17	18	4	2	46
	3	2	3	7	27	5	44
	4	2	0	2	26	2	32
	5	2	1	2	10	17	32
Total count		13	26	32	68	28	167
International competitor network orientation	1	4	2	1	1	2	10
	2	5	5	1	2	2	15
	3	5	11	14	10	0	40
	4	2	6	11	33	20	72
	5	2	1	4	5	18	30
Total count		18	25	31	51	42	167
International non-competitor network orientation	1	1	12	3	2	2	20
	2	2	2	7	9	3	23
	3	2	5	5	21	3	36
	4	2	1	10	4	2	19
	5	2	2	4	3	22	33
Total count		9	22	29	75	32	167

Source(s): Table created by authors’

Table 3.
Cross-tabulation
analysis between
conditions and
outcome of BGFFs

authors checked for necessary conditions before conducting the fuzzy truth table procedure and have retained the necessary conditions in the *fsQCA* (Ragin, 2009a), which is further explained in the necessary conditions of QCA section. Appendix 3 highlights the results of the truth-table algorithm. To perform *fsQCA*, the study sets the international performance as the outcome condition and the dimensions of IEC as input conditions.

Table 5 presents the results. The results reveal four distinct configurational combinations for BGFFs and n-BGFFs, respectively. For BGFFs, the salient path is 2a, which shows the highest raw and unique coverages (0.4173730, 0.1954113, respectively) consisting of full

Construct/Quintile	International performance					Total count	Effect size
	1	2	3	4	5		
International entrepreneurial orientation	1	2	3	1	3	5	14
	2	3	17	11	4	2	37
	3	2	15	21	43	18	99
	4	1	2	5	9	9	26
	5	4	5	3	1	3	16
Total count		12	42	41	60	37	192
International market orientation	1	8	2	9	4	5	28
	2	2	12	8	4	9	35
	3	3	9	18	31	11	72
	4	2	1	2	11	18	34
	5	8	1	3	4	7	23
Total count		23	25	40	54	50	192
International motivation	1	6	6	2	4	6	24
	2	5	7	1	2	2	17
	3	2	10	7	9	12	40
	4	8	9	18	28	11	74
	5	2	6	2	11	16	37
Total count		23	38	30	54	47	192
International learning orientation	1	2	5	6	2	2	17
	2	6	11	7	8	11	43
	3	3	9	18	15	2	47
	4	6	3	11	22	19	61
	5	2	2	1	8	11	24
Total count		19	30	43	55	45	192
International competitor network orientation	1	2	10	6	4	8	30
	2	7	9	7	1	4	28
	3	6	6	11	10	2	35
	4	2	9	4	15	19	49
	5	0	1	5	20	24	50
Total count		17	35	33	50	57	192
International non-competitor network orientation	1	4	2	9	1	9	25
	2	6	11	1	1	6	25
	3	2	6	6	11	1	26
	4	3	4	11	31	19	68
	5	4	5	8	13	18	48
Total count		19	28	35	57	53	192

Source(s): Table created by authors'

Table 4.
Cross-tabulation
analysis between
conditions and
outcome of n-BGFFs

presence of IEO, IM and InCNO and partial presence of ILO and ICNO. For n-BGFFs, the salient path is 2b, representing the highest raw and unique coverages (0.4172406, 0.1808587, respectively) consisting of full presence of IMO and ILO and partial presence of IEO, IM and ICNO. To understand the configuration further, NCA is articulated next.

Necessity analysis of fsQCA

Despite several advantages to conducting *fsQCA*, a limitation is that *fsQCA* addresses sufficiency but not necessity within configurations (Dul, 2016b). To overcome this limitation, applying NCA is advised to determine the necessary condition(s) within the configurations (Douglas *et al.*, 2020). Following the recommended threshold of 0.9 for necessity consistency; “the necessary condition is above this threshold, the presence (or absence) of X is considered necessary for the presence (or absence) of Y” (Dul, 2016b, p. 1519).

Table 6 presents the results of NCA. The study concludes that IEO (0.932) and IM (0.909) are the necessary conditions for the international performance of BGFFs, whereas IMO (0.921), ILO (0.954) and ICNO (0.902) are the conditions required for the international performance of n-BGFFs. ILO (~0.901) is the absent condition to international performance

	Path	IEO	IMO	IM	ILO	ICNO	InCNO	Raw coverage	Unique coverage	Consistency	Solution coverage	Solution consistency
Born global family firms	1a	○	●	○		○	○	0.3886269	0.1220891	0.8191223		
	2a	●		●	○	○	●	0.4173730	0.1954113	0.8013681	0.8147004	0.7115123
	3a	●	○	●	○	⊗	●	0.4033342	0.1827951	0.8647038		
	4a	○	○	●	⊗	●		0.3851110	0.1217941	0.8511961		
Non-born global family firms	1b		●	○	●	●		0.4061841	0.1718193	0.8037071		
	2b	○	●	○	●	○	○	0.4172406	0.1808587	0.8131075	0.8697824	0.7514458
	3b	⊗		⊗	○	●	○	0.3658588	0.1777341	0.8035127		
	4b	○	●	●	○	○	●	0.3164722	0.1190832	0.8087107		

Note(s): IEO: international entrepreneurial orientation, IMO: international market orientation, IM: international motivation, ILO: international learning orientation, ICNO: international competitor network orientation, InCNO: international non-competitor network orientation. “●” represents full membership (core condition); “○” represents partial membership (peripheral condition); “⊗” represents absent and “blank” represents no membership

Source(s): Table created by authors’

Table 5.
fsQCA analysis of the configurational combinations between BGFFs and n-BGFFs

Conditions	Outcome variable: international performance			
	BGFFs		n-BGFFs	
	Consistency	Coverage	Consistency	Coverage
International entrepreneurial orientation (~)	0.932 (0.453)	0.703 (0.704)	0.524 (0.901)	0.732 (0.745)
International market orientation (~)	0.887 (0.448)	0.707 (0.678)	0.921 (0.688)	0.705 (0.610)
International motivation (~)	0.909 (0.638)	0.715 (0.636)	0.865 (0.375)	0.772 (0.706)
International learning orientation (~)	0.483 (0.901)	0.703 (0.614)	0.954 (0.539)	0.757 (0.672)
International competitor network orientation (~)	0.848 (0.804)	0.749 (0.571)	0.902 (0.669)	0.718 (0.707)
International non-competitor network orientation (~)	0.893 (0.778)	0.719 (0.721)	0.812 (0.285)	0.766 (0.695)

Table 6.
The NCA results of BGFFs and n-BGFFs

Note(s): Italic represents cut-off point for consistency value; “~” represents absent

Source(s): Table created by authors’

of BGFFs and IEO (~0.901) is the absent condition to the international performance of n-BGFFs.

Robustness tests

The study followed Oana *et al.* (2021) to perform the robustness analysis. First, the authors changed the consistency cut-off point to 0.60 and re-ran the truth-table algorithm, followed by *fsQCA*. The authors also changed the calibration point and separated the scores into three quantiles as full membership (highest value), cut-off point (mean value) and no membership (lowest value) to produce fuzzy scores (Iannacci and Cornford, 2018).

Table 7 represents the results. Although the paths for BGFFs and n-BGFFs become denser, the study could not identify any significant deviation from the results obtained in the 0.75 cut-off points. For example, significant presences of IEO, IM and InCNO have been found in the configurational combination among BGFFs. In contrast, n-BGFFs' configurational combination includes the considerable presence of IMO, ILO and ICNO. Therefore, the study can confirm that the original results obtained in *fsQCA* are robust.

Discussion

This study delineates how the configurational combination of six IEC dimensions differs among born global and non-born global family firms to explain their international performance. Grounded in an assemblage theory of family firm behavior, the study finds evidence that both BGFFs and n-BGFFs benefit from IEC dimensions; however, consistent with the notion of family business heterogeneity, the results reveal distinctive variations in the configurational combinations of IEC dimensions needed by both BGFFs and n-BGFFs to achieve higher international performance. Among all the configurational combinations for BGFFs, the study identified a significant presence of IEO and IM in the configurational combinations (e.g. paths 2a and 3a). The NCA results also confirm that IEO and IM are necessary conditions for enhanced international performance among BGFFs. Moreover, InCNO is the third most important IEC condition of the configurational combination for BGFFs' international performance. The NCA results also indicate that ILO is an absent condition for BGFFs' international performance. This implies that ILO can impede the international performance of BGFFs. Overemphasizing learning orientation can lead to a slowdown in decision-making processes (Beer *et al.*, 2005), which is counterproductive for BGFFs known for their rapid internationalization pace where nimbleness, agility, and speed matter to entrepreneurially outmaneuver incumbents in the global market. Delays are likely

Outcome condition: international performance												
	Path	IEO	IMO	IM	ILO	ICNO	InCNO	Raw coverage	Unique coverage	Consistency	Solution coverage	Solution consistency
Born global family firms	1a	●	○	○	○	○	●	0.4471956	0.1945856	0.9299967		
	1b	○		●			○	0.3185884	0.1185546	0.8548197	0.8814367	0.7898451
	1c	●	○	●	○	⊗	●	0.3835015	0.1634198	0.9197251		
Non-born global family firms	2a		●		●	●	○	0.3695647	0.1296719	0.8310764		
	2b		○	●	⊗	●	○	0.4319564	0.1496265	0.9309761	0.8201265	0.7718467
	2c	⊗	●		●	●		0.3497817	0.1188456	0.8006519		

Note(s): IEO: international entrepreneurial orientation; IMO: international marketing orientation; IM: international motivation; ILO: international learning orientation; ICNO: international competitor network orientation; InCNO: international non-competitor network orientation. “●” represents full membership (core condition); “○” represents partial membership (peripheral condition); “⊗” represents absent and “blank” represents no membership

Source(s): Table created by authors'

Table 7.
Robustness check

further exacerbated when resources are diverted to learning initiatives at the cost of other vital areas like market expansion.

