# Key factors in the internationalization process of born global Romanian software companies: an exploratory study

**Anca Butnariu** ( anca.butnariu@tuiasi.ro )
Technical University "Gheorghe Asachi" Iasi https://orcid.org/0000-0002-9738-3030
**Dumitru Filipeanu**
**Florin Alexandru Luca**
https://orcid.org/0000-0002-0691-4191

**Research Article**

**Keywords:**

**Posted Date:** July 22nd, 2022

**DOI:** https://doi.org/10.21203/rs.3.rs-1880802/v1

# Abstract

The general objective of this study is to bring several insights into the enablers of the internationalization process of Romanian software technology companies, in the framework of recent research that challenged the traditional theories on internationalization. Due to Romanian software companies' increasing levels of international direct investments and the strategic importance of this sector, our aim was to uncover the most relevant features that several born global firms in this industry possess. More explicitely, our goal is to elucidate the factors and distinctive conditions that trigger the occurrence and further development of Born Globals, in comparison with the companies that do not show the fast internationalization tendency from their inception or soon after. Our qualitative empirical research, based on four case studies, argues that strategic flexibility, innovation capability and entrepreneurial ability allowed sees in IT Romanian industry to rapidly internationalise in unknown markets and become international successful players. This confirms existing theoretical frameworks that recognised knowledge-intensity, capacity of networking and client orientation as important internationalization explaining mechanisms. Drawing on theories of internationalization as RBV, KBV, DCV, international entrepreneurship, we argue that SMEs in IT industry are characterized by a mix of the features mentioned by these frameworks. Our results determine that BGs are more entrepreneurial, have more innovation capabilities, learning capability, are more customer-oriented and are part of collaborative networks, have flexible strategies than other companies. The prior international experience or market knowledge of the founders was not found to be one of the triggers that led to the rapid international success of romnaina IT companies.


# 1. Introduction

At the beginning of the 1990s, the extant gradualist internalization models became unable to comprehensively explain the evolution of some SMEs that have been internationalizing more rapidly than those models predicted (Oviatt & McDougall, 2005). Researchers outlined that some SMEs, especially form knowledge-intensive industries, tend to skip some phases in their internalizations process, experiencing an accelerated international evolution (Kalinic&Forza, 2012). These companies are termed in the literature International New Ventures (INV), NTBF (New Technology Based Firms), Born Global (BG) firms, global start-ups (Kalinic&Forza, 2012; Cahen, Miranda Oliveira&mendes Borini, 2017).

Born Globals are defined as companies that began their international expansion since their inception or shortly after, managing to achieve an important level of internationalization within a relatively short time span (e.g. several years). They often have scant or no experience on external markets, with high physical and psychic distance (Cahen, Miranda Oliveira&Mendes Borini, 2017).

In the literature it cannot be found a unique set of criteria to define a Born Global firm. Cahen, Miranda Oliveira&Mendes Borini (2017) made a literature synthesis on this topic, founding that the most referred criteria to identify such a company are the age (companies founded after 1990), the emergence of

external activities after the inception (ranging from 2 to 15 years), the proportion of income obtained from external operations (varying from 5–75%) and the number of markets they are active on.

In spite of the rich literature on this theme, there are authors that deem that a capacious elucidation and detailed models of this type of companies' occurence are still incomplete (Knight and Cavusgil, 1996), emphasizing the need for both theoretical developments and new empirical confirmation efforts.

In our study we aim at analyzing the characteristics and expected triggers of these characteristics which differentiate born globals/NTBFs from companies that seem to follow traditional gradualist models. We investigated the reasons for some firms become international in a short time span after their foundation and which factors are relevant for grasping their behavior The characteristics are proposed based on a synthesis of different scientific approaches that study the internalization process of SMEs. Intangible assets and value creation sources are considered the enablers of a rapid internationalization by Resource Based View (RBV)(Peng, 2001) and Dynamic Capabilities View (DCV) (Zahra, Sapienza, & Davidsson, 2006); the existence of international business networks is highlighted by Network Approach (Oviatt & McDougall, 2005), and the role of previous international experience and of good market knowledge are emphasized by Organizational learning approach (Oviatt & McDougall, 2005).

The Romanian IT industry has reached a value of over 5 billion Euros yearly, with a number of active firms of about 15000, among which there are extremely dynamic start ups that are making their way in the international business arena.

Within the last 20 years, an important number of Romanian small-medium enterprises (SMEs) have increased their international undertaking by creating subsidiaries in remote countries (from a geographical and cultural point of view) despite their limited business experience and limited resources. Our study focuses on these fast growing, highly innovative born global Romanian Software companies, with the aim to explain the mechanisms behind their rapid internationalization in unknown markets process and to characterize and describe the peculiar features of this process for Romanian IT companies. We also aim at increasing research interest on this topic and to further the existing knowledge on internationalization process of born globals from eastern and central Europe, since this field for this region was the subject of very scarce research until now.

Uncovering key factors for the antecedents and specific conditions that positively influence the emergence and further development on international markets of IT Romanian companies will help us examine the validity of existing born global internationalization theories.

Our article has the following structure: first, the main theories on the rapid internationalization found in the literature are presented and a parallel is made between them. In the second section, we present the theoretical context and the research method. Owing to the aim of the research, i.e. putting together the qualitative information about internationalization strategies of the Romanian born global firms, we employed a qualitative multiple case study analysis.

The third section presents four case studies of Romanian based software products providers, therefore establishing the existence of concepts from these theories, but also focusing on software special features of the internationalization process. The case companies were selected according to criteria established in the literature for the born globals.

We are using the comparison method to confront the features of some case companies with a number of factors associated in the literature with the born globals. The following section present the analysis of the results and the discussion on the validity of our conclusions. The last section concludes by presenting the limitations and implications of the study. The empirical evidence implies that strategic flexibility and proactivity, as well as knowledge-intensity (in contrast to international network and international experience) and a client oriented approach are the major success triggers of the internationalization process.

The specific route followed by the NTBFs is described and explained by analyzing four case firms, confirming or contradicting the leading literature. Our results indicate that BGs are more entrepreneurial, have more innovation capabilities, learning capability, are more customer-oriented and are part of collaborative networks, have flexible strategies than other companies. Our results have academic (contributing to the advance of the research in the field of born global), managerial and policy-making implications (for the public policies that influence the born global firms' evolution).

The academic contributions of our work can be analyzed on three levels. First, it investigates the phenomenon of early internationalization in a country from Central and Eastern Europe, region for which there are few studies in this field. Second, the phenomenon of born globals is examined through the lens of existing recognized and accepted theories by delivering empirical-based explanations of the mechanism behind the pace and success of internationalization. Third, it is highlighted the importance of innovation capability and of organizational culture as trigger factors for early internationalization, proposing an exploratory framework of the key organizational capabilities that favor this evolution.

# 2. Theoretical Background

The evolution of a SME operating exclusively on its domestic market to an international company has been the topic of several theoretic developments. The traditional theories (also called stage models), such as the Uppsala model, define the internationalization process as being gradual, conditioned by increasing experiential knowledge of firms. These models have been challenged, as the accelerated internationalization process of BGs could not be properly explained by these traditional theories, considered to be deterministic (not allowing companies to make strategic choices) (Andersson S., Wictor, 2003). As a consequence, scholars began to examine their evolution through the lenses of other important theoretical frameworks: the Resource-based theory, the Capability View, the Organizational Learning Theory, the Innovation Theory and the International Entrepreneurship Perspective (Tabares, Alvarez&Urbano, 2015).

- **The Resource-Based View** suggests that the superior international performance is the result of the existence and effective utilization of resources. This theory argues that firms that possess high quality resources, the capability to combine effectively these resources and to generate a new value are prone to achieve long-term success on the international market. This theory states that the resources have to fulfill the next conditions: (1) valuable, (2) rare, (3) imperfectly imitable, and (4) non-substitutable (Barney, 1991). In the business environment, there are scarce physical (tangible) resources that fulfill simultaneously all of these conditions (Bouncken R., Schuessler F. & Kraus S., 2015). The intangible resources or the abstract assets have a higher likelihood to fit in these conditions because of their intrinsic complex nature, and because they are the result of accumulation processes preventing their imitation or substitution on short and medium term (Losada Otalora & Casanova, 2012).

