THE FORMATION OF BORN GLOBAL COMPANIES:

A CASE STUDY OF THE FINNISH MOBILE GAMING FIRMS

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ABSTRACT

The purpose of this research is to determine the challenges that mobile gaming companies experience to become born globals, recognize how these challenges can be overcome with the application of the organization management system, and identify the success factors that conduct these companies to develop into born globals and the correlation with the challenges and strategies utilized by managers during the early stages of internationalization. There is extensive research on born global firms and the overall gaming industry, however studies on the early stages of internationalization of mobile gaming companies is limited. The theory presented in the research consists of firms' internationalization theories, organizational management system and challenges faced by creative and cultural industries which lay a foundation to deepen the study through empirical research. This thesis is a qualitative research, whilst four in-depth semi-structured interviews were conducted with managers from four game development studios. The research focuses on Finnish mobile game developers that have at least one game published globally.

The findings of this research suggest that the main challenges for mobile gaming companies are financial management, human resources, strategic management and long-term business planning. The strategies utilized to overcome these challenges are a combination of providing a healthy working environment with a sense of ownership to the employees, focus on market research and data analysis, being flexible and having the ability to adapt to a constantly changing environment, and hire highly skilled professionals to form a core team who deliver rapid results and influence newcomers disseminating the company's culture. The success factor associated to these challenges and strategies are market research used to identify opportunities, trends, market niche, players' preferences and target audience, and people, also mentioned as human resources, who are the fundamental for the company to develop high-quality games and nourish the organizational culture.

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When I decided to leave my family, friends, and a job behind in my home country, Brazil, I was not sure I was making the right decision. Now, five years later, I am sure it was the best decision of my life. Concluding this chapter of my history is one of my greatest accomplishments and I am very proud to get this done. I counted with numerous supporters during my journey, mostly my amazing mother, Christhiane S. D. Scuissiatto and my lovely girlfriend and partner in life, Ana Paula de Moura Soares. I thank you for being by my side every step of the way and making sure I stayed positive and pushing me towards the completion of this life goal.

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Table of Contents

Appendices

Appendix 1. Interview Questionnaire

Appendix 2. Coding of Qualitative Data

Figures

Tables

1. Introduction

The gaming industry is the largest as it has ever been. In 2020 the games market generated 177.8 billion dollars globally, the highest increase since 2012 up 23.1% year on year, with an impressive number 2.7 billion gamers. According to the report generated in May, 2021, the forecast for the games market is to slightly decrease 2.8% due to the COVID-19 pandemic effects in the global supply chains. The forecast for the gaming market is to return to its increasing path generating $204.6 billion in 2022 with major releases moved forward during the pandemic time. The mobile gaming market, including smartphones and tablets, is the largest source of income with an estimated 90.7 billion and the largest growth industry compared to the previous year with 4.4% year on year – 2019-2020. The report also estimates that in 2022 there will be approximately 2.9 billion mobile gamers, this represents more than one third of the world-wide population. (Wijman 2021.)

Kaplan (2019) states that 33% of all the app downloads are games and it positions in second place in terms of time spent, only behind communication and social media apps. Gaming apps are ahead of music apps such as Spotify, Deezer and Apple Music. The advances in technology on mobile devices, and easy accessibility are major drivers towards the mobile gaming trend. The rising demand for mobile games is based on three main factors: the increase of the smartphones' penetration globally, the embed technology of the devices that deliver high quality audio and video, and surge of fast mobile data network. (Soh & Tan 2008). Feijoo, Gómez-Barroso, Aguado and Ramos (2012) describe that besides the large customer base, the competitive advantages for mobile games are: it is available anywhere and at any time and high level of personal customization and cultural awareness; which delivers a unique customer experience apart from consoles and PC gaming.

Soh & Tan (2008) claim that the marketing costs of mobile games are only a fraction that console and computer games have to spend, additionally the development process is easier counting on development kits and platforms that support mobile game developers, consequently reducing the difficulties of creating and releasing a game. With broad data available, flat fees and the surge of the first iPhone in 2007, which revolutionized the smartphone era, the business model for mobile games publishing and commercialization

became stable starting from 2008 with in-game advertisement and downloading them from application stores (Feijoo et al. 2012). In 2008 there were 500 apps available in the Apple App Store producing 1 million dollars in revenue daily (Klayman 2019). Nowadays, considering the most popular stores Google Play and Apple App Store, around 700,000 games are available for download with an estimated revenue of 90.7 billion in 2020 (4Matters 2021; Wijman 2021).

According to the mobile industry ecosystem presented by Feijoo et al. (2012), there are several actors that play a part before a user can download and play a mobile game, they are divided into three layers: *creation/production/publishing*, *delivery/distribution/access* and *use/consumption/interaction*. The first layer is composed by the mobile enabling platforms, e.g., Android and iOS; developers, development studios who create the apps and publishers; marketing, advertisement and international public relations managing the face of the app and studio completes the creation/production/publishing section. The second layer actors are the internet; application stores, the most known and used by publishers are Google Play Store and Apple App Store; user data and payment/billing processes. The third layer is the end-user interface composed by mobile phone suppliers and devices; game client mobile software; batteries, memory cards, displays and cameras.

This research will focus on the first layer (i.e., creation/production/publishing), more specifically in mobile game developers and publishers. Explicitly exploring the mobile gaming industry, in which companies develop their products for Apple iOS and Android operating systems. Console and computer game platforms are being excluded from the research.

Based on the report The Game Industry of Finland, published by NeoGames (2019), the creation of the Apple's App Store and Google Play was the tipping point for the Finnish gaming industry. After the introduction of these distribution platforms, Rovio's Angry Birds was one of the first games to seize the opportunity and became a global hit. From 2009 to 2010 the turnover of the industry almost doubled from roughly 87 million to 165 million euros. With the objective of driving user adoption, Supercell was the first Finnish company to successfully implement the free-to-play model with microtransactions commercialization model, publishing one of the most profitable games in the market, Clash of Clans. By the

end of 2015 the Finnish gaming market was valued in 2 billion euros and the focus on mobile gaming was noticeable. NeoGames (2021) lists 200 active studios established in Finland, with approximately 3,600 employees, which more than 28% are non-Finnish. Kostner (2019) affirms that the Finnish mobile gaming industry represented around 7% of the global revenue, and based on NeoGames (2021), more than 60% of the studios use Apple iOS or Android as publishing platforms.

The representativeness of mobile gaming in the overall gaming industry is presented as major according to the literature available, based on studies and reports available (Wijman 2021; Soh & Tan 2008; Leung 2018). Narrowing it down to the Finnish environment, the largest and most successful gaming companies are developing mobile games and are designed from its conception to be a global entity. Due to this major display and market importance, it was decided that deepening the study in this segment would deliver important content and insights on the success factors of Finnish mobile gaming companies to establish a born global firm, highlighting the major challenges and utilization of the organizational management system to overcome those; targeting businesses, scholars and practitioners alike.

1.1   Objectives, research questions and limitations

This paper presents a research on Finnish mobile gaming companies and the process of establishing an internationalized business from its start up. The purpose of this research is to determine the challenges that Finnish mobile gaming companies experience in the early stages of internationalization, furthermore recognize if these challenges can be overcome with the application of the organization management system, and identify the success factors that conduct these companies to develop into born globals. To be able to achieve the purpose of the research, the main research question is presented as:

How can organizational management system help mobile gaming born global companies in overcoming challenges of early and rapid internationalization?

The mobile gaming industry is a globalized environment, and it is important for the companies in it to be ready from its beginning to face the challenges that this market imposes.

To be able to identify the success factors that a new venture needs to take into consideration, it is necessary to understand what are the challenges that these companies face starting from the company's creation throughout the early internationalization process. Thus, the first sub-research question is:

What are the challenges that born global mobile gaming companies face in the early stages of internationalization?

To overcome the presented challenges for the new established companies, it is necessary to take actions. In this thesis, the focus is on the strategies, based on the organizational management system, that are applied to guarantee that the challenges are handled and vanquished. This statement introduces the second sub-research question:

What are the strategies, within the organizational management system, applied to overcome the challenges presented in early stages of internationalization?

The research seeks to identify the success factors that new ventures acknowledged from its inception to the stage where they were able to establish themselves as a studio with at least one game published worldwide. This introduces the third sub-research question:

What factors are critical for success when launching a new business in mobile gaming industry?

The research is focused into mobile gaming companies established in Finland, excluding other gaming platforms such as PC and consoles, and companies that were created in other countries but the one the research is focused on. The empirical research is performed with companies that already have at least one game published internationally and are defined as born global small enterprises, less than 50 employees. The game industry in Finland is composed of 3600 employees and 200 studios, resulting in an average of eighteen employees per studio (NeoGames 2021). Considering that the largest mobile gaming studios, Rovio and Supercell, represent more than 20% of the workforce with 820 employees, the majority of the Finnish studios are formed by 50 or less employees. The presented requirements were defined with the objective to target born global companies that have an established business,

team and processes and are not large to a point that the initial setup is already forgotten. They also known as *indies*, which are composed by smaller development teams. Excluding unestablished business (i.e., first game(s) still in development, team and processes still in formation), too far developed companies (i.e., Triple-A (AAA) studios which are considered mid-size and major developers and publishers), and firms not internationalized.

1.2 Conceptual Framework

The research framework presented on Figure 1 proposes that the thesis is divided in four main elements, the first is the challenges the companies endure during the early stages of internationalization, the second is the organizational management utilized by the management team to overcome these challenges, the third is the concept of born global firms based on the global mindset and innovation, lastly is the success factors associated with the challenges and the concepts from the organizational management system to establish a mobile gaming born global company.

Figure 1. Conceptual Framework

The first stage is focused on what are the main challenges that companies face in the early stages of internationalization to become a born global. This section is based on literature review and empirical research of established companies that have already overcome these

challenges and are considered born globals. The research is presented under the scope of the internationalization process, focusing on the early stages of setting up a born global firm.

In the second stage, the objective is to use the evolutionary economics theory and its main concepts of organizational capabilities, organizational culture and strategic management to understand how a company is established and evolves based on its resources, routines, competences, values and goals (Nelson & Winter 1982). The combination and application of these concepts led by the management team is denominated in this research as Organizational Management System (Gerasimov & Gerasimov 2015).

The first concept of organizational capabilities seeks to explore the characteristics that are presented in the literature as essential for internationalized companies, including knowledge creation and innovation (Teece & Pisano 1994). The second concept explored is the organizational culture, which is related to how the people, mission, vision and values of the company are set by the leadership and employees (Hatch 1993; Schein 1988). The third concept which completes the management system of a company is the managerial strategies to be developed and applied throughout the internationalization process which leads to the organization's objectives and goals, and the method of how these can be achieved (Pitt & Koufopoulos 2012; Wunder 2016).

Born global firms are created by entrepreneurs who express a global mindset and pursue innovation as the source of competitive advantage. These unique features result in focusing on international markets, prominence to develop and distribute superior quality products and application of forefront technology with the objective to differentiate themselves from the competition and create an ultimate customer experience. (Cavusgil & Knight 2009.)

Ultimately, the success factors associated with the identified challenges and application of the organizational management ought to be discovered via empirical research and compared with previous research in the local scene of the mobile gaming industry.

1.3 Definitions of key concepts

This section aims to define the key concepts that are used in this research, the main object is to introduce them prior to giving a deeper explanation in the literature review. The key concepts presented in the framework are the following.

Organizational Capabilities indicate the capability of a firm to constantly execute worthwhile activities directly connected to the ability of the company to generate value through transforming its outcome (Nelson & Winter 1982). It can be defined as firm-specific invisible assets developed overtime based on creation, transformation and exchange of knowledge. (Amit & Schoemaker 1993.)

Innovation is the search for opportunities driven by possible changes, to either create or transform services, products or processes with the objective of delivering economic or social improvement. It is a source of competitive advantage for the companies to distinguish themselves from the competitors and obtain corporate success. (Baregheh, Rowley & Sambrook 2009; Drucker 2014.)

Knowledge Creation is the process of generating new information and ideas based on collaboration, interaction and learning within explicit and tacit knowledge, where the first is considered the transmittable knowledge and the later is built-in the mind of individuals. Knowledge is created by people, the organizations have the role to empower contributors to generate new knowledge, transmit it across the organization and retain it. (Nonaka 1994.)

Knowledge Management is how companies approach the "creation, sharing, harvesting and leveraging of knowledge" as a resource to increase the "company's ability, speed and effectiveness in delivering products or services" to convey benefit to clients, aligned with its long-term business strategy. (Du Plessis 2007, p. 22.)

Organizational Culture is composed by both organization values and philosophy, and peoples' individual beliefs and customs, which together result in the organization's identity. The company's visions and expectations, and how the employees behave and interact with each other influence the company culture being externally seen when interacting with

stakeholders and customers. The culture of an organization is directly related to how people identify themselves with the company and the brand. (Alvesson 2012.)

Strategic Management is based on the firm's goals and objectives setting whilst managing resources to achieve those in the long term. It entails utilizing the available and acquired knowledge to perform decision-making and provide a path for the company to follow, backed by the top-management. Managers need to take into account the wide internal and external variables while drafting the company's strategic plan since it will affect the future of the firm. (Wunder 2016.)

Born Global companies, also known as early adopters of internationalization, are organizations who pursue an efficient international presence for their goods or service commercialization that use resources based in knowledge, from or shortly after it is established. The uniqueness of this type of firm is the management focus into acting in the globalized market by developing specific capabilities to perform internationally. Born globals are usually small companies with limited financial resources due to its characteristic of being young. (Cavusgil & Knight 2004; Cavusgil & Knight 2009.)

1.4   Research Methodology

This section aims to present the methodology used in the research, explain the type of research methods, the process of data collection, and how it is analysed. Research methodology is used to optimize the research process using techniques to best collect data, analyse it, and draw conclusions about the topic that is being researched (Walliman 2017).

The qualitative method has been chosen for this research. Qualitative research focuses on non-numerical data, information is qualitative on its nature and it focuses on generating meaning and understanding through in-depth analysis of the underlying reasons, opinions, and motivations. It is designed to provide insights, develop ideas and explanation on the thesis topic (Herbst & Coldwell 2004). Qualitative research analyses the issues from the point of view of the research participants to describe their understanding on the studied topic, thus allowing for context to be represented into the research (Hennik, Hutter & Baile 2011). The decision to the qualitative method is suitable when studying companies and management

behavior, since it allows to explore different concepts, strategies and processes that are applied in different entities. This particular research benefits from the qualitative research method, considering it seeks to explore a real-life business situation based on the experience from entrepreneurs and managers of mobile gaming industries who have decided to create their own firms and endured the early internationalization process to establish born global firms.

Data collection is based on semi-structure in-depth interviews to be held online via video calls, with companies' managers. Interviews provide a wider scope and the ability to ask specific questions to the subjects with the objective of clarifying certain topics and problems, while introducing personal experiences and behavior (Qu & Dumay 2011). The interview process is a way of learning about the environment that is being researched. The semi-structured format was chosen because there are questions that must be answered when seeking to address the research questions, but it also gives the ability to add extra information that may rise during the interview.

The data is analyzed using the thematic content analysis. The interviews transcripts were screened for themes and concepts that were highlighted when identified as a constant. These common patterns identified in the data will then be used to create hypotheses to answer the research questions. (Anderson 2007.)

1.5   Structure of thesis

The thesis has a regular structure starting with the introduction, followed by the literature review, research methodology, empirical study, discussion and conclusion. The introduction presents the research background, objectives, research questions, limitations, framework and main concepts that are explained and explored in the research. The literature review is divided into the organizational management system components, which are explained in the sub-chapters organizational capabilities, organizational culture and strategic management representing the core of born global firms.

The empirical part of the research explores the interviews which are based on the literature review and discovery of the real challenges that companies face during the early stages of

internationalization. Discussion and conclusion chapter gathers the research findings and seek to answer the research questions with the data extracted from the interviews aligned with the theory. It also provides managerial implications, possible future research topics and limitations of the study.

