

The impact of agility on the market performance of born-global firms: an exploratory study of the 'Tech City' innovation cluster

Abstract

Although there is some recognition that agility is advantageous for a born-global firm, the concept of agility is underexplored in the management and marketing literature. Little is known about the ability of born-globals to become agile and under what conditions agility can lead to better market performance. In this investigation the exploratory qualitative research was conducted using the data of fifteen in-depth interviews with managers and experts in Tech City in London, UK. Firstly, the findings show that creativity and informal planning are the main decision-making drivers of agility in born-global firms. Secondly, the study reveals that agility is more likely to be positively related to international market performance when key decision-makers have certain skills, including knowledge of the market, international experience, learning orientation and ambiguity tolerance.

Key words: Born-globals, agility, creativity, planning, human capital, market performance

1. Introduction

Changes within the global business environment have presented SMEs with more opportunities to access the international marketplace (Gabrielsson et al., 2008; Patel et al., 2014). As a result, companies that operate internationally soon after their inception ('born-globals') are emerging in substantial numbers worldwide. Scholars have provided different definitions of born-globals (BGs) in terms of speed and scope of internationalization; however, the majority agree that BG firms are those that start internationalization within three years of their domestic establishment and derive at least 25% of sales from international markets (e.g. Knight and Cavusgil, 2004; Kuivalainen, Saarenketo and Puumalainen, 2012; Madsen, 2013). Although BG firms have been a focus of attention for about two decades (since the work of Oviatt and McDougall, 1994) there is still a lack of research that examines the drivers of their superior international performance.

Being early adopters of internationalization, BGs face multiple challenges in the international environment (Freeman et al., 2010). To maximize their performance, the decision-making of BG firms has to be aligned with their external conditions. However, to maintain an alignment with today's dynamic global marketplace and not to become a victim of its uncertainty, BGs not only have to respond to environmental changes but also have to be able to proactively drive the external environment, through being agile (Griffith and Hoppner, 2013). 'Agility' has been defined as the ability to detect market opportunities and take advantage of them with speed and surprise (Sambamurthy, Bharadwaj, and Grover, 2003; Cegarra-Navarro, Soto-Acosta, and Wensley, 2016). Most research has focused on the ability of firms to minimize the uncertainties in the external environment rather than on an ability to contribute to market volatility through speedy and surprising market solutions. BGs provide an especially appropriate context for such research, as they operate under challenging conditions – when the environment is highly uncertain, windows of opportunity are short-lived and limited resources are at hand

(Weerawardena et al., 2007). Little is known about the ability of BGs to become agile and under what internal conditions agility can lead to better performance. We respond to this gap in the literature by developing a conceptual framework based on a literature review and an exploratory qualitative study of BG companies in Tech City in London, UK.

The theoretical contributions of this paper are threefold. First, it evaluates the performance drivers of BG firms. Up to now, most research has been devoted to the motivations for early internationalization rather than the reasons for their success. Second, we bring into focus the construct of agility, which requires in-depth understanding, especially in the context of BG firms. Previous research has emphasized the importance of agility to competitive advantage; however, what is still lacking is an understanding of its drivers and the conditions in which agility does indeed improve a firm's performance in international markets. Third, we build on effectuation theory (e.g. Sarasvathy, 2001) by extending it to cover the decision-making of BG firms.

The results of the study are relevant for both managers and policy-makers. From a managerial perspective, the study will help BGs to improve their decision-making processes. From a policy-making perspective, support for BG companies is part of broader government programs to promote SMEs in, among countries, the UK, Finland, and Germany (Mandl and Celikel-Esser, 2012), as such support for BGs can help an economy (as has happened in the UK and the USA).

The paper proceeds by setting out the background to the research, by reviewing the literature on the concept of agility and decision-making approaches. The methodology employed is then described, followed by findings and propositions arising from the study. The paper is concluded with a discussion of the implications and limitations of the study, and avenues for future research.

2. Literature Review

2.1. Agility and market performance

Contradicting the incremental pattern of internationalization, BGs manage to achieve superior market performance despite scarce financial, human and tangible resources (Knight and Cavusgil, 2004). Market performance is often characterized in terms of market share (e.g. market share growth) and sales indicators (e.g. sales volume, sales growth) of a company's products and services (Katsikeas et al., 2016). The markets in which BGs typically operate are considered to be among the most volatile and the firms themselves appear to contribute to this volatility (Oviatt and McDougall, 1994). Although it is acknowledged that BGs are willing to take risks and face uncertainties (Chetty and Campbell-Hunt, 2004), there is still a lack of academic research on their ability to embrace uncertainties, deal with unpredictable changes in foreign markets and gain international market success (Galkina and Chetty, 2015).