Tabares, Alvarez & Urbano (2015) present several types of intangible assets on the basis an extensive literature review. The intangible assets can be of human nature (such as the employees' skills and mindset for settling problems or for innovating, the experience, expertise and the know-how of human resources, the organizational capability of effectively exploit the human resources), technological and organizational resources (firm culture, organizational behavior and values, organizational structure and procedures, learning facilities, research and development procedures, product innovation, legal protection by copyrights and trademarks) and relational resources (the ability to establish relationships with internal and external stakeholders).

Studies on early internationalization deal with identifying a company’s internal factors, thus RBV being capable of explaining the international entrepreneurship phenomenon and the emergence of international SMEs by answering a key question: in what manner have succeeded young and small business with limited resources to expand their international operations without passing through the gradual steps described by the traditional internationalization models?

The literature on BGs characterizes them as SMEs with restricted financial, material and human resources that have a successful international activity thanks to their intangible resources and some organizational capabilities such as: a differentiation product strategy, an international entrepreneurial and marketing orientation, leadership in technology, and intensive international network relationships (Rialp et al., 2005).

In the last part of the decade 1990–2000, the resource-based theory was extended by important researchers to a level that allowed the development of other theoretical approaches founded on this theory, the most meaningful being the knowledge-based view (Grant, 1996) and the dynamic capabilities view (Teece, Pisano & Shuen, 1997).

- **The Knowledge-Based View** studies the emergence of knowledge within the organizations. Knowledge is considered by several authors as a key resource, the most important resource that can contribute to new value creation and competitive advantage. This theory considers the individual as the center of the learning process.

Knowledge is analyzed from two points of view: formal knowledge (included in documents or other informational products) and tacit knowledge (informal routines). The latter can be only learned individually, is subjective, depending on personal experiences, expectations and abilities (Nonaka, 1994).

In the case of BGs, the international business experience or the international network of individuals and companies that the manager or the founder possesses is considered to be the essential element of the successful internationalization. These resources offer access to business opportunities and to foreign markets by providing the acquirement of resources and knowledge (Bouncken, Schuessler& Kraus, 2015). The individual knowledge acquired by individuals through cooperation with external partners is transferred to the entire company. Knowledge is a resource that could be also developed by innovation investments, (implying high costs and risks), thus knowledge becoming an asset that is difficult to replicate and that brings competitive advantage for the company. Knowledge must be legally protected against imitation. Liebeskind (1996) illustrates this by discussing the example of a manufacturing process which is difficult to copy, contrasting with a physical asset or product that is relatively easy to disassemble and replicate (Bouncken, Schuessler & Kraus, 2015). In the case of BGs, knowledge is not obtained through incremental learning processes, as the traditional internationalization approach considers, but trough a rapid access and assimilation of knowledge, often based on aggressive acquisitions (Ayden et al., 2020).

A company that became familiar with operating in its domestic market and established routines will learn to operate and accumulate knowledge about foreign markets in a more difficult manner, because it will more slowly identify international opportunities and get over its habitual practices in the domestic market (Rialp & Rialp, 2007).

- RBV led to the emergence of another theory during the 1990s, which is used to explain the evolution of BGs, the **Dynamic Capability View** (Teece, Pisano & Shuen, 1997). This theory explains that the differences between firms in terms of their competitive advantage and performance are due to their capabilities to combine, reconfigure and renew their valuable, rare, non-imitable and non-substitutable resources (Schilke, Hu & Helfat, 2018). These capabilities, different from the operational capabilities, are called “dynamic” and are defined as a firm’s ability to “integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece, Pisano &Shuen, 1997). Capabilities are defined as the company’s capacities to coordinate and dispose of its resources, resulted by combining varied intellectual capital assets that include intricate interplays between individuals, groups and organizational procedures. The capabilities are also firm-specific, non-transferable abilities that allow a company to increase the productivity of its other resources, to promptly readjust to modifications in their business environment (Ayden et al., 2020) and to internalize knowledge about the external markets. (Jantunen et al., 2008).

The Dynamic-Strategy View of the Firm premises that optimum dynamic strategies empower a faster and more effective resource deployment, increased learning, higher performance and decreased waste; and thus leading to augmented internationalization and faster development. Dynamic capabilities i.e. the

firm's abilities to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments increase the likelihood of dynamic strategies adoption. Dynamic capabilities thus picture an organization's ability to achieve new and innovative forms of competitive advantage, which further enable firms to become effective dynamic strategies (Teece, Pisano & Shuen 1997) of their own, and even enhance the activities of their partners in mutual value chains and alliances.

- The Network-Based View of the firm posits that an extensive network of companies may enable access to a bundle of international resources and markets for reciprocal use and benefit of network members. NBV emphasizes on the durability of firm-specific resources and capabilities obtained by synergy of the network members, capabilities that bring permanent competitive advantage (Sliwinski, 2012).

This theory considers that business networks play a key role in the internationalization process of a firm, being a trigger for the market selection, and for the strategic entry mode (Reuwer, Jansen& Brinkkemper, 2013). These networks are collective actors that foster rapid internationalization, through the experience, knowledge and resources provided by external partners (Mitgwe, 2006).

Existing business relationships favor the identification and exploitation of opportunities. Knowledge and learning processes are developed by interacting with business partners, not only in the first internationalization steps but also in the further development of international operations (Stoian et al., 2016).

The network theory is also asset-based, as knowledge built by interaction with foreign partners is a valuable asset.

- According to **international entrepreneurship theory**, the entrepreneurial behavior of individuals and firms plays the key role in the evolution of BGs. Zahra and George (2002) define international entrepreneurship as the process of identifying and exploiting opportunities in the international market in a creative way, succeeding to create value and competitive advantage. The role of entrepreneurs is fundamental in this process. Smaller companies are more flexible and more inclined to take risks that they succeed to manage more effectively (Reuwer, Jansen& Brinkkemper, 2013).

Oviatt and McDougall (2005) found that the evolution of many companies in several industries confirm this theory. Entrepreneurs that possess relational resources (knowledge, experience, entrepreneurial skills) are considered to be the trigger of the internationalization process, identifying business opportunities and creating durable competitive advantage. The resources provided by these are individual, thus difficult to imitate. Zahra and George (2002) also emphasized that an entrepreneur of a born global has a high propensity towards risk taking, is the possessor of a social capital and has an international experience.

According to the previous comprehensive review, we can conclude that there is no unity of opinions on the factors that explain the phenomenon of early and accelerated internationalization, but some factors are recurrent in the literature as principal triggers of this process.

Since earlier studies have tackled a wide number of internal and external triggers of the occurrence of born globals, we conducted an inclusive literature review with the aim to select the motivators that could be applicable in the Romanian context. The long list of motivators can be divided in several categories: the characteristics of entrepreneur/manager, firm internal resources and capabilities, external factors as industry structure and attributes and country characteristics (Butnariu and Luca, 2021).

**We have chosen to analyze the internal factors** (resources, capabilities, strategic orientation) of a company related to early internationalization, as the literature on the role of entrepreneurs' characteristics is rich, so their positive influence on a company's early and accelerated internationalization is already demonstrated.

We will detail each factor.

Small and young companies, although endowed with fewer resources, can outrun their competitors on foreign markets by managing to obtain **unique capabilities** to operate internationally (Ferreira Ribeiro et al., 2014).

Knight and Cavusgil (2004) and Knight and Kim (2009) also found that the ability of small young companies to be competitive on international markets is due to some **specific skills and resources**, over against multinational corporations that benefit from substantial financial and tangible resources and usually follow traditional internalization strategies.

**Unique technologies** in combination with high **innovation capability** were deemed to characterize such companies (Knight and Cavusgil, 2004; Cavusgil and Knight, 2015). They emphasized the strongly **innovative nature** of BGs as the key factor in developing the dynamic capabilities needed to obtain an early superior performance in external markets.

Other authors emphasize the role of other intangible assets such as **intellectual capital assets, human resources, structural and relational capital** and their compounding in generating essential organizational capabilities that are difficult to imitate, at least on short term, capabilities leading to early access on international markets (Tabares, Alvarez&Urbano, 2015), despite the scant financial, human and other tangible resources that the majority of new businesses possess. The leveraging of **human capital** on individual and firm level, of **structural capital** by investing in **innovative technological processes** and creating **strong organizational culture** and of **relational capital** by creating strong network with stakeholders will lead to the creation of unique capabilities and products (Tabares, Alvarez & Urbano, 2015).