In contrast, n-BGFFs achieve international performance success from vastly different configurational combinations of IEC. IMO, ILO and ICNO achieve the highest presence among the configurational combinations of IEC. Noticeably, the absence of IEO and IM is *beneficial* for n-BGFFs international growth. Lacking a strong IEO, which typically drives rapid and aggressive expansion, allows n-BGFFs to adopt a more measured and strategic approach to internationalization. This slower pace enables them to deeply understand new markets, and reduce the risks associated with quick and less informed market entries. The absence of intense IM also means n-BGFFs are less likely to overextend themselves in pursuit of global opportunities, leading to a more sustainable and manageable growth trajectory. This cautious approach aligns well with the conservative nature of n-BGFFs, allowing them to allocate their resources more judiciously and effectively in internationalization. In turn, the absence of IEO is countered by the strong presence of IMO and ILO, two orientations focused specifically on acquiring international market knowledge and learning robustly from business endeavors. The results highlight that a network orientation is necessary where the presence of ICNO is much higher for n-BGFFs' international performance. The NCA results validate the *fsQCA* results by establishing IMO, ILO and ICNO as the necessary conditions of the IEC dimensions needed by n-BGFFs' international performance. The NCA results also confirm that IEO (as an absent condition) for n-BGFFs is detrimental to their international performance.

Looking deeper into industries and sectors, different industries and sectors might have varying levels of exposure to international markets and different operational and strategic needs that influence their internationalization paths (Lu and Beamish, 2001; Mendes *et al.*, 2024; Oparaocha, 2015). For example, sectors including automotive parts and industrial electronics components may be likely deeply integrated into global supply chains and therefore may exhibit stronger international market and learning orientations. Contrastingly, sectors such as jewelry and medical products, which may involve more niche markets or higher regulatory barriers, might depend more on non-competitor network orientations and international motivation, aligning more closely with BGFF behaviors. However, in *fsQCA*, we are unable to confirm these arguments.

Moreover, the nature of the products may bear an impact on internationalization strategies (Tsai and Eisingerich, 2010). For instance, sectors producing standardized goods such as plastics and rubber products might lean towards competitive international strategies focusing on scale and cost efficiency. In contrast, more specialized sectors like medical products or jewelry might focus on differentiation strategies that weigh heavily on unique family resources and financial and socioemotional wealth as seen in BGFFs. Lastly, the presence of IEO and motivation may be considered more potent necessary conditions for BGFFs in sectors that are characterized by rapid technological change or innovation intensity (Metsola *et al.*, 2020), such as industrial electronics, where being agile and forward-thinking is crucial for tapping into international opportunities (Mostafiz *et al.*, 2019). A reductionist hypotheses-based analyses are required to further support these arguments.

Most of the firms in our sample in the analysis were relatively older firms with ages of 8–11 years. Older firms (8–11 years) may have more established market positions and resources, which could explain a reliance on international market learning and competitor network orientations typical of n-BGFFs in comparison to BGFFs (Dimitratos *et al.*, 2012; Gabrielsson *et al.*, 2014). The experience of more established BGFFs in the market potentially allows them to use more complex international strategies effectively. More established family firms may have the capacity to leverage their resources and extensive network ties to enhance their international market learning and competitor network orientations (Mendes *et al.*, 2024). The following section is the theoretical contributions arising from our analyses.

Theoretical contributions

This study responds to the calls of [Arikan and Shenkar \(2021\)](#) and [Arregle et al. \(2021\)](#) to address the neglect in international business research about family business internationalization and especially family business heterogeneity therein. While studies have examined contextual factors and the consequences of socioemotional wealth preservation (e.g. [Cesinger et al., 2016](#)), research has largely ignored the process of a family firm's internationalization even though the internationalization of a family firm is fundamentally a process that unfolds over time ([Reuber, 2016](#); [Welch and Paavilainen-Mantymäki, 2014](#)). The dominance of agency theory (e.g. [Chrisman et al., 2004](#)), stewardship theory (e.g. [Davis et al., 1997](#)), and socioemotional wealth ([Gómez-Mejía et al., 2007](#)) to inform predictions around family firms' decision-making toward internationalization often overlook both process and the post-internationalization phase.

This study extends assemblage theory ([DeLanda, 1997](#); [Deleuze and Guattari, 1980](#)) to explicate a process-based explanation of the post-internationalization phase of BGFFs and n-BGFFs international performance. In this way, family business heterogeneity in terms of born-global and non-born global international performance can be ascribed to different combinations of IEC.

This study also enriches assemblage theory by answering calls for considering the processes associated with the destabilization and restabilization of family firms' assemblages and how these may vary among family firms of differing nature ([Debellis et al., 2021](#); [Reuber, 2016](#)). Differences in IEC and its composition demonstrate how international strategizing must vary in the context of BGFF and n-BGFF. BGFFs rely on more aggressive entrepreneurial and motivational components in their IEC, while n-BGFFs rely on learning-oriented, market-focused efforts to retain more control over the internationalization process. Our results that BGFFs seem willing to concede control over the internationalization process in order to gain entrepreneurial speed contrasts the existing theory of family business internationalization, which has paid much attention to the handbraking nature of the socioemotional wealth preservation principle held among many ([Cesinger et al., 2016](#)) but not all family firms ([Hu et al., 2022](#)).

"Process in assemblage-theoretic studies typically involve multiple, recurring interacting processes, rather than a single process" ([Reuber, 2016](#), p. 1274). It aligns with configurational theorizing, whereby multiple conditions co-exist for the same outcome ([Hughes et al., 2019](#)). The study enriches the assemblage theoretical perspective of family business internationalization from a set-theoretic perspective. The study proposes two views of IEC: the first view sees that IEO, IM and InCNO are the fundamental configurational combinations for BGFFs to dictate the internationalization path taken by BGFFs and drive their international performance. Whereas the second view delineates IMO, ILO and ICNO for late internationalized family firms such as n-BGFFs which are required for n-BGFFs to spend more time understanding customers, acquiring foreign knowledge and learning, and following the stage-theory of internationalization ([Vahlne and Johanson, 2017](#)). As the application of configurational theorizing in the international family business context is limited ([Fainshmidt et al., 2020](#)), the study enriches this line of knowledge.

The findings also contribute to the Uppsala model of business internationalization, which is a process-based model that focuses on the speed of internationalization and considers internationalization to be a slow and gradual process of learning and networking ([Johanson and Vahlne, 2009](#)). The Uppsala model aims to explain the development of knowledge and the commitment of resources, incorporating both the stage and change dimensions of internationalization ([Vahlne and Johanson, 2017](#)). This study has evidently shown that n-BGFFs adopt IEC to contend with their resource deficiencies and would heavily rely on their ILO and IMO, in which the ILO would strengthen their knowledge development to better position themselves into a foreign market. It has been shown that a learning-based IEC

would allow international new ventures to be successful (Gabrielsson *et al.*, 2014) despite their resource constraints and limited technological capabilities that result from their newness in the foreign market (internal) and institutional environment (external) (Buccieri *et al.*, 2021). Further, for n-BGFFs, IMO allows better opportunity identification and exploitation in the foreign market, supporting their more piecemeal entrepreneurial endeavors (Dimov, 2011). A n-BGFF with a strong market orientation would more easily decide to internationalize (Perks and Hughes, 2008) and destabilize family firms' assemblages toward international operations. The study then demonstrates that, despite n-BGFFs' resource constraints compared to BGFFs, these do not function as a brake on their internationalization speed or performance when IEC is configured appropriately.

Conversely, BGFFs heavily rely on IEO (Knight and Cavusgil, 2004), allowing them to achieve rapid internationalization and to act proactively on opportunities in the international marketplace (Calabrò *et al.*, 2017). BGFFs act more aggressive in being entrepreneurial and are able to survive and thrive in the international market because of their emphasis on innovation and commitment to embark on experimentation and their proactive international strategy (Knight and Cavusgil, 2004; Rialp *et al.*, 2005). Further, IM would be integral for maximizing BGFFs' positive international performance since international motivation is linked to opportunity identification in born global family firms (Zahra *et al.*, 2005).

The final contribution is to enrich the theoretical scaffolding of the scant literature around IEC's implementation and execution (Buccieri *et al.*, 2020). Prior studies have tended to treat IEC as a single higher-order construct, assuming in doing so that all its six dimensions have equal use, purpose, and worth to (very) different types of firms (e.g. Buccieri *et al.*, 2020, 2021; Dimitratos *et al.*, 2012). There are different sufficient configurations and necessary conditions revealed in this study for BGFFs and n-BGFFs; for example, a specific point of difference lies in network orientation. n-BGFFs require more focus on ICNO as networking with established firms in the foreign market helps them to penetrate foreign industries and to provide the missing knowledge and resources needed to sustain their growth (Gabrielsson and Pelkonen, 2008). However, BGFFs can benefit from any sort of network (i.e. competitors or non-competitors) which complements the objectives of rapid internationalization by extending boundaries, thus, restabilizing their internationalization processes when changing international operational territories rapidly.

