INTERNATIONALIZATION, NETWORKS AND INDUSTRY RELATED FACTORS: THE CASE OF FINNISH DIGITAL GAME INDUSTRY

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ABSTRACT

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This thesis studied internationalization, sales and networks of small-to-medium-sized enterprises (SMEs) from small and open economy (SMOPEC). The research gap was recognized in the need for further empirical evidence on how SMEs and International New Venture (INV) firms internationalize, how and what networks are used in the process and how industry related factors influence behavior. The theoretical framework for this thesis was composed of stage models (Uppsala model), INV theory and Network model of internationalization embedded and discussed in context of an economically growing and thriving digital game industry. This qualitative study used empirical data of ten (10) cases illustrated from semi-structured interviews of CEOs and managers of Finnish digital game companies. Through the cases this thesis seeks to answer how these firms organize international sales, network to internationalize and how industry related factors might affect internationalization and networking.

Based on the data two paths to internationalization were recognized from the case firms: either through publisher partnerships or through the use of digital distribution to enter global markets independently. The findings confirmed that the case companies are Born Globals, mainly because their domestic markets are small, which pushed the firms to seek sales abroad. This evidence supports INV theory, but in terms of sales the main market area is in Western countries and firms need to make modifications to their games if they wish to succeed in Asian markets. There are barriers to entry in both cultural (differences in gaming culture) and practical (need of partners) aspects and that psychic distance affects internationalization for case companies, supporting Uppsala model. In addition, certain industry related factors affect internationalization of the companies. Digital distribution enables instant internationalization, tough competition creates a need for it and regulation may prohibit market entry, especially in Chinese markets.

The networks of the case companies formed three categories: local-, domestic- and international connections. Despite being Born Globals, the firms develop their networks from local towards more important international relationships with the help of mentors. Previous networks and experience in the industry are factors allowing firms to leapfrog straight into international networks. The main channels for networking were various events and trade fairs which allowed the firms to form trustworthy F2F connections. While networks other than retailers are not technically mandatory for internationalizing, they provided market knowledge, business advice, visibility and finances which are all very important for SMEs.

Keywords
Internationalization, networks, SMEs, Born Global, sales, marketing, digital games, game industry, small- and open economies, Finland

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Tässä työssä tutkittiin pienten ja keskisuurten (PK) yritysten kansainvälistymistä, myyntiä ja verkostoja pienen ja avoimen talouden kontekstissa. Tutkimusaukko perustui tarpeeseen tutkia miten PK -yritykset ja International New Venture (INV) -yritykset kansainvälistyvät, miten verkostoja käytetään tässä prosessissa ja miten toimialan erityispiirteet vaikuttavat käyttäytymiseen. Teoreettinen viitekehys muodostui stage -malleista (Uppsala -malli), INV -teoriasta ja kansainvälistymisen verkostomallista yhdistettynä taloudellisesti kasvavan ja menestyvän digitaalisen pelialan kontekstiin. Tämän kvalitatiivisen tapaustutkimuksen empiirinen data koostui kymmenestä (10) suomalaisten peliyritysten toimitusjohtajien ja managereiden puolistruktuuroiduista haastatteluista. Datan perusteella selvitin, miten pelialan yritykset organisoivat kansainvälistä myyntiä, miten pelialan yritykset verkostoituvat kansainvälistyäkseen ja kuinka toimialan erityispiirteet vaikuttavat kansainvälistymiseen ja verkostoihin.