2. Born Global

Born global is defined by Cavusgil & Knight (2004, p. 124) as "business organizations that, from or near their founding, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries". Which is similar to the concept of International New Ventures (INVs) described by Oviatt & McDougall (1994, p. 49) "as a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of output in multiple countries".

According to Oviatt & McDougall (1994), what differentiates INVs from the traditional internationalization approach is the firm's internationalization from its creation and serious engagement of staff, resources and time in multiple countries. Additionally, Cavusgil & Knight (2004) consider that an important distinction is the management's worldwide core interest, diverging from the traditional initial domestic market focus and gradual internationalization, e.g., Uppsala model.

The traditional Uppsala internationalization model, proposed by Swedish researchers Johanson & Vahlne (1977), represents a more cautious and slower approach to the internationalization process which was observed from Swedish manufacturers. It is structured in four stages from internal market only business, export via partnership, establishing foreign subsidiaries and foreign production. Due to technological advances and different business models creation, especially the tech businesses which are more knowledge intensive than large manufacturers, the Uppsala model does not apply to mobile gaming companies.

The literature presents similar terms to describe young companies, also known as start-ups, which rapidly develop international development. Among them are *born-international SMEs* (Kundu & Katz 2003), *early internationals* (Aspelund & Moen 2005), *instant internationals* (Preece, Miles & Baetz 1999), and *global start-ups* (Oviatt & McDougall 1994). In this research the term that is used to define the early internationalization process is *born global* (Cavusgil & Knight 2009).

The world market becoming more globalized with fewer trade barriers, alongside the information technologies and communication advancements, have brought different nations and industries closer, made international relations easier, generated new business opportunities, and fiercer international competition. It also resulted in larger global networks and market niches to be explored facilitating the emergence of born global firms. Even though these phenomena can be observed in many different industries, it has been more focused in the high technologies market. The technological advances witnessed in the past fifteen years have eased expertise and the rise of small and medium enterprises (SMEs) which provide products and services to international market niches. Mobile gaming companies are included in this niche due to the smartphones being the platform their product is distributed through and the need of mobile data to download and play the games. (Cavusgil & Knight 2009.)

Born global firms usually have distinctive characteristics that are not usually observed in other companies. Starting from the vision of the top executives, managers are guided by their international entrepreneurship vision perspective that pursuing international markets is how companies can differentiate themselves from others. The entrepreneurial mindset consequently results in the pursuit of innovation, which can be considered a competitive advantage when compared to other firms. There is also an emphasis on creating and delivering superior quality products, led by cutting-edge technology. It is more common for these firms to deliver new and innovative products and services then the commoditized goods. (Cavusgil & Knight 2009.)

The INVs theory demonstrates a theoretical framework that explains the necessary elements for an INV to achieve long term success with a sustainable competitive advantage and avoid the possibility of the business being short lived. Element 1 is the *internalization of some transactions*, which is what defines an organization by nature; element 2 is the *alternative governance structures* differing new ventures from established firms, where resources need to be conserved in innovative ways; element 3 is the *foreign location advantage*, it distinguishes local from international new ventures by moving resources and/or products abroad. For recently formed firms the most common is to apply it to private knowledge which can be manufactured and moved almost cost free and fast across the globe becoming

a source of competitive advantage. Element 4 is the *unique resources* being the aspect that characterizes a sustainable INV by achieving the baseline of having unique resources that cannot be imitated by other local or global firms. Studied INVs claim that unique management style and organizational culture are the main factors to reach imperfect imitability as a competitive advantage and can shield them from competitors and keep the created knowledge in-house. (Oviatt & McDougall 1994.)

Oviatt & McDougall (1994) distinguished the INVs in types, based on the amount of value chain activities coordination and the number of countries the business reached. The type that is the most similar to born global, described by Cavusgil & Knight (2004), is *global start-up*. Value chains are defined by Porter (1985) as a chain of activities of a firm performing in an individual industry that delivers added value to the final product or service. The value chain model includes activities such as operations, marketing and sales, technological development and human resources management. Global start-up is the ultimate demonstration of an INV, "it derives significant competitive advantage from extensive coordination among multiple organizational activities, the locations of which are geographically unlimited" (Oviatt & McDougall 1994, p. 59). These firms are the most challenging to create since it demands geographical and activities coordination skills on a global level, they usually identify and act on opportunities before others, acquiring and distributing outcomes internationally.

Oviatt & McDougall (1995) defined seven major characteristics of successful global start-ups. The firms must have a global vision since its creation, this is possibly the most important factor for achieving success, "To be global one must first think globally" (Oviatt & McDougall 1995, p. 35). Managers need to have international experience and understand the cultural diversity among countries, otherwise minor issues that international firms go through could become a catastrophe. Acquire and maintain a substantial international business network, which may assist in identifying opportunities, provide business advice, and facilitate access to resources that may be lacking due to the start-up nature of the business. Seek competitive advantage based on new technology, innovative products or services and pursue unexploited markets, since using traditional approaches such as economies of scale is not an option for SMEs but a strategy that large conglomerates would use. Possessing unique intangible assets, having a distinctive product or service may not be

enough and having intangible assets such as knowledge creation and know-how will sustain the firm's competitive advantage. Incremental and continual innovation linked to the original product or service is necessary to maintain the company's lead from the competitors. Organizational worldwide coordination, guarantee that the firm's global strategy and vision is implemented, communicated and assimilated throughout the organization, also ensure that all employees are committed to it. (Oviatt & McDougall 1995.)

The two theories exposed in the literature review, the Born Global theory by Cavusgil & Knight and International New Ventures by Oviatt & McDougall, present similar characteristics to describe enterprises that pursue early presence in the international market. The common denominators are managerial mindset towards exploring the global market and international entrepreneurship vision, superior quality, cutting-edge technology and innovative product offering, leverage strategy differentiation by focusing on creating knowledge internally and maintaining it in-house as a source of competitive advantage, and distinctive organizational culture that differs SMEs management from large enterprises and their traditional governance style. (Cavusgil & Knight 2009; Oviatt & McDougall 1994.)

In the mobile gaming market, developing and publishing a game has been made easy due to the technology advancements and the rise of the tools that facilitate development such as game engines for creators and application stores. According to the report from NeoGames (2021), in 2020 there were approximately 200 active game studios in Finland, in which more than 60% prefer to develop games for Android and iOS platforms. Additionally, NeoGames (2019) reports that the mortality rate, compared to the year of 2008 was around 60%, demonstrating that game development is a competitive and tough industry to thrive. According to Feijoo et al. (2012), one of the main challenges of the mobile gaming industry is to define what is the best business model based on game genre, target audience, marketing and advertising, performance, and development process. The latter includes the facilitation of innovation and knowledge creation, which are explored in the following sub-chapters.

2.1   Innovation

Innovation is not a new term and it has been described by many scholars throughout history, Schumpeter (1934) referred to innovation as *new combinations* of available resources

resulting in new products, new production methods, new supply resources, exploitation of new markets and new organizational processes. In a nutshell, innovation occurs when the status quo is confronted and transformed, also known as creative destruction (Clausen 2009). Schumpeter's research was firstly focused on individual entrepreneurs and evolved to innovation in large firms.

Kline and Rosenberg (1986) claim that there is not a straightforward way to define innovation Additionally to the traditional view of innovation being a new product, it may as well be a new production process, substitution of a material that composes a product, reorganization of the production process that results in incremental efficiency, or an improvement on how to manage innovation. The key points highlighted by Kline and Rosenberg (1986) are that the transformation process involves both technological and economical awareness, there is not a one formula apply-to-all solution for innovation which makes it difficult to be measured efficiently.

The evolutionary theory of innovation focuses on the firm as the main actor, nonetheless it recognizes innovation as a multilevel occurrence including industry, technology, regional and national levels (Clausen 2009). The data presented by Clausen (2009) indicates that seeking innovation is not a simple task due to the reluctance of the society to accept new things and different approaches to the current way of doing things. If newly and long-term established firms with new ideas are to succeed, they must overcome this reluctance. Based on this perspective, start-ups are usually off to a rough beginning in which around 40% fail to survive after three years of its establishment, even when being innovative (Hyytinen, Pajarinen, & Rouvinen 2015). On the other hand, the ones that survive have a higher likelihood of growing at a fast pace. In the USA, firms that reach more than seven years have grown 60% in the employment rate compared to its initial size (Clausen 2009).

Furthermore, Nelson and Winter (1982) explain firms' innovation based on the concepts of *bounded rationality*, *routine*, and *localized search*. Bounded rationality is when businesses seek to be as rational as possible with the information available towards a satisfactory outcome instead of attempting to maximize it, due to human and firms limited cognitive-information-processing proficiency. According to Clausen (2009) most of the firms' executives perceive innovation as a *risky* and *costly* endeavour to chase.

Targeting to shield themselves from taking risks and keep low operation costs, companies usually follow already implemented and known procedures, additionally easing the decision-making burden by taking simpler decisions. These actions are defined by Nelson and Winter (1982) as routines which define the organizational behaviour. Persisting in the same subset of tasks and actions may be sustainable for a period of time, however in the long term, it may harm the firm's position in the market and revenue (Nelson & Winter 1982). This is usually the tipping point, when results do not satisfy anymore, companies start looking for new routines by either creating it using an innovation process or imitating existing routines already implemented by other players in the industry (Clausen 2009).

The decision to search, create, improve and change routines will incur a cost which is identified as research and development (R&D), explained by Nelson and Winter (1982) as localized search. This is a continuous process that seeks for innovation gradually and it is usually somewhat unique to each firm. According to a report produced by Official Statistics of Finland (OSF) (2020), from 2016 to 2018 more than 60% of the companies with 10 employees or more were part of innovation projects. The search process does not always result in innovation, only a smaller percentage of companies that have internal R&D processes are able to achieve benefits from innovation.

OSF (2020) reports that around 30% of the Finnish companies launched a new or upgraded product and almost 50% were able to implement organizational innovation. As a result, firms affirm that they are able to accomplish *improved quality in goods and services* (Clausen 2009), 22% of the combined turnover were delivered by companies that have reported product innovation (OSF 2020). Other perceived essential results by firms' executives are *increased range of goods and services*, *entered new market or increased market shares*, and *improved flexibility of production or service production* (Clausen 2009, p. 12). These results back up the Nelson and Winter (1982) theory that innovation is not alike across different firms, and the outcome may vary as the innovation process itself.

The localized search for innovation will result in failures along the process which shall not be assumed as a negative outcome. Kline and Rosenberg (1986) state that failing is a component of the learning process that leads to subsequent or related innovations, the more

information and feedback acquired generate knowledge on the next steps to achieve the desired outcome, either by maintaining the same path or steering it towards a different one. In summary, the evolutionary theory of innovation explains that the economic dynamics is a developing and never-ending phenomenon, in which innovation is necessary for the survival of a company overtime, since maintaining the same organizational processes, products and services is not sustainable (Clausen 2009).

According to the Community Innovation Survey (2012), almost half of the firms consider the information acquired within the enterprise as highly important, which shows a tendency for companies to look for innovation internally. Nevertheless, information from clients or customers, and suppliers are also seen as highly important by a quarter of the firms (Table 1). The 20th century linear model of innovation (Kline & Rosenberg 1986), where research leads to development, then to production and finally to marketing, mostly in-house and without feedback loops or external influence, has become outdated. Scholars have shared new approaches which sources of information and knowledge derive from a wide-range of origins such as customers, users, suppliers and competitors defined as chain-linked and open innovation models (Chesbrough and Bogers 2014; West, Salter, Vanhaverbeke, & Chesbrough 2014).

Table 1: Sources of information for enterprises considered as highly important

Source of Information	% of positive responses
Within the enterprise or enterprise group	48%
Clients or customers from the private sector	26%
Suppliers of equipment, materials, components or software	26%

Innovation practices are notably important to firms that are knowledge-intensive and technology focused. These companies use knowledge as a major resource to create value, and gain competitive advantage in order to produce goods or services (Uriona, Dias & Varvakis 2009). The digital era has had several impacts to the innovation process, there is more data available and it is easily accessible, innovation cycles have been accelerated and

collaboration is becoming more common by strategic partnerships, data sharing, clusters, incubation, crowdsourcing, and research centres (OECD 2019). Mobile gamers are not perceived as just customers anymore, they have become an important source of knowledge exchange and innovation (Cucuel 2012).

Mobile gaming companies can be defined as cultural and creative firms (CCFs), the ones who are originated based on creativity and talent with the objective to deliver experience goods and services to the mass market where the demand is unpredictable (Landoni, Dell'era, Frattini, Petruzzelli, Verganti & Manelli 2020). Cucuel (2012) explains that innovation in the creative and cultural industries (CCIs) is more important than price competition due to the experience delivered to players being higher valued than the cost. The CCIs organizations count heavily on intangible assets and during its innovation process there are three main inputs identified: The *human capital and know-how* associated to the creative and skilled personnel who creates products; the *cultural* aspect related to companies' diversity and ability to make the employees feel valuable and free to create; the *environment and institutions* consisting of governments and regulatory institutions (Cucuel 2012).

Cucuel (2012) presented an adapted Shumpterian innovation framework for the video game industry, where *technology pushes* and *market pull* are added to it. Technology pushes are the new and upgraded products in which customers will play their games, also known as hardware. New models of mobile phones are released at a fast pace, with better graphics, more memory, larger capacity hard drives, VR headsets and many other new features. Briefly, hardware gives the users new and different ways of playing games. Market pull stands for matching the expectations of users' needs and desire, usually creating new market niches such as workout games for the ones who want to combine fun with exercising, and family friend games to be played by everyone in the household. (Cucuel 2012.)

Deepening the concept of market pull, it is possible to find literature defining it as user-led innovation and user innovation (Aoyama & Izushi 2008; Hu & Sørensen 2011). Users are companies, entities or persons who foresee to acquire benefits from the product or service provided by a producer or seller (Von Hippel 2004). Porter (1990) states that users have been identified as key players by shaping markets and demand, and influencing the future of innovation. The concept of lead users by Von Hippel (1986) fits well in the gaming industry,

they usually represent the needs and wants of a larger audience in the market and are valuable early adopters by experiencing the product or service before it is released to the mass market, additionally they are in a position to benefit from the result of the solution being created.

User-led innovation presents higher user-incentives than supply-push innovations, they have been identified as follows: high demand for customization, shorter life-cycles, high level of product turnover, information sharing easiness, committed users, product promoters and user communities. Products and services that can benefit from user-led innovation usually contain high cultural content, elevated entertainment value and high degrees of customization, in which the gaming industry is represented. (Aoyama & Izushi 2008.)

The literature on the user-led innovation process defends that the cooperation with users is beneficial for firms and there are two types of interaction that can be explored: *consultative* and *toolkit* (Von Hippel 2001). In the consultative approach, firms work with lead users who feed important information, preferences and desires to the creative process. According to Von Hippel (1986) the framework of utilizing lead users follows four steps: Determine technologies and trends to explore, establish the lead users, interpret the data provided by lead users, and consider the lead user data in correlation to the mass-market. In the gaming industry, lead users can be defined as avid players with higher playtime and knowledge in the gaming environment, desire to experience new things in games, wish to collaborate and share information with developers, and are community influencers (Hu & Sørensen 2011).

The toolkit approach, introduced by Von Hippel (2001), shifts development, design and problem-solving from firms to users through the usage of appropriate and tailored kits of design tools that assist the users to carry out tasks without the need of deeper programming and development skills. This approach reduces, if not eliminates, development costs and the effort to identify customer needs by transferring need-related features of the product to the users. A toolkit is designed to be user-friendly and intuitive, it needs to provide an extensive library, and it includes a trial-and-error functionality thus users can test what they designed and learn by doing until they are able to achieve the *sticky* information that is valuable for both users and company (Von Hippel 2001). A group of toolkit users ultimately creates a community which provides a wide-range of knowledge and personalized content for game

creators to use as input in their innovation pipeline delivering a new or improved experience to players (Piller, Ihl, Fuller & Stotko 2004).