Practical implications

The study offers rich implications for Malaysian family business leaders. Regardless of the internationalization path chosen by these family firm practitioners, the dimensions of IEC are fundamental if they want to succeed internationally. The findings point towards agility in strategizing internationalization operations. For Malaysian BGFFs, family business entrepreneurs need to harness their innovativeness, ability to take risks in committing resources, proactiveness, and motivation to drive venturing and engage in their networks. In contrast, n-BGFFs require a management style that hones international learning and market orientation to understand the market's needs better while simultaneously engaging with their competitors' network to leverage their customers and suppliers in ways that support Malaysian n-BGFFs' internationalization efforts.

As IEO is a forward-looking and opportunity-seeking behavior of Malaysian firms (Mostafiz *et al.*, 2022), BGFFs should invest in innovation to produce innovative products and services in response to novel opportunities and to implement them proactively. Without innovative outputs, the growth of Malaysian BGFFs will become flat and eventually stall. Likewise, n-BGFFs need to harness their learning and marketing acumen to communicate their outputs to the market to attract foreign customers. As the unavailability of abundant resources to craft critical skills is common among family firms in an emerging economy such as Malaysia (Mostafiz *et al.*, 2021), modification of resource constellations is necessary to

collect knowledge and gather customer data in order to remain connected to the international market and pivot on the offerings globally. A learning-based IEC can enable these Malaysian n-BGFFs to be successful despite limited resources and late international joiners.

Government policies could focus on providing incentives and support programs to foster innovation in family businesses, particularly born global family firms (BGFFs). This could involve providing tax incentives for R&D investments, offering grants or subsidies for innovation projects, access to innovation hubs or technology centers, and specialized training programs to enhance innovativeness among family business leaders. Policies could be developed for non-born global family firms to promote international learning and a market orientation. This might involve providing access to international trade missions, training programs on international marketing and market research, and incentives for partnerships or collaborations with foreign firms to enhance market understanding and competitiveness. Policies could further encourage adopting a learning-based international entrepreneurial culture (IEC) among n-BGFFs. This could include initiatives to promote knowledge sharing and collaboration within the family business sector, support for education and training programs focused on international entrepreneurship, and recognition of successful examples of learning-based IEC in family businesses.

In Malaysia, almost 80% of SMEs are family firms, and family firms contribute half of Malaysia's GDP. Thus, it is integral that, given the challenges of resource scarcity faced by family firms in economies like Malaysia, government policies in Malaysia focus on facilitating resource allocation and skills development. This could include initiatives to improve access to finance, support programs for skills development and capacity building, and measures to encourage knowledge-sharing and networking among family businesses.

Limitations and future research areas

This study contains limitations that may guide directions for future research. First, the sample is limited to one country. Culture can influence family businesses (Athanasidou *et al.*, 2002); therefore, the Malaysian context potentially limits the generalizability of our findings about the international entrepreneurial behavior of family firms. Replication of the study in another country requires contextualization. For example, while the emerging and middle-income economy might suffer from deprived resources, this is not the scenario for family firms located in developed countries. Nevertheless, we stress that the Malaysian context is not overly atypical for its region or that our results are especially country sensitive. Malaysia is an ethnically diverse (including native Malays and large populations of Chinese and Indian citizens), multicultural, and multilingual country. As a middle-income country, Malaysia aspires to become a high-income country, and the Malaysian Government encourages Malaysian businesses to innovate (Hodgkinson *et al.*, 2016). In the 2023, according to the Global Innovation Index produced by the World Intellectual Property Organization (WIPO), Malaysia ranks 36th among the 132 economies featured in the Index, ranks second among the 33 upper-middle-income group economies, ranks 8th among the 16 economies that make up Southeast Asia, East Asia, and Oceania, and its main strengths are creative goods exports, high-tech exports, and graduates in science and engineering [1].

Second, we could not account for socioemotional wealth (SEW) priority, generational state, or distance to succession in our treatment. Family business studies tend to over-rely on SEW as a grounding theoretical argument. But ultimately, it is but one reference frame under its origins in behavioral agency theory. We call for future research into family firm behavior (and internationalization especially) to consider whether SEW priorities are stronger or weaker at a point in time compared to other (e.g. financial) priorities, whether generations have the authority and approval to steer the business in new directions, and whether nearness to (or distance from) succession implies on their adventurousness.

Third, while applying a set-theoretic approach such as fsQCA in the international business context is still in its early stages, our study contributes to this growing body of research by empirically supporting our assumptions regarding the differing configurations of IEC in BGFFs and n-BGFFs. Specifically, we proposed that BGFFs would exhibit multiple IEC configurations anchored by IEO, IMO, and IM, while n-BGFFs would rely more on ILO with minimal emphasis on IEO (assumptions 2 and 3). Although our findings align with these assumptions, they are not entirely unexpected or offer a departure from existing theoretical expectations. This indicates that while our configurational analysis provides valuable insights, the results are still somewhat not surprising, suggesting that the configurations identified may reflect well-established patterns rather than novel theoretical advancements. To enhance the originality and impact of future research, scholars should explore additional or alternative configurations that might offer more surprising or counterintuitive results. For example, future studies could investigate other potential anchor points within IEC dimensions that might influence international performance, or examine how different contextual variables, such as industry type or market dynamics, might shift the prominence of these configurations. Moreover, it would be beneficial for future research to experiment with different configurational approaches or hybrid methodologies that could uncover more distinctive and varied results. This could involve integrating fsQCA with longitudinal panel data analysis to observe how IEC configurations evolve over time or employing comparative case studies to explore the influence of cultural and economic contexts on these configurations. By broadening the scope of configurational research, scholars can generate richer theoretical contributions and implications, thereby advancing our understanding of BGFF and n-BGFF internationalization in diverse settings. It is important to consider that the lack of surprise in our results may also be a reflection of the limitations inherent in fsQCA itself, particularly its reliance on a limited number of conditions. Future research should consider expanding the range of conditions examined in the analysis or applying more complex models that can capture a wider array of influences on international performance. This approach would not only provide more nuanced and differentiated results but also help in articulating the implications of these findings in a more robust and comprehensive manner.

Finally, a significant methodological limitation of fsQCA is that it does not consider control variables in the analysis, which may lead to spurious results and weaken the implications of the findings across different industries. This lack of control for potential confounding factors can make it challenging to generalize the results, as the specific configurations identified may be influenced by unaccounted contextual variables. Thus, future studies should consider integrating fsQCA with other methodologies that can account for control variables, such as multi-method approaches, to provide a more comprehensive understanding of the phenomenon under study. This could involve, for example, using fsQCA to identify configurations of conditions that lead to specific outcomes, followed by a regression analysis to test the influence of control variables on these configurations. Such approaches would not only strengthen the theoretical contributions but also offer more practical implications that are reflective of the complexities present in different industrial contexts. Moreover, researchers should be cautious in drawing broad implications from fsQCA results, ensuring that they are adequately contextualized and reflective of the specific industry or context being studied.

Conclusion

This study has made significant strides in addressing the complexities and heterogeneities inherent in the internationalization of family businesses. By adopting a configurational approach and utilizing fsQCA and NCA, the research has illuminated the nuanced ways in which IEC dimensions can be strategically configured for BGFFs and n-BGFFs to achieve

international performance. This study adopts assemblage theory to offer post-internationalization strategies, highlighting the importance of specific IEC dimensions like international entrepreneurial orientation and motivation for BGFFs vs market orientation, learning orientation, and competitor network orientation for n-BGFFs. Hence, it enriches the understanding of how family firms can leverage IEC dimensions for optimal international performance. In essence, this study not only advances academic discourse in the field of family business internationalization but also provides practical insights for entrepreneurial family firms aspiring to succeed on the global stage. The dual approach of *fsQCA* and *NCA* in this research paves the way for future studies to explore the complex and dynamic nature of family firm's international activities, further enriching our understanding of this critical area in entrepreneurship research.

Note

1. https://www.wipo.int/global_innovation_index/en/2023/index.html; <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2023/my.pdf>