Tulosten valossa kansainvälistymiseen oli kaksi vaihtoehtoa: joko yritys partneroitui julkaisijan kanssa tai hyödynsi digitaalista jakelua päästäkseen kansainvälisille markkinoille. Yritykset kansainvälistyivät välittömästi, pääasiassa koska kotimaan markkinat ovat pienet. Tältä osin löydökset tukivat INV -teoriaa, mutta myynnin osalta peliyritysten päämarkkina-alueet olivat länsimaissa ja toimenpiteitä täytyi tehdä mikäli ne haluavat menestyä Aasiassa. Yrityksillä oli esteitä sekä kulttuurisista (erilainen pelikulttuuri), että käytännöllisistä (yhteistyökumppaneiden tarve) syistä, joten psyykkinen etäisyys vaikutti tutkittujen yritysten kansainväliseen myyntiin, tukien Uppsala -mallia. Lisäksi oli selvää, että tietyt toimialan erityispiirteisiin vaikuttavat yritysten kansainvälistymiseen. Digitaalinen jakelu mahdollisti kansainvälistymisen, kilpailu loi sille tarpeen ja paikallinen lainsäädäntö sekä toimintaympäristö hankaloittivat toimintaa erityisesti Kiinan markkinoilla.

Yritysten verkostoista muodostui kolme kategoriaa: paikalliset-, kansalliset- ja kansainväliset verkostot. Yritykset kehittivät verkostojaan asteittain kohti kansainvälisiä verkostoja mentoreiden avulla. Aiemmat verkostot ja kokemus toimialalta olivat faktoreita, jotka auttoivat yrityksiä etenemään suoraan kansainvälisiin verkostoihin. Verkostointi tapahtui pääasiassa tapahtumien ja messujen kautta, joissa yritysten edustajat pystyvät tapaamaan kasvokkain ja kehittämään luottamusta välilleen. Muut kuin jakelijaverkostot eivät osoittautuneet kansainvälistymisen edellytyksiksi, mutta suhteiden avulla saatiin PK -yrityksille tärkeitä resursseja: Markkinatietoa, neuvoja liiketoimintaan, näkyvyyttä ja rahoitusta.

Asiasanat
Kansainvälistyminen, verkostot, PK -yritykset, Born Global -yritykset, myynti, markkinointi, digitaaliset pelit, peliala, pienet- ja avoimet taloudet, Suomi

Säilytyspaikka
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The planning and writing this thesis has been one of my biggest endeavors so far. I was able to combine my enthusiasm to games with business studies and looking back the process was surprisingly straightforward as I really enjoyed conducting this project. However, the journey would not have been as painless as it was without the persons I want to mention next.

First of all I would like to thank University of Jyväskylä and Mr. Tapio Ruokolainen, Head of Academic affairs, for accepting me to Master's program of Entrepreneurship. You gave me the chance to improve my knowledge and skills with this academic degree and I hope my contribution has been worthwhile. Within the university I would also like to thank all professors and lecturers whose classes I have attended and discussed the master's thesis with, the education what I have received from all of you has been very professional. A special mention goes of course to my supervisor, Professor Tanja Leppäaho, whose insights on the research topic and help clarifying my thoughts regarding the study have aided me significantly. She has guided this thesis process patiently and in very encouraging way and she was always interested to hear my long lists of questions. So thank you Tanja, this project allowed me to develop my own expertise further and got me more interested in doing research. Also to all of my fellow students: thank you for all of the interesting discussions and I am looking forward to keeping in touch with you in the future!

Regarding this research, it could not have been possible without help from the case firms and their representatives involved in the study. I am grateful for positive attitude and openness towards the interviews, the data gathered was very good basis to conduct this research. I would like to also thank Director of Neogames, KooPee Hiltunen, for the insights and knowledge shared. Digital game industry in Finland truly is a community welcome to newcomers. Even though being a game enthusiast myself, at the start of this project I was still learning how the industry works from the business side and now I know much more.

Last, but certainly not least, I would like to thank my parents, siblings, friends and especially my spouse, Suvi, for all the day-to-day support you have given me. I have always been able to discuss about the thesis process with you and sometimes the extra encouragement is all one needs to achieve greater results. Altogether, I could not wish a better family, the time spent with you is always the best!