This section has explained in short, the definition of innovation as new combinations of resources which results in new products, processes, resources supply, market expansion and production methods (Schumpeter 1934). Different types of innovation models such as the linear model, chain-linked and open innovation models exist and the process is more likely to be heterogeneous than homogeneous among firms, sustaining that there is not a single and optimal way to pursue innovation (Kline and Rosenberg 1986; Chesbrough and Bogers 2014; West et al. 2014). Innovating has proven to be rewarding in the long-run and to some extent necessary for new firms entering an established market (Clausen 2009). Furthermore, innovation in the gaming industry is heavily affected by technology advancements and users' needs and desires (Cucuel 2012). Ultimately, knowledge creation and management are directly related to the companies who embrace an innovative culture (Nelson & Winter 1982; Uriona et al. 2009) and this is explored in the next section.

2.2   Knowledge Management

Knowledge-intensive companies have been internationalizing at high rates, being the reason why recently established firms boost their global presence becoming born globals. Knowledge created within firms with an innovative culture is a source of organizational capabilities essential for technological improvement, and possibly a key component for born globals to develop new and unique products resulting in competitive advantage towards the competitors. (Oviatt and McDougall 1994)

Darroch (2005) presents empirical research stating that companies with knowledge management behaviours have a higher tendency to innovate. Bechman (1999) describes knowledge management as the representation of and path to know-how, knowledge, and expertise that create new capabilities, enable greater performance, stimulate innovation, and augment customer value. Coleman (1999) defines knowledge management as a bundle of different functions, including: knowledge creation, knowledge valuation and metrics, knowledge mapping and indexing, knowledge transport, storage and distribution, and

knowledge sharing. Based on definitions from different authors Du Plessis (2007, p. 21) determined that

> "knowledge management is as a planned, structured approach to manage the creation, sharing, harvesting and leveraging of knowledge as an organizational asset, to enhance a company's ability, speed and effectiveness in delivering products or services for the benefit of clients, in line with its business strategy."

Du Plessis (2007) states that there are three major drivers to apply knowledge management into the innovation process. First driver is to create, increase and manage organizational capabilities utilizing knowledge through collaboration. The second driver is to utilize knowledge to decrease the complexity in the innovation process, by managing knowledge it facilitates maintaining the knowledge created and handling current knowledge during the innovation process. The third driver is to integrate internal and external knowledge to the business, therefore increasing availability and accessibility, and making it easier for knowledge to be transferred, expanded, and improved at any time.

There are several roles the knowledge management plays in the innovation process. According to Du Plessis (2007), one of the most important is the ability to facilitate distribution and formalization of tacit knowledge which by definition is unconventional, not codified, not easily communicated, and acquired through learn-by-doing and observation. Tacit knowledge is an important factor for innovative firms due to it being difficult for competitors to acquire or imitate (Seidler-de Alwis & Hartmann 2008). Knowledge management assists in getting access to tacit knowledge from partners and customers through collaboration, and codifying it to be used as an input for innovation (Du Plessis 2007).

The second role of knowledge management is to make explicit knowledge accessible to the organization to be used as a resource in the innovation process (Du Plessis 2007). Seidler-de Alwis and Hartmann (2008) define explicit knowledge as usually publicly available and known information that can be found in the mass media, books, journals and internet which can be easily handled, transferred and saved. Even though explicit knowledge does not play a role as important as tacit knowledge in innovation, current knowledge can be used in different and new ways towards innovation (Du Plessis 2007).

The third role identified by Du Plessis (2007) is facilitating internal and external collaboration which transmits tacit knowledge across and within organizations, and boosts shared expertise. Knowledge management provides means to simplify knowledge acquisition, creation, transfer and advantage by knowledge resource communities, normally by using forums, technological platforms and tools, and focus groups (Du Plessis 2007). The stronger the relationship among collaboration stakeholders, the more tacit knowledge is generated and shared which can result in innovation cost, risk, and process cycle to be reduced (Cavusgil, Calantone & Zhao 2003).

The fourth role of knowledge management is to guarantee the knowledge integration into the firm by providing a structured process and framework to assist the knowledge life-cycle (Du Plessis 2007). Information needs to be available at the right time and in the right place to be retrieved by stakeholders in order to take advantage of it (Chen, Zhaohui & Xie 2004). Failing to integrate knowledge could possibly result in using the knowledge inefficiently (Du Plessis 2007).

Lastly, knowledge management enables the creation of an organizational culture focused on knowledge creation and sharing, and stakeholders' collaboration by means of in what way it is recognized, disseminated, measured and rewarded (Du Plessis 2007). Innovation requires specific skills and behavior from companies' personnel, and knowledge management empowers the executives' decision-making to identify who has these mentioned qualities to enhance the innovation process (Scarbrough 2003). It develops an organizational culture that advocates innovation and creativity (Du Plessis 2007).

According to McDaniel (2015) smaller game developers, also known as *indies* (i.e., independent developers), creating and implementing efficient knowledge management practices is largely valuable, because it connects different areas of the firm and peers' expertise. Cohendet and Simon (2007) claims that video game projects are a result of a critical balance among *communities of specialists* (i.e., script writers, game designers, graphic artists, sound engineers, testers and software programmers) and the companies' managers and executives. The communities of specialists are responsible for the artistic creation and development, which normally consists of adaptable and distributed knowledge,

and the firms' management is responsible for integrating the tasks and know-how of the specialists in a timely and less costly manner (Cohendet & Simon 2007).

Members of the communities of specialists constantly communicate and share knowledge in both formal and informal ways, resulting in the knowledge creation process being somewhat unorganized. The informal sharing spaces can be found both internally through brainstorming, conversations during meals and break times, and externally with partners, competitors and users via virtual platforms. These interactions function as a source of creativity, and tacit knowledge acquisition, creation and transfer within the areas of expertise. (Cohendet & Simon 2007.)

The players, also known as gamers, are an important source of knowledge since they can be considered specialists when the topic is games. The interactions from studios and professionals with gamers is managed in two methods, top-down and bottom-up. The top-down approach consists in a structured framework formalized by the firm that includes tasks such as market analysis for trends, attending events and embedding personnel into the gaming culture and environment looking for meaningful content. The bottom-up technique is less formal and blurred by the community of specialists being closer to lead users and exchanging knowledge in an undocumented style. (Cohendet & Simon 2007.)

The role of management is to integrate the knowledge created, acquired and shared by the communities of specialists and stakeholders into the product and innovation pipeline (Cohendet & Simon 2007). Communication and knowledge availability through a knowledge base have been perceived as essential for studios to be able to codify the tacit knowledge from their specialists, designers and engineers (McDaniel 2015). Ultimately, the objective is to promote creativity and innovation based on the stakeholders' knowledge (Cohendet & Simon 2007).

A new game can be based on ideas from one individual, a collective group of ideas or the desire to fulfill the users' needs and desires (McDaniel 2015). Cohendet & Simon (2007) define the project architecture as the *script* which is the vision, main idea or path to be followed during the development process. The script is managed by a producer who is responsible to handle different *modules*, that are the input of different areas of knowledge

related to the creation of the game. One of the most important roles of the producer is to establish when and how the interactions of the fields of expertise will occur and be stored (Cohendet & Simon 2007). It is often necessary to have platforms to manage the knowledge and communication, some examples are: Wiki, known as a knowledge base which stores relevant data that can be retrieved at any point in time and by anyone in the firm; Jira, which works as a project management tool, agile software development management, and bugs and issues tracker; Real-time messaging programs that enable specialists to quickly communicate among each other anywhere and any time, some examples are Lync and Slack (McDaniel 2015).

This section of the research explored the concept of knowledge management within the innovation process. Oviatt and McDougall (1994) states that knowledge creation has the potential to lead innovative firms towards early global presence by implementing new and updated products or services. Knowledge acquisition, creation, sharing and maintenance are components of the knowledge management process and are necessary to be able to empower creativity in firms (Du Plessis 2007). More importantly, possessing knowledge does not instantly translate into being able to use it efficiently, when channelled correctly, it can result in innovation risks, costs and cycle reduction (Cavusgil et al. 2003). In the gaming industry, there are formal and informal ways to have access to knowledge, with the informal ways being a great source of tacit knowledge and having the ability to codify it by using technological tools is what makes the game creation and development process successful (Cohendet & Simon 2007).

3. Organizational Management System

The evolutionary economics theory explains that businesses are created and conducted based on routines developed by the companies. While some routines are efficient and should be maintained, others may become ineffective and need to be either removed or updated to guarantee the survival of the firm by generating capabilities and competitive advantage. Due to the constant changing characteristic of the business environment, strategic management and decision-making shall not be immovable and changes need to be organically introduced from within. (Nelson & Winter 1982)

Organizational management system is the process of managing an organization effectively by using available resources to generate organizational capabilities and competitive advantage based on the organization's routines, values, vision, and culture. Leaders need to assess the current situation of the company, where it wants to be in the future, and how to get there by developing strategies and action plans, while considering internal and external challenges, and solving issues that may arise during the process. (Gerasimov & Gerasimov 2015)

This section will explore the concepts of organizational capabilities dynamism, based on routines, to achieve the ability to constantly adapt and update itself to the constantly changing environment of the mobile gaming industry, ultimately contributing to the creation of an innovative culture. Then, organizational culture is explained as the perception of a company's staff of *how it should be* and its values to accomplish the defined goals, vision and mission. Lastly, the concept of strategic management is presented as the decisions that lead the firm to achieve its objectives and goals through a structured approach of analyzing the current situation, where it wants to be in the future and how to get there.

3.1   Organizational Capabilities

Organizational capabilities are a result of the accumulation of knowledge created and acquired by individuals within the company, which is then used to perform tasks on a regular basis effectively transforming this knowledge into valuable outputs and competitive

advantage. Capabilities often create organizational competences which are the knowledge-intensive and value creation efforts that the company is specialized in, and routines that represent standard interactions and processes that are developed to successfully identify solutions to different issues. (Cavusgil & Knight 2004)

Just obtaining and keeping a set of capabilities is not enough to maintain competitive advantage, and the capability to identify and accomplish new sources of competitive advantage is defined as dynamic capabilities. The two aspects of this definition are described as following: *dynamic* is the ability to reestablish competences with the objective of adapting to renewed business environments; *capabilities* highlight strategic management as an essential function responsible for guiding the company to utilize and update its skills, resources and competences to overcome the challenges of a constant developing environment. Ultimately, firms who utilize the dynamic capabilities framework expect to be able to constantly revamp themselves into the industry by creating new processes, releasing new products, and entering new markets through innovative endeavours. (Teece, Pisano & Shuen 1997)

Born globals are young and the downside is that they are not able to rely on tangible assets, such as capital, equipment, and human resources, that large enterprises utilize to achieve superior performance in the business environment. Thus, born globals focus on using intangible knowledge-based capabilities (Cavusgil & Knight 2004). Organizational capabilities cannot be bought, it must be built within the companies through managerial and organizational processes, its position and possible paths to advance (Teece & Pisano 1994).

Managerial and organizational processes indicate how things are conducted inside the firm or methods of routines and learning. These activities are usually firm-specific and integrating them is under the responsibility of the company's management, when successfully done, it results in distinctive organizational capabilities. Additionally, constant learning implemented as an organizational process is a possible source of new routines and activities. It is important that these newly learned routines are implemented, leading the firm towards a reconfiguration and transformation achieving the objective of maintaining the flow of dynamic capabilities. (Teece & Pisano 1994)

The firm's position in the industry is defined by its business assets considered intangible. Teece & Pisano (1994) identified the following relevant assets: technological assets that are owned, utilized, maintained and protected as a source of distinctive factor; complementary assets to the products and services that enable the firm to perform its activities in the long-run; financial assets that determine the survival of the company; and locational assets identifying the location and market reachability.

The path to move forward is a result of the firm's current position and available routes to follow, in this case history, present and future matter. Understanding the history and the current position are a foundation for learning, which is an evolution of the knowledge already acquired. Changing based on new knowledge is crucial and also dangerous at the same time. It is necessary to implement new routines, thus the company can evolve as the industry does. However, several changes or a few that are radical may result in failure to assess the effect of them. Recognizing technological opportunities, either provided by the industry or identified due to the innovative mindset and processes of the firm, will also enhance the organizational capabilities that focus on the future path of the company. (Teece & Pisano 1994)

One of the biggest video game companies in the world, Ubisoft, have developed a framework called the *Always Playable* project with the objective to always keep the company reinventing itself and be competitive through a reassociation of routines. The objective of this framework is to produce the highest amount of game prototypes and validate their playability during the development process by testing the features while playing the game. The project introduces two new concepts: *fail faster* and *follow the fun*, which became widely known in the gaming industry as the *4F* method. (Cohendet & Simon 2016.)

The fail faster concept embraces the risk-taking and fast learning culture which can contribute to reducing the cost of failing. The sooner failure happens the faster learning can start, facilitating creativity and innovative culture within the firm. For Ubisoft, implementing this routine allowed the teams to internally explore more ideas, having the assurance that all developers are being heard and test them prior to taking it to the executive management team for approval of the game project continuity. (Cohendet & Simon 2016.)

Follow the fun introduces *fun* as the distinctive value of the collective effort and direction of the development. Pursuing the fun element of a game changes the mindset of the team to pro-actively interact using individuals' ideas about what they perceive as fun-inducing features that will promote engagement of the players through challenging and rewarding experiences, instead of focusing only on the technical aspect of the development process, looks and feel of the game. The team who first experienced the *Always Playable* project came to a conclusion that it is not possible to evaluate fun without being able to play the game, thus it was decided that by the end of each week they would have a playtest session and a feedback session right after it to be able to iterate on the fun-inducing features that were implemented during a week worth of development. These constant interactions with players, external video game critics, and employees resulted in efficiency improvement and faster features development and implementation. (Cohendet & Simon 2016.)

According to Cohendet and Simon (2016), it was not until two collaborative routines, efficiency sought by the executive management team and creativity by the game designers, collapsed and resulted in a cancelation of a blockbuster title that became clear that change was necessary. The capability of Ubisoft to redefine routines with an innovative process resulted in rebalancing the correlation between efficiency and creativity in the game development life-cycle. The *Always Playable* project case study demonstrates that based on existing routines, the company had the capability to learn by trial-and-error, ultimately working on a recombination of those routines which resulted in a new way of doing things with better results than before. (Cohendet & Simon 2016.)

This section explored the concept of organizational capabilities as a result of knowledge management within the organization and its individuals, that is channelled towards actions performed in a regular basis described as routines, and development of unique organizational competences (Cavusgil & Knight 2004). The capabilities ought to be dynamic by its nature to be able to empower the company to continuously update itself to adapt to the business environment, thus creating an innovative culture internally (Teece et al. 1997). A case study conducted in the video game industry identified that being able to learn from existing routines to be able to create new ones and deliver a higher value was essential for Ubisoft to overcome a negative situation, where what was being done was not fully working in the game development life-cycle (Cohendet & Simon 2016).

3.2   Organizational Culture

According to the evolutionary economics theory, the firms' core competences are a combination of knowledge and capabilities originated from the staff members, which are arranged into a library and translated into organizational routines. Firms who seek innovation and internationalization from its inception present a specific sub-set of capabilities that are consequently embedded into the organizational culture. Research findings identify two main organizational culture characteristics that born global firms need to have: *international entrepreneurial orientation* and *international marketing orientation*. (Cavusgil & Knight 2004.)

Schein (1988) defines culture as attributes of a group that can be passed along to new members as a result of cumulative learning from a given group throughout history. These attributes are originated from basic assumptions created, acquired or matured by a group through the learning process when dealing with adaptation and integration problems, which have been proven to be effective and valid that can be instructed to newcomers as the appropriate way to understand, consider and experience those problems. Schein (1988) describes three levels to constitute organizational level: assumptions, values, and artifacts.

The assumptions level represents the implicit and instinctive beliefs, fixed ways of thinking and how people perceive them, thoughts and feelings; it is the foundation for values and actions. The values level is where it is possible to define strategies, goals, standards, norms and principles; it is the embraced reasons that contain tacit value. Lastly, the artifacts level are the visible and tangible organizational structures and processes that can be documented; it is a result of activities established in values and assumptions. (Schein 1988.)

