Born global phenomenon: a critical review and avenues for future research

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Abstract: The phenomenon of born global has received significant attention by international business scholars because of its distinctive characteristics. Several theories, perspectives and frameworks have been adapted to investigate and scrutinise the characteristics of born global phenomenon. This study aims to review and critically evaluate the literature to (1) discuss the diverse theoretical approaches, (2) discuss the findings from qualitative and quantitative studies, (3) develop a holistic framework and (4) propose avenues for future research. The in-depth critical literature review includes the analysis of 230 articles published in peer-reviewed journals over a 24-year time-span between 1993 and 2017. The result shows that the interest in born global research has increased gradually. Both theoretical and empirical scholarships have contributed significantly to this interest. Based on the results, a theoretical model has been developed to describe the unrivalled factors to achieve BGF’s success. This study also provides deeper insights into the born global knowledge and highlights the areas for future research.

Keywords: born global firms; International New Ventures; early internationalising firms; born global characteristics.
1 Introduction

The concept of born global firms (BGFs) was introduced by Alahuhta (1990) as International New Ventures (INVs) through a case study on Logitech, a Swiss company. Michael Rennie introduced the term ‘born global’ and its concept in an article published in McKinsey Quarterly in 1993. Evidence of rapid internationalisation behaviour has been seen from Swedish firms entering into Japan (Hedlund and Kverneland, 1985). Ganitsky (1989) has introduced the term ‘innate exporter’ to explain the nature of firms that initiate export to foreign markets from inception. McDougall (1989) has added insights into early internationalisation by comparing INVs and domestic new ventures by highlighting aggressive nature of entrepreneurs’ internationalisation orientation. According to Bell et al. (2001), these firms are “well established in their domestic markets, with apparently no great motivation to internationalise, but which have suddenly embraced rapid and dedicated internationalisation” (2001, p.173).

The definition of the term BG (Born Global) has been debated since the beginning. The researchers seem to agree with the idea that BGFs must start exporting from their inception. However, the point of debate is in the finer details. For example, Rennie (1993) has argued that BGFs must be exporting within two years of inception to at least one country and the revenue generated must be at least 75% of total revenue; McDougall et al. (1994) have defined BGFs as organisations that seek to derive significant competitive advantage from the use of resources and sale of their goods in multiple countries from inception; Knight and Cavusgil (2004) define BGFs as organisations with 25% of the total revenue from foreign sales; Andersson and Victor (2003) have suggested that BGFs start their operations by “exporting to international market by entering one or several countries within two to three years of their establishment and tend to export at least a quarter of total sales” (p.250); Melén and Nordman (2009) have defined BGFs as organisations that discover and exploit the opportunity in more than one country from their inception; Tanev (2012) has stated that “a true born-global firm is a
Born global phenomenon

new venture that acts to satisfy a global niche from day one” (p.5); Danik and Kowalik (2013) indicate BGFs as “the enterprises, mostly small and medium ones, which start being active internationally from inception and later instantly seek to derive significant competitive advantage from the export to multiple countries” (p.10); Cavusgil and Knight (2015) have reiterated their definition of BGFs 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). The authors have emphasised on rapid and early internationalisation with three important characteristics: “(1) young firm, (2) the firm as the unit of analysis and (3) pursuing internationalization through exporting” (2015, p.4). In this research, we subscribe to the definition put forth by Taney (2012), because the definition of BGFs by Taney is in agreement with the entrepreneurship literature and is consistent with the definition proposed by Moen et al. (2008).

At this point, it is useful to note that we do not include micro-multinationals in the scope of BGFs. Dimitratos et al. (2003, p.165) define micro-multinationals as a “small and medium-sized firm that controls and manages value-added activities through constellation and investment modes in more than one country.” These are small entrepreneurial firms and enter international market through advanced (non-exporting) mode of entry to exploit international opportunities, such as sophisticated international customer service (Prashantham, 2011). However, BGFs tend to continue their operations through exporting (Coviello, 2015). Previous studies examine firms that tend to adapt multiple modes of entries into the international market (see Melén and Nordman, 2009; Hashai, 2011; Pellegrino and McNaughton, 2015). Besides, Zander et al. (2015) explicitly mention that BG firms should follow exporting as an entry mode to the international market and continue rather engaging themselves in foreign investment as merger or acquisitions. Hence, we drop the concept of micro-multinationals from BGF’s scope.

According to Danik and Kowalik (2013), the influx of BGFs in large numbers is a key development in many countries, and more research is needed to understand their strategies and reasons for their international success. Knight and Liesch (2016) have reported that BGFs continue to emerge in sizable numbers. More than 20 years of research on BGFs have led the researchers to understand the premise of the establishment of BGFs, their market strategies, success factors (Holtbrugge and Wessely, 2009) and potential barriers to development (Cavusgil and Knight, 2015). The studies have been conducted in different countries, in different contexts, in different industries and using different theories. Knight and Liesch (2016) while analysing the evolution of internationalisation of firms from incremental to born global format have stated as follows: “Future research should aim to deepen knowledge on early and rapid adopters of internationalization, which represent a widespread, ongoing trend” (p.100). The current research attempts to answer the calls by Knight and Liesch (2016) and Danik and Kowalik (2013). We have deviated from the research by Knight and Liesch in the following ways: (1) focusing only on papers related to BG phenomenon between the years 1993 and 2017 and (2) performing an analysis to provide information on different characteristics of the studies.