References

- Acs, Z.J. and Terjesen, S. (2015), "Born local: toward a theory of new venture's choice of internationalization", *Institutions and Incentives*, Edward Elgar Publishing, Cheltenham, pp. 242-256.
- Adomako, S., Amankwah-Amoah, J., Dankwah, G.O., Danso, A. and Donbesuur, F. (2019), "Institutional voids, international learning effort and internationalization of emerging market new ventures", *Journal of International Management*, Vol. 25 No. 4, 100666, doi: [10.1016/j.intman.2019.04.001](https://doi.org/10.1016/j.intman.2019.04.001).
- Amburgey, T.L., Kelly, D. and Barnett, W.P. (1993), "Resetting the clock: the dynamics of organizational change and failure", *Administrative Science Quarterly*, Vol. 38 No. 1, pp. 51-73, doi: [10.2307/2393254](https://doi.org/10.2307/2393254).
- Anderson, B. and McFarlane, C. (2011), "Assemblage and geography", *Area*, Vol. 43 No. 2, pp. 124-127, doi: [10.1111/j.1475-4762.2011.01004.x](https://doi.org/10.1111/j.1475-4762.2011.01004.x).
- Andersson, S. and Wictor, I. (2003), "Innovative internationalisation in new firms: born globals—the Swedish case", *Journal of International Entrepreneurship*, Vol. 1 No. 3, pp. 249-275.
- Arikan, I. and Shenkar, O. (2021), "Neglected elements: what we should cover more of in international business research", *Journal of International Business Studies*, Vol. 53 No. 7, pp. 1-24, doi: [10.1057/s41267-021-00472-9](https://doi.org/10.1057/s41267-021-00472-9).
- Arregle, J.L., Duran, P., Hitt, M.A. and Van Essen, M. (2017), "Why is family firms' internationalization unique? A meta-analysis", *Entrepreneurship Theory and Practice*, Vol. 41 No. 5, pp. 801-831, doi: [10.1111/etap.12246](https://doi.org/10.1111/etap.12246).
- Arregle, J.L., Chirico, F., Kano, L., Kundu, S.K., Majocchi, A. and Schulze, W.S. (2021), "Family firm internationalization: past research and an agenda for the future", *Journal of International Business Studies*, Vol. 52 No. 6, pp. 1159-1198, doi: [10.1057/s41267-021-00425-2](https://doi.org/10.1057/s41267-021-00425-2).
- Arzubiaga, U., De Massis, A., Kammerlander, N. and Hoy, F. (2022), "Knowledge management in family firms: opening the black box and suggestions for future research", *Journal of Knowledge Management*, Vol. 26 No. 2, pp. 269-290, doi: [10.1108/jkm-03-2022-924](https://doi.org/10.1108/jkm-03-2022-924).
- Athanassiou, N., Crittenden, W.F., Kelly, L.M. and Marquez, P. (2002), "Founder centrality effects on the Mexican family firm's top management group: firm culture, strategic vision and goals, and firm performance", *Journal of World Business*, Vol. 37 No. 2, pp. 139-150, doi: [10.1016/s1090-9516\(02\)00073-1](https://doi.org/10.1016/s1090-9516(02)00073-1).
- Autio, E., Sapienza, H.J. and Almeida, J.G. (2000), "Effects of age at entry, knowledge intensity, and imitability on international growth", *Academy of Management Journal*, Vol. 43 No. 5, pp. 909-924, doi: [10.5465/1556419](https://doi.org/10.5465/1556419).

- Autio, E., George, G. and Alexy, O. (2011), "International entrepreneurship and capability development—qualitative evidence and future research directions", *Entrepreneurship Theory and Practice*, Vol. 35 No. 1, pp. 11-37, doi: [10.1111/j.1540-6520.2010.00421.x](https://doi.org/10.1111/j.1540-6520.2010.00421.x).
- Banalieva, E.R. and Dhanaraj, C. (2013), "Home-region orientation in international expansion strategies", *Journal of International Business Studies*, Vol. 44 No. 2, pp. 89-116.
- Basco, R., Hernández-Perlines, F. and Rodríguez-García, M. (2020), "The effect of entrepreneurial orientation on firm performance: a multigroup analysis comparing China, Mexico, and Spain", *Journal of Business Research*, Vol. 113, pp. 409-421, doi: [10.1016/j.jbusres.2019.09.020](https://doi.org/10.1016/j.jbusres.2019.09.020).
- Beer, M., Voelpel, S.C., Leibold, M. and Tekie, E.B. (2005), "Strategic management as organizational learning: developing fit and alignment through a disciplined process", *Long Range Planning*, Vol. 38 No. 5, pp. 445-465, doi: [10.1016/j.lrp.2005.04.008](https://doi.org/10.1016/j.lrp.2005.04.008).
- Bettinazzi, E.L., Jacqueminet, A., Neumann, K. and Snoeren, P. (2024), "Media coverage of firms in the presence of multiple signals: a configurational approach", *Academy of Management Journal*, Vol. 67 No. 1, pp. 150-177, doi: [10.5465/amj.2020.1791](https://doi.org/10.5465/amj.2020.1791).
- Beynon, M., Jones, P. and Pickernell, D. (2021), "Innovation and the knowledge-base for entrepreneurship: investigating SME innovation across European regions using fsQCA", *Entrepreneurship and Regional Development*, Vol. 33 Nos 3-4, pp. 227-248, doi: [10.1080/08985626.2021.1872936](https://doi.org/10.1080/08985626.2021.1872936).
- Buccieri, D., Javalgi, R.G. and Cavusgil, E. (2020), "International new venture performance: role of international entrepreneurial culture, ambidextrous innovation, and dynamic marketing capabilities", *International Business Review*, Vol. 29 No. 2, 101639, doi: [10.1016/j.ibusrev.2019.101639](https://doi.org/10.1016/j.ibusrev.2019.101639).
- Buccieri, D., Javalgi, R.G. and Jancenelle, V.E. (2021), "Dynamic capabilities and performance of emerging market international new ventures: does international entrepreneurial culture matter?", *International Small Business Journal*, Vol. 39 No. 5, pp. 474-499, doi: [10.1177/0266242620969682](https://doi.org/10.1177/0266242620969682).
- Cable, D.M. and DeRue, D.S. (2002), "The convergent and discriminant validity of subjective fit perceptions", *Journal of Applied Psychology*, Vol. 87 No. 5, pp. 875-884, doi: [10.1037/0021-9010.87.5.875](https://doi.org/10.1037/0021-9010.87.5.875).
- Calabrò, A., Campopiano, G., Basco, R. and Pukall, T. (2017), "Governance structure and internationalization of family-controlled firms: the mediating role of international entrepreneurial orientation", *European Management Journal*, Vol. 35 No. 2, pp. 238-248, doi: [10.1016/j.emj.2016.04.007](https://doi.org/10.1016/j.emj.2016.04.007).
- Calabrò, A., Mayrhofer, U. and Valentino, A. (2023), "Business families do it differently! Navigating cycles and waves of family firm internationalization", *International Journal of Entrepreneurial Behavior and Research*, Vol. 29 No. 5, pp. 1075-1098, doi: [10.1108/ijebr-03-2022-0300](https://doi.org/10.1108/ijebr-03-2022-0300).
- Casprini, E., Dabic, M., Kotlar, J. and Pucci, T. (2020), "A bibliometric analysis of family firm internationalization research: current themes, theoretical roots, and ways forward", *International Business Review*, Vol. 29 No. 5, 101715, doi: [10.1016/j.ibusrev.2020.101715](https://doi.org/10.1016/j.ibusrev.2020.101715).
- Cavusgil, S.T. and Knight, G. (2015), "The born global firm: an entrepreneurial and capabilities perspective on early and rapid internationalization", *Journal of International Business Studies*, Vol. 46 No. 1, pp. 3-16, doi: [10.1057/jibs.2014.62](https://doi.org/10.1057/jibs.2014.62).
- Cesinger, B., Hughes, M., Mensching, H., Bouncken, R., Fredrich, V. and Kraus, S. (2016), "A socioemotional wealth perspective on how collaboration intensity, trust, and international market knowledge affect family firms' multinationality", *Journal of World Business*, Vol. 51 No. 4, pp. 586-599.
- Chrisman, J.J., Chua, J.H. and Litz, R.A. (2004), "Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence", *Entrepreneurship Theory and Practice*, Vol. 28 No. 4, pp. 335-354, doi: [10.1111/j.1540-6520.2004.00049.x](https://doi.org/10.1111/j.1540-6520.2004.00049.x).
- Couper, C. and Reuber, A.R. (2013), "Success in fast-growth markets: strategies for smaller players", Paper presented at the Global Commerce Centre, Ottawa, Canada.
- Coviello, N.E. (2006), "The network dynamics of international new ventures", *Journal of International Business Studies*, Vol. 37 No. 5, pp. 713-731, doi: [10.1057/palgrave.jibs.8400219](https://doi.org/10.1057/palgrave.jibs.8400219).