The organizational culture is built upon learning and establishing a general agreement of a set of main external adaptation, internal integration tasks, and others that may arise. The external adaptation tasks are composed of the firm's core mission, specific goals, means to achieve the defined goals, standards to measure results, and recovering strategies if goals are not accomplished. The internal adaptation tasks are described as language and systems,

boundaries and inclusion, interpersonal relationships, standards for rewards and punishment, and approaches to deal with conflicts. (Schein 1988.)

Schein's (1988) theory explains that artifacts and values from an organization uncover the underlying assumptions, he gives an example of a high-tech firm that, from the point of view of an outsider, is highly informal, open-office concept, frenetic pace of doing things, plenty of confrontation, employees are very energetic, working over hour is not an issue, and invisible hierarchy. If asked by the outsiders why things are the way they are, the firm will share its core values such as hard work, innovation, teamwork, and accountability. Furthermore, when deepening the questionnaire to a managerial point of view, the underlying assumptions will surface: leadership believes that employees are the source of innovation, conclusions can only be drawn by contesting one another, ideas need to be validated by everyone in the team, and that the company see everyone as a family in which helping and protecting each other is a premise.

Hatch (1993) believes that Schein's theory lacks complexity and a process-based comprehension of organizational culture. Seeking a more complex explanation Hatch (1993) implemented two essential changes to Schein's theory, firstly by adding the symbol element to assumptions, values and artifacts; secondly by making the relationship links the focal point instead of the elements themselves. The main objective is to answer the question "How is culture constituted by assumptions, values, artifacts and symbols, and the process that links them?" (Hatch 1993, p. 660), instead of Schein's approach of identifying how culture changes or can be changed.

Figure 2 represents the cultural dynamics model containing four elements: assumptions, values, artifacts and symbols; and the relationship links among them: manifestation, realization, symbolization and interpretation. It is important to highlight that the model represents the culture as a forward and backward moving wheel, the cultural dynamic process can start at any point co-occurring as a continuous production and reproduction of culture. (Hatch 1993.)
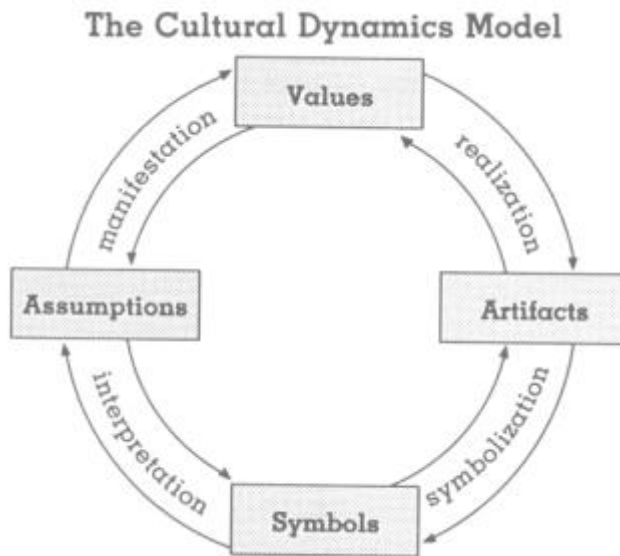
The Cultural Dynamics Model

Figure 2: The Cultural Dynamics Model (Hatch 1993)

The manifestation process codifies tacit assumptions into tangible values, it establishes premises of *how it should be* in a set of organizational values. Proactive manifestation is the link starting from assumptions and resulting in values, it is the process of how members think and feel about the world and organization, and upon reflection these become conscious and shape the organizational values. Retroactive manifestation is the backward link from values to assumptions, it represents how values can maintain or modify members' underlying assumptions. New values are usually introduced to the culture by executives and top management, when aligned to existing values it is absorbed by the members maintaining the existing assumptions; when values are new and different, it may result in failure or realignment of members' assumptions confirming the new value. (Hatch 1993.)

The realization process is the materialization of the expectation and ideals of *how it should be*. Proactive realization is the conversion of values into artifacts through action, bringing to reality the expectations exposed in the manifestation process with a tangible outcome. Some examples of activities that bring values to life as organizational processes and structure are: production of goods and service, performance reviews and reports, innovation committees, and many others. Retroactive realization has the potential to alter or maintain values and expectations by generating artifacts. New artifacts can maintain and affirm values, for example, introducing a new product or service that materializes existing values and expectations. When new artifacts that are not aligned with existing values are introduced,

they can modify the organizational values or be rejected by the members. For example, introducing time clocks where employees need to punch in and out of work, it can go either way depending on the assumptions of the members and organizational values. (Hatch 1993.)

The cultural dynamics model assumes that an artifact is an objectification of *how it should be* and it supposedly has a meaning. The proactive symbolization process is the consolidation of the object and the meaning to deliver an experience, thus creating a symbol that can be exemplified as a logo, slogan, stories, organizational charts, and corporate architecture. Culturally significant objects that are perceived to have a surplus meaning are converted from artifacts into symbols, thus not all artifacts are symbols. The retrospective symbolization represents the appreciation increase of non-symbolic artifacts. A simple example the symbolization process is the size of a desk or an office, for most of the members it may not mean anything having a big or small desk, but it may arise as a symbolic artifact when members start to give importance to the size of the desk in comparison to peers, superiors and other employees. Now the literal experience of having a desk to place a computer and store papers has a surplus meaning. (Hatch 1993.)

The interpretation process puts into perspective the symbolization experiences by inducing members to visualize the culture in a bigger picture and formulate admissible meanings that can be absorbed to their underlying core assumptions. The proactive interpretation has the function to either maintain or modify members' assumptions. The retroactive interpretation has the objective to redefine symbols directly influenced by members' beliefs, feelings and thoughts of *how it should be* in the organization. (Hatch 1993.)

Applying the cultural dynamics model to the Ubisoft case study presented in the previous chapter. The vision is to deliver games faster and are fun to play, ultimately maintaining high players' engagement. It is possible to assume that being a highly engaging game is a symbol, which if accepted by the members will alter their underlying assumptions and expectations of *how it should be*, consequently modifying the core values to fail faster and follow the fun, and at the same time creates a new artifact which is the game to be developed. Thus, completing the full rotation of the cultural dynamics model wheel. (Hatch 1993; Cohendet & Simon 2016)

In the thesis written by McKaughan et al. (2017), it is possible to extract that major video game studios publicly state their values and overall culture publicly, either on their annual reports or websites. Tencent states in their website, under the section *Our Culture*, that their values are: integrity, proactivity, collaboration, and creativity (Tencent 2021). It advocates for principles and ethics, pushing for breakthroughs and innovation with positive contributions, being inclusive and cooperative across the organization. Sony's values are listed in their website as dreams and curiosity, diversity, integrity and sincerity, and sustainability with the main purpose of "Fill the world with emotion, through the power of creativity and technology" (Sony 2021). Another iconic studio that can be mentioned is Blizzard, who states in their website that they are "Dedicated to creating the most epic entertainment experiences... ever.", and share their eight core values being: gameplay first, commit to quality, play nice and play fair, embrace your inner geek, every voice matter, learn and grow, think globally and lead responsibly (Blizzard 2021). Blizzard exposes publicly that they want to create games as fun as possible for as many people as they can reach with the highest quality, while listening to innovative ideas from employees, and advocates for constant learning from each other and from the ever-changing gaming industry.

This section of the research focused on organizational culture, how it is developed and how it is seen in the video gaming industry. The theory presented by Schein (1988), which later was enhanced by Hatch (1993), explains that organizational culture is created based on four main elements and the linkage among them. Any element can be considered as a starting point, from employees' unconscious assumptions and expectations of *how it should be* to a vision or mission proposed by the top management. Cavusgil & Knight (2004) proposes that born global firms need to have two embedded attributes into the organizational culture: international entrepreneurial orientation allow companies to identify and seek opportunities worldwide demonstrating innovativeness and proactiveness towards handling businesses internationally; and international marketing orientation relates to the ability of firms to generate value for customers internationally. The most popular video game studios share values, vision, mission and purposes publicly, which are all part of their organizational culture, the common denominator is to create innovative products that can reach the largest audience possible while maintaining integrity and diversity (McKaughan et al. 2017).

3.3   Strategic Management

Cavusgil & Knight (2004) explain that the managerial mindset, which reflects into strategic management practices, promotes the initiative of fast internationalization and the path towards boosting international market exploration efficiency. From its essence, born global firms are usually small in size, lack formal structures and organizational hierarchy, facilitating the creation and dissemination of the managerial mindset, vision and organizational culture of seeking early international presence.

Englis and Wakkee (2015) explore the role of global mindset in the born global firm creation process. It consists in three stages: opportunity recognition, in which the global mindset facilitates the identification of gaps in product and service offerings, increasing opportunities awareness with the objective to seek global niche markets; preparation for exploitation, where the global mindset influences the focus on market needs and desires, resources, and collaboration opportunities globally as the origin of the business planning; and opportunity exploration affected by the global mindset will result in tailoring the product or service to fulfill the customers needs by listening to their opinions.

Pitt and Koufopoulos (2012) define strategic management as the decisions that lead to the organization's objectives, goals and the method of how these goals can be achieved. Additionally, it is responsible to determine the extent of the business that will be followed, what kind of contribution it wants to make to the industry and society, and how it manages internal affairs (Pitt & Koufopoulos 2012). A well-defined strategy facilitates the resources allocation based on the company capabilities and competences to create value for shareholders, employees, and customers, enhancing the company's core competitive advantage (Quinn 1980). In summary, a company's strategy should consist of: the core purpose or mission, vision of the paths that the management expects the firm to move forward in the future, the market and customers that shall be targeted, capabilities and competencies that are necessary to create value to stakeholders and how to maintain and improve the source of competitive advantage overtime (Pitt & Koufopoulos 2012).

Strategies are considered to be a result of determination and actions of the executives and management team, it can be recognized as unique to each company due to people's different

skills, experience, beliefs and behaviours. Managers should be able to use their skills to lead the company through strategic management to explore its strengths and minimize the weaknesses, innovate and encourage everyone to pursue the same objective by advocating employees to share, develop and implement new ideas, and provide straightforward priorities to achieve the desired results while constantly tackling unforeseen issues proactively. (Pitt & Koufopoulos 2012.)

Scholars usually explore the *5Ps* of strategy presented by Mintzberg (1987) as a framework to structure new concepts and theories (Pitt & Koufopoulos 2012; Wunder 2016). Mintzberg (1987) identifies the *5Ps* as: plan, ploy, position, perspective, and pattern. Plan prior to acting, identify the company's intentions through goals setting, establish metrics to measure performance and targets to achieve, and create a strategic plan-to-action. Ploy is a tactic or move to outsmart the competition, by predicting possible market changes or strategies. Position where the company is compared to the business environment and competitors, and how to better its competitive position in the future. Perspective is the collective actions and reflections of the company towards shaping norms, vision, mission and values towards an organizational mindset and strategic orientation. Pattern is the continuous activity or the organization which results in a consistency in behavior, whether intended or not. (Pitt & Koufopoulos 2012; Wunder 2016)

Wunder (2016) presents a strategic management logic based on a hierarchical perspective of the 5Ps. A company should start by identifying the perspective, standardizing the course to follow based on values, vision and mission. Followed by diagnosing where the company stands within the environment, setting expectations on where to be, and how to get there in the future by utilizing business strategies to reveal the company's position. Different strategy options are analyzed and when some or one are selected, it is necessary to translate them into polished and concrete goals that can be targeted and measured, therefore executed based on a strategic action plan. When used to outmaneuver competitors, it can be described as a ploy. Strategy itself is what actually happens, it may originate from a planned approach or organically and unplanned. Ultimately, it consists in the pattern of organizational behavior, actions and decisions. (Wunder 2016.)

A study made by Berzins (2012), regarding strategic management in creative industry organizations, states that the concept and application of strategic management for knowledge and intellectual based companies differ from traditional organizations that focus on physical production of goods. Cultural and creative firms have to deal with the polarities of allowing employees to have freedom to create while complying with norms, rules and values that lead the companies towards its visions and objectives. Sassi, Pihlak & Haldma (2017) explain that organizational performance and its measurement, compared to the vision and goals established in the organizational strategy, is possibly the most important factor of strategic management for cultural and creative companies, since it enables executives to analyze what has been accomplished against what was planned and strategize the next steps.

According to Sassi et al. (2017), the cultural and creative industry is highly unpredictable and the constantly changing internal and external environments may result in several challenges throughout the strategic management process. Taking into consideration the internal environment, four challenges were identified. When analyzing the configuration of the management position skills, it is possible to identify the first challenge, that managers sometimes have an artistic or technical background in opposition of a business background, lack of experience in managerial positions, and not always have the sole focus to be a manager, sometimes acting in multiple roles and tasks simultaneously to managing the company. The result is usually the absence of a long-term planning and business strategy; therefore, the first challenge can be described as competence of the managers. (Sassi et al. 2017.)

Additionally, the second challenge identified is on the strategic management process itself, due to the CCIs companies' unique nature of being knowledge and intellectual based, it forces managers to take into account additional factors into the business strategy when compared to traditional organizations. The third challenge is the management of financial and marketing resources, and sometimes the prioritization of these over creative resources, since they structure the innovation capacity of the industry. The final challenge identified internally is the performance evaluation of the produced goods and services, due to some of them perhaps only delivering symbolical value instead of financial results. The most important challenge identified externally to the organization is the constantly changing characteristic of the CCIs competing environment. The industry presents fast changing

customers preferences, constantly evolving technology, and new offerings and competitors emerging from left to right. It is also composed of highly skilled and specialized individuals that can easily move around from one company to another. (Sassi et al. 2017.)

The findings from Sassi et al. (2017) stated that organizations, which are solidly established and do not have concerns regarding financial resources nor daily tasks that may reduce performance, are more likely to establish a strategic management process based on strategic planning, mission, vision and goals with an organizational culture that supports knowledge management, and innovation. On the other hand, companies that face uncertainty, daily challenges and lack of financial resources are more likely to struggle to establish a strategic management process while managers consider strategic planning, analysing and reporting difficult to implement especially due to the absence of qualified personnel. This usually results in the company being disoriented and not following the established mission, vision and values. (Sassi et al. 2017.)

This section explained the managerial mindset of born global firms' executive managers, who are more likely to succeed if there is focus on the fast internationalization process and enhancement of international performance by identifying opportunities, preparing for exploitation and opportunity exploration globally (Cavusgil & Knight 2004; Englis & Wakkee 2015). Followed by the definition of strategic management as the group of decisions that lead the organization's objectives and goals determining the extent of the business and its contribution to stakeholders, therefore facilitating resources allocation based on the company capabilities and competences to create value and competitive advantage (Pitt & Koufopoulos 2012; Quinn 1980). The 5Ps of strategic management are presented in a hierarchical framework explaining that the strategic management process should start by establishing a perspective with the company values, vision and mission, identify its position in the business environment and where it wants to be, create goals that can be targeted and measured using a strategic action plan, ultimately represented by the pattern of actions, organizational behavior and decisions (Mintzberg 1987; Wunder 2016).

Finally, strategic management was analyzed through the lenses of the cultural and creative industries, where it was identified that the traditional strategies may not be fully effective due to the nature of CCIs organizations being intellectual and knowledge-based firms, and

the constantly changing business environment. Internally, firms are likely to struggle with the absence of management skills, experience, business background, and focus into management tasks; difficulties with financial and marketing resources management, performance evaluation, continuously evolving technology and talent retention. (Berzins 2012; Sassi et al. 2017)

4. Research Methodology

The aim of the empirical part of this thesis is to gain in-depth understanding of the challenges mobile gaming companies face during the early stages of the internationalization process, the strategies utilized to overcome these challenges, and what is perceived as success factors by the companies' management. The research was done by conducting one interview in each of the four selected companies. The research is qualitative in nature. This chapter will explain the research method used in this thesis. First, the research design is described, then the data collection methods, and lastly, how the data was analysed.