Uncertainty is defined as an inability to forecast precisely what the outcomes of a decision will be (Milliken, 1987) due to insufficient information and conflicting signals (Raven, McCullough and Tansuhaj, 1994). Despite the fact that managers emphasize the importance of market analysis and the prediction of environmental changes, the environment remains highly uncertain and even major changes are often not forecast (e.g. the financial crisis of 2008). Moreover, environmental uncertainty is reportedly greater in the international environment due to its instability and the interrelation of markets (Ashill and Jobber, 2014). The international environment favors risk-taking and opportunism, but it also means that the ability to predict what will be the 'best' solution to any particular problem is less than it is in less turbulent environments. In such uncertain conditions, BGs have to understand how to deal better with unpredictability.

Agile firms are argued to be capable of coping with unpredictable changes in the market as they continuously sense market opportunities and act upon them (Wadhwa and Rao, 2003).

More specifically, agility is defined as the ability to reconfigure available options with speed and surprise to reap benefits from unpredictable changes in the business environment (Sambamurthy, Bharadwaj, and Grover, 2003; Bernardes and Hanna, 2009). A focus on agility is especially important for BG firms, as they have to shape international markets to succeed, rather than merely respond to market changes.

Industry experts also want attention to be paid to the importance of unexpectedness and agility in the marketplace. For example, according to the industry insights provided by Kevin Robertson (2014) (former CEO of the Saatchi & Saatchi advertising agency), when firms are operating in an uncertain and turbulent environment, surprise and disruption can be a way to improve market performance, as they enable a firm to outplay competitors and win new customers. The ability to surprise the market was also discussed at the World Marketing and Sales Forum (2015) as one of the core strategies for competitive superiority in the modern business environment (wmsfmelb.com).

When companies have sufficient resources, they can invest in the development of new products and services, as well as in their marketing and promotion. Indeed, traditional, well-established companies can achieve agility through high levels of investment in R&D. In contrast, most BG firms have scarce resources. For them, resources (e.g. financial) are usually constrained by their young age and often small size (Oviatt and McDougall, 1994). Where resources are limited, the success of a company is strongly related to the way in which decisions are made by managers (Nemkova et al., 2015).

2.2. Decision-making approaches

The rapid growth of BG firms is considered to be challenging for their decision-making processes (Nummela et al., 2014). Because BGs do not follow the traditional stage model of internationalization, their way of doing business is rarely ‘characterized by a steady, logical,

controlled sequential progression' (McAuley, 1999, p. 80) and their decision-making strategies can be described as 'semi-coherent' (Brown and Eisenhardt, 1998).

Within the entrepreneurship literature a seminal author on the effectuation theory, Sarasvathy (2001), distinguished between causation and effectuation decision-making modes, explaining that the main difference between them lies in the set of choices. Causation involves choosing between different means to achieve a particular goal, whereas effectuation relies on the means at hand to achieve a variety of goals in a process where the outcomes are not initially known (Wiltbank et al., 2006). According to causation logic, the best solution can be found if managers in BGs carefully look for new trends, perform frequent environmental analyses, evaluate a large number of alternatives prior to making a decision and select the one with the highest expected return (Andersson, 2011). However, the danger is that under the uncertain conditions of internationalization (Kalinic, Sarasvathy and Forza, 2014) and goal ambiguity (Galkina and Chetty, 2015) this decision-making process can become slow and as a result foreign market opportunities could be missed. Effectuation, on the other hand, allows decision-makers to quickly change their goals over time. Using effectuation logic, decision-makers in BGs can initially focus on the resources available at hand (e.g. personal abilities, knowledge, social networks) and then try to achieve a variety of goals related to international expansion (Andersson, 2011). It allows them to incorporate serendipitous events into their decision-making process and to construct new alternatives, which, in turn, can create new and surprising outcomes (Sarasvathy et al., 2014).

Thus, it is suggested that effectuation logic is particularly relevant for developing agility within BG firms, as they often operate in new niche markets and have to make decisions in the absence of clear pre-existing goals. However, it still leaves at least three important questions understudied: (a) whether agility can be also achieved by the use of causation logic; (b) exactly which decision-making approaches BGs rely on to become agile; (c) what conditions are necessary for agility to be able to improve a firm's international performance.

3. Methodology

To achieve the research objectives, a qualitative exploratory study was conducted. The companies in ‘Tech City’, London, UK, were used as a case study. Tech City is the biggest start-up cluster in the world outside the US and the third-largest technology start-up cluster, after San Francisco and New York City. Past research suggests that BG companies tend to originate more in high-technology industries (Oviatt and McDougall, 1994; Gabrielsson et al., 2008). According to Eurofound (Mandl and Celikel-Esser, 2012), across Europe the average proportion of all firms that could be categorized as BGs is about 2%; however, among start-ups the figure reaches about 10% in Finland, 25% in France and 15% in the UK.