The contributions of this research are twofold. First, between 1993 (Rennie (1993) introduced the term born global) and 2017, 230 articles have been published related to BGFs in many established journals. This research traces the evolution of BGFs and summarises the important characteristics of BGFs that have been identified over the years, different theoretical underpinnings to explain the performance of BGFs and salient
findings of research related to BGFs. Second, this research indicates new avenues of research to study and analyse BGFs. This study has deviated from the study of Øyna and Alon (2018) and Dzikowski (2018). We have identified the success factors and capabilities that BG firms should develop to achieve superior and sustainable international performance. In fact Dzikowski (2018) has only conducted a bibliometric analysis, which lacks theoretical scholarships to the BG research. In summary, the critical analysis of articles can provide insights into theoretical, practical and methodological contributions made in the process of studying BG phenomenon, the industry-wide and country-wise distributions, predicted variables, research outcome and future research avenues.

2 Methods

2.1 Article selection

In order to provide a comprehensive overview of published articles from exploratory to explanatory on the phenomenon of BG, we followed the guidelines suggested Coviello and Jones (2004) and De Clercq et al. (2012) and reviewed all the journals listed under SSCI, ABDC, ERA, ABS, Scopus and ABI/Inform databases. This study did not include working papers, conference papers and book chapters which lead to less validated knowledge that is arguably (Podsakoff et al., 2005; Jones et al., 2011).

The selection procedure adapted in this research for searching articles was comprehensive and systematic. Two researchers were involved in searching the articles and codifying them. A third researcher (an expert) reviewed the selection and the codification process. This study conducted the search for articles published between the years 1993 and 2017 by using keywords such as: born global(s), early internationalisation, rapid internationalisation, international new venture(s)/firm(s), export-oriented firm(s) and international young venture(s)/firm(s). This search procedure led us to identify 566 articles. The review process filtered out 341 articles because these articles included working papers, conference papers, book chapters and few papers that were not written in English. Of these 230 articles, 86 used quantitative approach, 88 used qualitative approach, 15 used mixed approach and 41 were conceptual articles. Figure 1 gives the flowchart of the selection process.

2.2 Journal analytics

Articles pertaining to BG phenomenon and firms have been published in more than 30 different journal titles. Table 1 gives information on the number of articles published in different journal titles. The distribution of articles in different categories of journal titles is as follows: (1) entrepreneurship and small business – 56 articles, (2) international/world business – 74 articles and (3) other management areas such as marketing, innovation, strategic management and general management – 97 articles. Among the journals, Journal of International Entrepreneurship (JIE) (34 articles – 15%), Journal of World Business (JWB) (26 articles – 11%), Journal of International Business Studies (JIBS) (23 articles – 10%), International Business Review (IBR) (24 studies – 10%) and Management International Review (MIR) (16 articles – 7%) were the top five journal titles that published research papers related to BGFs.
**Born global phenomenon**

**Figure 1** Flowchart of the literature selection process

Using the SSCI, ABDC, ABS and ABI/Inform database journal, the list of BGF papers in this search has identified 21,000 papers.

Using the keywords born global(s), early internationalise firm(s), international new venture(s)/firm(s) and international young venture(s)/firm(s), this study has identified 566 journal articles

After reviewing abstract and research context section of the article, this study has identified 230 journal articles where the BGFs are selected for their primary investigation

Quantitative papers: 86 papers
Qualitative papers: 88 papers
Mixed method: 15 papers
Conceptual papers: 41 papers

A* ranked paper: 41 papers
A ranked paper: 108 papers
B ranked paper: 10 papers
C ranked paper: 6 papers
Others: 64 papers

It is interesting to note that different journals focused on different areas related to BGFs. For example, *JIE* published papers related to the roles of network, social network and social capital (Johnson, 2004; Coviello and Cox, 2006; Han, 2006; Dib et al., 2010; Kiss and Danis, 2010; Naude and Rossouw, 2010; Lin et al., 2016); *JWB* mostly covered papers related to organisational-level capabilities (Weerawardena et al., 2007; Jantunen et al., 2008; Prange and Verdier, 2011), dynamic capability and network theory (Gracia-Canal et al., 2002; Gleason and Wiggenhorn, 2007; Loane et al., 2007; Styles and Genua, 2008; Manolova et al., 2010; Musteen et al., 2010; Smith and Ryan, 2012; Gerschewski et al., 2015); *JIBS* mainly focused on multidisciplinary context of BGFs research such as organisational-level capability (Knight and Cavusgil, 2004; Knight and Kim, 2009; Lu et al., 2010; Prashantham and Floyd, 2012; Cavusgil and Knight, 2015), social capital and role of networking (Coviello, 2006; Zhou et al., 2007; Ellis, 2011) and
international opportunities (Mathew and Zander, 2007; Zhou et al., 2010; Zander et al., 2015); IBR papers focused on the role of knowledge, innovation and technology (Yli-Renko et al., 2002; Sharma and Blomstermo 2003; Presutti et al., 2007; Freeman et al., 2010; Coviello, 2015); and MIR covered research related to innovation and technology (Oesterle, 1997; Knight and Cavusgil, 2005; Almor et al., 2014; Øyna et al., 2018), psychic distance (Trudgen and Freeman, 2014; Pellegrino and McNaughton, 2015) and opportunity (Ibeh, 2005; Johanson and Vahlne, 2006; Nummela et al., 2014).