Knight and Cavusgil (2004) found that BGs base their competitive advantage on **human resources**, and thus **tacit knowledge.**

Stoian et al. (2016), analyzing the internalization of SMEs from eastern and central European counties, also emphasized that small companies from transitional economies are often less resource endowed than similar companies from well established market economies. Thus, these companies found their

competitive advantage on their **learning capability** instead of detaining more resources than their competitors.

New production processes can be considered intangible services or assets. **Uniqueness** is based on **knowledge capability and on a capability to learn** that differs substantially from that of traditional firms. Traditional businesses internationalize because they search for exploitation of their assets such as knowledge which they have developed on domestic markets, while BGs internationalize because they want to gain new knowledge assets (Gabrielsson et al., 2008).

The lack of experience in their home markets could be also an advantage as there are no established routines that impede a domestic company to adapt to new remote markets (Fereira Ribeiro et al., 2014). Rialp & Rialp (2007) found that intangible resources as human capital and the **organizational flexibility** have o greater influence on internationalization process. In young companies, with little experience on internal markets, there are **no domestic routines and procedures that** complicate the adaptation of large companies to external environments, thus it could be easier for the former to enter international markets.

Eriksson et al. (1997) found that **knowledge** about the internalization process is not market related (as it is assumed in traditional internalization models) but it is a firm-specific knowledge and it is related to every market a firm would endorse to extend its operations. Martin and Salomon (2003) stated that the more implicit is a technology or the knowledge of a firm, the more it will enable a firm to obtain the **knowledge** on foreign markets. Innovative companies seek location advantages of specific countries that can provide complementary resources or assets (strategic advantages). The flexibility of new ventures will make them able to move to the most strategic locations. Their conclusion is that companies that see the opportunity to strategically create knowledge by locating near customers or partners will internationalize.

For BGs, the main resource that contributes to attaining competitive advantage is the human resource and consequently, **tacit knowledge**. BGs develop dynamic capabilities necessary for reaching their goals in the process of internationally expanding their businesses (Knight & Cavusgil, 2004). These capabilities comprise the skills to adapt to new business environment conditions and to renew competencies (Teece, Pisano, & Shuen, 1997).

The lack of tangible resources financial, human resources, tangible resources as facilities, equipment, goods that Born Globals possess (compared to multinational companies) is compensated by a high degree of **product knowledge and expertise**, necessitating **continuous innovation** (Knight and Cavusgil, 2004; Cavusgil and Knight, 2015). The competitive advantages emerge from the **unique, innovative products.** The capability to constantly innovate allows NTBFs to internationalize rapidly and to outrun their competition.

Rialp et al. (2005) emphasized the role **market and product knowledge** has.

The products that have a potential to be marketed globally must be positioned with distinct **differentiation strategy**. Such products envelop **unique technologies, a distinctive superior design or unique services**, etc. (Gabrielsson et al., 2008)

Born Globals are companies that focus on **niche markets**, which represent convenient segments that are better served by new and small firms than by larger companies that are not efficient enough on them. The ability of small companies to **adapt and customize** their products to fulfill the new requirements of niche clients is higher. Niche markets are usually not attractive for large companies because demand is too small or specific (Cahen, de Miranda Oliveira& Mendes Borini, 2017).

Cahen, de Miranda Oliveira& Mendes Borini (2017) mention another **unique intangible asset**, the **brand awareness**, which is likely to substantially contribute to the successful internalization process.

Stoian et al. (2016) found that **networks** play a key role in the development of international activity of a SME. For the creation of new knowledge, it is necessary that companies dynamically interact with business partners. Learning occur in these business networks, thus companies being able to see the opportunities and make successful decisions regarding market selection and degree of involvement.

Monferrer, Blesa & Ripollés (2015), reviewing the literature, found that the importance of **networks** stretches from the point of firm's creation to the process of its consolidation. The relations developed help the firm to gather diverse information and to identify and to exploit the market opportunities and to find the required resources for this goal.

Oviat and McDougal (2005) also found that rapid internalization is based on two key factors, **knowledge and international networking.** The higher the **market knowledge** is (owing to the founder's international experience or to the network), the higher is the probability to develop a learning capability to further in gathering new international knowledge. Johanson and Vahlne (2009) also argue that the major obstacle in developing international activity is the lack of membership in an international network.

The **strategic orientation** of a company, to meet international clients demands and a good knowledge of market is also found to be related to early expansion of activity (Knight and Kim, 2009),

Gabrielsson et al. (2008) emphasize the effectiveness or the speed of internalization process that a BG must achieve. Successful BGs must exhibit a rapid growth and a high performance on global markets, not only an early start on international markets. BGs have a global vision from the beginning, high commitment and **strategic capability.**

Kalinic and Forza (2012) analyzed the role **strategic flexibility** plays in the fast development of international activity of a SME. The flexibility of some SMEs is one of the essential strategic success factors needed to successfully internationalize that they poses compared to MNCs. Flexibility allow companies to rapidly change strategies and goals, to use development strategies and increase the level of commitment by founding subsidiaries or on the contrary, to withdraw from certain markets or ventures in response to turbulent business environments.

Monferer, Blesa & Ripoles (2015) emphasized the role **market orientation** has on the providing of information and knowledge firms require to successfully evolve in disruptive markets and on the embedding of this knowledge in the company.

Fernhaber, McDougall and Oviart (2007), based on an extensive literature review, concluded that innovative firms relied on **close contacts with customers and organizations within their industries in order to develop technologies**, by contrast with conventional firms that purchase or acquire existing technologies.

The international **market orientation** is mentioned by Persinger, Civi & Walsh Vostine (2007) as a key factor that firms that became BGs possess. Dib, da Rocha & da Silva (2010) also confirmed that software companies with high international marketing abilities, which are customer oriented and offer customized products are more prone to become BGs.

Knight and Kim (2009) emphasized the role **international marketing skills** have on the internationalization process and defined them as the capability of a company to create added value for international clients by integrating the marketing activities, by using market segmentation and by differentiating their products in order to meet the preferences of international clients.

Etemad (2019) also found that BGs are more innovative than other companies, are more aware of the international opportunities and the related risks, are more proactive in responding to latent needs of customers, are agile and resilient owing to their organizational and strategic flexibility, are very sensitive to market dynamics, are more prone to join or establish collaborative international networks, and have a high learning capacity.

Based on the previous review, we propose several features of the born globals that are the outcome of the scientific approaches on the internationalization process and that are divided into attributes of BGs that are expected triggers for the early and accelerated internationalization in unknown markets. The characteristics and attributes of BGs presented in Table 1. By referencing these characteristics and attributes, we envisage the understanding of which features can be found in the BGs in Romania.

Table 1
Expected characteristics of born globals

| Dimension | Characteristics | Expected triggers |
|---|---|---|
| Organizational resources and capabilities | Entrepreneurship orientation | High risk acceptance, being innovative and opportunity seeking |
| Strategic orientation | International market knowledge | High level of market knowledge (based on learning capability) |
| | Intangible assets | Unique intangible assets(based usually on |
| | Value creation sources | knowledge management processes) |
| | Networking | Differentiated products, technological innovativeness, leadership in quality |
| | Strategic proactivity and flexibility | Being part of international networks of suppliers, experts, distributors and so on |
| | Marketing orientation and relationship with clients | High proactivity and flexibility to adapt to changing business environments |
| | | Small customer groups, strong marketing orientation and close relationships with customers |

# 3. Methodology

In this section, we present the results of our research, based on four cases analysis. The first step consists of a brief description of each case, followed by their cross-comparison, in a pattern-matching approach. Thus the different factors described in our theoretical framework that comprises a literature synthesis are overlapped with the empirical findings, with the aim to uncover in what extent these firm cases match the predicted pattern of internationalization.

Researchers did not come to a consensus regarding the appropriate measure of the internationalization degree, in the attempt to rigorously define a born global. Following the approach of Zahra, Matherne & Carleton (2003) that consider international strategies as value creating, we use the percent of foreign sales in total sales as a measure of the degree of internationalization for technology BGs. Another criterion is the speed of internationalization, measured as the time span between the inception date of a new venture in Romania and the date of its first product launching in a foreign market.