- Covin, J.G. and Miller, D. (2014), "International entrepreneurial orientation: conceptual considerations, research themes, measurement issues, and future research directions", *Entrepreneurship Theory and Practice*, Vol. 38 No. 1, pp. 11-44, doi: [10.1111/etap.12027](https://doi.org/10.1111/etap.12027).
- Davis, J.H., Schoorman, F.D. and Donaldson, L. (1997), "Davis, Schoorman, and Donaldson reply: the distinctiveness of agency theory and stewardship theory", *Academy of Management Review*, Vol. 22 No. 3, pp. 611-613.
- Debellis, F., Rondi, E., Plakoyiannaki, E. and De Massis, A. (2021), "Riding the waves of family firm internationalization: a systematic literature review, integrative framework, and research agenda", *Journal of World Business*, Vol. 56 No. 1, 101144, doi: [10.1016/j.jwb.2020.101144](https://doi.org/10.1016/j.jwb.2020.101144).
- Debellis, F., Rondi, E., Buckley, P.J. and De Massis, A. (2024), "Family firms and the governance of global value chains", *Journal of International Business Studies*, (early cite), doi: [10.1057/s41267-024-00716-4](https://doi.org/10.1057/s41267-024-00716-4).
- DeLanda, M. (1997), *A Thousand Years of Nonlinear History*, Zone Books, New York.
- DeLanda, M. (2006), *A New Philosophy of Society*, Continuum International Publishing Group, London.
- Deleuze, G. and Guattari, F. (1980), *A Thousand Plateaus: Capitalism and Schizophrenia*, University of Minnesota Press.
- Deng, W., Liang, Q.Z. and Fan, P.H. (2019), "Complements or substitutes? Configurational effects of entrepreneurial activities and institutional frameworks on social well-being", *Journal of Business Research*, Vol. 96, pp. 194-205, doi: [10.1016/j.jbusres.2018.11.003](https://doi.org/10.1016/j.jbusres.2018.11.003).
- Dimitratos, P., Voudouris, I., Plakoyiannaki, E. and Nakos, G. (2012), "International entrepreneurial culture—toward a comprehensive opportunity-based operationalization of international entrepreneurship", *International Business Review*, Vol. 21 No. 4, pp. 708-721, doi: [10.1016/j.ibusrev.2011.08.001](https://doi.org/10.1016/j.ibusrev.2011.08.001).
- Dimitratos, P., Johnson, J.E., Plakoyiannaki, E. and Young, S. (2016), "SME internationalization: how does the opportunity-based international entrepreneurial culture matter?", *International Business Review*, Vol. 25 No. 6, pp. 1211-1222, doi: [10.1016/j.ibusrev.2016.03.006](https://doi.org/10.1016/j.ibusrev.2016.03.006).
- Dimov, D. (2011), "Grappling with the unbearable elusiveness of entrepreneurial opportunities", *Entrepreneurship Theory and Practice*, Vol. 35 No. 1, pp. 57-81, doi: [10.1111/j.1540-6520.2010.00423.x](https://doi.org/10.1111/j.1540-6520.2010.00423.x).
- Douglas, E.J., Shepherd, D.A. and Prentice, C. (2020), "Using fuzzy-set qualitative comparative analysis for a finer-grained understanding of entrepreneurship", *Journal of Business Venturing*, Vol. 35 No. 1, 105970, doi: [10.1016/j.jbusvent.2019.105970](https://doi.org/10.1016/j.jbusvent.2019.105970).
- Dul, J. (2016b), "Necessary condition analysis (NCA) logic and methodology of 'necessary but not sufficient' causality", *Organizational Research Methods*, Vol. 19 No. 1, pp. 10-52, doi: [10.1177/1094428115584005](https://doi.org/10.1177/1094428115584005).
- Dzikowski, P. (2018), "A bibliometric analysis of born global firms", *Journal of Business Research*, Vol. 85, pp. 281-294, doi: [10.1016/j.jbusres.2017.12.054](https://doi.org/10.1016/j.jbusres.2017.12.054).
- Fainshmidt, S., Witt, M.A., Aguilera, R.V. and Verbeke, A. (2020), "The contributions of qualitative comparative analysis (QCA) to international business research", *Journal of International Business Studies*, Vol. 51 No. 2, pp. 455-466, doi: [10.1057/s41267-020-00313-1](https://doi.org/10.1057/s41267-020-00313-1).
- Falahat, M., Knight, G. and Alon, I. (2018), "Orientations and capabilities of born global firms from emerging markets", *International Marketing Review*, Vol. 35 No. 6, pp. 936-957, doi: [10.1108/imr-01-2017-0021](https://doi.org/10.1108/imr-01-2017-0021).
- Falahat, M., Soto-Acosta, P. and Ramayah, T. (2021), "Analysing the importance of international knowledge, orientation, networking and commitment as entrepreneurial culture and market orientation in gaining competitive advantage and international performance", *International Marketing Review*, Vol. 39 No. 3, pp. 463-481, doi: [10.1108/imr-02-2021-0053](https://doi.org/10.1108/imr-02-2021-0053).
- Fariás, I. and Bender, T. (Eds.) (2012), *Urban Assemblages: How Actor-Network Theory Changes Urban Studies*, Routledge.
- Fiss, P.C. (2011), "Building better causal theories: a fuzzy set approach to typologies in organization research", *Academy of Management Journal*, Vol. 54 No. 2, pp. 393-420, doi: [10.5465/amj.2011.60263120](https://doi.org/10.5465/amj.2011.60263120).

- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50, doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Forsgren, M. (2002), "The concept of learning in the Uppsala internationalization process model: a critical review", *International Business Review*, Vol. 11 No. 3, pp. 257-277, doi: [10.1016/S0969-5931\(01\)00060-9](https://doi.org/10.1016/S0969-5931(01)00060-9).
- Furnari, S., Crilly, D., Misangyi, V.F., Greckhamer, T., Fiss, P.C. and Aguilera, R.V. (2021), "Capturing causal complexity: heuristics for configurational theorizing", *Academy of Management Review*, Vol. 46 No. 4, pp. 778-799, doi: [10.5465/amr.2019.0298](https://doi.org/10.5465/amr.2019.0298).
- Gabrielsson, M. and Pelkonen, T. (2008), "Born internationals: market expansion and business operation mode strategies in the digital media field", *Journal of International Entrepreneurship*, Vol. 6 No. 2, pp. 49-71, doi: [10.1007/s10843-008-0020-z](https://doi.org/10.1007/s10843-008-0020-z).
- Gabrielsson, M., Gabrielsson, P. and Dimitratos, P. (2014), "International entrepreneurial culture and growth of international new ventures", *Management International Review*, Vol. 54 No. 1, pp. 445-471, doi: [10.1007/s11575-014-0213-8](https://doi.org/10.1007/s11575-014-0213-8).
- Gómez-Mejía, L.R., Haynes, K.T., Núñez-Nickel, M., Jacobson, K.J. and Moyano-Fuentes, J. (2007), "Socioemotional wealth and business risks in family-controlled firms: evidence from Spanish olive oil mills", *Administrative Science Quarterly*, Vol. 52 No. 1, pp. 106-137, doi: [10.2189/asqu.52.1.106](https://doi.org/10.2189/asqu.52.1.106).
- Gomez-Mejía, L.R., Makri, M. and Larraza-Kintana, M. (2010), "Diversification in family controlled firms", *Journal of Management Studies*, Vol. 47 No. 2, pp. 223-252, doi: [10.1111/j.1467-6486.2009.00889.x](https://doi.org/10.1111/j.1467-6486.2009.00889.x).
- Graham, M.H. (2003), "Confronting multicollinearity in ecological multiple regression", *Ecology*, Vol. 84 No. 11, pp. 2809-2815, doi: [10.1890/02-3114](https://doi.org/10.1890/02-3114).
- Gresov, C. and Drazin, R. (1997), "Equifinality: functional equivalence in organization design", *Academy of Management Review*, Vol. 22 No. 2, pp. 403-428, doi: [10.2307/259328](https://doi.org/10.2307/259328).
- Hair, J.F., Anderson, R.E., Babin, B.J. and Black, W.C. (2010), *Multivariate Data Analysis: A Global Perspective*, Vol. 7, Pearson, Upper Saddle River, NJ.
- Hallbäck, J. and Gabrielsson, P. (2013), "Entrepreneurial marketing strategies during the growth of international new ventures originating in small and open economies", *International Business Review*, Vol. 22 No. 6, pp. 1008-1020, doi: [10.1016/j.ibusrev.2013.02.006](https://doi.org/10.1016/j.ibusrev.2013.02.006).
- Harms, R., Kraus, S. and Schwarz, E. (2009), "The suitability of the configuration approach in entrepreneurship research", *Entrepreneurship and Regional Development*, Vol. 21 No. 1, pp. 25-49, doi: [10.1080/08985620701876416](https://doi.org/10.1080/08985620701876416).
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135, doi: [10.1007/s11747-014-0403-8](https://doi.org/10.1007/s11747-014-0403-8).
- Hernández-Perlines, F. and Xu, W. (2018), "Conditional mediation of absorptive capacity and environment in international entrepreneurial orientation of family businesses", *Frontiers in Psychology*, Vol. 9 No. 102, pp. 1-14, doi: [10.3389/fpsyg.2018.00102](https://doi.org/10.3389/fpsyg.2018.00102).
- Hodgkinson, I.R., Hughes, P. and Arshad, D. (2016), "Strategy development: driving improvisation in Malaysia", *Journal of World Business*, Vol. 51 No. 3, pp. 379-390, doi: [10.1016/j.jwb.2015.07.002](https://doi.org/10.1016/j.jwb.2015.07.002).
- Hu, Q., Hughes, P., Hughes, M., Chapman, G. and He, X. (2022), "When is R&D beneficial for family firms? The concurrent roles of CSR and economic conditions", *R&D Management*, Vol. 53 No. 3, pp. 524-542.
- Hughes, M., Cesinger, B., Cheng, C.F., Schuessler, F. and Kraus, S. (2019), "A configurational analysis of network and knowledge variables explaining born globals' and late internationalizing SMEs' international performance", *Industrial Marketing Management*, Vol. 80 No. 5, pp. 172-187, doi: [10.1016/j.indmarman.2017.12.001](https://doi.org/10.1016/j.indmarman.2017.12.001).