Table 1 Overview of articles by journal

<table>
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<th>Research articles</th>
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<tr>
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### Born global phenomenon

#### Table 1  Overview of articles by journal (continued)

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<tr>
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<td>28</td>
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<tr>
<td>Total</td>
<td>41</td>
<td>189</td>
<td>230</td>
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#### Figure 2  Publishing distribution trend of articles (1993–2017)
An analysis of the location of the study indicates that the majority (more than 90%) of papers have come from the USA, Europe, Australia, New Zealand and China. Many of the developing countries from Asia, Africa and South America are lagging far behind in the BG research. These countries have a strong potential to advance the research on BG phenomenon. In order to build a comprehensive knowledge of BG phenomenon, it is essential that researchers from developing countries contribute significantly in the coming years. The next section captures the diverse theoretical approaches that have been used in BG research.

3 Diverse theoretical approaches in BG research

To date, 37 theories/perspectives have been used by researchers to explain different aspects of BG phenomenon. The top five theories/perspectives and the number of articles published under each are: (1) International new venture perspective – 59 articles, (2) Network theory – 42 articles, (3) International stage theory – 39 articles, (4) Resource-based view (RBV) – 34 articles and (5) International entrepreneurship perspective – 29 articles. Figure 3 represents the theoretical distribution of BGF’s studies.

Figure 3  Theoretical distribution that study born global phenomenon
Born global phenomenon

An analysis of literature reveals that internationalisation theories are the most popular to explain the BG phenomenon. Besides internationalisation theories, other theories received attention from BG scholars. The network theory has been used to support rapid internationalisation and explain BG alliances (Franco and Haase, 2016), relationships and new market entry (Coviello and Munro, 1995, 1997; Welch et al., 1998; Gracia-Canal et al., 2002; Chetty and Campbell-Hunt, 2003; Sharma and Blomstermo, 2003; Aspelund et al. 2007; Gassmann and Keupp, 2007; Mathews and Zander, 2007; Mudambi and Zahra, 2007; Zhou et al. 2007) and networking capability (Mort and Weerawardena, 2006; Baum et al., 2013). According to the researchers, the network relationships and networking capability reduce the liability of newness by improvising the collaborative engagement to achieve competitive advantage (Freeman et al., 2006; Gleason and Wiggenshorn, 2007). The findings show that the individual-level capability theories and perspectives such as international entrepreneurial capability, dynamic managerial capability, social and human capital, international entrepreneurial orientation and perspectives get moderate attention in BG research (Yli-Renko et al., 2001; Dimitratos and Plakoyiannaki, 2003; Coviello and Cox, 2006; Chetty and Agndal, 2007; Andersson, 2011; Fillis and Lee, 2011; Onkelinx et al., 2012; Seghers et al., 2012; Gabrielson et al., 2014; Grichnik et al., 2014; Martin and Javalgi, 2016; Torres-Ortega et al., 2015).

Firm-level capability, resources and related perspectives get the most attention to explain BG phenomenon due to the unique characteristics of BGFs (Knight and Cavusgil, 2004; Knight et al., 2000). The most prominent theory of management for explaining capabilities and resources is the resource-based view (RBV) (Barney, 1991). Besides RBV, other theories of strategic management such as knowledge-based view (KBV) (Yli-Renko et al., 2002; Loane and Bell, 2006; Tuppura et al., 2008; Mostafiz et al., 2019c), dynamic capability theory (Jantunen et al., 2005; Weerawardena et al., 2007; Prange and Verdier, 2011; Prashantham and Young, 2011; Evers et al., 2012; Rodriguez-Serrano and Martin-Armario, 2017), organisational learning theory (Gabrielson et al, 2008a, 2008b; Jantunen et al., 2008; Michailova and Wilson, 2008; Schwens and Kabst, 2009; Fernhaber and Li, 2010), organisational capability (Efrat and Shoham, 2012) and innovation theory (Oesterle, 1997; Laanti et al., 2007; Pla-Barber and Puig, 2009; Martin et al., 2017) have been used by researchers to examine the process, performance and growth of BGFs.

An interesting perspective at the firm level that has gained popularity is international entrepreneurial capability (IEC) to explain the capability of entrepreneurial firms (Zhang et al., 2009). Zhang et al. (2009) define IECs as the “ability to leverage resource via a combination of innovative, proactive, and risk-seeking activities to discover, enact, evaluate, and exploit business opportunities across borders” (p.296). This perspective also compliments international orientation of BGFs entrepreneurs. Researchers contribute to parsimonious knowledge on IE capability by combining the following dimensions: (1) international marketing capability, (2) international networking capability, (3) innovation and risk talking capability, (4) international learning and (5) international experience (Zhang et al., 2009). Although the perspective of IECs and its dimensions have been identified differently but the effects of these dimensions are related. The perspectives that possibly explain IEC are (1) entrepreneurial orientation, (2) opportunity and (3) process of enactment and discovery. While the perspective of INVs explains the internationalisation process, IECs explain the performance of BGFs. Direct association of IEC and international performance of BGFs has been explained by Roudini and Osman (2012). Other researchers who have contributed to explaining IECs are: (1) Neubert
M.I. Mostafiz, M. Sambasivan and S-K. Goh

(2016) has explained degree of internationalisation; (2) Varma (2013) has employed IECs as the driver of BGFs; and (3) Khurram et al. (2014) have explained how IEC propel entrepreneurs to achieve sustainable competitive advantage. Opportunity view is another key concept used by BG researchers to explain recognition and creation of opportunities in the international market by entrepreneurs. To achieve competitive advantage, entrepreneurs are often keen to discover, identify and exploit significant opportunities in global markets (Zahra et al., 2005; Mathews and Zander, 2007; Di Gregorio et al., 2008). These international opportunities not only enable firms to achieve sustainable competitive advantage but also enable them to combine resources and capabilities in an innovative way (Di Gregorio et al., 2008; Kundu and Katz, 2003). While the causation-oriented entrepreneurs are more keen to identify new opportunities, the effectuation-oriented entrepreneurs are more keen to create new opportunities at early internationalisation stage (Harms and Schiele, 2012). Evidence shows that causation and effectuation can operate together in BGFs, but their salience varies based on the characteristics of entrepreneurs and market uncertainties (Nummela et al., 2014). Mort et al. (2012) highlights the role of effectuation logic to achieve successful internationalisation and BGFs performance.