The exploratory study included an in-depth interview with one key decision-maker (seven company founders/co-founders and four marketing managers) from each of 11 firms selected and four in-depth interviews with industry experts (people who had been working with BG firms over 5 years as external mentors or collaborators) (see Appendix A). The study was conducted in June-July 2015.

Companies that had started internationalization within three years of inception and that had at least 25% of their sales in international markets represented the population of interest. A combination of purposive and snowball sampling was used. According to Tech City News (2015) about 3000 companies could be considered to be a part of Tech City, of which about 100 were fast developing (with the majority of them being characterized as BGs). The potential informants were approached by the researcher via a professional social network, LinkedIn. From a list of 100 companies, the researcher initially contacted 50 randomly chosen suitable informants (CEOs, founders, co-founders, managing directors, marketing and sales directors of BG companies) and received six agreements to participate.

After these six initial interviews had been conducted, the researcher asked the participants to recommend other potential informants (again, key managers from a BG company in Tech City

or industry experts). That resulted in a further five interviews with company managers and two with industry experts (a career coach and a senior conference producer). In addition, two other experts (a senior investment analyst and a director of the innovation incubation lab) were approached by the researcher at one of the networking events organized in Tech City.

The interview guide for company managers included questions about the company's history and internationalization process, their personal work experience and the experience of the key people in their team, questions on company decision-making processes, challenges faced in the international environment, the company's performance and ways to improve it. Experts were asked questions on trends in the high-tech industry, the characteristics of BG firms that distinguished them from more traditional companies and the key factors in their success. The interviews lasted between 40 and 90 minutes.

Template analysis was used to analyze the data. Data analysis was based on the Miles and Huberman (1994) approach, which has three main stages: data reduction, data display (within- and cross-case displays) and interpretation. The first-order codes representing the key empirical themes (e.g. agility, decision-making, performance) were developed based on the literature review and the author's personal experience at Tech City (networking events, motivational talks, visits to co-working spaces). The codes were also developed on the basis of themes raised in interviews. For example, the majority of respondents emphasized the importance of human capital skills. This empirically grounded theme became central to the analysis. The data was organized in 15 displays based on the individual transcripts (within-case displays) (see Appendix B for an example). After that, the core themes were pulled together in the form of cross-case displays.

The key findings of the exploratory study in conjunction with the literature review enabled the conceptual model presented below to be developed.

4. Findings

The data analysis revealed that the majority of the BGs in the study could be considered agile. The roots of agility were found to be embedded in the companies' decision-making process, with a strong emphasis on decision-making creativity and informal planning. In this section, the main decision-making drivers of agility are first discussed. Second, the relationship between agility and market performance is analyzed. Third, the conditions for success are proposed.

4.1 Drivers of agility

In line with expectation, the logic of effectuation was found to be highly relevant for BG firms. Marketing managers and company founders/co-founders in BGs are often able to detect opportunities and make decisions with their available resources. The findings show that to achieve agility, BGs have to be creative when making decisions, as this helps them to come up with unique market solutions to satisfy unmet customer needs.

Marketing creativity is related to the ability to do something without always knowing the final result and allowing ideas to emerge during the process itself. It is defined as the generation of new ideas or the recombination of existing ideas in a new way regarding product, practices, services and procedures that are potentially useful to the market (Im and Workman, 2004). It is emphasized that both aspects (novelty and usefulness) need to be included if the concept of creativity is to be relevant for business.

It was highlighted by the informants that, to become agile, the ideas need to be '*commercially viable and creative at the same time*' (Manager 1). Furthermore, solutions that might work in the domestic market do not necessarily work beyond it. '*Playing with ideas*' (testing new ideas on the market) enables a company to explore a variety of ideas relatively quickly and to detect market opportunities in the international environment (Manager 7).

Manager 3 provided an example. When her company was about to enter the Japanese market they were not sure what to expect, and so she and her team relied on brainstorming sessions to come up with multiple ideas that were quickly tested in the field. Manager 3 further explained:

'I think the way that we think is definitely a bit more zigzag, and so that we make sure that we are problem solving rather than just copying someone... You can literally go and see a film in the middle of the day on a Tuesday because that's where you get your creativity from.'

Managers explained that 'pushing' or 'reaching out' to areas that are not directly related to their business is an important part of the creative process. It was considered crucial to the achievement of agility, as it helps opportunity exploration. That could be done, for instance, by attending events and exhibitions, reading information from diverse sources and meeting people from different professional areas and different countries of origin. That strategy enabled several companies to expand into new foreign markets (Companies 2, 5, 7, 10 and 11). 'Reaching out' encourages managers to step out of their comfort zone and out of their familiar environment (García-Peñalvo and Conde, 2014). Andersson (2011) explains that decisions in BG firms are often made in interaction with others, 'both inside and outside of the organization' (p. 631). That opens up other channels from which new relevant information can be found and utilized in the decision-making process. For example, Manager 7 said:

'we don't stick only in this very tech environment. We like really push out of it as much as we can... Let's say we push a lot into the arts, we push a lot into arts design, music, stuff like that, compared to only tech device, meaning only tech people and that goes for all of us.'