4.1   Research Design

Research design provides the structure of the research and the strategy that is used to perform it, whilst connecting the main characteristics presented. The essential design elements are: rooted in a research question, leads the choices of sources and information, framework for defining the link within the variables, and describes the research tasks methods. The final objective of the research design is to demonstrate that the plan is feasible and can deliver results at its completion. (Herbst & Coldwell 2004; Saunders, Lewis & Thornill 2009)

The research method defines the strategy used by the researcher to answer the research question and accomplish the defined objectives. The qualitative method has been chosen for this research, exploring non-numerical data with information which is qualitative in its nature, and focuses on generating meaning (Herbst & Coldwell 2004). Qualitative data is designed to deliver insights based on the richness of the information acquired from the point of view of the participants, which is the right fit for researchers that seek to analyze companies and management behaviour, allowing to explore different concepts, strategies and processes that are applied in different entities (Walliman 2017). The qualitative research method suits this research since it seeks to explore a real-life business situation based on the experience from entrepreneurs and managers of mobile gaming industries. The research participants create and managed their own firms and endured the early internationalization process to establish born global firms.

There are three different purposes to research: exploratory, descriptive and explanatory. Exploratory is usually when the researcher has observed a possibility and seeks to learn more about it; Descriptive attempts to approach an existing topic and add more information to it; Explanatory has the objective to identify the causes and effects of the chosen topic (Saunders et al. 2009). This is an exploratory research where it uses existing literature to identify a phenomenon from a different perspective where there is little data available. Exploratory research is conducted using the following possible data sources: literature, field experts interviews, and focus group interviews (Saunders et al. 2009). This research utilizes available literature and interviews with field experts as sources of data.

4.2   Data Collection

The data collection task has to be defined carefully due to the need of collecting the right data for the research purpose, where this data can be found, and what is the correct method of collecting it (Walliman 2017). The collection of primary data follows the semi-structured interview design with experts from different companies' managers who have several years of experience, some have founded and held a management position in more than one firm. This will provide a wide range of information with perspectives from different individuals.

The interview method to collect data provides the researcher the ability to acquire in-depth information from the participants and understand the story in the background of their experiences (Herbst & Coldwell 2004). Ultimately, it is used to approach the research from a wider scope and ask precise questions related to the topics seeking clarification and objectivity about them (Qu & Dumay 2011). The semi-structured format was chosen to perform the primary data collection. Semi-structured interview is the most common of the qualitative research data collection methods. It is a questionnaire, with standardized and open type questions, designed to guide the interaction towards the variety of the researched topics and issues which the researcher wants to learn more about (Qu & Dumay 2011).

Four interviews with different companies were conducted in English through video calls, which was the preferred method for the participants and the researcher due to the current covid-19 pandemic. They were carried throughout September of 2021 and each one required around 60 minutes to be completed. The questionnaire was shared with the participants prior

to the interviews to allow time for preparation. It is composed of seven questions: five open questions, which seek to deepen the understanding of the participant's professional background and the topics related to the research questions; and two standardized questions that are directly related to the concepts and topics found in the available literature. The questionnaire can be found in Appendix 1. All participants were able to answer all the questions without any limitations.

4.3   Data Analysis

Prior to analyzing the data, the interviews were recorded, transcribed by listening to the audio and writing down the words on the sequence in which they appeared, thus capturing all the details and providing meaningful data to be analyzed. Transcribing the interviews and the notes taken during those, altogether guarantees that the researcher captures the available information in a detailed and purposeful manner, looking to avoid important moments being dismissed (Saunders et al. 2009).

This research has been defined as an extensive case study. It aims to develop and enhance the available theory by comparing different cases while exploring the presented business-related phenomena (Eriksson & Kovalainen 2008). Utilizing multiple sources of data allows the researcher to collect information and evidence from different experts that ultimately results in a point of convergence corroborating into valid findings (Yin 2018). This method is defined as data triangulation. This particular research will utilize the interviews from different companies with the same profile, combined with the available literature to identify common patterns, mechanisms and properties that encompass the formation of a born global firm in the Finnish mobile gaming industry (Eriksson & Kovalainen 2008).

The empirical data acquired from the interviews is summarized for each case, generating a case record where all the relevant information is easily accessible. Then, a thematic coding is applied to classify the topics, features, and issues with defined labels. The interviews are coded by applying different tags to reflect the different topics discussed in the interviews. The codes are formed based on the conceptual framework of the research utilizing the organizational management system and its three factors, organizational capabilities,

organizational culture and strategic management, and challenges that companies have to overcome to become a born global. The list of the codes can be found on Appendix 2.

Finally, the cross-case analysis method is applied to determine similarities and differences among the cases contrasting with the theory. This type of analysis requires a within-case analysis in order to retain the completeness of the cases followed by the comparison and synthesization of any within-case analysis among all the cases. The advantage of this method is to avoid making variable-based analysis, which may not be related to the cases, and actually focus on the information provided by each one of the cases and find common patterns across them. (Yin 2018.)

5. Empirical Findings and Analysis

This chapter presents the research findings of the empirical part of this research. Firstly, the companies and managers who answered the semi-structured interviews are introduced. Followed by a within-case analysis to identify the relevant information related to the research questions and theories. Finally, the cross-case analysis method is utilized to surface patterns and differences which are used to complement the available literature.

5.1 Description of Case Companies

This section introduces the case companies interviewed for this research. All companies were selected based on the criteria mentioned in Chapter 1.1, they were established in Finland and had a global vision from inception. They entered foreign markets soon after inception, operated globally by releasing at least one mobile game in the Android or iOS platforms, and are still considered *indies* composed of a small team of developers. The names of the companies are kept anonymous to maintain their information privacy.

Company A was founded in Helsinki in 2019, the co-founders have had previous entrepreneurship experience with another company that was established in 2017 and later sold. After the release of their first game, in December of 2020, they have seen a rapid growth in personnel, from six to more than twenty employees. The company is composed of seven different nationalities and a 70/30 male/female ratio which is perceived as healthy for the working environment by the co-founder and COO. Company A's main goal is "to reach, understand and engage underserved audiences, and to create the games they really want" (COO Company A 2021). Their game is labelled as a merge game where players interact with others and AI to merge, trade and rebuild a community. The interviewee is originally from a business background and learned game design by doing. Before the first game was released, he held two positions as COO and lead game designer, which due to the company's growth, they identified the need for him to only focus on the COO responsibilities.

Company B was founded in Tampere in 2010, and the company history is divided in two phases. In the first phase, the current CEO, who has technical background and studied

computer science, partnered up with a graphics designer to develop their first game which was released in the app stores by a third-party publisher who bought the rights of the game. The company was then established and worked as a service provider, developing games for a partner. After three years, the contract was dissolved and the second phase of the company started. The three co-founders received enough funding to invest their time into their own game which was self-published in 2016 and named the Best of AppStore 2016 in iOS. Followed by the success of their first game, the company grew and it is currently close to 40 employees. Their second game was released in 2020, it is a deep strategy game with AI-controlled troops doing the fighting. English is the official language of the company due to the vast variety of nationalities.

Company C was founded in Kotka in 2011, the co-founder and CEO, who participated in the research, has previous experience in entrepreneurship having founded another company four years before. He left his previous company due to disagreements regarding the company culture and vision, deciding that a new firm with people who share the same values would bring a positive outcome. The CEO has vast knowledge from the gaming industry from being a journalist for 24 years writing game reviews, who later switched to game development. The company has mainly maintained its core team of 10 people throughout its history, who are mostly male, 90%, and Finnish. Nonetheless, the company's official language is English. Their first game was released globally in 2012 and it has become a series with sequels and spin offs. The game is an action top-down shooter style in which the player commands a troop of soldiers through a variety of objectives. Company C's latest success is an MMO sandbox adventure game which was awarded the People's Choice award at Game Connection 2018.

Company D was founded in Tampere in 2016 and has the mission "to become a leader in mobile tycoon games" (CEO Company D 2021). The CEO and co-founder has been in the gaming industry since 2003 and has always had management positions in the previous companies that he has both co-founded or worked for. His expertise is based on funding, partnerships, recruitment and strategy. The company was created to focus in a single game genre that is defined as tycoon or simulation, the objective was to not confront the big players in the industry and create their own identity. Company D is currently composed of 10 employees, who are all Finnish and 90% male gender. There were situations in the past

where people from other nationalities were part of the personnel, up to 40%. Their first and only available game was globally released in 2018 and is a transportation-based business simulator game for Android and iOS with the objective to build a city while playing the role of a transport manager.

5.2   Cases Analysis

This chapter will present an in-depth analysis of each case company based on the conceptual framework of the research. The objective is to surface the details regarding the Organizational Management System (Gerasimov & Gerasimov 2015) that encompass organizational capabilities (Teece et al. 1997), organizational culture (Schein 1988; Hatch 1993) and strategic management (Pitt & Koufopoulos 2012; Quinn 1980), and the identified challenges during the early stages of internationalization to establish themselves as born global firms, within the mobile gaming industry. The primary data acquired from the interviews are compared to the secondary data available in the literature previously presented in the research.

5.2.1   Company A: Case Analysis

Company A is a new company established in 2019 by entrepreneurs who have had previous experience in the industry since they founded another company in 2017, which was then sold after quick success. Their first game was released one year later, which is considered quick by the COO when compared to normal practices in the market. Table 2 presents the findings of the company A case analysis, using the main elements captured from the interview with the firm's COO and co-founder aligned with the research's conceptual framework of the organizational management system and identified challenges during the early stages of the internationalization process.

Table 2: Case Company A Findings - Organizational Management System

Organizational Management System	Company A
Challenges	Financial Human resources Strategic management and planning
Organizational Culture	Diversity Healthy working environment Cultural Add Psychological safety
Organizational Capabilities	Rapid development Data analysis Flexibility and adaptation Skills set
Strategic Management	Funding Talent acquisition and retention Goals and objectives Hybrid management

During the early stages, company A faced challenges that can be identified as funding, human resources, and strategic planning and management. The COO mentions that due to the co-founders and the team being young, they did not have the capital to sustain a company for a long period of time which resulted in some people leaving the company early. They had to seek investments from venture capitals and angel investors to be able to move forward, which only happened when they had a minimum viable product (MVP). The lack of financial resources led the team to solely focus on developing the game as fast as possible, not allowing them to implement proper long-term planning and management strategies, the only strategy they had was to think on what they could accomplish in the short-term to quickly come up with an MVP. According to the COO, "if the first game did not work, the company would fail" (COO Company A 2021). Lastly, acquiring talent was a hurdle since the company was not able to pay industry level salaries in a competitive environment, where the larger companies attract the more talented developers.

The company's culture is based on fast development based on the *hypercasual UX* design with the purpose to create maximum player engagement. Their goal is "to reach, understand and engage underserved audiences, and to create the games they really want" (COO

Company A 2021). Their focus is to develop casual games that deliver a quick and rewarding experience to players, based on the knowledge acquired from them. Company A is formed by seven different nationalities and is welcoming towards the cultural and gender diversity, because it is considered healthy for the working environment and plays a role of cultural add strategy. Cultural diversity helps the company to grow fonder of cultural differences and understand their global audience. Company A encourages psychological safety, where everyone is valued, all opinions matter, and people can express themselves freely.

The organizational capabilities identified in company A are considered to be a distinctive factor, they are specified as rapid development, data analysis, skills set, flexibility and adaptation. They develop fast to deliver a prototype and later a minimum viable product available to players, whilst utilizing the data gathered from users' play tests to adapt the game to fit players' wants and desires. Company A has a unique approach when forming teams, they combine different levels of experience and skill sets within the development teams, including junior and senior developers, facilitating the knowledge sharing and continuous learning for everyone.

Company A has relied on different managerial strategies based on the management team beliefs, actions and vision of the company to be able to overcome the challenges presented while establishing their company. Funding plays a large role in the mobile gaming industry, specially for indie developers, plenty of time has been spent in preparing for investment rounds and finding the right investors for the company. Effectively defining goals and objectives, such as developing fast and delivering an MVP, keeps the team focused and aligned to move forward on the same path. The talent acquisition strategy was important, it was identified that the first hires played a large role in the company progress and influencing the new hires. The core team is considered to be the foundation of the company's culture, while new hires are able to add and shape it to be even better. Company A has relied on a hybrid management approach, where the management team works for the employees benefits and growth, adapting overtime to suit their expectations and improve it.

The COO has acknowledged the company A's perceived success factors, during its two years since being created, as follows: market research, identifying trends and acting on it; focus on growth of the team and the company as a whole; clear definition of the company's goals

and objectives; people and HR, hiring staff who fit the company's culture; and strategic planning, long-term vision of the company.

5.2.2   Company B: Case Analysis

Company B is an 11-year-old firm, where the co-founders did not have previous entrepreneurial experience, and have artistic and technical background. They wanted to develop games but did not have enough financial resources to sustain the company, thus they settled for working for another company as a service provider in game development. When the contract was dissolved, they changed their mindset and decided to make their own game, which was problematic since they had to lay-off most of the personnel due to financial difficulties. When they delivered an MVP they got their first round of investment, published globally their first game and grew the team to 40 people. Table 3 presents the findings of the company B case analysis, using the main elements captured from the interview with the firm's CEO and co-founder aligned with the research's conceptual framework of the organizational management system and identified challenges during the early stages of the internationalization process.

Table 3: Case Company B Findings - Organizational Management System

Organizational Management System	Company B
Challenges	Financial Networking Strategic management and planning Human resources
Organizational Culture	Healthy working environment Sense of ownership Values
Organizational Capabilities	Data analysis Learn by doing Skills set Flexibility and adaptation
Strategic Management	Funding Hybrid management Market research

Based on the history of Company B shared by its CEO, several challenges were identified as major during the early days of the company's second phase. The first one was raising funds while developing the first game's MVP, it was necessary to take loans to be able to keep the firm from bankruptcy. The lack of planning and financial management affected the day-to-day work which could not stop, otherwise the MVP would not be delivered. The management team failed to identify that a single round of investment would be enough long-term. The co-founders considered themselves green when it came to the mobile gaming industry and not knowing people that are influential in the industry was a challenge. Having an extensive network of people can be decisive and helpful for entrepreneurs in this environment. Hiring skilled employees with a below market salary average when compared to the big players, and not being located in Helsinki were obstacles. Although it was a necessity for the firm, it was also a difficult process for the co-founders and managers to detach themselves from the technical and artistic roles to only become managers, the challenge included learning to have organizational management skills, additionally to people management, due to the lack of experience in the role.

At Company B, the culture is considered to be crucial to their success. The working environment is designed to be fun with the goal to work hard to deliver the highest quality gaming experience for the players. The firm thrives by starting from small tasks with the objective to achieve big results, with constant iteration and communication across the teams. The most important company's values expressed by the CEO are "to get the right things done and provide the employees a sense of ownership" (CEO Company B 2021). Illustrating that only getting things done is not enough, they need to be focused on the right things to be able to deliver the highest work quality possible while being autonomous and owning the outcome.

Company B has a clear understanding of their organizational capabilities, starting by defining their approach to game development as data driven. They use data acquired by live operations tracking and players feedback to implement a continuous improvement process to their game. They believe in the learn by doing principle, encouraging the employees to try new things and develop themselves to deliver meaningful results. The company has identified the right skills set to build teams that are effective and can iterate easily. Flexible

and autonomous teams, who do not need close supervision have been more effective, according to the CEO.

The factors considered to be the foundation of the firm's strategic management are hybrid management, market research, and funding. The executive team believes that the hybrid management approach, where they adapt based on the employees' needs, have been successful. The mistakes made in the early days were taken into account and used as learning opportunities to implement a constantly improving managerial approach to tasks and responsibilities. Since the company is focused on data analysis, constantly planning and executing market research is the strategy used to properly plan the next moves. Lastly, being able to organize multiple investment rounds was the main strategy to keep the company running prior to fully releasing their game.

The CEO has acknowledged the company B's perceived success factors, specifically to the early stages after creation, as follows: high quality game, delivering premium experience to customers; people and HR, hiring skilled professionals; and market research, exploring data analysis and management.