In recent years, other theories and perspectives such as transaction cost economics (Schwenks and Kabst, 2009), productivity theory (Cassimian and Golovko, 2011), positional advantage perspective (Martin et al., 2017), entrepreneurial cognition perspective (Acedo and Jones, 2007), institutional theory (Kiss and Danis, 2008, 2010; Ganvir and Dwivedi, 2017) and industrial economics perspective (Fernhaber et al., 2007) have been used to investigate BG phenomenon and give insights into BGFs’ processes, performance and growth. In summary, the use of diverse theories has made research on BGFs wealthy. The theories have enabled the researchers and practitioners to understand the BG phenomenon from different perspectives through qualitative and quantitative studies. The next section is devoted to analysing the qualitative and quantitative research related to BGFs.

4 Scholarship related to BG firms

In the last three decades, a wide variety of studies have been conducted on BGFs to investigate its distinctive characteristics and related phenomenon, and to address different research objectives. In the beginning, most of the researchers focused on exploratory study through qualitative method (e.g., Cavusgil, 1984; McAuley, 1999; Mort and Weerawardena, 2006; and Rennie, 1993). Findings show that most of the studies on BGFs have been conducted in advanced economies such as the USA, Australia, New Zealand and Europe. The top five countries are (1) the USA – 27 studies, (2) Finland – 24 studies, (3) Australia and New Zealand – 16 studies each, (4) China – 15 studies and (5) Sweden – 10 studies. Hence, there is a bias in the development of BGFs research from contextual perspectives.

Salient features related to BG scholarship are: (1) BG scholars have predominantly used case studies and cross-sectional studies. Among the testing tools, regression-based approaches have been utilised; (2) Sample sizes play an important role in empirical research. Typical sample sizes used by researchers are: (i) less than 100 – 16 studies, (ii) between 100 and 200 – 31 studies, (iii) between 200 and 300 – 25 studies and (iv) more than 300 – 23 studies; (3) Studies on BGFs have been carried out in different
industries. Many studies have sampled more than one industry. The top five industries are (i) high-tech industry – 40 studies, (ii) software and ICT industry – 41 studies, (iii) low-tech industry – 16 studies, (iv) manufacturing industry – 14 studies and (v) textile and apparel industry – 10 studies. It is evident that most of the studies related to BGFs have revolved around the high and low technology-based industries (Efrat and Shoham, 2011). What are the critical lessons learnt from BG research? The learnings can be grouped into three categories: (1) BG characteristics, (2) internationalisation process and (3) performance indicators. The following sections explain each of these categories.

BGFs are generally characterised based on proclivity, intensity and scope. These accelerated internationalisation behaviours of BGFs can be achieved through social network relationship, collaborative partnership, knowledge transfer, entrepreneurial orientation, market knowledge, technological and R&D advancement and human capital (Nummela et al., 2004; Freeman et al., 2006; Loane and Bell, 2006; Loane et al., 2007; Mathews and Zander, 2007; Weerawardena et al., 2007; Almor, 2013). BGFs’ commitment to achieving accelerated internationalisation can be generated from unique and valuable resources (Freeman and Cavusgil, 2007). Innovation and specialised knowledge also facilitate BGFs to achieve the unique characteristics of rapid internationalisation behaviour (Gassmann and Keupp, 2007). Early internationalisation of BGFs is also driven by entrepreneurs’ risk-taking attitude, technological expertise, experimental learning, absorptive capability and cognitive global mindset (De Clercq et al., 2012; Li et al., 2012). Accordingly, these unique and rapid internationalisation characteristics of BGFs stimulate the internationalisation process of these firms.

Conventional internationalisation process theory explains the incremental and gradual process of internationalisation (Johanson and Vahlne, 2009). In BG phenomenon, the internationalisation process is rapid to accelerate the growth of the firm. Sustainable competitive and positional advantages in the international process can be achieved through globalisation (Blesa et al., 2008). Hashai and Almor (2004) argue that “born global firms may be characterised by gradually increased commitment to foreign markets, albeit not necessarily according to the predictions of the classic stages theory” (p.465). Environmental dynamics, psychic distance, institutional pressure, market orientation, industry cluster, government export promotion policies, cultural diversity, merger and acquisition, niche market strategy, opportunity development, value chain activity, assets orchestration and assembling, and product portfolio are the factors that have significant impact on internationalisation process of BGFs (Crick and Jones, 2000; Andersson and Wictor, 2003; Andersson, 2004, 2011; Fernhaber et al., 2008; Dib et al., 2010; De Clercq et al., 2012; Harms and Schiele, 2012; Hewerdine and Welch, 2012; Franco and Haase, 2016; Mostafiz and Goh, 2018; Mostafiz et al., 2019c, 2019d). Language efficiency and cognitive mind-set of international entrepreneurs’ also provide an edge in the early internationalisation process of BGFs (Acedo and Jones, 2007; Fillis and Lee, 2011).