'if you want to make something that's different, that's probably going to change the way people do something, you can't do it, you can't think the same way that everybody else does. And the only way you can get away from thinking the same as everybody around you is by meeting different types of people.'

These examples represent an out-of-the box approach to doing business and making decisions among key decision-makers within BG firms. It ensures that the market solutions the company comes up with are relevant, timely and unique. Based on the above:

Proposition 1: Born-global firms are more likely to become agile if the key decision-makers demonstrate a high level of creativity.

According to Fillis (2001), BG firms are generally much more flexible (effectual) in their approach to business than are their more traditional competitors. However, the results revealed that managers, while trying to achieve agility, can also do that by relying on causation logic. Planning is the widely used approach to the implementation of causation logic, and indeed in their interviews both managers and experts acknowledged the importance of planning for successful business operations. Its aim is to define the positions of responsibility and to make sure that the company is steadily moving towards its objectives and vision (Nemkova, Souchon, and Hughes, 2012). Expert 1 explained:

'I think what could happen is, if you don't have a plan, that you are just going to keep on doing what you are doing right now and you are not going to make any major shifts... It's kind of like rowing a boat; you could keep on just like going down the same path and that'll keep you busy enough but if you have this like broader goal, you want to get somewhere else, then you'll make the effort to start going upstream in a different direction.'

Informants emphasized the importance of distinguishing between long-term formal and short-term informal planning. Long-term formal planning is defined as a step-by-step process of developing definite and precise objectives, collecting and analyzing information about the external environment and evaluating different options in order to formulate a solution to a problem or to make a decision (e.g. Bailey, Johnson and Daniels, 2000). However, research has

shown that formal planning can lead to delays in market response, as obtaining the necessary additional information is time-consuming (Nemkova et al., 2015). This can prevent a company from introducing necessary changes when the need arises (Wiltbank et al., 2006).

Unlike more traditional companies, the majority of BGs that participated in the study did not use long-term formal planning (e.g. a one-year or a five-year plan). Managers explained that formal planning is characterized by high levels of rigidity and is not suitable for the uncertain environments BGs operate in. To avoid inertia and rigidity and to stay agile, BG companies mostly rely on short-term informal planning, which is less ‘*cast in stone*’ and more flexible. As a typical scenario, managers used regular meetings (once a week or fortnightly) at which business goals were re-evaluated and new information was incorporated into the vision. For example, Company 11 has offices in multiple cities (among others in London, Singapore, New York and Sydney), and these offices interact on a fortnight basis to incorporate real-time market information into the vision and to agree on the common global strategy.

‘We plan regularly, every two and a half weeks, is one of the main things... then go off and build on the basis of those decisions...So we have no long-term plan, we’ve never had a long-term plan. We plan two and a half weeks out, so if you asked me what the team will be doing in a month’s time, I can’t tell you.’ (Manager 11)

Managers view planning as an approach that unites the team around common pre-established goals, which is in line with causation logic (Kalinic, Sarasvathy and Forza, 2014). However, at the same time they do not necessarily intend to stick to those goals over the long term. Instead, managers are open to new information and serendipitous changes being incorporated into planning, which keeps the company agile.

‘So our marketing plan four months ago for 12 months was agencies, and then four months ago we decided to stop working with agencies and we shifted... We meet once a week, me and my co-founder, and because we are a core tech company and our product is packaged differently for each client, it’s important to have a

marketing plan so the development team knows what they're working on at any given moment, right? Even though a month down the road I could tell them, "whatever you built, throw it in the garbage, press delete, and let's start over again".' (Manager 9)

This approach enables companies to continuously reinvent themselves, add new relevant information but at the same time to keep maneuvering in the unpredictable environment.

Accordingly:

Proposition 2: Born-global firms are more likely to become agile if the key decision-makers demonstrate a high level of informal short-term planning.

4.2. Agility and market performance

It is argued that agility is able to improve the market performance of BG firms, defined in terms of the firm's market share and sales indicators (Hultman, Robson and Katsikeas, 2009). If marketing managers are able to make decisions that allow the firm to stand out among its competitors and attract customers' attention, then that firm is likely to gain a first-mover advantage and achieve financial success (Nemkova, Souchon, and Hughes, 2012). That is in line with the view of one of the experts:

'Products is not a critical survival factor, it's when you go to market. It's in the market who bids each other. So there is this kind of ... in Silicon Valley I've heard this quite a few times; it doesn't matter whether you have the best products, it matters that you hit the market first or strong.' (Expert 2)