- Hult, G.T.M., Gonzalez-Perez, M.A. and Lagerström, K. (2020), "The theoretical evolution and use of the Uppsala Model of internationalization in the international business ecosystem", *Journal of International Business Studies*, Vol. 51 No. 1, pp. 38-49, doi: [10.1057/s41267-019-00293-x](https://doi.org/10.1057/s41267-019-00293-x).
- Iannacci, F. and Cornford, T. (2018), "Unravelling causal and temporal influences underpinning monitoring systems success: a typological approach", *Information Systems Journal*, Vol. 28 No. 2, pp. 384-407, doi: [10.1111/isj.12145](https://doi.org/10.1111/isj.12145).
- Jiménez-Jiménez, D., Sanz-Valle, R. and Perez-Caballero, J.A. (2020), "Entrepreneurial orientation and innovation success in family firms", *International Journal of Entrepreneurship and Small Business*, Vol. 40 No. 1, pp. 114-127, doi: [10.1504/ijeb.2020.106941](https://doi.org/10.1504/ijeb.2020.106941).
- Johanson, J. and Vahlne, J.E. (2009), "The Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership", *Journal of International Business Studies*, Vol. 40 No. 2, pp. 1411-1431, doi: [10.1057/jibs.2009.24](https://doi.org/10.1057/jibs.2009.24).
- Knight, G.A. and Cavusgil, S.T. (2004), "Innovation, organizational capabilities, and the born-global firm", *Journal of International Business Studies*, Vol. 35 No. 2, pp. 124-141, doi: [10.1057/palgrave.jibs.8400071](https://doi.org/10.1057/palgrave.jibs.8400071).
- Knight, G.A. and Liesch, P.W. (2016), "Internationalization: from incremental to born global", *Journal of World Business*, Vol. 51 No. 1, pp. 93-102, doi: [10.1016/j.jwb.2015.08.011](https://doi.org/10.1016/j.jwb.2015.08.011).
- 3Kontinen, T. and Ojala, A. (2012), "Internationalization pathways among family-owned SMEs", *International Marketing Review*, Vol. 29 No. 5, pp. 496-518, doi: [10.1108/02651331211260359](https://doi.org/10.1108/02651331211260359).
- Kumar, S., Sahoo, S., Lim, W.M., Kraus, S. and Bamel, U. (2022), "Fuzzy-set qualitative comparative analysis (fsQCA) in business and management research: a contemporary overview", *Technological Forecasting and Social Change*, Vol. 178 No. 2, 121599, doi: [10.1016/j.techfore.2022.121599](https://doi.org/10.1016/j.techfore.2022.121599).
- Lin, S. and Si, S. (2019), "The influence of exploration and exploitation on born globals' speed of internationalization", *Management Decision*, Vol. 57 No. 1, pp. 193-210, doi: [10.1108/md-08-2017-0735](https://doi.org/10.1108/md-08-2017-0735).
- Lu, J.W. and Beamish, P.W. (2001), "The internationalization and performance of SMEs", *Strategic Management Journal*, Vol. 22 Nos 6-7, pp. 565-586, doi: [10.1002/smj.184.abs](https://doi.org/10.1002/smj.184.abs).
- Lu, Y., Zhou, L., Bruton, G. and Li, W. (2010), "Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy", *Journal of International Business Studies*, Vol. 41 No. 3, pp. 419-436, doi: [10.1057/jibs.2009.73](https://doi.org/10.1057/jibs.2009.73).
- Malaysian SME Corp (2017), "Industry 4.0 and its implications to SMEs", available at: http://www.miti.gov.my/miti/resources/Industry4Point0/SMECorp_Industry_4_and_Implications_to_SMEs.pdf (accessed 3 December 2021).
- MATRADE (2019), "Malaysian product directories", available at: <https://www.matrade.gov.my/en/directory-hub/malaysia-products-directory> (accessed 13 January 2022).
- Mendes, T., Braga, V. and Silva, C. (2024), "One for all, all for one: an analysis towards the speed of internationalization in clustered and non-clustered family firms", *Journal of Family Business Management*, Vol. 14 No. 1, pp. 120-152, doi: [10.1108/jfbm-06-2023-0080](https://doi.org/10.1108/jfbm-06-2023-0080).
- Metsola, J., Leppäaho, T., Paavilainen-Mäntymäki, E. and Plakoyiannaki, E. (2020), "Process in family business internationalisation: the state of the art and ways forward", *International Business Review*, Vol. 29 No. 2, 101665, doi: [10.1016/j.ibusrev.2020.101665](https://doi.org/10.1016/j.ibusrev.2020.101665).
- Miroshnichenko, I., Eddleston, K. and De Massis, A. (2023), "Fight or flight? Understanding family firm internationalization when the rules of the game change", *Journal of World Business*, Vol. 58 No. 5, 101462, doi: [10.1016/j.jwb.2023.101462](https://doi.org/10.1016/j.jwb.2023.101462).
- Misangyi, V.F. and Acharya, A.G. (2014), "Substitutes or complements? A configurational examination of corporate governance mechanisms", *Academy of Management Journal*, Vol. 57 No. 6, pp. 1681-1705, doi: [10.5465/amj.2012.0728](https://doi.org/10.5465/amj.2012.0728).

- Misangyi, V.F., Greckhamer, T., Furnari, S., Fiss, P.C., Crilly, D. and Aguilera, R. (2017), "Embracing causal complexity: the emergence of a neo-configurational perspective", *Journal of Management*, Vol. 43 No. 1, pp. 255-282, doi: [10.1177/0149206316679252](https://doi.org/10.1177/0149206316679252).
- Moen, Ø., Sørheim, R. and Erikson, T. (2008), "Born global firms and informal investors: examining investor characteristics", *Journal of Small Business Management*, Vol. 46 No. 4, pp. 536-549, doi: [10.1111/j.1540-627x.2008.00255.x](https://doi.org/10.1111/j.1540-627x.2008.00255.x).
- Mostafiz, M.I., Ahmed, F.U., Ibrahim, F. and Tarba, S.Y. (2024b), "Innovation and commercialisation: the role of the international dynamic marketing capability in Malaysian international entrepreneurial firms", *International Marketing Review*, Vol. 41 No. 1, pp. 199-236, doi: [10.1108/imr-10-2022-0241](https://doi.org/10.1108/imr-10-2022-0241).
- Mostafiz, M.I., Ahmed, F.U., Tardios, J., Hughes, P. and Tarba, S.Y. (2024a), "Configuring international entrepreneurial orientation and dynamic internationalization capability to predict international performance", *International Business Review*, 102275, doi: [10.1016/j.ibusrev.2024.102275](https://doi.org/10.1016/j.ibusrev.2024.102275).
- Mostafiz, M.I., Hughes, M., Gali, N. and Sambasivan, M. (2022), "The context-sensitivity of international entrepreneurial orientation and the role of process and product innovation capabilities", *British Journal of Management*, Vol. 34 No. 4, pp. 2015-2035, doi: [10.1111/1467-8551.12681](https://doi.org/10.1111/1467-8551.12681).
- Mostafiz, M.I., Hughes, M. and Sambasivan, M. (2021), "Entrepreneurial orientation, competitive advantage and strategic knowledge management capability in Malaysian family firms", *Journal of Knowledge Management*, Vol. 26 No. 2, pp. 423-458, doi: [10.1108/jkm-09-2020-0693](https://doi.org/10.1108/jkm-09-2020-0693).
- Mostafiz, M.I., Sambasivan, M. and Goh, S.K. (2019), "Impacts of dynamic managerial capability and international opportunity identification on firm performance", *Multinational Business Review*, Vol. 27 No. 4, pp. 339-363, doi: [10.1108/mbr-09-2018-0061](https://doi.org/10.1108/mbr-09-2018-0061).
- Narver, J.C. and Slater, S.F. (1990), "The effect of a market orientation on business profitability", *Journal of Marketing*, Vol. 54 No. 4, pp. 20-35, doi: [10.1177/002224299005400403](https://doi.org/10.1177/002224299005400403).
- Narver, J.C., Slater, S.F. and MacLachlan, D.L. (2004), "Responsive and proactive market orientation and new-product success", *Journal of Product Innovation Management*, Vol. 21 No. 5, pp. 334-347, doi: [10.1111/j.0737-6782.2004.00086.x](https://doi.org/10.1111/j.0737-6782.2004.00086.x).
- Nguyen, Q.A. and Mort, G.S. (2021), "Conceptualising organisational-level and microfoundational capabilities: an integrated view of born-globals' internationalisation", *The International Entrepreneurship and Management Journal*, Vol. 17 No. 4, pp. 1781-1803, doi: [10.1007/s11365-020-00662-1](https://doi.org/10.1007/s11365-020-00662-1).
- Nikou, S., Brush, C. and Wraae, B. (2023), "Entrepreneurship educators: a configurational analysis of factors influencing pedagogical choices", *International Journal of Entrepreneurial Behavior and Research*, Vol. 29 No. 11, pp. 81-108, doi: [10.1108/ijebr-08-2022-0760](https://doi.org/10.1108/ijebr-08-2022-0760).
- Nummela, N., Puimalainen, K. and Saarenketo, S. (2005), "International growth orientation of knowledge-intensive SMEs", *Journal of International Entrepreneurship*, Vol. 3 No. 1, pp. 5-18, doi: [10.1007/s10843-005-0350-z](https://doi.org/10.1007/s10843-005-0350-z).
- Oana, I.E., Schneider, C.Q. and Thomann, E. (2021), *Qualitative Comparative Analysis Using R: A Beginner's Guide*, Cambridge University Press, Cambridge.
- Oon, E.Y.N., Prabhu, J. and Singh, K. (2015), "The imprinting effects of family founders and external environments on firm internationalization", paper presented at the Academy of Management, Vancouver, Canada.
- Oparaocha, G.O. (2015), "SMEs and international entrepreneurship: an institutional network perspective", *International Business Review*, Vol. 24 No. 5, pp. 861-873, doi: [10.1016/j.ibusrev.2015.03.007](https://doi.org/10.1016/j.ibusrev.2015.03.007).
- Orr, R.J. and Scott, W.R. (2008), "Institutional exceptions on global projects: a process model", *Journal of International Business Studies*, Vol. 39 No. 4, pp. 562-588, doi: [10.1057/palgrave.jibs.8400370](https://doi.org/10.1057/palgrave.jibs.8400370).