In addition to being an IT Romanian company, in the category of SMEs, potential case firms had to fulfill the following requirements: the internationalization process should have begun within a time span of maximum 15 years from the inception of the company and the weight of the current external turnover in the total turnover should exceed the value of 25%.

The analyzed data was gathered from secondary sources: company sites, databases, news articles, interviews with the founders and annual reports.

We used for each case a pattern-matching technique to overlap the empirically established pattern with the theoretical one. We employed as well a cross-synthesis technique, treating every case as a separate study, finding both similarities and differences. Then we assembled them for general findings across the cases.

We employed the case study method because it is the most appropriate method in the exploratory studies to answer the questions"how" and "why" about a set of events over which we didn't have control. The companies were codified in order to ensure confidentiality.

# 3.1. Cases

**Firm A – provider of digital products and businesses**

Company A is an international technology and innovation company that creates and invests in digital products and businesses for global start-ups and organizations. It uses technologies as experience design, rapid prototyping and emerging technologies as AI to create innovative products and services that help big organizations to take the steps towards the hyper-scalable digital economy of the 21 century.

The company was founded in 2007 by two business partners and has reached in 2020 a number of 200 employees, from which 150 programmers and a turnover of 11 million Euros. The company has today subsidiaries on 3 continents and builds digital products and services that use emergent technology for some of the biggest global brands.

In 2013 it began the international extension of its business, starting the collaboration with the first clients in US. In 2016 it purchased an experience design start up in US, which became the company's American office. In the same year, the founder of that start-up joined the management of the company as managing partner and innovation manager, and then as chief executive officer. In 2016 the company opened its first office in Sidney, where it started the development of innovation projects with global brands. In 2019, the company founded its first subsidiaries, in US and Australia.

Company A has entered in several tops of European companies with the fastest ascension, having an average growth rate of 38.3%, a turnover of 4.2 million Euros and 143 employees in 2015, such as Financial Times top Inc.Magazine, Deloitte.

The company activates in the segment of *technology innovation*, more precisely in services of consultancy in digital transformation and innovation, where it has not identified direct Romanian competitors and in the segment of *technology outsourcing* where it has numerous local competitors.

The company differentiates its offer by designing innovative products, being one of the few companies in Eastern Europe that approach innovation projects, for example augmented reality for a luxury home electronic products manufacturer in Australia. Other examples of the innovative digital products that the company offers are: mobile applications, applications for the medical field, and virtual mirrors for malls.

Another differentiating point for company A is the speed with which it can develop a product or a service. The company obtains a prototype developed from an idea in two days, an a validated product from a prototype in 10 weeks, while most companies need 12 to 18 months to develop a prototype from an idea. The company is capable to obtain such performances by developing and using its own innovation framework, which brings innovation in the operational process combining the rapid prototyping technique, the Agile and skunkworks methodologies and emerging technologies as AI and machine learning.

The company builds and scales digital businesses for its clients, centering on rapid development of digital solutions – in which it includes strategy, product design, behavioral psychology, growth marketing and experience design.

The business technology innovation activities bring 38% of the total external turnover, and 31% of total number of employees work in technology innovation area, while 57% work in technology outsourcing, 31% in technology innovation and 12% in administrative area.

In 2017, within the pale of technology innovation segment, the company scored 2 new income categories:

income from consultancy services and incomes from maintenance services, which represents together 3.59% of the income from technology innovation.

A part of the revenues obtained from the innovation technology segment are represented by the *incomes from the R&D activity*, that reached in 2016 a value of 800000 euros, meaning 54% of the total revenues from technology innovation.

**Company B- developer of custom digital products and services**

The company develops custom software for its clients, big companies or start-ups, building dedicated teams for companies in a variety of industries, as financial sector, health, commerce, communications industry.

Company B is one of the biggest providers of software services in the region, repeatedly included in several tops of technology companies with fastest growing rate and of companies that provide business excellence.

Company B began its activity with 60 employees in 2003, now having over 800 software engineers.

In 2005 it started its first collaborations with external clients and in 2019 it opened its first office in the US. Today, the commercial projects in the US represent 45% of the total number of commercial contracts. The company has a portfolio of over two hundred client companies.

The company acts as an integrant part of the technical ecosystem of clients, following an adaptive collaboration model. It facilitates the achievement of competitive advantages for its clients by using dedicated software development teams, capability to scale and high software engineering expertise. The

company has expertise in industries like healthcare, financial services, automotive and covers the end-to-end software lifecycle development, delivering innovation, scalability, quality and speed.

In the last 5 years, the company invested in 15 tech start-ups over 4 million dollars, the majority of them being located in the US, but also in 2 Romanian start-ups, offering them not only financial capital, but also the option of product and business development or becoming partners with experts in different areas that want to involve in the business.

**C – provider of business informatics systems**

Company C is one of the most important regional providers of business informatics systems ((ERP, HCM, CRM, DM and BI) and one of the top global players on the financial and leasing applications market. The company has now over 700 employees and projects in 46 countries, on four continents. Company C develops o suite of business software solutions –that includes ERP systems, remuneration and HR management solutions, solutions for the banking and financial companies, solutions for medical activity management and eBusiness applications. The applications suite is complemented by services of HR management outsourcing. Also the company implements the CRM informatic system for its clients.

Company C was founded in Bucharest by six software experts in 1994, two years later beginning to develop software for external clients. In 2001 the development of its first ERP system began, system that was launched internationally in 2004 and became the most important software products for retail and distribution companies in Romania. The division of HR solutions launched the first product of Self Service HR in Romania. 2002 is the third year with a consecutive growth of over 50% in turnover. In 2006 the company entered the leasing and financial informatics products market, and in 2008 it approached a new market niche, multimedia and infotainment systems for automotive industry.

In 2010 the mobile devices division is founded, division that developed over 10 applications, among which the first business intelligence application available on mobile devices in the world and the first service of credit risk appraisal. Beginning with this year, the company opened subsidiaries in five countries.

2012 was the fourth year in which the company occupied the first place in the ERP Romanian providers and was the market leader for software systems for services, retail and distribution companies. In the same year it launched three new products in the ERP suite and it developed and implemented CRM platforms for multinational companies, also providing solutions and services for project management.

The international activity of the company outspread on 35 countries in 2014.

In 2019, the income from external markets reached 35% of the total income.

In 2018 the company bought and integrated a group of companies specialized in outsourcing, technology and business management.

**D – developer of software in outsourcing system and of digital products**

Company D is a software developer with expertise in automotive industry, IoT, *travel & hospitality, life sciences, enterprise solutions*. The three business lines of the company – software development in outsourcing system, software solutions for internal market and retailing of navigation systems placed the company in the top five of technology companies with the fastest growth pace in Eastern and Central Europe. The company was mentioned four years consecutively in the Deloitte Technology FAST 50 CET Report, and received many awards and nominalizations in numerous European events.

Today the company has over 800 employees and has offices in 7 countries and 25% of the total income, estimated at about 30 million Euros, is generated by the external subsidiaries

It was founded in 1998 and it began its activity with 10 employees that developed products in outsourcing system for important companies in Western Union and the US. The experience gained in the collaboration with global players was used to develop its first own products in 2003, a series of software solutions for Romanian market: a solution for sales forces automation, systems for automotive fleet localization and monitoring and tourism agencies applications. The number of national clients that use these solutions is over 400. In 2006, company D has diversified its activities by initiating a new business line, becoming national distributor of complete GPS navigation systems and of GPS smart phones. In 2008 the company launched the first Romanian brand of navigation systems. Today, the company sells 3 models of navigation systems and a netbook. The products in fleet management area are already stable in the top of providers in Eastern and South-Eastern Europe.

In 2011 the company extended its activity on international markets, opening subsidiaries in four countries.

Beginning with 2013, the company has begun its process of integrating several local players as well, in order to develop the product and service lines it provides, and also to diversify the industries it activates in.

In 2014 the company decided to set up a new division, beside the four existing ones, with resources dedicated for R&D of new ideas and technologies. The Innovative projects division is a lab dedicated to R&D of projects for the private and public sector.