As agility refers to the ability to detect and seize opportunities in a timely fashion, agile firms tend to have a wider array of market-response options than do their less agile competitors (Cegarra-Navarro, Soto-Acosta, and Wensley, 2016). According to Austin, Devin and Sullivan (2012), the introduction of deliberate variations into the decision-making process can help a

company to avoid merely delivering expectations and to achieve more than was initially expected. That is especially relevant for BGs, as they have to develop the capability to detect and exploit opportunities in multiple markets, often simultaneously (Madsen, 2013). Managers in interview claimed that by being agile, BGs disrupt the market, which strengthens their competitive position:

‘We’re not trying to look backwards, because I think we’re quite disruptive in the industry and so we try and change things for the better, which is great... I think it’s definitely a goal to be leading that rather than to be followers.’ (Manager 3)

‘I think it is good [to be agile] and it means that we do things in a unique way very early and we prove it really quickly.’ (Manager 10)

When BGs are better able to sense changes in customer demand or to tap into unexplored international markets, they are more likely to succeed. That is, an agile company will gain market share. Agility increases the chances that more people will be willing to buy the company’s products or services. Based on the above, we propose:

Proposition 3: If born-globals demonstrate a high level of agility, their international market performance is more likely to improve.

4.3 Conditions for success

It was recognized by the informants that certain conditions are required for agility to ‘work’, that is, to improve their performance in international markets. The managers emphasized that employment of the best possible people (an ‘*A team*’) is one such necessary condition. Thus, the international market success of an agile firm was found to be conditional on the human capital the company possesses.

Human capital is defined as the skills, ability, knowledge and experience possessed by the organization's employees (Marimuthu, Arokiasamy, and Ismail, 2009). It can be considered to have two main components: hard and soft skills (Griffith and Hoppner, 2013). Hard skills are related to knowledge and experience, whereas soft skills are concerned with the ability to learn and adapt. Indeed, the attraction of good candidates and the retention of key members of staff are considered to be one of the main challenges for rapidly growing BGs (Zander, McDougall-Covin, and Rose, 2015), due to the companies' lack of financial resources and recruitment capacity. Under those circumstances, the identification of the most valuable human capital skills is necessary.

The findings reveal that among the hard skills underpinning market success of agility are knowledge of the market and international experience, whereas among the soft skills are learning orientation and ambiguity tolerance.

4.3.1 Hard skills

Although the BG approach implies that firms are willing to take risks and face uncertainties in international markets, it is recognized that key decision-makers' market knowledge is essential for successful entry into new markets (Chetty and Campbell-Hunt, 2004). Knowledge can be defined as 'the validated understanding and beliefs in a firm' (Weerawardena et al., 2007, p. 296). It has been widely recognized that tacit knowledge is embedded in individuals and cannot be easily expressed explicitly (Freeman et al., 2010); this makes knowledge resources difficult to imitate (Knight and Cavusgil, 2004). For example, the majority of the company founders and directors who participated in the study had extensive knowledge of the market they were operating in. Manager 6 explained that knowledge of the ins and outs of the market underpins agile decisions that lead to international market success:

'You have to keep maneuvering as you get more knowledge and understanding, you have to keep developing. You have to be agile. That's our advantage.'

Interestingly, market knowledge was not necessarily related to number of years of work experience. It has been suggested that experts (people who have extensive work experience) are able to make better decisions than people with less experience (Wiltbank et al., 2006), but BGs usually operate in niche global markets that often have not been around for long (e.g. social media video analysis). The current findings show that unique expertise can be developed by someone who would be deemed a novice from a traditional point of view. For example, Manager 9 explained what they were looking for when they were recently hiring a person for their marketing team:

'She's like, "I have zero experience". I'm like, "Perfect. I'd rather you have no experience"... I mean, you can find incredible people that have nothing to do with your business. We believe in recruiting people who have zero experience in your field but are super hungry for knowledge.'

At the same time, the importance of international experience (either working or personal) was often emphasized by the informants. Managers believed that key decision-makers' international experience makes a company more open and accepting of change. As a result, they made sure that the people in their teams are used to international exposure, either through their personal background or through previous employment.

'To do that [be agile] in a way that's real, you've got to have the right blend of people in the business. So if you look across our floor in our offices, it's like the United Nations. We have people in different pockets of our business from different parts of the world.' (Manager 4)

Manager 4 had himself worked for several years in Asia prior to the foundation of his own company. He was therefore familiar with the business context in that region, which helped rapid expansion into Singapore. International experience facilitates both the early detection of

opportunities in foreign markets and timely responses to them, and ensures that agile decisions made about foreign markets lead to success. Based on the above, we propose the following:

Proposition 4: Agility is more likely to be positively related to international market performance when key decision-makers have extensive knowledge of the market they are operating in.

Proposition 5: Agility is more likely to be positively related to international market performance when key decision-makers have extensive international experience.