International entrepreneurs operating in BGFs are not just global but they also run the firms (Hagen et al., 2012). International entrepreneurs have higher degree of openness, increased precocity, which helps firms to focus on niche positioning. International experiences are the key driver to nurture precocity and firm’s growth (Zucchella et al., 2007). To satisfy the global market (niche), BGFs adeptly identify new opportunities, which are complemented by persistency, agility and the ability to manage diversified business activities to achieve performance (Liesch et al., 2007). Measuring the performance of big firms can be done with objective indicators. Due to unavailability of
audited financial information of SMEs and the reluctant nature of entrepreneurs to share financial information (Gerschewski et al., 2015) (except few firms which are traded on bourses such as NASDAQ), researchers are constrained to use subjective measures to capture international performance (Hult et al., 2008). The performance indicators of international performance of BGFs are multidimensional. Based on the guidelines by Venkatraman and Ramanujam (1986) and Matthyssens and Pauwels (1996), Hult et al. (2008) provide three indicators to measure performance in international business research: financial, operational and perceived success. International performance can also be measured based on effectiveness, efficiency and adaptability (Walker Jr and Ruekert, 1987). Accordingly, Cavusgil and Zou (1994), Gerschewski et al. (2015) and Thirkell and Dau (1998) have suggested investigating the international performance of first five years of these firms because these are most crucial years that BGFs have to go through. In addition, the investigation of international performance of BGFs must be carried out at a firm level rather than at a venture level. Previous studies like Cavusgil and Zou (1994) and Knight and Cavusgil (2005) focus on venture-level analysis. Styles and Ambler (1994) have argued that the SMEs often do not have adequate ability to isolate the whole export performance of the country. However, according to Jantunen et al. (2008), it is suggested that analysis of BGFs’ international performance is more logical at the unit level rather than at a venture level. After assimilating the findings of literature review, this study postulates that four key critical capabilities drive the performance of BGFs: organisational learning, networking, marketing, and R&D and innovation to manifest strategic outcomes, such as unique products, quality focus, global technological competencies and leveraging of foreign distributor competencies. Figure 4 highlights the holistic model for successful BGFs and Table 2 provides a summary of the learnings which contribute to these strategic outcomes in achieving BGFs’ performance. Other capabilities, such as adaptive, absorptive, dynamic and individual-level managerial capabilities can also play a significant role in achieving BGFs’ performance (Knight and Liesch, 2016).

**Figure 4  Holistic model for BG firm’s success**
## Born global phenomenon

Table 2  
Summary of BG research

<table>
<thead>
<tr>
<th>Thematic area</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique products development</td>
<td>Almor et al. (2014); Baum et al. (2011); Bell et al. (2001); Bloodgood et al. (1996); Cassiman and Golovko (2011); Cavusgil and Knight (2015); Coviello and Munro (1997); Dlugoborskyte and Petraiaki (2017); Evers (2010); Evers et al. (2012); Gabrielsson et al. (2008a); Gabrielsson et al. (2006); Gassmann and Keupp (2007); Knight and Cavusgil (2004); Knight and Kim (2009); Kocak and Abimbola (2009); Kraus et al. (2016); Kropp et al. (2006); Lin et al. (2016); Loane and Bell (2006); Loane et al. (2007); McAuley (1999); McDougall et al. (2003); Mort and Weerawardena (2006); Naudé and Rossouw (2010); Neubert (2016); Odorici and Presutti (2013); Oviatt and McDougall (1995); Pellegrino and McNaughton (2017); Shrader et al. (2000); Styles and Genua (2008); Zhang et al. (2009); Zhou et al. (2007)</td>
</tr>
<tr>
<td>Quality focus</td>
<td>Bell et al. (2001); Bloodgood et al. (1996); Cassiman and Golovko (2011); Coviello and Cox (2006); Di Gregorio et al. (2008); Evangelista (2005); Evers (2010); Fan and Phan (2007); Franco and Haase (2016); Gabrielsson et al. (2006); Gerschewski et al. (2015); Ibeh (2005); Janjua-Jivraj et al. (2012); Knight and Cavusgil (2004); Knight et al. (2004); Luostarinen and Gabrielsson (2006); Malhotra and Hinings (2010); Moen et al. (2003); Neubert (2016); Pellegrino and McNaughton (2017); Zahra et al. (2003)</td>
</tr>
<tr>
<td>Global technological competencies or technological capability</td>
<td>Almor et al. (2014); Bell et al. (2001); Boter and Holmquist (1996); Cavusgil and Knight (2015); Dlugoborskyte and Petraiaki (2017); Efrat and Shoham (2011), (2012); Evers (2010); Fan and Phan (2007); Fernhaber et al. (2008); Freeman et al. (2010); Hewerdine and Welch (2013); Johnson (2004); Keeble et al. (1998); Knight (2001); Knight and Cavusgil (2004), (2005); Kuivalainen et al. (2007); Li et al. (2012); Liu (2017); Loane et al. (2007); Madsen and Servais (1997); Mudambi and Zahra (2007); Melén and Nordman (2009); Odorici and Presutti (2013); Oesterle (1997); Oviatt and McDougall (2005); Oviatt and McDougall (1995); Spence et al. (2011); Styles and Genua (2008); Weerawardena et al. (2007); Yamakawa et al. (2008); Yu et al. (2011); Zahra and Bogner (2000); Zahra et al. (2003); Zou and Ghauri (2010)</td>
</tr>
</tbody>
</table>
Table 2 Summary of BG research (continued)