5.2.3   Company C: Case Analysis

Company C is a veteran in the mobile gaming industry, being established eleven years ago by a professional who had previous experience of being a game journalist for more than 20 years, and have also previously funded another company. Company C has always remained small with maximum of ten employees, resulting in the management team often taking several responsibilities. The CEO mentions that additionally to his administrative role he has been also operating as a producer and game designer. Company C has relied heavily on funding, which has helped them to remain in the market, but not an aggressive growth. The firm is formed mainly by male Finnish employees, around 90%, usually interns and part-time employees are from other countries. Company C has several games available globally, where their first one was released in 2012 and one of its latest games was awarded the People's Choice award at Game Connection 2018. Table 4 presents the findings of the company C case analysis, using the main elements captured from the interview with the firm's CEO and co-founder aligned with the research's conceptual framework of the

organizational management system and identified challenges during the early stage of the internationalization process.

Table 4: Case Company C Findings - Organizational Management System

Organizational Management System	Company C
Challenges	Financial Human resources Knowledge management Strategic management and planning
Organizational Culture	Healthy working environment Sense of ownership
Organizational Capabilities	Networking Skills set Rapid Development
Strategic Management	Funding Talent acquisition and retention Market research Goals and objectives

Company's C CEO shared the challenges faced when establishing the firm. The first and also considered a constant challenge is capital. "To be able to jump start, funding was necessary, but only an initial investment was not enough" (CEO Company C 2021). In a period of five years and several funding applications to government grants, such as Business Finland, and investment rounds, six hundred thousand euros were raised until the firm was able to sustain itself through its products. Hiring new employees, in addition to the core team represented by the co-founders, was another challenge. The firm was still unknown and professionals were usually not willing to risk joining a start-up. This resulted in a great pressure on the co-founders to focus on delivering fast results to investors, decreasing the focus into strategic management and planning. Their objective was solely on game development and delivering an MVP, leaving aside long-term business planning and other managerial responsibilities. Once the company was able to grow and hire more professionals, a new challenge appeared, which was knowledge management. Most of the knowledge about the company and its games was on the core team's minds and not properly documented for others to have access to. In certain occasions, fundamental changes were

decided by the core team and not communicated to the rest of the team in a timely manner, resulting in people working on things that were already removed from the project.

Company C advocates for a positive and healthy working environment as the main statement of their culture, which combined with team spirit culminate into the key ingredients in making good games. With a team formed by veteran game developers, the CEO believes that the sense of ownership of everyone is beneficial to the company to deliver great products, and plays an essential role in the firm's culture.

The routines and capabilities that differentiate company C from the others, according to the CEO, are networking, skills set and rapid development. From his own experience, the CEO has been involved with games his entire 20+ years career, networking with the right people was identified as crucial for this firm to be able to get started and established in the local and global industry. The combination of highly skilled professionals and rapid development provided the firm with the ability to not only deliver their first game, but also create sequels and spin offs which were even more successful than the original game. Being recognized by players as a good gaming experience and receiving an award.

The strategies applied by the management team to overcome the challenges, empower the culture and capabilities were fundamental during the first two years of the company. Firstly, it was necessary to guarantee a healthy financial capacity through investment rounds and grants to fund the company. Followed by hiring the right people with a similar mindset to the co-founders and great skills. Additionally, devoting time to understand what type of games had the higher probability of success by doing deep market research. Lastly, defining and pursuing the company's goals and objectives.

The CEO has acknowledged that "mobile gaming companies usually die after two years in Finland" (CEO Company C 2021) and the company C's perceived success factors, specifically to the early stages after its creation, as follows: people and HR; experienced and skilled core team from inception; market research, identifying trends that will assist the company to stand out compared to competitors; branding and market visibility, making the company and games known across the industry and customers.

5.2.4   Company D: Case Analysis

Company D considers itself still a young company in the industry at five years of age, with an experienced CEO who has been in the gaming industry for almost 20 years and has also previously founded another company. According to the CEO, the idea of creating company D has come from the experience he has had, facilitating the identification of a market niche to be exploited and the ability to learn from mistakes made in the past, avoiding repeating them in this new endeavour. The goal was to build its own identity and evade the competition from the big players, culminating in the choice to focus on tycoon games. The CEO and co-founder has always been handling managerial responsibilities throughout his career and does not have a technical or artistic background, his motto is to *dream big and believe in it*. The company has 10 employees, who are all Finnish with 80% of the company being male. Their one and only game was published globally in 2018, two years after the company had been established. Table 5 presents the findings of the company C case analysis, using the main elements captured from the interview with the firm's CEO and co-founder aligned with the research's conceptual framework of the organizational management system and identified challenges during the early stages of the internationalization process.

Table 5: Case Company D Findings - Organizational Management System

Organizational Management System	Company D
Challenges	Financial Human resources Unpredictability
Organizational Culture	Healthy working environment Sense of ownership Culture fit
Organizational Capabilities	Data Analysis Flexibility and adaptation
Strategic Management	Funding Talent acquisition and retention Market research Partnership

For Company D, the challenges faced in the early stages can be defined as financial, human resources and unpredictability. Starting a gaming development studio requires investment, which in most of the cases, the founders are not able to solely provide the initial capital but only the idea. Surviving the first couple of years required to involve venture capitals and investors interested in funding that idea. This circumstance is aggravated by the unpredictability of the market and player behavior. It is uncertain that the idea, game genre and path the founders had chosen is optimal and will be largely adopted by gamers. Lastly, forming the team with the right skill set, ideology and culture fit was challenging. The professionals in the gaming industry are scarce and usually opt to join renowned studios who could perhaps provide stability.

Company D supports the idea of having a healthy working environment, with a relaxed atmosphere, enthusiastic team spirit, and flexible working hours to provide the employees freedom and willingness to be a part of the team. It provides the employees a sense of ownership, thus the teams do the work because they care instead of being told to, it is embedded in the company's culture. Ultimately, the hiring managers look to always add personnel with a culture fit, enhancing the existing organizational culture and maintaining the same relaxed and enthusiastic team spirit, who can take ownership on tasks with the objective to deliver awesome experiences to the public.

Company D proactively shared publicly in their website that it was after careful research and data analysis they have identified a market niche and opportunity in the tycoon game genre. The main organizational capability recognized by the CEO is data analysis, utilized since day one to choose the path moving forward and focus on it during development, game play testing and live operations, by always acquiring data from how the game is played and players' feedback to improve the experience. This is a precedent to present the next capability of the company, being flexible and adapting to what the data is expressing. Company D acquires meaningful data and makes sure that the game is not stale, constantly evolving and adapting to maintain engagement from players by delivering a great experience following the trends.

Several strategies were idealized and put into practice to overcome the challenges while empowering the company's culture and capabilities, the main ones are presented. Firstly,

company D focused on market research to present a solid plan and an opportunity in the gaming industry, which was essential when seeking for funding. "We didn't want to clash with big studios, we wanted to go find our own identity and decided to focus on the Tycoon game genre from the beginning" (CEO Company D 2021). With an idea, data, and metrics on-hand, the co-founders were able to perform multiple investment rounds and acquire the necessary initial and continuous capital to establish the company and later publish a game. Acquiring and retaining talent with the right skills set and culture fit made possible for the firm to build a solid core team, who can deliver good results and also spread the company's mindset and culture to newcomers. In the early stages, company D partnered up with other game development studios to be their ambassadors in the industry, test the prototypes, and give feedback during the development process. The partnership was important because the information and feedback received were fundamental to adapt and develop the game as flawless as possible.

The CEO has acknowledged the company B's perceived success factors, specifically to the early stages after creation, as follows: backend technology, building a stable and solid foundation to develop and release the game; knowledge acquisition and management, collecting players' feedback and introducing it to the development pipeline; market research, identifying a market niche to be exploited; and resilience, adapting to a constantly changing and evolving the environment.

5.3   Cross-Case Analysis

The interviews with the companies' managers focused on identifying the organizational management system consisting in the organizational culture, capabilities, and strategic management to overcome the challenges during the early stages of internationalization. Additionally, the research seeks to determine what were the success factors of these companies, recognized by their leadership, to prosper in the global mobile gaming industry. This section of the research summarizes the empirical findings from the cases analysis, highlighting the similarities and differences among the case companies.

5.3.1 Challenges

Sassi et al. (2017) argued that the cultural and creative industry is highly unpredictable and consists in constantly changing internal and external environments, which results in several challenges for the firms that are starting to establish themselves in the gaming industry as well as veterans and large enterprises. Four companies have identified financial and human resources as major challenges, followed by three companies mentioning strategic management and planning. Other solely acknowledged challenges by three different companies are unpredictability, knowledge management and networking. These findings are consistent with the challenges described in the literature regarding the cultural and creative industry. Sassi et al. (2017) explains that the lack of experience of the managers and their possible artistic and technical background usually result in the absence of a long-term planning and business strategy, and difficulties to manage the financial resources of the company. Cavusgil & Knight (2004) discuss the unpredictability and risk of the international markets, thus overcoming this challenge requires knowledge and capabilities from the companies who aspire to explore global opportunities. Human resources was not introduced by the literature, nonetheless it was identified as a challenge by all the participants.

In Company A, the co-founders started the company with a very small initial investment and relied on investors to maintain the company active, the financial resources only started to solidify when they were able to deliver a prototype of the game. As a result of the financial struggle, some employees and co-founders left the company and the remaining staff had to solely focus on developing the MVP as fast as possible, leading to additional challenges classified as human resources and strategic management and planning. People left company A soon after its creation, which resulted in the need to hire new personnel. The firm was unable to pay industry level salaries and was presented with a challenge when trying to manage human resources. The situation company A was in forced the managers to focus most of their time to daily activities to develop a prototype and disregard long-term business planning: "We could not focus on what we wanted to do, what would be cool, since we did not have money" (COO Company A 2021). Similarly, in Company B the financial resources management was the first challenge they faced, personal loans and investments were necessary, additionally the CEO believed only one round of investments would be enough, failing to develop a long-term business planning. Company B struggled hiring employees

below the industry level salary, thus the managers had to be fully involved with game development activities for some time, forgoing the strategic management activities. For Company C, capital was an initial and constant challenge, multiple investment rounds and government grants were necessary to get the studio up and running. The hiring process while the company was in its early stages did not seem to be attractive for developers and considered risky to join a start-up without any guarantees of success. Without the proper team to exclusively create games, the co-founders and managers had to focus on development, also not being able to properly implement long-term business planning. Company D has also mentioned financial challenges and the need of investors, which is aggravated by the unpredictability of the industry. The co-founder of company D described that game development companies are created based on an idea and need investors to buy into it. He also stated that the talent in the gaming industry is scarce in finding the right people with the right skills and mindset that aligns with the company is difficult.

Table 6: Cross-case analysis – Challenges

Challenges	Companies
Financial	A, B, C, D
Human resources	A, B, C, D
Strategic management and planning	A, B, C
Unpredictability	D
Networking	B
Knowledge management	C

In summary, three challenges were described by three or more companies and can be identified as a pattern: financial, human resources, and strategic management and planning. These challenges are usually presented by the participants as a chain of events, starting from the lack of financial resources of the firms, leading to both acquiring and maintaining talent difficulties and the need to focus on daily and practical activities to deliver results to investors, setting aside long-term business planning. Table 6 demonstrates the challenges categories extracted from the interviews and the companies who have mentioned those in their answers. The financial challenge is exhibited by all the participants, surfacing as the lack of initial capital and necessity of funding from different sources such as, venture

capitals, angel investors and government grants. The human resources challenge is directly related to hiring new employees with a below industry salary level, scarcity of talent, difficulty to find people with the right skills and mindset. The strategic management and planning challenge is often presented as the lack of managerial experience, managers having to perform daily tasks focused on the product development and delivery, consequently dismissing the long-term business planning.

5.3.2   Organizational Management System

The organization management system (Gerasimov & Gerasimov 2015) is the framework utilized to explore the process the managers utilize to elaborate the organization's long-term business planning, based on the available resources aligned with the companies' goals and resources. It contains three main elements, organizational culture, organizational capabilities and strategic management.

Schein (1988) describes culture as attributes of a group that can be passed along to new members as a result of cumulative learning, thus the organizational culture is built upon the learning and establishing a general agreement of a set of main external adaptation and internal integration tasks and others that may arise. Cavusgil & Knight (2004) identify *international entrepreneurial orientation* and *international marketing orientation* as the two main organizational culture characteristics that born global firms need to have. Unlike the literature about born global firms, the gaming industry follows the example of high-tech companies (Zhang 2018) seeking to deliver a healthy working environment, as all the companies highlighted it as a key element of their culture. Additionally, sense of ownership is advocated by three of the companies, where they expect the employees to have the willingness to do things on their own, alongside the freedom provided to them by the managers.

Company A welcomes diversity, it has employees from seven different nationalities which has the role of adding aspects from different cultures to the overall company culture. For the COO, "diversity promotes a healthy working environment in which all voices are heard and everyone is valued individually" (COO Company A 2021). In company B, the healthy working environment is designed to be fun and flexible while working hard autonomously

to deliver high quality experiences to players. Company B relies on the sense of ownership of their teams to manage their tasks and own the outcome, making the experience rewarding when seeing the results of their work. Company C is formed by a team of veterans who value the sense of ownership and liberty to create, combined with a positive and energetic team spirit to ultimately constitute a healthy working environment. In company D, the healthy working environment is defined as a relaxed atmosphere, enthusiastic team spirit, and flexible working hours to provide the employees freedom and willingness to be a part of the team. The CEO of company D highlights the sense of ownership as the eagerness of the teams to perform their activities because they want to and not whereas they are told to.

Table 7: Cross-case analysis - Organizational Culture

Organizational Culture	Companies
Healthy working environment	A, B, C, D
Sense of ownership	B, C, D
Values	B
Culture fit	D
Diversity	A
Cultural Add	A
Psychological safety	A

In summary, the key elements presented in the participants' answers are healthy working environment and sense of ownership, which are tied to each other. Table 7 consists of a review of the organizational culture elements provided by the participants. The companies seek to provide a healthy working environment encompassing a fun and relaxed atmosphere, energetic and enthusiastic team spirit, flexible working hours, and diverse teams. On the same hand, sense of ownership is promoted as a core value, whilst the teams are expected to work autonomously with reduced or absent supervision, performing tasks willingly, owning the outcome and the rewards of the results accomplished.

Cavusgil & Knight (2004) explain that born global firms rely on intangible knowledge-based organizational capabilities due to the lack of capital and human resources, it is a result of the accumulation of knowledge created and acquired by individuals within the company creating

valuable outputs and competitive advantage. These capabilities ought to be dynamic, thus revitalizing competences with the objective of adapting to renewed business environments (Teece et al. 1997). The participants have outlined different capabilities considered to be the source of their competitive advantage, nevertheless three of them were identified across three firms: data analysis, flexibility and adaptation, and skills set. Two firms have mentioned rapid development as an important capability.

Company A relied on rapid development of a prototype dependent on users' play tests to adapt the game to fit players' wants and desires. The knowledge acquired from players allowed company A to apply their data analysis process into the development pipeline, and having the flexibility to adapt to players' preferences resulted in a solid product. In company A, teams are formed by combining different levels of experience and skill sets within the development teams, junior and senior developers work together enhancing knowledge sharing and continuous learning. Company B defined its approach to game development as data driven, using the data acquired by live operations tracking and players feedback to implement a continuous improvement process to their game development process. According to the CEO of company B, "the teams have the right skills set, they are autonomous and flexible, and have the ability to adapt to constant changes in the game development process" (CEO Company B 2021). The CEO of company C described the company as a team of highly skilled veteran developers, who focus on rapid development to deliver not only one but several games. For company C, networking with the right people at the right time was identified as a major capability of the firm, assisting with the creation and establishment of the company in the local and global scene. Company D was idealized based firstly on data analysis, which enabled them to identify a market niche to be explored, followed by acquiring data from live operations and players' feedback to improve the game's experience. For company D, the ability to be flexible and adapt to what the data shows is what makes the game evolve and generates competitive advantage by maintaining engagement from players and delivering a great experience following the trends.