4.3.2 Soft skills

The informants also elaborated on the importance of soft skills, among which learning orientation and ambiguity tolerance were considered to be the most valuable. Learning orientation is an abiding willingness to learn, and past research has suggested that learning-oriented firms are more readily able to process new knowledge in order to use it to enhance competitive advantage (Calantone, Cavusgil, and Zhao, 2002; Weerawardens et al., 2007). Ambiguity tolerance is defined as the degree to which people can hold back their need for complete information about the external environment (Griffith and Hoppner, 2013). Both were found to be crucial for the international market success of agile decisions. For example, Manager 5 explained:

‘Sometimes when we want to employ a new person we are even not sure that such a person exists, but what is important is his ability to learn quickly and adapt when situation is changing.’

Learning orientation is known to improve the quality and effectiveness of decision-making within internationally-oriented firms (Evers, Andersson and Hannibal, 2012). The informants emphasized the importance of learning orientation among key decision-makers.

‘Very important for us, people who can learn on their own. Who don’t need, you know, somebody to stand over their shoulder and teach them. So that’s how we hire good people.’ (Manager 9)

The important characteristic of learning-oriented firms is the ability to analyze changes in the business environment (Calantone, Cavusgil, and Zhao, 2002). Foreign markets often represent new socio-cultural context which increases the required volume of new information about consumers. For instance, Manager 1 explained that when they entered the US market, despite the language similarities, they had to learn quickly the subtle differences in humor to be able to launch successful social media campaigns. Managers with a high learning orientation are found to better understand unfulfilled customer needs and come up with more efficient and timely decisions. Manager 2 clarified:

‘we spend more time than I think any of our competitors on learning and that gives us a chance to come up with things and research new things before they are researching them.’

Thus, the key decision-makers’ ability to learn continuously is a necessary condition for the improved performance in international markets.

The data analysis also indicated a beneficial role of ambiguity tolerance for the effectiveness of agility. International markets are usually considered to be more uncertain than domestic ones; therefore, decision-makers in BGs should be able to let go of any desire to control the international environment and should have a high ambiguity tolerance instead. According to Griffith and Hoppner (2013), individuals with high ambiguity tolerance have been found to make more useful decisions when operating in unstable environments. The managers of BG firms usually do not see uncertainty as a threat. For example, Manager 9 said that *‘we are not afraid of uncertainty... we are certain that things will be uncertain’*. However, uncertainty encourages them to be more attentive to changes in international markets. Managers with high ambiguity tolerance tend to spend a considerable amount of time in environmental scanning in

order to perform effectively in conditions that are lacking precise information. For example, Manager 11 said that *'everybody takes responsibility for knowing what's going on'*. Based on the above, we suggest:

Proposition 6: Agility is more likely to be positively related to international market performance when key decision-makers have a high level of learning orientation.

Proposition 7: Agility is more likely to be positively related to international market performance when key decision-makers have a high level of ambiguity tolerance.

The propositions are summarized in a diagrammatic form in Figure 1.

“Insert Figure 1 about here”

5. Discussion and Conclusion

5.1 Contributions to theory

This paper makes important contributions to academic knowledge in the following ways. First, we complement the literature on the performance drivers of BG firms. As the markets BGs operate in appear to be among the most volatile and competitive, the need to outplay rivals increases in comparison with more stable markets. However, unlike more established companies, most BGs are SMEs that suffer from a lack of resources (Kuivalainen, Saarenketo and Puumalainen, 2012). Past research concluded that in order to operate successfully with the resources at hand, companies have to put a lot of emphasis on their decision-making processes (Nemkova et al., 2015). In line with that, it was found that the performance of BGs in international markets is strongly reliant on the way decisions are made by managers.

Second, following Fisher and Smith (2011, p. 325), who argue that ‘notions of control and predictability require serious revision’, we focus on agility as one of the core drivers of the superior international performance of BG firms. Agile firms are better able to cope with unpredictable changes in the environment and to seize market opportunities with speed and surprise (Bernardes and Hanna, 2009). The market success of agility was found to be conditional upon the human capital the company possesses. In terms of hard skills, knowledge of the ins and outs of the market and the extent of international experience were found to greatly enhance the benefits of agility. This is in line with the view of Liu (2017), who explains that international experience of the founders helps the BGs to mobilize knowledge resources in foreign markets. Regarding soft skills, managers put a lot of emphasis on learning orientation and ambiguity tolerance, with both being important for the improved performance in international markets. That enables managers to strengthen their ability to act efficiently under the international environment’s conditions of high uncertainty (Galkina and Chetty, 2015).