In 2018 the company absorbed a local company that produces software solutions for HR and remuneration management. It also purchased a Hungarian company with the purpose to become one of the biggest players on the car monitoring services market in central and south-eastern Europe and also a company in Belgium, whose products and services are complementary with the company's own products, in the areas of fleet management, automation process, but also on educational software area.

# 3.2. Cross-case analysis

In this section the cases are cross-compared, the characteristics of every company being also compared with the conceptual framework depicted in the literature. This way, we can identify the expected triggers that drive the Romanian software companies to internationalize at a rapid pace.

- **Organizational resources and capabilities**
- **Entrepreneurship orientation**

This characteristic seems to be common to all the four analyzed companies. The founders of **company A** seized the opportunities the fundamental technologic evolution would offer and the fact that a new era for businesses would begin. The future evolutions meant user experience that could allow the company to build extraordinary successful MVPs (Minimum Viable Products). “Businesses outside technology seem unsuccessful to me, because somebody else will use technology in the same business idea and will scale them exponentially”, says one of the founders and managers of company A. The founders of the company invested in innovation area, the company passing in a short span of time from offering software outsourcing services to develop software using clients’ specifications and then to writing its own specifications and building its own innovative IT products for some of the biggest brands in the world, for example developing an augmented reality product for a luxury domestic appliances company. “The difference is the courage to involve in the most complex projects and bring 10 times a benefit to the clients through software applications” – is another idea expressed by the managers.

The growth of the company was accelerated, the challenge being a more structured and prudent expansion of the business, as founders declare. Another challenge was to create and build a consistent and coherent company culture.

**Company B** is also characterized by a high entrepreneurship orientation, beginning its activity by being a code developer company, then seizing the opportunity of becoming a provider of complete IT services range, integrating business analysis, architectures, complex applications and project management practices for healthcare, financial services and automotive companies.

Company B also established an investment division that has the goal to support start-up companies to reach their business objectives, creating joint ventures. In the last five years, company B invested capital in 13 tech start-ups, the majority of them in US, but also in 2 Romanian start-ups, the last major investments being companies that offer financial software and tele-medical services. This investment division offers not only financial capital for the start-ups, but also the support for product and business development or the opportunity of becoming partners with experts in diverse areas that are willing to start a business. The product investment manager of company says “we searched for solutions whose clients we may become ourselves”.

**Company C** also exhibits an entrepreneurial behavior and a high risk taking attitude, entering new market niches, diversifying its product lines and launching some innovative products. The company began its activity by offering software services for other companies, in several years managing to launch on the international market its first own product, an ERP solution. Company C also seized the opportunity to

launch the first business intelligence applications for mobile devices in the world and also some local premieres, such as a service of credit risk assessment.

**Company D** has implemented the strategy of growing by acquiring new companies, the audacious acquisitions diversifying constantly the range of products it offers. The economic and medical crisis in 2020 was seen as an opportunity to develop a new telemetric platform for car fleet management, in order to enhance the services it offers. The company realized quickly that the clients' needs are changing, in unpredictable environments, so it enhanced the flexibility of the instruments it provides to customers, including in the telematics platform a mobile application that clients can use.

- **International market knowledge**

The previous international market knowledge is a characteristic only for **company B**, whose founder had a previous significant international experience in IT industry, which allowed him to acquire many useful abilities. The entrepreneur decided to capitalize this experience by opening his first business.

For **company A**, international market knowledge was acquired from the beginning of its activity by attracting experts that form a Board of Advisors with international experience, especially founders of technology start-ups. **Company C** gained market experience by working with important international clients. **Company D** uses the strategy of audacious acquisitions in order to gain external market knowledge.

But the common characteristic of all four companies is all the founders had a global vision from the start, the companies starting to work with international clients from the beginning, even if the knowledge of international markets was scarce.

- **Intangible assets**

The main asset that brings **company A** competitive advantage is the **innovation capacity**. There are very few companies in Eastern Europe that approach innovation projects. The innovation process in the operational field, that combines the technique of rapid prototyping, the principles of design thinking, the Agile and Skunkworks methodologies and emerging technologies as AI and Machine learning contributes to the development of revolutionary products and services that are subsequently implemented, as for example a solution for augmented reality for a luxury home electronic products company in Australia. Company A has an R&D division, whose activity brought in the last 4 years between 14 and 54% of the revenues obtained by company A from the innovation technology segment

The innovation capability lead to the creation of a technology platform that covers 70% of the digital products and services development effort, facilitating the building of infrastructure and the generic functionalities and assuring the development of a technical MVP for clients in only 10 weeks.

Another intangible asset is the **organizational culture, which** is centered on people. The company is very careful with their development needs, taking constant efforts to reduce the risk of losing employees that

have specific skills and key roles. “Comfort and death are good friends” is an idea included in the set of cultural instruments used by the company, which encourages employees to outgrow themselves and not to become auto-sufficient.

The company implements a retention plan that contains actions like the annual salary renegotiation, performance bonuses, continuous evaluation processes, trainings for professional development (e-learning platform subscriptions, library), but also the possibility to allocate shares by the programs of stock option.

The development of team’s competencies is assured by the company’s own e-learning platform – BottomUp Skills, by which the employees but also the technology and business community are provided with the advanced courses on innovation technologies and digital tools that help them to create digital products and experiences with impact and value for users – design thinking, rapid prototyping, business innovation etc. The classes are available in podcast and masterclass format.

An important intangible asset of company B is the know-how on the model of team extending, acquired after years of calibrating it. Also the communication skills and cultural affinity enable the company to bring real value for customers.

The company constantly invests in enhancing employees’ skills and competencies by using an organized centralized system for knowledge sharing, coaching, training, and internal communication, built on the Atlassian collaboration tools. All employees have unlimited access to a technical knowledge base that is constantly extended through members’ contributions.

The common practices used to enhance project or product teams’ competencies are informal learning sessions and presentations across projects. Many software developers of company B are involved in company-wide communities, where monthly meetings are held in order to share knowledge about technology and software practices. The company also has an internal network of coaches, which has the role to promptly transfer knowledge across all departments of the organization.

**Company C** has a high innovation capacity, making investments in the adoption of new technologies, in the enhancement or re-writing of new technologies of over 10 million euros in the last 3 years. The budget for investments in technology, products and innovation is 5 million euros.

The company uses internship programs in order to attract young employees but is open to attract experienced employees also.

In order to enhance the employees experience the environment is collaborative, the teams are aligned to the same vision, objectives and strategies. The values of the company are translated in actual behaviors that inspire the employees, imbuing them the sense of pride for contributing to the creation of some of the most successful products in the world, for example in the credit and leasing area, and the redefinition of performances assessment system. The goal is that employees find their intrinsic motivation to

contribute to daily activity and to encourage them to enhance their abilities, investing in their training. In 2019 the company had a generous budget for external training.

**Company D** also possesses a high innovative capability and has a division called Innovative projects that is a lab dedicated to project R&D activity. The ability to encourage innovative projects within the company is based on the long term perspective the founder of the company had even from the beginning of the activity in 1998 about the importance of durable innovation development, of generating and collecting new software solutions ideas and transforming them in prototypes and products.

- **Value creation sources**

**Company A** provides business consultancy and digital strategy for its clients, and also technological implementation of the strategies. The company practically builds digital businesses, focusing on a rapid development of digital solutions, in which it includes strategic, product design, behavioral psychology, growth marketing and experience design for the client. Thus company A addresses the whole value chain of the client companies, beginning with the identification of the business problem, offering business consultancy, creating strategies for the client and then translating these strategies in digital products and services that are implemented in the client companies. This approach is unique, no other competitors succeeding to offer such comprehensive services.

The company also offers stable and safe MVP (minimum viable products) for the clients in only 10 weeks, owing to its own library of reusable technological components, tested and enhanced for 10 years of technology and digital products development. The company's platform exponentially reduces the period of time necessary for the development of digital products, covering a variety of necessities in development – from infrastructure, UI/UX, mobile – iOS and Android to front-end and back-end web.

**Company B** covers the end-to-end software lifecycle development, delivering its clients innovative products, scalability, quality and speed, having expertise in healthcare, financial services, automotive. The whole span of a software product is covered, from need assessment, UI/UX, application development, testing and quality ensuring to maintenance or project management

The company is not only providing software customized products for the client companies, but is also provides support that enables decision making and change management for its clients. These services smooth the running of operational processes across the client companies and ensure the objectives they settled are met. Company B treats every client with most care, configurating dedicated software development teams that work exclusively on client's projects. Such teams can extend the client company's in-house software development capacity or add specific knowledge to its team, working together closely with its developers and testers.