- Pandey, N., Kumar, S., Post, C., Goodell, J.W. and García-Ramos, R. (2022), "Board gender diversity and firm performance: a complexity theory perspective", *Asia Pacific Journal of Management*, Vol. 40 No. 3, pp. 1289-1320, doi: [10.1007/s10490-022-09817-w](https://doi.org/10.1007/s10490-022-09817-w).
- Perks, K.J. and Hughes, M. (2008), "Entrepreneurial decision-making in internationalization: propositions from mid-size firms", *International Business Review*, Vol. 17 No. 3, pp. 310-330, doi: [10.1016/j.ibusrev.2007.10.001](https://doi.org/10.1016/j.ibusrev.2007.10.001).
- Pickernell, D., Jones, P. and Beynon, M.J. (2019), "Innovation performance and the role of clustering at the local enterprise level: a fuzzy-set qualitative comparative analysis approach", *Entrepreneurship and Regional Development*, Vol. 31 Nos 1-2, pp. 82-103, doi: [10.1080/08985626.2018.1537149](https://doi.org/10.1080/08985626.2018.1537149).
- Pukall, T.J. and Calabrò, A. (2014), "The internationalization of family firms: a critical review and integrative model", *Family Business Review*, Vol. 27 No. 2, pp. 103-125.
- PWC (2018), "Family business survey 2018: the Malaysian Chapter".
- Ragin, C.C. (2009a), *Qualitative Comparative Analysis Using Fuzzy Sets (fsQCA)*, Sage, Thousand Oaks and London.
- Ragin, C.C. (2009b), *Redesigning Social Inquiry: Fuzzy Sets and beyond*, University of Chicago Press, London.
- Reay, P., Jaskiewicz, P. and Hinings, R. (2015), "How family, business and community logics shape family firm behavior and 'rules of the game' in an organizational field", *Family Business Review*, Vol. 28 No. 4, pp. 292-311, doi: [10.1177/0894486515577513](https://doi.org/10.1177/0894486515577513).
- Reuber, A.R. (2016), "An assemblage-theoretic perspective on the internationalization processes of family firms", *Entrepreneurship Theory and Practice*, Vol. 40 No. 6, pp. 1269-1286, doi: [10.1111/etap.12243](https://doi.org/10.1111/etap.12243).
- Rialp, A., Rialp, J., Urbano, D. and Vaillant, Y. (2005), "The born-global phenomenon: a comparative case study research", *Journal of International Entrepreneurship*, Vol. 3 No. 2, pp. 133-171, doi: [10.1007/s10843-005-4202-7](https://doi.org/10.1007/s10843-005-4202-7).
- Şahin, F., Karadağ, H. and Tuncer, B. (2019), "Big five personality traits, entrepreneurial self-efficacy and entrepreneurial intention: a configurational approach", *International Journal of Entrepreneurial Behavior and Research*, Vol. 25 No. 6, pp. 1188-1211, doi: [10.1108/ijebr-07-2018-0466](https://doi.org/10.1108/ijebr-07-2018-0466).
- Schepers, J., Voordeckers, W., Steijvers, T. and Laveren, E. (2014), "The entrepreneurial orientation-performance relationship in private family firms: the moderating role of socioemotional wealth", *Small Business Economics*, Vol. 43 No. 1, pp. 39-55, doi: [10.1007/s11187-013-9533-5](https://doi.org/10.1007/s11187-013-9533-5).
- Schneider, C.Q. and Wagemann, C. (2012), *Set-theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge University Press, Cambridge.
- Scholes, L., Mustafa, M. and Chen, S. (2016), "Internationalization of small family firms: the influence of family from a socioemotional wealth perspective", *Thunderbird International Business Review*, Vol. 58 No. 2, pp. 131-146, doi: [10.1002/tie.21729](https://doi.org/10.1002/tie.21729).
- Schwens, C. and Kabst, R. (2009), "How early opposed to late internationalizers learn: experience of others and paradigms of interpretation", *International Business Review*, Vol. 18 No. 2, pp. 509-522, doi: [10.1016/j.ibusrev.2009.06.001](https://doi.org/10.1016/j.ibusrev.2009.06.001).
- Shapiro, S.S. and Wilk, M.B. (1965), "An analysis of variance test for normality (complete samples)", *Biometrika*, Vol. 52 Nos 3/4, pp. 591-611, doi: [10.1093/biomet/52.3-4.591](https://doi.org/10.1093/biomet/52.3-4.591).
- Sharma, P., Chrisman, J.J. and Gersick, K.E. (2012), "25 years of family business review: reflections on the past and perspectives for the future", *Family Business Review*, Vol. 25 No. 1, pp. 5-15, doi: [10.1177/0894486512437626](https://doi.org/10.1177/0894486512437626).
- Shir, N., Nikolaev, B.N. and Wincent, J. (2019), "Entrepreneurship and well-being: the role of psychological autonomy, competence, and relatedness", *Journal of Business Venturing*, Vol. 34 No. 5, 105875, doi: [10.1016/j.jbusvent.2018.05.002](https://doi.org/10.1016/j.jbusvent.2018.05.002).

- Smith, C., Rondi, E., De Massis, A. and Nordqvist, M. (2024), "Rising every time fall: organizational fortitude and response to adversities", *Journal of Management*, Vol. 50 No. 5, pp. 1865-1910, doi: [10.1177/01492063231164969](https://doi.org/10.1177/01492063231164969).
- Stieg, P., Hiebl, M.R., Kraus, S., Schüssler, F. and Sattler, S. (2017), "Born-again globals: generational change and family business internationalisation", *European Journal of International Management*, Vol. 11 No. 5, pp. 581-605, doi: [10.1504/ejim.2017.10007624](https://doi.org/10.1504/ejim.2017.10007624).
- Tsai, H.T. and Eisingerich, A.B. (2010), "Internationalization strategies of emerging markets firms", *California Management Review*, Vol. 53 No. 1, pp. 114-135, doi: [10.1525/cmr.2010.53.1.114](https://doi.org/10.1525/cmr.2010.53.1.114).
- Vahlne, J.E. (2020), "Development of the Uppsala model of internationalization process: from internationalization to evolution", *Global Strategy Journal*, Vol. 10 No. 2, pp. 239-250, doi: [10.1002/gsj.1375](https://doi.org/10.1002/gsj.1375).
- Vahlne, J.E. and Johanson, J. (2017), "From internationalization to evolution: the Uppsala model at 40 years", *Journal of International Business Studies*, Vol. 48 No. 9, pp. 1087-1102, doi: [10.1057/s41267-017-0107-7](https://doi.org/10.1057/s41267-017-0107-7).
- Verbeke, A. (2020), "The JIBS 2019 Decade Award: the Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership", *Journal of International Business Studies*, Vol. 51, pp. 1-3, doi: [10.1057/s41267-019-00292-y](https://doi.org/10.1057/s41267-019-00292-y).
- Welch, C. and Paavilainen-Mantymäki, E. (2014), "Putting process (back) in: research on the internationalization process of the firm", *International Journal of Management Review*, Vol. 16 No. 1, pp. 2-23, doi: [10.1111/ijmr.12006](https://doi.org/10.1111/ijmr.12006).
- Woodside, A.G. (2014), "Embrace•perform•model: complexity theory, contrarian case analysis, and multiple realities", *Journal of Business Research*, Vol. 67 No. 12, pp. 2495-2503, doi: [10.1016/j.jbusres.2014.07.006](https://doi.org/10.1016/j.jbusres.2014.07.006).
- Wu, P., Yeh, S., Huan, T.T.C. and Woodside, A.G. (2014), "Applying complexity theory to deepen service dominant logic: configural analysis of customer experience-and-outcome assessments of professional services for personal transformations", *Journal of Business Research*, Vol. 67 No. 8, pp. 1647-1670, doi: [10.1016/j.jbusres.2014.03.012](https://doi.org/10.1016/j.jbusres.2014.03.012).
- Yayla, S., Yeniyurt, S., Uslay, C. and Cavusgil, E. (2018), "The role of market orientation, relational capital, and internationalization speed in foreign market exit and re-entry decisions under turbulent conditions", *International Business Review*, Vol. 27 No. 6, pp. 1105-1115, doi: [10.1016/j.ibusrev.2018.04.002](https://doi.org/10.1016/j.ibusrev.2018.04.002).
- Yew, J.L.K. (2020), "Tacit knowledge and generational change: the China factor, enterprise development and Malaysian Chinese family SMEs in traditional food production", *China Report*, Vol. 56 No. 1, pp. 103-128, doi: [10.1177/0009445519895624](https://doi.org/10.1177/0009445519895624).
- Yew, J.L.K. (2021), "Family firms, enterprise development and tacit knowledge transformation: small and medium enterprises (SMEs) innovation in Malaysia", *Global Business Review*, pp. 1-21, doi: [10.1177/09721509211047648](https://doi.org/10.1177/09721509211047648).
- Zahra, S.A. (2012), "Organizational learning and entrepreneurship in family firms: exploring the moderating effect of ownership and cohesion", *Small Business Economics*, Vol. 38 No. 1, pp. 51-65, doi: [10.1007/s11187-010-9266-7](https://doi.org/10.1007/s11187-010-9266-7).
- Zahra, S.A., Korri, J.S. and Yu, J. (2005), "Cognition and international entrepreneurship: implications for research on international opportunity recognition and exploitation", *International Business Review*, Vol. 14 No. 2, pp. 129-146, doi: [10.1016/j.ibusrev.2004.04.005](https://doi.org/10.1016/j.ibusrev.2004.04.005).