Third, we have contributed to the debate on causation versus effectuation modes within the field of international entrepreneurship. According to Ghauri, and Kirpalani (2015), ‘for born-global firms the realization of entrepreneurial activities cannot be separated from the international business context’ (p. 11). Although there is some recognition that BG companies can follow both causation and effectuation logic (Kalinik, Sarasvathy and Forza, 2014), the current study explains in detail which exact decision-making approaches can be used in order to achieve agility. The findings indicated that creativity (effectuation logic) and short-term informal planning (causation logic) are the main decision-making drivers of agility in BG firms. Creativity helps firms to detect opportunities in foreign markets and to come up with timely out-of-the-box solutions that might be surprising for customers, whereas informal planning helps to establish new objectives and alter the strategy according to new information or serendipitous events. Thus, managers in BG firms have to pay attention to both creativity and informal planning to become agile and ultimately to achieve international market success.

5.2 Managerial implications

From a practical point of view, we suggest that managers in BG companies need to pay more attention to their decision-making process. When resources are limited, decision-making becomes one of the main instruments with which to create additional barriers for rival firms (Nemkova et al., 2015). Companies can become agile by being creative and by relying on short-term informal planning. At the same time, particular human capital skills of the key decision-makers in BGs are essential to the market success of agile decisions. Managers are encouraged to use this information during recruitment as it can help to identify suitable employees.

The results of this study are also relevant for the various stakeholders in the foundation of innovation hubs around the globe. The number and variety of hubs are constantly increasing and with them the number of BG companies (the proportion of BGs within innovation hubs is known to be much higher than outside). Innovation hubs are designed to provide a wide range of support, including not only networking opportunities and access to funding but also mentorship and access to knowledge-intensive services (Pauwels et al., 2016). These stakeholders should explicitly acknowledge that agility should be nourished by BGs, for example by encouraging managers to step outside of their comfort zone, by introducing experimentation into their decision-making process and by relying on informal rather than formal planning.

5.3. Limitations and directions for further research

There is much scope for further research in the area of agility within BG firms. First, the current research is exploratory in nature; thus its results should be applied to other contexts with caution. Moreover, the study was limited to a UK sample, whereas BGs are actively emerging in other European (e.g. France, Croatia) and non-European countries (e.g. Israel). That opens an avenue for a cross-cultural comparison of agility. In that case to increase

the reliability of the findings it is suggested for the data to be analyzed by several researchers (e.g. Danik and Kowalik, 2013).

Second, it has been recently noted that some BGs can be seen as ‘accidental internationalists’ (not necessarily proactive in their approach to international markets) (Hennart, 2014). Thus, future research could compare proactive growth-oriented BGs (companies that proactively seek internationalization at the early stages of development) and accidental BG companies (for example those that were initially approached by international clients). There might be some differences in the emphasis they put on agility and its importance for market success.

Finally, it would be of interest to look at the evolution of agility as the BGs mature over time. It might be the case that the drivers and outcomes of agility differ in the early and later stages of the BGs’ development, when they acquire a significant amount of resources. To register the change, this line of research should be embedded in a dynamic capability perspective and have a longitudinal nature.

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Appendix A

Table 1. Informant profiles

Reference	Respondent's position	Product/ sector/ type of the company	Number of employees in the company	Years in the market	Years in the international market
Manager 1	Commercial strategy director	Social media content production	18	2	2
Manager 2	Marketing manager	Marketing and strategy consultancy	5	4	3
Manager 3	Marketing manager	Mobile service company in the music industry	150	8	7
Manager 4	Founder & CEO	Automated market research platform	25	3	3
Manager 5	Marketing manager	Technology company for B2B	17	5	2
Manager 6	Co-founder	Social media video content production and analysis	8	2	1
Manager 7	Co-founder & CEO	Interactive online presentations	8	3	3
Manager 8	Founder & CEO	Creative & design agency for entrepreneurs	10	5	3
Manager 9	Co-founder & marketing and sales director	Predictive personalization on mobile devices	8	2	1
Manager 10	Co-founder & chief commercial officer	Digital music and radio service platform	125	12	12
Manager 11	Co-founder & co-CEO	Video advertisement company	200	10	10
Expert 1	Career consultant	Career change	1	3	N/A
Expert 2	Senior investment analyst	Private-equity-backed company	Over 1000	30+	N/A
Expert 3	Senior conference producer	Media and telecom conferences	Over 5000	25+	N/A
Expert 4	Director of innovation incubation laboratory	Financial services corporation	Over 5000	50+	N/A

Appendix B

Table 2. Within –case matrix: constructs = ‘agility’, ‘creativity’, ‘informal planning’; respondent= Manager 11

In the following table an example is presented on how a matrix was constructed based on the analysis of the comments from Manager 11 regarding the issues concerning the notion of ‘agility’, ‘creativity’ and ‘informal planning’.