The teams that will work with a specific client are also selected by taking into account the cultural matching, the members' desire and interest to work on a particular project, and not only their technical skills and relevant experience. Thus it is assured an effective knowledge transfer through workshops and

intense collaboration. Knowledge transfer is ensures also workshops and intense collaboration, either on company's premises or at the client's site.

**Company C** sells digital products for companies that have a high impact on their businesses, such as the reduction of costs, the reduction of time necessary for repetitive tasks. The main product is a software solution for ERP, which includes segments for accountability, sales and for financial flow management. The clients manage to reduce their costs and obtain important increase in their productivity, some of them declaring that the ERP solution has helped them to make progress every month and that without the positive impact of this digital product, their business would close.

**Company D** offers solutions for business optimization, car fleet management and HR management. The solution for business optimization is created for the necessities of implementation of internal processes for small or medium companies and represents an alternative to CRM solutions (a plurality of instruments for organizing intra and inter departmental interactions, as well as interactions with prospects, clients, providers and other companies) at a much lower cost. The solution helps company D's customers to improve their relations with their own clients. The product of company D is not only a software product, but a tool useful for business strategy, flexible and easy to implement, on a growing market of companies that begin to use CRM solutions in order to enhance their relations and interactions with existing or potential clients and UCMS solutions (instruments to measure a team's performance) because they need to manage their remote teams.

In the middle of 2008 crisis, another product of company D, a solution for car fleet monitoring became market leader, because offered the companies a solution to optimize their costs and to increase their human resources efficiency. The product brought a reduction of car fleet expenses with 30%.

The software solutions for HR management are characterized by a very good customer experience and an agile reaction in the implementation process. They offer a very good customer experience, an agile reaction in the process of implementation for the final customer and are consolidated by the newest technologies.

The company also offers advanced client services and frequently re-designs all its digital solutions so they form an integrated system of digitalization, optimization and flexibility.

- **Strategic orientation**
- **Networking**

All of the examined companies are part of business networks that allowed them to access new technical and business knowledge. For example, **company A** experienced a boom of its activity beginning with 2012, after it reached the US market Silicon Valley and started collaborations in Silicon Valley. The company integrated an American start up of experience design and storytelling, whose founder joined the management of the company as managing partner and innovation manager and then became CEO. The experience and business network of the new manager helped the company establish a subsidiary in

Australia and develop its business globally. Company A also attracted several entrepreneurs and experts from American IT industry as advisors.

**Company B** established strategic partnerships with leading companies in complementary sectors, ensuring that their clients receive the best services for their digital challenges and complex needs. Through industry affiliations, it keeps up to date with the dynamic landscape in every ecosystem, from healthcare to fintech and automotive, continuously aligning the services of custom software development with the latest innovations and trends.

Also, the company's business model itself is to develop nearshore dedicated partnerships, building teams for the long term needs of its customers. Every customer benefits from team extensions, the success of this tactic laying in the collaborations the company has built.

The networking ability has allowed company B to also engage in partnerships that led to the creation of new companies. The knowledge capital of the founders is transferred to the new companies, the most recent start-ups that company B has created together with its business partners as joint ventures activating in the tele-medical services and in financial services. The start-ups are provided with support for product or business development and with the opportunity to meet different experts in its business network.

**Company C** also exhibited networking abilities since the beginning of its activity, becoming a founding member of the romanian association of software and services industry in 1998. It also established partnerships with a world leader in business intelligence technologies, with the main European talent management provider and with a leading company in HR services in order to enhance its products' features and to find new international clients.

**Company D** has chosen to develop its activity by using the acquisition strategy. It strengthened and diversified its offer for its clients, absorbing companies in several countries. This way, the product line company D provides has enriched with HR management software solutions, fleet management, CRM, automation of processes for companies in FMCG industry, warehouse management systems, distribution management.

- **Strategic proactivity and flexibility**

All of the examined companies have proven to employ flexible strategies and to have a proactive business approach.

**Company A** exhibits a high strategic flexibility, passing through three profound changes of its business – which the founders call "re-inventions", from outsourcing software to innovation activities (design and building of digital products and services that use emergent technologies, including artificial intelligence).

The founders of the company started with a low budget and had to be inventive in order to identify financing sources. The beginnings of the company, which were "a little bit forced" (as one of the founders

says) - meaning the growth was too fast, gave it resistance and attention to details, making it extremely resilient. The economical crisis is seen by the managers of the company as bringing opportunities to sign new contracts, starting new digital projects for several clients in the financial area.

**Company B** is one of the most dynamic software developers in south and Eastern Europe. It changed its leadership structure, including new functionalities in the areas of project management, processes and quality. The company passed through accelerated evolutions, calling for a need of business processes optimization. For this task, company B, as well as the other companies in the selected group, is using the strategy of recruiting international experts, whose knowledge can help the organization develop successfully abroad. The proactivity of company B is illustrated by an investment division, which has the goal to identify the opportunities for new investments in potentially successful start-ups.

C**ompany C'** business extending to an international level was not based on a clear stated strategy, according to its founder. The company flexibly adapted its activity to the requests of multinational companies, former clients, which wanted company C to become the provider of software systems for other subsidiaries. The structure of the company was modified and the internal processes were adapted to the continuous growth of its business.

**Company D's** founder deems a crisis is testing a company's adaptability capacity and forces it to get out of its comfort area and to find new business solutions. In the context of the pandemic 2020 crisis, many customers of company D reacted rapidly and well when they had to let their employees to work from home, but they also faced the challenge to manage remote teams and remote prepare time sheets. Company D adapted a HR management product for the new needs of its customers, seeing the crisis as an opportunity and benefiting from it. It also saw the opportunity to develop a new telematics platform, with the purpose to enhance the services it provides to customers, with a mobile application, available on app stores, included.

The recent crisis taught the company a lesson about unpredictability, highlighting the level of adaptability, from all points of view: internal and external communication, re-organization and re-dimension of operations, keeping the balance even in rough conditions. With seven national offices and six international subsidiaries and over 950 employees, company D succeeded a successful re-thinking of its internal systems, business strategies and work methods.

- **Marketing orientation and relationship with clients**

All of the four analyzed companies exhibit a client-oriented culture and excellent customer care services. The culture of **company A** is built on the idea of customer care. All the employees are encouraged to thoroughly analyze the needs of the clients and to find the sources of value creation for every client, by maintaining a close relationship with every client. The managers encourage the employees, even the programmers, to dialogue with the clients, to thoroughly understand the business they are working for, before they are starting their activity and to offer advices where needed.

**Company B** is also characterized by strong customer care competencies. “We have learnt that any technological intervention implies more profound changes in the client organization”, declares one of the managers. In the light of this understanding, company B’s employees practice a consultative approach, facilitating the navigation of every step in the development and acquisition of a new software project. The dedication of the teams that develop “carefully crafted custom software” for established companies, startups, software houses and solution providers is acknowledged by its former clients. Company B’s teams are self managed, can add new members as needed, are flexible, and ensure knowledge transfer to client teams through workshops and intense collaboration, establishing together a remote process and communication, thus operating as integrant part in clients’ technical ecosystem, on a model of adaptive collaboration, ensuring that the distributed team works seamlessly. The excellent communication process with the clients led to an increasing market share in the US.

Although the company had a 15 years experience in international market and a commercial portfolio generated in a proportion of 45% by American clients, it decided in 2019 to enhance its services for customers and in order to put this into practice, it established an office in US where a multi-disciplinary team, composed by software architects, business and sales consultants will ensure a close relationship with the prospects and clients in the region. The purpose is to deepen its understanding of local market specific needs.

In order to acquire marketing and customer care competencies, **company C**’s founder recruited an international sales manager with a high expertise in this area. The integrated business solutions are sold in the entire Europe, the company having excellent relations with its customers. “We sell trust. Our clients become dependent on our products, they use them several years”, declares the founder of the company.