Table 8: Cross-case analysis - Organizational Capabilities

Organizational Capabilities	Companies
Data analysis	A, B, D
Flexibility and adaptation	A, B, D
Skills set	A, B, C
Rapid development	A, C
Learn by doing	B
Networking	C

Table 8 summarizes the organizational capabilities categories extracted from the participants' answers and the companies who consider them as key elements. Forming the teams with the right skills set, with them being a mix of juniors and seniors or a team of veterans is considered valuable to a majority of the firms. The capability of having knowledge and data acquisition from players' feedback and live operations, and data analysis as a process, when combined with flexibility and adaptation capabilities of the firm, delivers great gaming experience to players and maintain engagement. Rapid development was mentioned by two firms since it provides value to investors when creating and delivering a prototype, as well as the possibility of creating a series of games instead of a single one.

Strategic management are the decisions and actions of the executives and management team which lead to the organization's objectives, goals and how these goals ought to be achieved (Pitt & Koufopoulos 2012). It can be recognized as unique to each company due to people's different skills, experience, beliefs and behaviours (Pitt & Koufopoulos 2012). Englis and Wakkee (2015) described the mindset of born global managers to be composed of three stages: opportunity recognition, preparation for exploitation and opportunity exploration. Several strategies were mentioned by the participants, funding strategies were present in four companies, three companies suggested talent acquisition and retention, and market research, followed by two companies highlighting hybrid management and focus on goals and objectives. These strategies are aligned with the overall three stages of the born global firms' mindset described by Englis and Wakkee (2015).

The COO of company A affirmed that "funding plays an important role on every independent mobile game developer" (COO Company A 2021), it is important to dedicate time to planning investment rounds and spot the right people who participates in the company funding process. In company A, the first hires and core team defined who the company was and what was going to be done, they also have the power to influence new hires towards the defined objectives and goals, and disseminate the company's culture. Company A determined goals and objectives which facilitated the team to be focused and aligned to move forward on the same path, while implementing a hybrid management approach that adapts according to the teams' needs and feedback. The main strategy to keep company B financially healthy was to organize multiple investment rounds guaranteeing constant funding, consequently everyone could solely focus on releasing its game. For company B, hybrid management kept the employees' performance at a high rate by keeping the managers constantly learning, thus delivering a better management style. Company B relied on market research, including data from players and competitors to effectively plan its future moves. Company C had a similar approach to company B by focusing on keeping the firm financially healthy through funding strategies which included several investment rounds and government grants. Followed by hiring the right people with the right skill set and similar mindset to the co-founders. Company C concentrated on market analysis to determine what type of games had the higher probability of success, with the results and decisions available, it then established the goals and objectives to be accomplished. Company D decided to firstly focus on market research and identified an opportunity that could be exploited with a solid plan ratified it targeted investors, via multiple investment rounds guaranteeing the necessary funding, who were supportive of the firm's idea based on its market research. Next step for company D was to hire a highly skilled core team with the desired mindset to deliver results and influence new hires by spreading the organizational culture. Company D also formed partnerships with other game studios to perform game play testing and acquire valuable feedback before the game was released.

Table 9: Cross-case analysis - Strategic Management

Strategic Management	Companies
Funding	A, B, C, D
Talent acquisition and retention	A, C, D
Market research	B, C, D
Hybrid management	A, B
Goals and objectives	A, C
Partnership	D

In summary, funding strategies were mentioned by all the participants and performed in different formats and stages. All of the firms performed multiple investment rounds, supporting the perception of the managers that *indies* heavily rely on funding and a single investor or investment round is not enough to establish a game development studio. One firm also sought government grants as funding strategy. Three firms focused on funding very early as their main strategy of having financial stability to then move to market research, and one company decided to perform market research as their initial strategy, identifying an opportunity and market niche to be exploited followed by performing investment rounds. Talent acquisition and retention strategies were utilized to form a complete core team who would be highly skilled and have similar mindset as the co-founders, which results in the ability to deliver results fast and influence the following new hires by disseminating the companies' culture, goals and objectives. Two firms mentioned hybrid management style to be positive to the employees' performance and source of continuous learning and improvement to the managers. Goals and objectives have been highlighted by two companies to be helpful to lead the staff towards a unique vision. Table 9 consists of a compilation of the strategic management elements provided by the participants.

Organizational management system consists of effectively managing an organization by utilizing resources to develop organizational capabilities and competitive advantage based on the routines, values, vision, and culture of the organization (Gerasimov & Gerasimov 2015). Leaders ought to examine the company's situation, where it wants to go in the future, and how to get there by formulating strategies and action plans, while taking into account internal and external difficulties and resolving any issues that may arise.

Table 10: Cross-case analysis findings - Organizational Management System

Organizational Management System		
Organizational Culture	Organizational Capabilities	Strategic Management
Healthy working environment Sense of ownership	Data analysis Flexibility and adaptation Rapid development Skills set	Funding Goals and objectives Hybrid management Market research Talent acquisition and retention

Based on the results from each case analysis and applying the cross-case analysis method, the most important elements of the organizational management system for Finnish mobile gaming firms can be highlighted. Table 10 summarizes the findings on the key elements of the organizational management system as a result of the cross-case analysis. The organizational culture and capabilities are the intangible knowledge-intensive resources that forge the ability of the managers to perform strategic actions and decisions to successfully create and establish a born global firm. The major elements of organizational culture are: implementing a healthy working environment where employees have freedom and can feel relaxed and have fun, while working hard to deliver valuable results; and enabling a sense of ownership for the staff to work autonomously, owning the outcome and the rewards of the results accomplished. The fundamental organizational capabilities are: having teams with the right skills set, data acquisition and analysis to guide the game development process, ability to be flexible and adapt to respond to the available data, and rapid development to quickly release a prototype, full game and updates. The strategies utilized to empower the organizational culture and capabilities are: funding to provide a healthy financially company who can focus on creating games, market research to determine opportunities of exploitation and growth, talent acquisition and retention to hire highly skilled with similar mindset to the co-founders who support and advocate the firms' goals, objectives and culture, and hybrid management style was pointed out to be positive for the morale and performance while assisting the managers with continuous learning and improvement.

5.3.3 Success Factors

Stewart Karlsson & Flodman (2014) research identified success factors from the perspective of top-earning Nordic game developers, they are listed as: a well-implemented business

model, targeting the right audience, and delivering a fun and easily discoverable game. Härmä (2013) focused on the success factors of the Finnish mobile gaming industry and identified the following elements: experienced game developers, fearlessness to fail, government grants and funds, global mindset, local infrastructure and educational system.

Similar to the findings from previous research, market research has been acknowledged as a success factor by all the participants, consisting of the ability to search and determine the best audience to target. Three companies have recognized people as a success factor, who are carefully hired to have the right skills and mindset to help the companies to thrive. Single mentions about technology, resilience, branding, high quality game, goals and objectives, strategic planning, and knowledge management are found in the participants' answers. Although a consensus is not found on these success factors across multiple firms, they are all aligned with the findings from the previous researches performed by Stewart Karlsson & Flodman (2014) and Härmä (2013). Figure 3 consists of the success factors identified by the companies who were part of this research, where 1 is the last mentioned and 3 is the first mentioned.
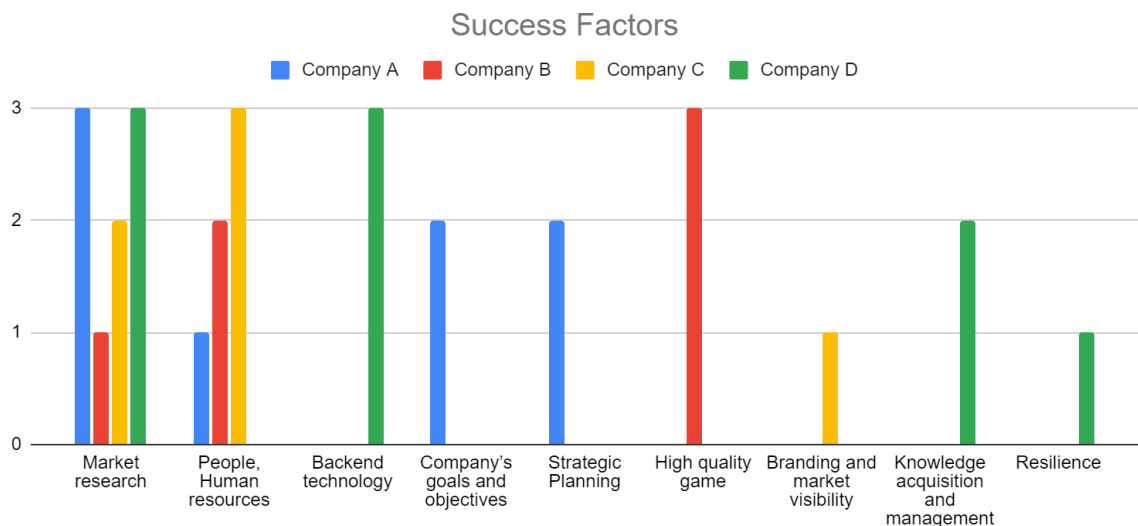

Figure 3: Cross-case analysis and findings - Success Factors

The success factors are a combination of a historical mindset from the Finnish mobile gaming industry based on experienced and veteran game developers, who understand and

disseminate the concept of the necessity of knowing your target audience and not being afraid to fail, by being resilient in creating fun and high-quality games that attract players.

In addition to the open format question about the success factors, the participants were asked to rank in order of importance the success factors of born global firms identified by Cavusgil & Knight (2004). These are described as: innovation, knowledge creation, acquisition and management, routines and competences, culture, management strategies. Figure 4 shows the rank from one to five, where 1 is the least important and 5 is the most important.
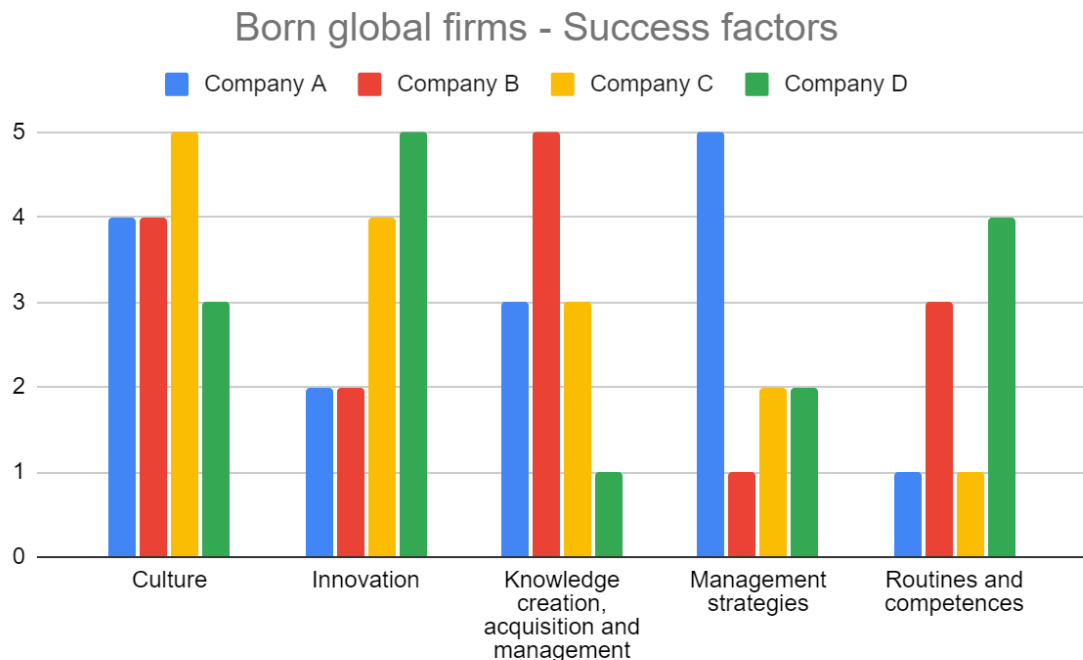

Figure 4: Born global firms - Success factors

Culture had the highest average rating of 4, followed by innovation with an average rating of 3.25, and knowledge creation, acquisition and management with an average rating of 3. The organizational culture findings presented in the chapter 5.3.2 supports the concept of the firms providing a healthy working environment and empowering the sense of ownership, whilst Cavusgil & Knight (2004) mention international entrepreneurial orientation as an important aspect of the organizational culture, facilitating high-quality goods development and focus on technology advancements. For Cavusgil & Knight (2004), innovation is seen across several elements, including culture, capabilities and strategies, being the driver of the

firms and a fundamental success factor. Similar to the literature, the participants consider innovation to be present in the overall managerial mindset and it is embedded in the strategies and routines, from the backend technological development to the user's interface. Knowledge creation, acquisition and management is described as an organizational capability by Cavusgil & Knight (2004), and a source of intangible resources to generate competitive advantage in the global market. It has also been mentioned by one company as a challenge in chapter 5.3.1, the participants also highlight market research as an important source of knowledge, by acquiring users' feedback and live operations data to tailor the game to increase engagement.

6. Discussion and Conclusion

This research presented extensive literature on the concept of born global firms and the early internationalization process with strategies that foment international success. Additional literature on organizational management system was utilized to explain the importance of organizational culture and capabilities which combined, shape the managerial strategies utilized by companies to differentiate themselves and create competitive advantage built from knowledge-intensive intangible competences. Furthermore, interviews were conducted with Finnish mobile gaming companies to acquire data to answer the research questions. This chapter will discuss the results of the empirical study and reflect it with available literature. The research questions are answered and discussed, then the managerial implications as well as limitations of the study and recommendations for future research are presented.

6.1   Findings

The purpose of this research is to determine the challenges that Finnish mobile gaming companies experience in the early stages of internationalization, furthermore recognize if these challenges can be overcome with the application of the organization management system, and identify the success factors that conduct these companies to develop into born globals. The main research question elaborated to fulfill the objective is: *"How can organizational management system help mobile gaming born global companies in overcoming challenges of early and rapid internationalization?"*. To be able to properly address the main research question and achieve the objective of the research, three sub-questions were specified which were deliberated accordingly.

The first sub-research question the research aims to answer is: *"What are the challenges that born global mobile gaming companies face in the early stages of internationalization?"*. There was little literature available regarding the challenges for establishing a mobile gaming company, it is usually more focused in the overall industry. It was necessary to broaden the scope of the literature review to the creative and cultural industries, who are originated based on creativity and talent with the objective to deliver experience goods and services to the mass market where the demand is unpredictable (Landoni et al. 2020). Four

challenges were identified in the study from Sassi et al. (2017), they are listed as: founders and managers usually have artistic or technological background, representing lack of experience in managerial positions and performing additional roles to the managerial one; strategic management and business planning; financial and resources management; and organizational performance evaluation. In the empirical research, the participants were directly asked what were the main challenges faced by the companies shortly after its creation and during the early stages of internationalization. The results indicate three major challenges for the mobile gaming companies established in Finland: financial, human resources, strategic management and planning.

The *financial* management challenge was present in all the firms with similar scenarios. The empirical findings suggest that mobile gaming companies are usually born from an idea or a group of people with the same mindset and passion for gaming, who believe they can do something unique and astonishing. The tendency of these new firms is to seek funds from different sources such as government grants, venture capitals and investors. On the other hand, investors are reluctant to commit without a concrete vision of what the final product is going to be. At this stage, the co-founders are rarely able to hire employees and have to solely focus on delivering a minimum viable product, which can take from six to twelve months to be delivered. Once the MVP is delivered and funding is guaranteed, the company is financially healthy to slightly grow and seek to deliver the final product. A common mistake from managers at this stage is believing that only the initial investment is enough. Based on the empirical research, all the firms had to perform several investment rounds until they were able to release their final product in a time frame between one and two years.