<table>
<thead>
<tr>
<th>Thematic area</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leveraging of foreign distributor competencies or marketing capability</td>
<td>Andersson and Berggren (2016); Andersson and Evangelista (2006); Bell et al. (2001); Blesa et al. (2008); Cabrol and Nlemvo (2009); Cavusgil and Knight (2015); Di Gregorio et al. (2008); Efrat and Shoham (2011), (2012); Efrat et al. (2017); Evangelista (2005); Evers (2010); Evers and Knight (2008); Evers et al. (2012); Gabrielsson and Gabrielsson (2011); Gabrielsson et al. (2008b); Gabrielsson and Gabrielsson (2003); Gabrielsson (2005); Gerschewski et al. (2015); Hennart (2014); Knight and Cavusgil (2004); Knight and Kim (2009); Knight et al. (2004); Kocak and Abimbola (2009); Kropp et al. (2006); Kuivalainen et al. (2007); Lee et al. (2016); Li et al. (2012); Loane and Bell (2006); Loane et al. (2007); Luo et al. (2005); Madsen and Servais (1997); Martin and Javalgi (2016); McDougall et al. (2003); Ripollés and Blesa (2012); Rodriguez-Serrano and Martin-Armar (2017); Weerawardena et al. (2007); Yang and Gabrielsson (2017).</td>
</tr>
</tbody>
</table>

5 Critical capabilities of BG firms

5.1 Organisational learning

Organisational learning theory suggests that the firms accumulate and develop new knowledge in a more profound way under the conditions of limited or no organisational routine to unlearn (Knight and Cavusgil, 2004). On the one hand, firms should retain successful practices within; on the other hand, learning capability can only benefit firms when they rectify existing organisational routines and introduce new practices based on new knowledge. BG firms can develop organisational learning capability to create and process new knowledge and use them for strategic decision making to achieve competitive advantage (Weerawardena et al., 2007). The competitive advantage is achieved by practicing higher degree of internationalisation process facilitated by organisational learning capability. The learning is derived from multiple sources, such as suppliers, competitors, customers and other formal and informal institutions. The primary objective of organisational learning is to deliver an enriched knowledge-base to the firms to achieve the holistic outcomes such as market learning, social learning and technological learning. BG firms tend to operate in a limited resources setting (Knight and Liesch, 2016). Therefore, organisational learning capability is crucial to identify the right kinds of opportunities. Market learning and social learning complement each other. New market entry, identifying new partners, adapting new products, penetrating foreign market through minimising the risk enable firms to new learning and affirm successful performance outcomes. Our analysis reveals that majority of BG firms are operating in a hi-tech context. However, the importance of technological learning is not limited to hi-tech firms. Low-tech industry such as apparel also could be benefited from technological advancement. Market learning, social learning and technological learning are ways to innovate which reflects the level of knowledge embedded in the firm (Rialp et al., 2010).
5.2 Networking capability

Networking gets the utmost attention in BG research. Two perspectives of networking complement the success of BG firms, social networking and alliance networking. Social networking of an actor is mainly influenced by social capital perspective (Nahapiet and Ghoshal, 1998) and the alliance networking is influenced by the firm-level network by the theorisation of social networks (Coviello and Munro, 1995; Johanson and Mattsson 2015) in BG research. The purpose of social networking is to provide an indispensable advantage to achieve firms’ growth. Firms deploy resources to develop its social network to identify new opportunities in distribution channels, sources of raw materials and gain access to foreign markets (Ellis, 2011). Liesch et al. (2007) have highlighted that the network relationship is an integral part of Australian BG firms to become successful in the internationalisation process and further success. Coviello (2015) has mentioned that BG firms should stick to exporting while operating in the international market. Previous studies have showed evidence that BG firms are engaged in strategic alliances (Melén and Nordman, 2009; Hashai, 2011; Pellegrino and McNaughton, 2015). Coviello (2015) argues that these firms are more like to INVs rather than true BG firms.

Dealing with information asymmetry, knowledge spill over and geographical distance increase the importance of international network relationships. Continuous development in ascertaining the networking capability to create relationships with, such as foreign distributor might mitigate these problems. Incentive design, effective monitoring of networks and the establishment of relational norms as a form of formal and informal governance also reduce the risk associated with performance growth of BG firms (Freeman et al., 2006). Likewise, Oviatt and McDougall (1994) proffer that strategic alliances and partnership in the foreign market provide an edge to INVs, which lead them to use “close network alliances in multiple countries to achieve competitive advantage” (p.60). BG firms is also benefit from the partnership with similar firms and engage themselves with large supplier firms through strategic alliances. However, according to Coviello (2015), then these firms will not be recognised as BG firms but INVs. Zander et al. (2015) also support the ideology of Coviello (2015) and highlight the differences between INVs and BG firms; where INVs have multiple choices of entry modes such as agent and alliances partners, merger and wholly owned subsidiary. However, BG firms dominantly follow exporting as first and consecutive market entry. Thus, strong network relationships as building a tie, trust and solidarity with buyers, suppliers and other formal and informal potential stakeholders help firm to achieve ease in international operation and ensure performance success.