Further reading

- Dul, J. (2016a), "Identifying single necessary conditions with NCA and fsQCA", *Journal of Business Research*, Vol. 69 No. 4, pp. 1516-1523, doi: [10.1016/j.jbusres.2015.10.134](https://doi.org/10.1016/j.jbusres.2015.10.134).
- Kasper-Brauer, K. and Leischnig, A. (2016), "Yes, we can! A fuzzy-set analysis of challenges, skills, and enjoyment of work", *Journal of Business Research*, Vol. 69 No. 11, pp. 5286-5291, doi: [10.1016/j.jbusres.2016.04.126](https://doi.org/10.1016/j.jbusres.2016.04.126).

Lu, J.W., Liang, X., Shan, M. and Liang, X. (2015), "Internationalization and performance of Chinese family firms: the moderating role of corporate governance", *Management and Organization Review*, Vol. 11 No. 2, pp. 645-678, doi: [10.1017/mor.2015.32](https://doi.org/10.1017/mor.2015.32).

SME Association of Malaysia (2024), "SME definition", available at: <https://smemalaysia.org/sme-definition/> (accessed 21 March 2024).

Appendix 1

Standard loadings			
Constructs/items	Standard loadings (pooled data)	BGFFs	n- BGFFs
<i>International entrepreneurial culture</i>			
<i>International entrepreneurial orientation</i>			
Our firm . . .			
favor high-risk (foreign) projects (with chances of very high return)	0.791	0.722	0.747
believe that owing to the nature of the environment in this foreign country, it is best to achieve the firm's objectives in its marketplace via bold and wide-ranging acts	0.793	0.728	0.723
typically initiates actions to which foreign competitors then respond	0.736	0.757	0.793
is very often the first firm to introduce new products/services in the foreign market, administrative techniques and operating technologies	0.719	0.766	0.778
typically adopts a very competitive 'beat-the-competitors' posture	0.776	0.716	0.727
has marketed many new lines of products or services in the past few years globally	0.731	0.723	0.739
changes in product or service lines have usually been quite dramatic in the past few years	0.743	0.755	0.769
<i>International market orientation</i>			
Our firm . . .			
has many routine or regular measures of foreign customer service	0.793	0.743	0.743
prioritize good foreign market and customer information in developing product and service	0.750	0.704	0.704
has have a very good sense of how our foreign customers value our products/services	0.789	0.753	0.729
always collects information on our foreign customers through any means	0.757	0.772	0.741
always collects information on our competitors through any means	0.725	0.774	0.749
<i>International motivation</i>			
In regard to the management philosophy for firm activities in foreign markets, developing an employee's own ideas is not particularly encouraged	0.721	0.773	0.726
In regard to the management philosophy for firm activities in foreign markets, top management is ignorant and unreceptive towards ideas and suggestions of employees	0.768	0.725	0.731
<i>(continued)</i>			

Table A1.
Confirmatory factor
analysis

Standard loadings		Standard loadings (pooled data)	BGFFs	n- BGFFs
Constructs/items				
<i>International learning orientation</i>				
We have many formal information links established between departments functions		0.723	0.757	0.701
We have many formal/informal processes that provide direction on implementation of international activities		0.764	0.734	0.714
We have many formal/informal processes that evaluate the effectiveness of international activities		0.755	0.709	0.721
<i>International competitor network orientation</i>				
Cooperates with international competitors in joint manufacturing agreements		0.712	0.708	0.711
Cooperates/participates to a very large extent with foreign competitors in joint research		0.701	0.767	0.720
Cooperates heavily with foreign competitors in advertising and marketing		0.772	0.734	0.752
<i>International non-competitor network orientation</i>				
Cooperate with non-competitors in joint manufacturing agreements		0.793	0.725	0.759
Cooperates to a very large extent with foreign non-competitors in joint research		0.718	0.765	0.775
Cooperates heavily with foreign non-competitors in joint advertising and marketing		0.706	0.782	0.781
<i>International performance</i>				
Growth in overseas markets (growth performance)		0.781	0.757	0.701
Market shares in overseas markets (market share performance)		0.746	0.752	0.727
Profitability from overseas expansion (profitability performance)		0.733	0.754	0.724
Return on investment through overseas sales (return on investment performance)		0.783	0.763	0.722
Increase in foreign customer satisfaction (customer satisfaction performance)		0.706	0.786	0.714

Table A1. Source(s): Table created by authors'

Appendix 2

Table A2.
Demographics of
the firms

Sectors	Number of firms
Building and construction material production	39
Automotive parts manufacturers	21
Chemicals and minerals production	32
Industrial electronics component manufacturers	45
Jewelry	33
Medical products manufacturers	11
Pet food	26
Plastic products manufacturers	49
Rubber products manufacturers	28
Toy and sports equipment manufacturers	39
Wood products manufacturing	36

Source(s): Table created by authors'

Legends	BGFF	n-BGFF	Legends	BGFF	n-BGFF
<i>Number of employees</i>			<i>Family firm generation</i>		
1 to 20	6	2	First generation family firms	151	167
21 to 40	133	141	Second generation family firms	16	25
41 to 60	21	38	Third generation family firms	0	0
61 to 80	7	11			
<i>Firm age</i>			<i>Family ownership of the firm</i>		
0–3 years	0	0	Less than 50%	0	0
4–7 years	32	39	51 to 70%	2	0
8–11 years	122	146	71 to 90%	66	56
11–15 years	13	7	100% ownership	99	136
<i>First-time international operation</i>			<i>Family member in the management position</i>		
Within first year	59	0	Less than 50%	0	0
Within second year	27	0	51 to 70%	88	71
Within third year	81	0	71 to 90%	63	98
Within four years	0	0	100% run by family members	16	23
Within five years	0	0			
Within five to seven years	0	12	<i>Yearly sales revenue (in USD)</i>		
Within eight to ten years	0	113	Less than 100,000	0	0
After ten years	0	67	100,000–300,000	0	0
			300,000–500,000	86	117
			500,000–700,000	21	9
			700,000–900,000	34	26
			More than 1 Million	26	40

Source(s): Table created by authors'

Table A3.
Sample characteristics

392

IEO	IMO	IM	ILO	ICNO	InCNO	Number of firms	International performance	Consistency
1	0	0	0	1	1	4	1	0.955
1	0	1	0	0	1	3	1	0.918
1	1	1	0	0	1	11	1	0.916
0	0	1	0	0	1	4	1	0.867
0	1	0	0	0	0	7	1	0.841
1	0	1	0	0	1	12	1	0.806
1	0	1	0	0	1	18	1	0.722
1	1	1	1	0	0	3	1	0.723
1	0	1	0	0	1	19	1	0.717
1	0	1	0	0	0	11	1	0.645
0	1	0	0	0	0	5	1	0.617
0	0	0	0	1	0	9	1	0.533
1	0	1	0	0	1	21	1	0.518
0	0	0	1	0	0	4	1	0.511
1	0	0	0	1	0	8	1	0.503
0	0	1	1	0	1	4	1	0.465
0	1	1	0	0	0	3	1	0.461
1	0	0	1	0	0	6	0	0.399
1	0	0	0	0	1	4	0	0.359
1	0	0	0	1	0	1	0	0.307
1	0	0	0	1	1	5	0	0.279
1	0	1	0	1	1	1	0	0.235
0	0	0	1	0	0	1	0	0.214
1	0	0	1	1	1	2	0	0.211
0	1	1	1	1	0	1	0	0.207

Table A4. Truth table algorithm of BGFFs
Note(s): Calibration threshold: 5% for non-membership – 50% for cross-over anchors – 95% for full membership
Source(s): Table created by authors’

IEO	IMO	IM	ILO	ICNO	InCNO	Number of firms	International performance	Consistency
0	1	1	1	0	0	2	1	0.962
1	0	0	0	1	0	5	1	0.941
0	1	0	1	1	1	11	1	0.936
1	1	1	1	0	1	6	1	0.922
0	1	0	0	1	1	15	1	0.906
0	1	1	1	0	1	4	1	0.895
0	1	0	1	1	0	18	1	0.851
1	1	1	0	0	0	7	1	0.848
1	1	0	0	0	0	8	1	0.831
0	1	0	1	1	1	31	1	0.829
0	1	0	1	1	1	23	1	0.753
0	0	1	0	0	0	5	1	0.748
1	0	1	1	0	1	1	1	0.653
0	0	0	0	0	0	7	1	0.609
0	0	0	1	0	1	3	1	0.587
1	1	0	1	1	0	6	1	0.534
0	1	1	0	0	0	8	0	0.479
0	0	0	0	1	1	1	0	0.409
0	1	0	0	1	1	8	0	0.401
0	1	1	0	0	0	3	0	0.344
1	1	0	1	0	1	5	0	0.327
0	1	0	0	1	0	1	0	0.319
0	1	0	1	1	1	7	0	0.254
1	0	0	1	0	0	2	0	0.214
1	0	1	0	0	0	5	0	0.211

Note(s): Calibration threshold: 5% for non-membership – 50% for cross-over anchors – 95% for full membership

Source(s): Table created by authors'

Table A5.
Truth table algorithm
of n-BGFFs

Corresponding author

Md Imtiaz Mostafiz can be contacted at: mim16@leicester.ac.uk

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com