Construct	Personal comments ^a
Agility	<p>59-62 ‘We like change, as a founding team, as an exec team, we like to grow, we like to have progress, we like doing new things... the challenges are making the most of the opportunity’.</p> <p>263-273 ‘The landscape is unpredictable, the market... the environment is always highly unpredictable, absolutely, so that’s where unpredictability comes into play... We aim to deliver well for our clients, we aim to share the love, we aim to embrace change... Well, actually, embracing change probably does bring with it unpredictability.... So our company is evolving so rapidly that our product often evolves in ways that we might not have expected’.</p> <p>339-341 ‘...that’s why adaptability is so important, and embracing change, and being open to moving and shifting’.</p> <p>350-353 ‘The key thing is to find out fast... So we’ll try new features, new products, very quickly into the marketplace, and if they don’t fly? We kill them’.</p> <p>398-403 ‘Most of the success, I think, is down to timing, and then just getting the timing right coming into a market. So in Asia-Pacific, we were in there nice and early and the market was very open to our product. In the US, it’s very cluttered, very busy, so it’s a more challenging sales environment to be part of, because you have many, many competitors’.</p> <p>416-423 ‘...because we’re very focused on what we’re doing, and it’s like running a race. If you spend too much time looking over your shoulder, you’re never going to get to the finish line first, because you’re too busy looking around and seeing what everybody’s doing, and that’s just not our style. Our style is just to read the market, talk to the market, talk to our customers and then move fast in the direction we want to move, but at the same time just keeping an eye on seeing what other people are doing, and looking for new opportunities’.</p> <p>483-495 ‘We move on to the next idea, and the next idea, and the next idea. Innovation doesn’t give you competitive advantage in the way people think it does. People can follow very quickly. They can copy features, copy code, copy marketing, and that’s just part and parcel of a very fast moving business atmosphere, so you assume that’s going to happen and you keep moving... you keep coming up with the next idea.... You know, there will be lots more firsts, you just always have to keep ahead’.</p> <p>779-781 ‘Because the business landscape is very volatile and very unpredictable, and you never quite know what’s going to happen, so it’s having to be agile, that is the most important ingredient for success’.</p>
Creativity (effectuation)	<p>304-313 ‘we often reach decisions by, you know, trying to create an argument, and discussing what the options are, disagreeing with each other, and there’s often disagreements about what’s right to do, because there are different stakeholders, different territories, and the developer perspective might be different from the commercial perspective, but debate is healthy, and dissent is healthy, because it’s</p>

	<p>only if you're having dissent and conflict that you can carefully sort through the solutions'.</p> <p>499-500 'We're just curious and we like to do new stuff, and you empower people to come up with ideas and then make them happen'.</p> <p>664-670 'I think it's about coming up with unexpected solutions to problems, finding new... We just let people do their own thing, come up with ideas. Giving people the freedom to problem solve... the freedom to make mistakes, try new stuff... being willing to try something that you've not done before. That's creativity'.</p> <p>683-685 'I read a lot around video culture and marketing, business, and then you can pick up great ideas, and try applying them to different situations'.</p> <p>691-696 'Just doing stuff, and just making it up. So rather than talking about how we're going to deal with this campaign or that campaign, we just do it... That's the best way to create. The best way to come up with ideas is to have more ideas and put them into practice'.</p> <p>710-713 'we're not judgmental about ideas. We just need lots and lots and lots of ideas, we need 1,000 ideas to have one that will work, so we need people to have 1,000 ideas and then we'll find one that works'.</p> <p>724-735 'You know, ideas don't emanate from particular people. Creativity is in the air, it comes from everybody, it comes from conversations and it comes from trying things, it comes from a process, it doesn't generally come from inside a head without any impetus...you can have 1,000 ideas but you'll notice that some ideas will generate other ideas, and they're like magnets for ideas, and then they tend to be the ones that get taken forward, because everyone is keen to build on them, and before you know it you've got a fantastic big idea... It's because lots of people had lots of suggestions and have worked together to build something cool'.</p>
<p>Informal planning (causation)</p>	<p>282-286 'We have planning, we plan regularly, every two and a half weeks, is one of the main things. So we have no long term plan, we've never had a long term plan. We plan two and a half weeks out, so if you asked me what the team will be doing in a month's time, I can't tell you'.</p> <p>293-302 'we have our planning days every two and a half weeks to make decisions and then go off and build on the basis of those decisions, and then we also have... we do what I call 'managing fast and slow', so we have a regular pulse of our planning games and then as an exec team we meet weekly to discuss things that need decisioning on a weekly pulse, and then we also meet quarterly, as well, to talk about our strategic plans for the business, and to make sure that our vision is still the right vision, and our mission is still the right mission, and our strategic angles are still the right strategic angles'.</p> <p>324-326 'We don't always get it right, but the key thing is make the decision, get behind it and move forward, and you can always revise at a later date if you think you've made a wrong decision'.</p> <p>423-424 'Everybody takes responsibility for knowing what's going on'.</p> <p>5001-502 'you have a planning game every two weeks, so you don't have to wait forever to implement an idea, you can move forward with it very quickly'.</p>

^a Numbers refer to line numbers in interview transcript.

Figure 1. Conceptual model