5.3 Marketing capability

BG firms must develop superior marketing capability to position the firm rapidly in the international market. Firms will achieve astounding performance outcome if they continuously develop their marketing capability to gain access into the niche market, strongly create international footprints and achieve global outreach (Weerawardena et al., 2007). Marketing capability in BG research is mostly influenced by the work of Day (1994). It is a collective and integrative process to fulfil the needs of the customers by practicing maximum efficiency in knowledge accumulation, improve the competencies to translate information and the optimal allocation and deployment of resources to execute marketing strategies. In the planning process, BG firms must guarantee five fundamental
tasks – set marketing goals, plan an execution strategy, bring creativity and innovation in the implementation strategy, determine the segmentation and formulate effective initiation process; and in the second stage of marketing process, firms must focus on the implementation mechanism such as effective allocation of capital and human resources, translation of plan into action and maintenance of optimal timing to execute strategies and get the plan to succeed (Morgan and Hunt, 1994; Vorhies and Morgan, 2005). Madsen and Servais (1997) have mentioned that prior experience of firms is a critical antecedent to marketing capability in order to position the product in the international market. In doing so, BG firms will be benefited from the advantages of multiple strategic actions, such as meeting the needs of niche market, improving the communication between firms and the clients, choosing viable distribution channels and pricing the product based on the appropriateness of the market (Cavusgil and Zou, 1994). Authors also mention that effective marketing capability enhances the proximity of the firms to their customer and deliberately forces firms to embrace customisations. Previous study argues that the success of BG firms is highly relied on continuous nurturing of dynamic marketing capability to meet radical environmental changes, achieve rapid access and penetrate multiple international markets (Weerawardena et al., 2007). To nurture the marketing capability, BG firms should focus on continuous knowledge acquisition, advance the learning process and repeatedly practice innovation to respond to dynamic marketing problems (Day, 1994). Hence, depending on the potential stakeholders, firms should revise the strategies to develop its marketing capability to respond to the dynamic nature of international markets (Evers et al., 2012).

5.4 R&D and innovation capability

R&D capability and innovation capability are firmly embedded at the core of BG firms. BG firms always seek for accelerated internationalisation (Weerawardena et al., 2007). One of the fundamental characteristics of R&D and innovation capability is to facilitate firms to identify the right market to enter. Besides, affluent R&D and innovation capability increase a firm’s ability to develop new product, explore critical resources, identify technological advancement opportunities, establish new distribution channels, scrutinise competitor’s skills and abilities, and formulate and design new long-term strategies for the firm (Tsai and Eisingerich, 2010). R&D and innovation capability embrace aggregated mechanism where firms accumulate knowledge and resources from around the world to manufacture competitive products to sell in the global marketplace. R&D activities are not always meant to create new knowledge, but assimilate and exploit existing knowledge. Cassiman and Golovko (2011) have found that R&D and innovation capability are directly related to the growth of export volumes. Positive effects of R&D and innovation capability have been documented by Zhao and Li (1997) while investigating Chinese early internationalised firms. The capability not only affects the export growth but also accelerates the export propensity of the firm. Most importantly, the outcomes of R&D and innovation capability are not limited to export growth and propensity, but it increases international co-operation and minimises the entry barriers into the internationalisation market (Wang and Kafouros, 2009).

Innovation is a driving force of the internationalisation of BG firms. Although innovation is contextual, meaning that in hi-tech industry R&D and innovation capability is found to be more significant, whereas, in the intensive manufacturing industry, such as in apparel, the effect is found to be insignificant (Lachenmaier and Wölmann, 2006).
**Born global phenomenon**

However, Faroque et al. (2017) have found a significant effect of innovation on firm performance in the apparel manufacturing industry. Knight and Liesch (2016) have mentioned that spending on R&D and innovation is costly as BG firms tend to face scarcity of resources. Thus, effective bootstrapping of existing resources is crucial to embrace R&D and innovation in BG firms. Ito and Lechevalier (2010) have argued that internationalisation and R&D and innovative capabilities are complementary activities to achieve high sales growth in export manufacturing firms. Likewise, Golovko and Valentini (2011) have postulated that in order to achieve maximum internationalisation, firms must embrace R&D and innovation to complement exportation. Once the BG firms start to practice and deploy resources to develop R&D and innovation capability, then the process will lead to an interaction effect and facilitate firms to achieve sustained differences in performance (Ren et al., 2015). In a nutshell, R&D and innovative capability of BG firms lead them to achieve firm’s innovative performance which can have a distinctive advantage over competitors.

### 6 Directions for future research

More than two decades of investigation have answered many questions related to BG research. In the process, many questions have emerged, and this makes BG phenomenon a fertile area for future research. Some potential areas of future research are:

- As indicated earlier, most of the studies related to BGFs have revolved around the technology-based industries such as high-tech, low-tech, software and ICT. More studies are needed in other industries such as education, agriculture, textiles, mining and healthcare;

- Majority of the research on BG phenomenon has been carried in developed and developing countries. Our analysis lists the top five countries: (1) the USA, (2) Finland, (3) Australia, (4) New Zealand, (5) China and (6) Sweden. There is a strong need to conduct studies in developing countries in Asia (Faroque et al., 2017; Mostafiz et al., 2019c), Africa and South America (Knight and Liesch, 2016), where the emergence of BGFs is increasing year-after-year. It is interesting to compare the BG characteristics and internationalisation process of BGFs in developed and developing countries;

- Extant literature has accumulated significant knowledge in international business research, but the scholarly work on BG phenomenon has not yet attained legitimacy. More work is needed on explanatory models and different theoretical perspectives (Knight and Liesch, 2016). The theories and knowledge of BG research are still underdeveloped and fragmented (Keupp and Gassmann, 2009; De Clercq et al., 2012). Future research can extend existing models and enrich knowledge on how BGFs can achieve unique and valuable internationalisation as young start-ups, attain superior internationalisation performance as well as capture economic value;