**Company D** is constantly improving the products and services it offers to its customers, complying with the always changing needs of its customers, because it realized that they need flexibility, in unpredictable environments. Company D implements as flexibly as possible the instruments needed by the customers, an example being the adaptation of a HR management product for the new clients’ needs of remote team management and of remote time sheet preparing.

# 4. Discussion

Our case studies enabled us to identify the triggers of the early and fast internationalization of BGs. In all the cases an important trigger was the **global vision of the founders**, which insisted on developing a global business from the beginning. This vision does not always derive from the background of the entrepreneurs. **Previous international market** knowledge is not a common feature of the studied companies. The only exception is company B’s founder that had an international experience in IT industry and decided to capitalize the acquired abilities in founding its own business. The other founders’ international experience was limited, the common thing being their international view from the beginning. In order to gain international experience, company A attracted international experts in a board of advisors since the beginning of its activity and company D used a strategy of acquisitions to develop its external

market knowledge. These results contrast with the findings of Andersson and Wictor (2003), that emphasize the role of previous international experience of the managers and entrepreneurs that founded the born-globals but confirm the findings of Rialp et al. (2005).

Our findings also confirm the hypothesis of Gabrielson et al. (2008) that the early commitment to international activities is generated by the global vision of the entrepreneur and not by experiential knowledge. The cooperation with foreign partners began immediately, because the SMEs had business contacts that provided them rapid subsequent global growth. Examples are the contracts company A signed with Adobe and Microsoft, for testing software services (one of the founders of company A was a former Adobe employee), company C that began its activity as distributor for Microsoft and for a reputable company that sells project portfolio management solutions, two years later beginning to develop software for external clients.

**Entrepreneurship orientation** seems to be particularly relevant for the evolution of BGs. The risks a BG is willing to take on are much bigger than the risk a traditional exporting SME faces. All of the founders of the studied companies invested all profits at the beginning of their endeavor, taking a double risk, a risk of new products that are launched on new markets, in the conditions of limited financial resources.

The **value fast internationalizing Romanian IT companies provides for their customers** derives from the highly **innovative capacity** these companies hold. For example, company A has an R&D division, whose activity brought in the last 4 years between 14 and 54% of the revenues obtained by company A from the innovation technology segment, company A being one of the few companies in eastern Europe that are able to approach such innovative projects. Company C also invests high amounts in the adoption of new technologies, in the enhancement or re-writing new technologies. The budget for investments in technology, products and innovation is 5 million Euros. Company D has a special lab dedicated to R&D projects.

The ability to encourage innovative projects and to develop the R&D capacity of these companies is based on the long term view their founders had from the beginning of the activity about the importance of sustained innovation development. The main sources of value creation for customers derive from innovation and technology intensive processes and from unique, highly differentiated products. These findings confirm Rialp et al.2005.

Another capability these companies share is the **capacity to enhance their teams' competencies**. For example, company A has developed its own e-learning platform, by which the employees are provided with advanced courses on innovation technologies and digital tools.

Company B also uses a comprehensive centralized system of knowledge sharing that provides employees with coaching, training and internal communication services. The company also employs informal learning sessions and presentations for a product or a project's team and even for all employees, with information that cross several projects.

Many software developers from companies A and B are engaged in technology or business based communities, sharing technology, software and business practices topics. In company B, additionally, an internal network of coaches is set up to ensure the knowledge transfer throughout the organization.

Company C created a collaborative work environment, creating a culture of pride that motivates employees to find their intrinsic motivation to enhance their abilities, complementary with a generous budget for external training. Managers of these companies develop knowledge that is a unique and difficult to imitate resource by embedding into the companies' culture values and routines that help employees to enhance their competences. This confirms the findings of Knight and Cavusgil (2004).

These intangible assets allow BGs to provide their clients **high value added products** that enable their clients to gain important competitive advantages or to substantially improve their productivity or cost structure. Some clients describe those products as "vital" for their business.

**The international success of these companies is also supported by their networking capability**. The international networks have been rapidly developed, as in the case of companies A and D that became members of new business networks by using acquisition strategies. This allowed them to acquire experience, technical abilities, and access to new markets. Company B even based their business model on the networking ability, the strategic partnerships allowing them to ensure complex teams to address the needs of their clients. Company B also engaged in long term partnerships by creating several new start-up joint ventures together with its business partners. We can establish that wider and stronger networking orientation and capabilities of BGs decision makers allow them to exploit of opportunities that other companies leave out. This confirms the findings of Rialp et al (2005) and of Knight and Cavusgil (1996).

All of the studied companies exhibit a **high customer orientation**. The close relationships with the clients allowed them to find sources of value creation for every client. Even the employees that usually do not interact directly with the clients, as programmers, are encouraged to dialogue with them and to offer advices where needed. The strong customer care competencies embed a consultative approach and excellent customer services before, during and after the digital products are developed and implemented for the customers. Some of the former clients became even business partners of these companies.

Although had a 15 years experience on American market, company B decided to open an office in US to ensure a closer relationship with the prospects and clients in the region and to deepen its understanding of the market specific needs. The customer orientation of the BGs is also found to be a source of value creation process by Tabares, Alvares and Urbano (2015). All of the four companies exhibit a profound knowledge of customers, capability to adapt and develop customized, high quality products for clients and a skillful usage of marketing tactics to target foreign clients, conclusion that is in line with those of Knight and Cavusgil (2004), but contrast the findings of Rialp et al. (2005).

All of the four studied companies also show a **high adaptability to the business environment and a strategic flexibility** that allowed them to modify their business models when the opportunity occurred. For

example, company A passed through three profound changes, beginning its activity with outsourcing software, then it focused on project development for its customers, today its activity residing mainly in innovation activities (design and building of digital products and services that use emergent technologies, including artificial intelligence.

All companies changed their leadership structure in short periods of time, including new functionalities in areas as project management, operations, quality, sales, and recruiting international experts whose knowledge helped the rapid and successful international growth.

The structure of the companies and the internal processes were rapidly modified and adapted to the continuous international growth and recently to the new pandemic crisis. All of the companies successfully modified their internal and external communications, re-organized and re-dimensioned their operations, re-thought their internal systems, work methods (for example they passed to remote work) and business strategies.

These findings are in line with those of Kalinic and Forza (2012) that emphasize the flexibility, the quick reaction to feedback from external conditions by changing their goals and the risk taking behavior of BGs.

# 5. Conclusion

Our study investigated the explanatory mechanisms that stand behind the rapid internationalization of some small and medium companies in unknown markets.

The study is based on an extensive review of existing theories on the rapid internationalization of small and medium enterprises, called born globals. We selected the most important characteristics of such companies, organized on two dimensions: *Organizational resources and capabilities* and *Strategic orientation* and then put them against the characteristics of several Romanian companies.

The study is exploratory but does provide some insights into the internationalization process of Romanian software companies. Our sources of information were secondary data about four representative IT Romanian companies. Nonetheless, our study provides insights into the factors that distinguish companies with a high speed of internationalization from other companies and highlights several interesting areas for further study.

Our results have academic (contributing to the deepening of scientific knowledge in the field of born global), managerial and policy-making implications (for the public policies that influence the born global firms' evolution).

From an academic point of view, our findings are in line with the existing literature on the theme of born globals companies, with one exception: the prior international market knowledge that the entrepreneur possesses is scarce, but his global perspective exists from the beginning.

We also established that the high growth rate of the turnover form external clients is influenced by the innovation capability (that leads to product/services development) and by the organizational learning capability. All of the studied companies invested high amounts in developing their innovation capacity and their employees' knowledge and competencies. These intangible assets enable born globals to offer their clients products with high value added, having unique features, adaptable or customized and excellent services.

The networking capability is involved in Romanian software companies' high speed rate of internationalization process. Firms internationalize mainly to be close to their strategic clients or to gain higher market shares by absorbing foreign companies. We also found that these companies exhibit a high strategic flexibility and proactivity, being able to quickly extend their business on new the markets, offering new products and services, seizing new opportunities, the strategy of audacious acquiring of foreign companies being very common among these companies. They also exhibit a deep understanding of every client's needs, the relational approach of marketing activity being common to all of the studied companies.

For managers and entrepreneurs, the implications of our study are that the enhancement of the networking capability, of the marketing and client orientation and of the innovation capability are vital in order to achieve quick results that sustain the business and lead it to becoming a successful international player.