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1 INTRODUCTION

In the 21st century Internet has shaped our world maybe more than any other phenomena. As a tool used in networking and internationalization, Internet-based solutions are fairly new. Among the first studies concerning Internet with internationalization, Madsen & Gervais (1997) emphasized the impact of technological development in market entry. From the academic perspective we have only scratched the surface of what Internet truly means to companies concerning their business operations. The limitations of previous studies are for example that they cover relatively narrow aspects of internationalization process (Kotha, Rindova & Rothaermel 2001), the research is limited to single-case studies (Foscht et. al. 2006) or Internet has not been concerned as primary internationalization, sales and marketing channel, but instead a channel among others (Arenius et. al. 2005). For the case companies of this thesis working in digital game industry, Internet is essential channel to market and sell their products and also do networking. Digital distribution through retail channels means that it may be relatively easy for these knowledge-intensive companies to sell their games worldwide, providing a way to internationalize with seemingly very little effort.

The recent megatrend of globalization has affected competition and internationalization of firms in past few decades (Knight, Madsen & Servais 2004). In particular, market conditions, technological development and international capabilities of people have been shifting since the 1990s to better facilitate international opportunities. Thus many companies today see internationalization as an early strategy (Fan & Phan 2007), rather than a stage after domestic success. Still, internationalization is not a new phenomena, with one of the first well documented processes being that of Ford as early as in 1903 (Oviatt & McDougall 1994). Internationalization research contains two major fields of study, classical stage models (for instance, Uppsala model by Johanson & Vahlne 1977) and INV theory (first depicted by Oviatt & McDougall 1994). The main distinction is that while stage models describe internationalization in specific phases where a firm's business operations start domestically, INV theory recognizes that there are firms that are "Born Globals" (Knight & Cavusgil 1996) or "Instant internationals" (Preece, Miles & Baetz 1999). The term used varies a bit, but the basic idea is the same, according to INV theory, the firms do not need to go through specific stages to internationalize (Oviatt & McDougall 1994). Complementary to internationalization research, the Network model of internationalization (Johanson & Mattson 1988; Johanson & Vahlne 2003; 2009) emphasizes the importance of relationships to gain knowledge, combine resources and learn from each other's experiences (Chetty & Blankenburg Holm 2000) which improve performance and aid in the internationalization process.

While the field of firm internationalization contains much earlier research, it still manages to remain a topic needing further understanding. The strategies of how (Arenius, Sasi, Gabrielsson 2005; Zander, McDougall, & Rose 2015) and

why (Zander et. al. 2015) firms internationalize and what factors affect it are open to debate, especially in the context of Born Global firms. There is a need for further empirical (Schweizer 2012) and inductive qualitative studies (Rothaermel, Kotha & Steensma 2006) on SME internationalization. Also, the role of network utilization and evolvement of networks are areas understudied at the moment (Coviello 2006). There is evidence in general about networks, but deeper empirical studies would reveal us much more about what networks firms have and how they use them in business. There are certainly many different types of relationships and identifying these as well as recognizing the intensity among ties is important. Both internal and external relationships concerning knowledge sources which facilitate internationalization are also a matter we should know more about. (Fernhaber & Li 2013).

The specific context of this study are Finnish digital game companies, operating in rather turbulent and unique industry detailed more in depth in chapter 2. It is still noticeable that game industry is a part of creative industry and the companies examined are knowledge-intensive SMEs, associating this study into larger context from this aspect. Finland can be also described as a small and open economy, meaning that the size is of the domestic market is small enough not to have an effect in global prices or incomes and that the market is open to external investors as well as general exchange of goods and services with other economies. It is a fact connecting this thesis to a larger context and emphasizing the need for internationalizing and networking.