- Adoption of rigorous statistical analysis such as structural equation modelling (SEM) (Sharif et al., 2018; Mostafiz et al., 2019) with large sample sizes and complex framework by incorporating potential mediating and moderating variables can provide better explanations and methodological insights in international business field. Earlier studies have predominantly used multiple regression and case study tools, and only 14 studies have used SEM;
Zijdemans and Tanev (2014), based on a review of 32 articles, have argued that “early internationalization of new ventures should be considered as an innovation process in itself and that innovation and internationalization have a positive effect on each other” (p.5). Future research can conduct an extensive analytical study to validate the relationship;

Investigating the process of knowledge sharing, capturing, developing and managing for internationalisation process can provide insights into the role of knowledge management processes in achieving superior business performance. Huang and Hsieh (2013) have argued, using a case study approach, that the transformation process of international knowledge accelerates the internationalisation process. It will be beneficial for researchers and practitioners if a comprehensive research is undertaken to understand the roles of ‘internal’ and ‘external’ knowledge in the rapid internationalisation process of BGFs;

It is important to analyse entrepreneurial marketing practices that are critical for BGFs to ensure rapid internationalisation. Mort et al. (2012) have identified four strategies for entrepreneurial marketing: opportunity creation, customer intimacy-based innovative products, resource enhancement and legitimacy. It is critical to empirically test the impact of these strategies on the performance of BGFs;

International entrepreneurship is always complemented in BG research. Nowadays, financing of international entrepreneurs operating in hi-tech industry are sourced from trade credit, crowdfunding, private equity, microfinance and venture capital. It is happening due to the technological advancement such as artificial intelligence and fintech. A critical research attention is required to answer: to what extent these alternative financing sources are affecting the performance of international entrepreneurs (individual-level and firm-level) and the aftermath effects during the post-internationalisation period related to the payback of loans on firm performance?

According to Cavusgil and Knight (2015), an interesting question to explore is: What happens to BGFs as they grow and mature over time? A related question can be: What happens to BGFs if they are acquired or if they acquire other firms which may or may not be BG?

Two decades ago, the BG phenomenon was new, and researchers had to borrow theories from other established fields such as international business, management and psychology to understand and explain the BG phenomenon. Currently, the emergence of BGFs has become rampant in developing and developed countries. The question that is worth answering at this point, based on the recommendation of Cavusgil and Knight (2015), is: Can a BG theory be developed to explain and analyse the phenomenon? For instance, the practice-based view could be adopted to develop new theory and explain the best practices and contemporary characteristics of BGFs.

Use of causation and effectuation approaches has gained prominence in BG research to explain the emergence and performance of BGFs. According to Paweta (2016), most of the studies have been exploratory. Therefore, there is a need for empirical research to understand the impacts of causation and effectuation approaches on BGFs;
**Born global phenomenon**

- BG firms need to adapt new ways to manage operations and develop skills for knowledge spill over when it comes to the realisation of opportunities. Adapting strategic agility in business operations to deal with radical changes and environmental turmoil may be a new success mechanism (Doz and Kosonen, 2010). Future research should investigate the profile of strategically agile BG firms and how the strategic agility could be improvised by investigating antecedents to it?

- Rocha et al. (2017) have invoked the concept of borderless firms. According to the authors, the characteristics of these firms are: “(i) value-added activities dispersed across different countries and regions; (ii) entrepreneurs not bounded by a home base; (iii) multinational founders and/or management teams; and (iv) a multinational workforce” (p.121). Future research should be able to address the question: Is this a new concept or an extension of BG phenomenon?

- Hewerdine and Welch (2013) have proposed to analyse the inception of BGFs as a process of organisational emergence. They have argued that internationalisation takes place during organisational emergence and, therefore, is integrated. The authors through a case study in Australia have observed long gestational periods in six high-tech firms because of the nature of technological innovation. Future research needs to gather more evidence on organisational emergence and inception and the relevance of ‘punctuated model’ in high-tech and other industries; and

- Odlin and Benson-Rea (2017) have highlighted the role of network and strategic alliances in the process of internationalisation of SMEs in New Zealand. Future research can examine the role of network and strategic alliances in internationalising SMEs in different industries and countries and the performance of strategic alliances between a commercial B2B organisation and BGFs. Future research can also explore the effects of inter-organisational relations as the value creation stimulator in BGFs.

- Continuous development of a variety of capabilities is always complemented in BG literatures. However, future research should consider the investigations of skills, abilities and competencies that required at the employee level who are directly related in the strategic decision making. Specifically, what are the learnings required for mid-level incumbent managers to enable small BG firms in high-tech context to generate maximum revenue through bootstrapping resources in emerging economies?

7 **Conclusion**

Knowledge on international business management and internationalisation of firms are evolving. The emergence of BGFs is not only from developed economies but also from developing and less developed economies. BGFs are often described as distinctive kind of international firm because of its pro-active, innovative and risk-taking characteristics. This in-depth critical literature review of 230 articles, published between the years 1993 and 2017, not only provides comprehensive insights of BG knowledge but also fills the literature gap by: (1) discussing the diverse theoretical approaches, (2) discussing the findings from qualitative and quantitative studies, (3) developing a framework to highlight unrivalled factors (capabilities) to achieve BGF’s success and (4) proposing avenues for future research. Such critical analysis can provide guidance to the
future researchers in international business domain. More scholarly work on BG phenomenon will enrich BG knowledge and add potential deeper insights into international management research.

References


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