For policy makers, our empirical research implications are that their efforts should be oriented towards encouraging international network and partnership formation and also investments in innovation of the companies. A good example would be to decrease the level of income tax from R&D activities of the companies and also to provide grants for these activities and support for the participation of small companies in international events.

Due to the qualitative nature of our research, we admit that the case study method does not allow a generalization of our findings to other contexts, but it helps reaching the goal of exploring the phenomenon of born global Romanian companies, which has never been investigated in the literature prior to our research. Future research might employ a quantitative method to confirm our findings and to further investigate the role of external factors in the rapid internationalization path some companies follow. Our results could also be of interest for researchers that want to explore the evolution of born globals in other eastern and central Europe countries, in order to broaden these findings to wider groups of companies and to compare the empirical results with existing research on this topic.

# References

Andersson S., Wictor I. (2003). Innovative Internationalisation in New Firms: Born Globals – the Swedish Case. *Journal of Internationational Entrepreneurship*, 1, pp. 249-276.

Ayden Y., Tatoglu E., Glaister K.W., Demirbag M. (2021). Exploring the internationalization strategies of Turkish multinationals: A multi-perspective analysis. *Journal of International Management*, Volume 27, Issue 3,100783, ISSN 1075-4253.

Barney, J. B. (1991). Firm resources and sustained competitive advantage, *Journal of Management*, 17, 99–120.

Bouncken R., Schuessler F., Kraus S. (2015), The Theoretical Embedding Of Born Globals: Challenging Existing Internationalization Theories*, International Business & Economics Research Journal*, Volume 14, Number 1.

Butnariu A., Luca F.A. (2021). Triggers of Born Global Companies, *Network Intelligence Studies*, volume IX, issue 18, 161-169.

Cahen R.F., de Miranda Oliveira M., Mendes Borini F. (2017), The internationalisation of new technology-based firms from emerging markets, *Int. J. Technology Management, Vol. 74, Nos. 1/2/3/4.*

Cavusgil, S., Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of International Business Studies,* 46, 3–16.

Dib, L.A., da Rocha, A. & da Silva, J.F. (2010). The internationalization process of Brazilian software firms and the born global phenomenon: Examining firm, network, and entrepreneur variables, *Journal of International Entrepreneurship,* **8,** 233–253.

Eriksson, K., Johanson, J., Majkga˚rd, A., Sharma, D.D. (1997). Experiential knowledge and cost in the internationalization process. *Journal of International Business Studies*, 28, 337 – 360.

Etemad H. (2019), Revisiting interactions of entrepreneurial, marketing, and other orientations with internationalization strategies, *Journal of International Entrepreneurship*, 17, 1–18.

Ferreira Ribeiro F., De Miranda Jr. M., Borini F.M., Bernardes R. (2014), Accelerated Internationalization in Emerging Markets: Empirical Evidence from Brazilian Technology-Based Firms, *Journal of Technology Management & Innovation*, Volume 9, Issue 1.

Fernhaber, S. A., McDougall, P. P., Oviart, B. M. (2007), Exploring the Role of Industry Structure in New Venture Internationalization, *Scholarship and Professional Work - Business*. 91.https://digitalcommons.butler.edu/cob_papers/91

Gabrielsson M., Kirpalani M., Dimitratos P., Solberg C.A., Zucchella A. (2008). Born globals: Propositions to help advance the theory, *International Business Review* 17, 385–401.

Garvey, D., Brennan, L. (2006). The Internationalisation of Indigenous Irish Software Technology Companies: An Exploratory Study, *Irish Journal of Management,* 26, 2.

Grant R.M. (1996). Toward a knowledge-based theory of the firm, *Strategic Management Journal*, Vol. 17, 109-122.

Jantunen A., Nummela N., Puumalainen K., Saarenketo K. (2008). Strategic orientations of born globals—Do they really matter?, *Journal of World Business*,Vol. 43 (2), 158-170.

**Johanson J., Vahlne JE. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership, *Journal of International Business Studies*, 40, 1411–1431.**

Kalinic I., Forza C. (2012). Rapid internationalization of traditional SMEs: Between gradualist models and born globals, *International Business Review*, 21, 694-707.

Kennedy A., Keeney K. (2009). Strategic partnerships and the internationalization process of software sees, Serv ice Business, 3(3), 259–273.

Knight, G., Cavusgil, S. T. (1996). The Born Global Firm: A Challenge to Traditional Internationalization Theory, in *Advances in International Marketing*, Vol. 8, Cavusgil, S., Madsen, T., (eds.), Greenwich, CT: JAI Press, pp. 11-26.

Knight, G., Cavusgil, S. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies,* 35, 124–141.

Knight, G., Kim, D. (2009). International business competence and the contemporary firm. *Journal of International Business Studies,* 40, 255–273.

Liebeskind, JP. (1996). Knowledge, Strategy, and the Theory of the Firm, *Strategic Management Journal*, Vol. 17, Special Issue: Knowledge and the Firm, pp. 93-107

Losada Otalora M., Casanova L. (2012). Resources and Internalisation Strategies: The Case of Latin American Multinationals, Insead Faculty & Research Working Paper.

Martin X., Salomon R. (2003). Tacitness, Learning, and International Expansion: A Study of Foreign Direct Investment in a Knowledge-Intensive Industry, *Organization Science*, Vol. 14, No. 3, 297–311.

Monferrer D., Blesa A., Ripollés M. (2015). Born globals trough knowledge-based dynamic capabilities and network market orientation, *Business Research Quarterly*, 18, 18-36.

Mitgwe, B. (2006). Theoretical Milestones in International Business: The Journey to International Entrepreneurship Theory. *Journal of International Entrepreneurship*, 4, 5-25.

Nonaka I., (1994), A Dynamic Theory of Organizational Knowledge Creation, *Organisation Science*, Vol. 5, No. 1.

Oviatt, B., McDougall, P.(2005). The internationalization of entrepreneurship. *Journal of International Business Studies*, 36, 2–8.

Peng M. (2001), The resource-based view and international business, Journal of Management,Volume 27, Issue 6, pp. 803-829,ISSN 0149-2063,https://doi.org/10.1016/S0149-2063(01)00124-6.

Persinger E., Civi E., Walsh Vostine S. (2007). The Born Global Entrepreneur In Emerging Economies, *International Business & Economics Research Journal*, Volume 6, Number 3.

Reuwer T., Jansen S., Brinkkemper S. (2013). Key Factors in the Internationalization Process of SMEs Exporting Business Software as a Service, *International Journal of Business Information Systems* 2013, 12, 140–162.

Rialp A., Rialp J., Urbano D., Vaillant Y. (2005). The Born-Global Phenomenon: A Comparative Case Study Research, *Journal of International Entrepreneurship*, 3, 133–171.

Rialp A., & Rialp J. (2007). Faster and More Successful Exporters: An Exploratory Study of Born Global Firms from the Resource-Based View, *Journal of Euromarketing*, 16:1-2, 71-86.

Śliwiński R. (2012). Internationalization strategies of Polish fast growing enterprises, *Poznan University of Economics Review*, Volume 12 Number 1.

Schilke O., Hu S., Helfat C. (2018). Quo vadis, dynamic capabilities? A content-analytic review of the current state of knowledge and recommendations for future research, *Academy of Management Annals*, 12(1), 390–439.

Stoian M.C., Rialp A., Rialp J., Jarvis R. (2016), Internationalisation of Central and Eastern European small firms, *Journal of Small Business and Enterprise Development*, 23 (1), 105 – 121.

Tabares A., Alvarez C., Urbano D. (2015). Born Globals From the Resource-Based Theory: a Case Study in Colombia, *Journal of Technology Management & Innovation*, 10(2).

Teece D.J., Pisano G., Shuen A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, Vol. 18(7), 509–533.

Zahra S., Matherne B., Carleton J. (2003). Technological Resorce Leveraging and the Internationalisation of New Ventures , *Journal of International Entrepreneurship*, 1, 163-186.

Zahra S., George G. (2002). The Net-Enabled Business Innovation Cycle and the Evolution of Dynamic Capabilities. *Information Systems Research* 13 (2), 147-150.

Zahra S.A., Sapienza H., Davidsson P. (2006). Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda, *Journal of Management Studies* 43:4

# Declarations

The authors did not receive support from any organization for the submitted work. All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.