Human Resources was another challenge identified by all the research participants. The empirical findings suggest that this challenge is directly related to financial management. The companies highlighted the fact that being an unknown entity in the industry was seen as risky, and not being able to provide industry level salaries averted candidates. On top of that, for some companies not being located in Helsinki resulted in less workforce available. The hiring managers have the difficult task to seek for highly skilled professionals, with similar mindset as the company, who would be a good cultural fit or add, while having limited budget. Lastly, companies also had to deal with the staff churn, financial difficulties and uncertainty may result in co-founders and members of the core team to look for more stable

professional opportunities. The reality was that managers would have to take extra roles and tasks to be able to evolve and ensure the firms' continuity.

Strategic management and planning was perceived as a challenge by the majority of the companies. Based on the empirical findings, it is a consequence of a combination of lack of financial resources and the scarcity of human resources. It results in the co-founders and managers, more often than not, to perform tasks additionally to their managerial role. Considering that the core team is majorly composed of co-founders, who are also managers, the necessity of having to deliver fast results shifts the focus of the entire company to solely develop the MVP. Thus, during this period, long-term business planning and overall managerial strategies are left in the background until enough funding is achieved for the firm to be financially healthy and increase its personnel. At this stage, it is also acknowledged by the managers, a difficulty to detach themselves from the practical tasks and also inexperience on how to manage people and a company.

The second sub-research question is: "*What are the strategies, within the organizational management system, applied to overcome the challenges presented in early stages of internationalization?*". To answer this question the concept of organizational management system (Gerasimov & Gerasimov 2015) was presented as support literature, which is defined as the process of managing an organization effectively to create and maintain competitive advantage by using available resources to develop organizational capabilities based on the organization's routines, values, vision, and culture. The empirical findings of this research suggest that the main strategies applied by managers are: funding, market research and talent acquisition and retention. These strategies fit the framework proposed by Englis and Wakkee (2015) on the mindset of born global firms' managers described as: opportunity recognition facilitating the identification of gaps and seeking global niche markets, preparation for exploitation seeking for marketing needs, resources and business planning, and opportunity exploration tailoring the product or service to fulfill the customers needs. All of the firms performed multiple investment rounds to guarantee that resources were available for the firms to be ready to explore the identified opportunities. Three firms relied on market research to be able to determine market niches and adapt the product to the target audience. Implementing a well formulated talent acquisition and retention strategy facilitated the product development and organizational culture dissemination.

Expanding the results towards the organizational culture and capabilities, it suggests that these elements combined shape the strategies used by the companies' managers. Having a healthy working environment and promoting the sense of ownership enable the organizational capabilities to be fully explored. These capabilities were described as data analysis, flexibility and adaptation, rapid development and skills set. The strategic management of the firms are the decisions and actions of the executives and management team which lead to the organization's objectives, goals and how these goals ought to be achieved (Pitt & Koufopoulos 2012). Strategic management, organizational culture and capabilities are directly related and affect each other, e.g., market research could only be performed because data analysis existed as a capability; talent acquisition and retention strategy delivered the right skills set and rapid development; flexibility and adaptation enable the sense of ownership. This finding is important to the research framework, updating it to display the interchangeability among the elements of the organizational management system.

The third sub-research question is: "*What factors are critical for success when launching a new business in mobile gaming industry?*". The participants were presented with an open and a structured question with the objective to extract what was perceived to be the success factors of the firms from the perspective of the managers and rank the importance of factors presented by Cavusgil & Knight (2004) as fundamental for born global firms. The literature presented highlights the following five aspects considered as success factors for companies that seek early internationalization: innovation, knowledge creation, acquisition and management, routines and competences, culture, and management strategies. The top three ranked as most important by the participants were culture, innovation, and knowledge management, explaining that "establishing a culture and objectives of how the company should be, shapes its future" (CEO Company D 2021), and "focus on hiring people who add elements to the company culture, not only fit into it" (COO Company A 2021).

In addition to the aspects presented by the literature, the managers shared their own perception on their companies' success factors, market research and people were acknowledged by most of the firms to be important to some extent, additionally technology and high-quality games were highly evaluated by single companies. Specific research in the

Nordic and Finnish mobile gaming industry (Stewart Karlsson & Flodman 2014; Härmä 2013) reveal that the success factors are: well-implemented business model, targeting the right audience, delivering a fun and easily discoverable game, experienced game developers, fearlessness to fail, government grants and funds, global mindset, local infrastructure and educational system. There is a noticeable alignment on the perceived success factors by the participants and previous research in the Nordic and Finnish industry, and even though some elements from the born global literature is acknowledged to be valuable, there is not a clear assumption to be formed by this correlation.

Market research, based on empirical research, is part of different elements within the organization management system. It is applied by the firms as a strategy during the early stages of internationalization to identify opportunities, trends, market niche, players' preferences and target audience. It is also present in the organizational capabilities representing how the strategy is applied into actions that result in competitive advantage and add value to the final product through data analysis. Solely acquiring data utilizing market research strategy is not enough, the firms need to have the capability to acquire, organize, interpret and act upon it. The empirical research suggests that investing time and resources to collect players' feedback and live operations tracking data enable the firms to adapt and evolve the game, delivering a better experience and increasing player engagement.

People, also mentioned as *human resources*, are highly valued by most of the firms and also a challenge. The Finnish workforce in mobile game development has been identified by previous research as the most important strength for the local industry, the Finnish professionals are experienced and highly skilled (Härmä 2013). Based on the empirical research, talent acquisition and retention is acknowledged as a managerial strategy by most of the companies. The hiring process is focused on finding professionals with the right skills set, including junior and senior developers combined in the same team to facilitate ideas sharing and continuous learning, forming a solid core team with similar mindset who will be mentors to new hires and disseminate the company culture, and seek for people who have sense of ownership which fits and add the company culture.

Investing in *technology* guarantees a stable and reliable foundation, including server architecture, rendering and visualisation, storage, velocity and other aspects that are invisible

to players. Once the backend technology is in place, the following step is to deliver a *high-quality game* assuring that it delivers a fun and pleasant experience to players, resulting in consistent player engagement, high evaluation ratings and revenue.

The three sub-research questions are sources to answer the main research question: *"How can organizational management system help mobile gaming born global companies in overcoming challenges of early and rapid internationalization?"*. Mobile gaming companies are usually created by a small group of people who share similar mindsets, passion for developing games and ideas. These co-founders are young and ambitious, but still inexperienced which introduces several challenges in the early stages of internationalization. Sassi et al. (2017) explained that the cultural and creative industry is highly unpredictable and constantly changes, resulting in challenges such as strategic management, managerial inexperience, financial resources management and performance evaluation. The research findings support this statement and also include human resources as a major challenge in the Finnish market. The companies can apply the organizational management system to assess the current situation of the company, where it wants to be in the future, and how to get there by developing strategies and action plans, while considering internal and external challenges, and solving issues that may arise during the process (Gerasimov & Gerasimov 2015). The empirical findings indicate that the Finnish mobile companies aim to provide a health working environment and sense of ownership to the teams as main elements of the organizational culture; emphasizing professionals' skills set, data analysis, flexibility and adaptation as organizational capabilities; ultimately applying funding, talent acquisition and retention, and market research managerial strategies to overcome the challenges faced in the early stages of internationalization.

Finally, the success factors perceived by the research participants are market research, people and human resources, technology, and high-quality games. There are noticeable similarities with previous research in the Nordic and Finnish mobile gaming industry, which indicates well-implemented business model, targeting the right audience, delivering a fun and easily discoverable game, experienced game developers, fearlessness to fail, government grants and funds, global mindset, local infrastructure and educational system as success factors (Stewart Karlsson & Flodman 2014; Härmä 2013). Applying a top-down perspective starting from the success factors towards the challenges, *market research*, and *people and*

human resources are consistently present across all elements, concluding that factors critical to success are directly related to the challenges and the organizational management system application to vanquish those.

Market research is considered a success factor by all the firms. It is used to identify opportunities, trends, market niche, players' preferences and target audience. Market research is also a managerial strategy, based on the data analysis organization capability, used in the early stages to overcome the lack of long-term business planning challenge, which occurs due to the need of the firm to focus only in delivering an MVP to guarantee financial resources.

People and human resources is a success factor valued by most of the firms. The Finnish workforce, including several nationalities, is highly skilled and experienced. A recently founded firm struggles to establish its staff because they are not able to provide industry level salaries and are not able to provide stability. Once the firm is financially stable, the strategy to hire skilled professionals with similar mindsets results in a success factor due to their ability to deliver a high-level outcome translated into a high-quality game.
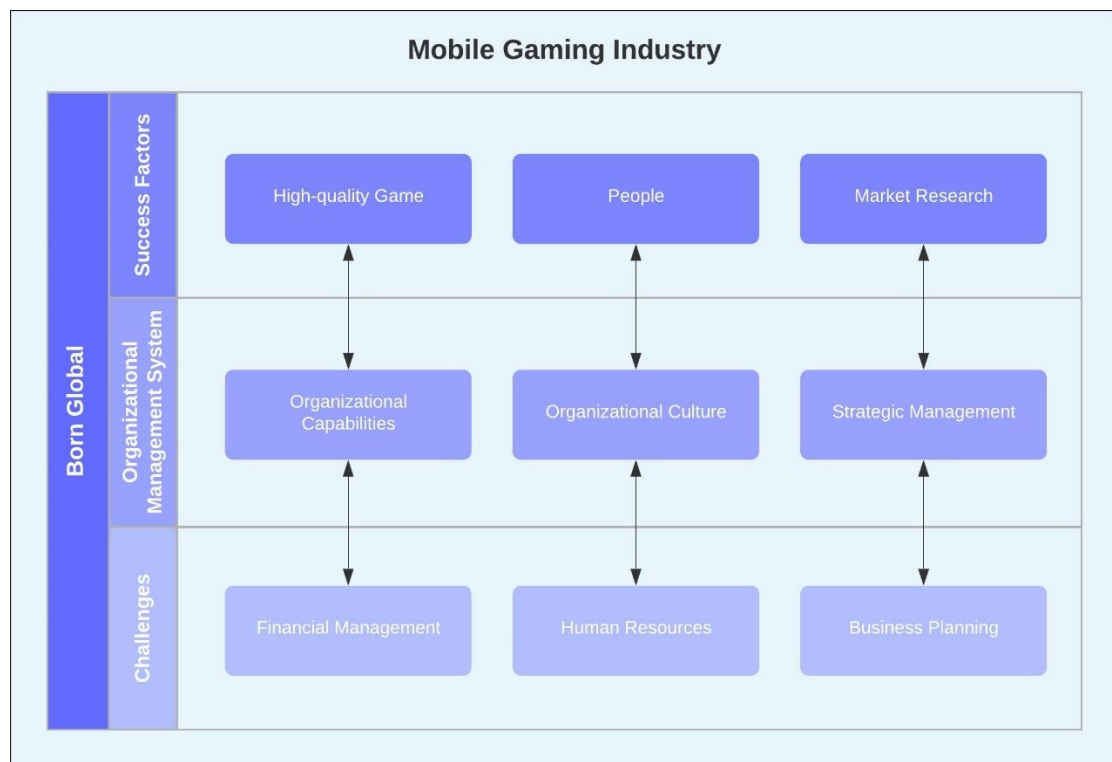

Figure 5: Challenges, OMS and success factors of new mobile gaming born global firms

In conclusion, an entrepreneur with international mindset who wants to pursue the creation of a new firm in the mobile gaming industry must be aware of the major challenges during the early stages of internationalization, described in this research as financial, human resources, and strategic management and planning. The application of the strategies presented in the organizational management system, enable managers to overcome these challenges. Among these strategies the following are highlighted in this research: implementing a healthy and enthusiastic working environment with a sense of ownership for the employees as the organizational culture; having the right professionals and skills set, data analysis, flexibility and adaptation as organizational capabilities; and managing the financial resources through funding, talent acquisition and retention, and market research as managerial strategies. The outcome is the identification of factors critical for success when establishing a new mobile gaming described as market research, people, also mentioned as human resources, and delivering a high-quality game. Figure 5 illustrates the development of the conceptual framework by including the main elements of each concept analysed in this thesis.

6.2   Managerial implications

The results of this study offer several practical implications for managers and co-founders of born global mobile gaming firms who aim to succeed in the Finnish gaming industry. The findings of this study provide insights on the challenges that firms are likely to experience in the early stages of internationalization after their inception. Financial resources are deemed crucial, and the lack of it worsen the situation by arising more challenges. It is important for managers to have a plan to raise funds through government grants and investment rounds with venture capitals and investors who are the right fit and believe in the firm's capabilities and vision. The findings also suggest that exclusively focusing on delivering an MVP normally sets the long-term business planning aside, which results in failing to properly identify opportunities, trends and market niche. Even though human resources is a challenge, it is important to focus on talent acquisition and retention. A highly skilled core team with a similar mindset is able to deliver optimal results fast and influence the following new hires by disseminating the companies' culture. Additionally, it is common for co-founders and managers to perform technical and artistic roles during the early stages

of the company, although it is sometimes a necessity, as the company evolves it is important for the managers to detach themselves from these roles and solely focus on the managerial tasks if the company is to succeed. Lastly, the findings support that market research is a crucial success factor and a strategy applied by the firms to identify opportunities, trends, market niche, players' preferences and target audience.

6.3   Limitations and future research

The research represents the early stages of internationalization of the Finnish mobile gaming companies. An extended study about firms from other countries' companies would be recommended in order to truly find out the scale of success factors of the mobile game industry. The game industry has the potential to change in a fast paced and large-scaled manner, thus other challenges, elements of the organization management system, and success factors may arise.

There are 200 active studios in Finland, and the sample size of four companies may not represent the entirety of the population and the variety of elements that could arise if the sample was larger. Due to the focus in the early stages of internationalization until the first game was published globally, the research does not consider what is the reality once the firms move forward, it is possible to study the firms' growth and expansion up to a point that they may become large enterprises which could possibly present new insights.

The focus of this research is on small mobile gaming firms, leaving room to extend the research on medium and large enterprises in the same industry, as well as exploring additional platforms such as PC and consoles which usually aim at an avid and more demanding audience than the casual players from the mobile gaming industry.

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Appendix 1 Interview Questionnaire

1. Could you please tell me the most important moments of your trajectory, including this and previous companies, to get where you are?
2. What were the challenges the company faced from when it started to the publishing of your first game?
3. What were the strategies applied and actions performed to surpass those challenges?
4. What do you consider to be the factors which led the company to succeed and be able to publish a game globally?
5. Would you identify any of the following being a challenge for the company's management team? Why?

     a. Mangers have artistic background

     b. Managers lack of experience in managerial position

     c. Managers have additional responsibilities and roles besides management

     d. Long-term business planning

     e. Knowledge management

     f. Financial management

     g. Organizational performance evaluation

     h. Constantly changing characteristics of the industry

         i. Technology

         ii. Players' preferences

         iii. Competitors

         iv. Talent acquisition and retention

6. What do you consider to be the success factors of the company's competitiveness? From 1 (most important) to 5 (least important)

     a. Innovation

     b. Knowledge creation, acquisition and management

     c. Routines and competences

     d. Culture

     e. Management strategies

     f. Others (Please specify)

Appendix 2 Coding of Qualitative Data

Organizational Management System	**OMS**
Organizational Capabilities	**OCap**
Rapid Development	OCap-rp
Skills Set	OCap-s
Data Analysis	OCap-da
Learn by Doing	OCap-ld
Flexibility and Adaptation	OCap-fa
Networking	OCap-n
Organizational Culture	**OCul**
Diversity	OCul-d
Culture Fit	OCul-cf
Cultural Add	OCul-ca
Values	OCul-v
Psychological Safety	OCul-ps
Healthy Working Environment	OCul-hwe
Sense of Ownership	OCul-so
Strategic Management	**SM**
Funding	SM-f
Talent Acquisition and retention	SM-tar
Market Research	SM-mr
Growth	SM-gr
Strategic Planning	SM-sp
Goals and Objectives	SM-go
Hybrid Management	SM-hm
Partnership	SM-p
Challenges	**CH**
Financial	CH-f
HR	CH-hr
Competition	CH-c
Technology	CH-t
Strategic Management and Planning	CH-smp
Planning	CH-p
Unpredictability	CH-u
Knowledge Management	CH-km