The fact about game industry is that it is growing with accelerating speed. At the same time digital games and game culture is still adapting to society and changing (Fromme & Unger 2012). Chatfield (2010) explains that in the end of the 1970s game industry was worth few Billion dollars, in the start of the 1990s 10 Billion, in 2000 over 20 Billion and in 2008 40 Billion dollars. Sinclair (2015) continues that in 2015 the global revenue is expected to hit 91,5 Billion dollars. By any standards, this is an explosive growth rate. Maybe the biggest hit among games so far, Fallout 4 in 2015, sold astonishing amount of 12 million copies for 750 million dollars of sales in 24 hours from the launch (Gaudiosi, 2015). Furthermore research of Entertainment Software Association (2015) revealed that 42% of Americans play video games regularly. These facts and the growing trend of sales indicate that digital game industry is important in both economical and sociocultural way. The statistics tell us about the enchanting power of games and important thing to notice is that if similar trend continues, it takes about a half century that everyone is somewhat familiar with digital games. One competitive edge as media for games is that they fit perfectly in the digital era we live in as opposed to the older mediums of books, newspapers, television and movies which have suffered due to relying too much on selling physical copies and have been struggling with shifting into digital forms.

Regarding business research, on top of theories and models which should be included in master's thesis, Eriksson & Kovalainen (2008) emphasize the importance of up-to-date topic in business research. With the digital game industry growing and having significant economic function (Egenfeldt-Nielsen,

Smith & Tosca 2008; Sinclair 2015) and being prominent part of youth culture, it is certainly a very current subject to investigate. Cadin & Guerin (2006) and Fromme & Unger (2012) mention that despite their economic function, researches regarding digital games have been scarce in number. Game industry as a medium is also little understood in academic sense (Kuhn 2009) and the scholarship is in very formative stage (Corliss 2011). This may be because the game industry is turbulent with broad range of games and technologies that are in constant change (Corliss 2011). Only recently the interest has been awoken as digital games are such an important part of media, especially in youth culture.

One of the interesting aspects digital game firms and -industry as a context of this thesis is that I can evaluate industry-related factors, which according to Andersson, Evers & Kuivalainen (2014), can enable or prohibit internationalization. Fernhaber and McDougall-Covin (2014) argue that there are very limited number of earlier papers from this point of view. Jones, Coviello & Tang (2011) reviewed 323 articles in period from 1989 to 2009 in the field of international entrepreneurship and found that only seven of those addressed industry related factors to internationalization of INV's. Based on this it can be argued that there is no clear understanding on how industry factors and characteristics influence internationalization and it provides valuable addition to findings of this research.

The objective of this thesis is to gain comprehensive understanding on how SMEs from small and open economy (Finnish game companies as context) internationalize, what kind of networks they have and how they use them in the internationalization process as well as investigate how the industry related factors affect these processes. Based on these foundations, this thesis seeks to answer the following questions through multiple-case study of ten (10) companies:

1. How do digital game companies organize international sales?
2. How do digital game companies network to internationalize?
3. How do industry characteristics affect internationalization and networking of digital game companies?

This thesis contributes to existing literature and theories mainly from three aspects. First, it adds to internationalization theories of INV and Uppsala model from the perspective of how SMEs internationalize. Second, Network model of internationalization is taken into account and contributed by exploring what kind of networks the case firms have, how they use them to internationalize and how the networks develop in time. Third, I offer evidence on how industry characteristics affect internationalization and networks. Digital game industry has interesting features, which creates an excellent setting for the research. The selected industry is also relatively new, growing and current, with potential to provide interesting data. Ultimately, the topics in this thesis are of interest of both scholars and firm managers, making the study appeal to broad range of readers.

1.1 Definition of Key Terms

The key concepts that I feel require further defining will be introduced below. This is done to clarify some of the terms which are often used in general language or can have various meanings among literature. By providing the explanation from this thesis' point of view I avoid the risk of the terms being misunderstood and aid the reading process in this sense.

Digital distribution: According to U.S. Legal, digital distribution is *"a distribution method in which content is delivered without the use of physical media, normally by downloading from the internet straight to a consumer's home"* (U.S. Legal, referred 12.1.2016). This means that it is convenient and resource efficient distribution method for both companies and customers. In this thesis the term is widely used, hence I refer it in further text as DD.

Digital games: According to Kerr (2006, 3) the term "video games" or "computer games" often means only single platform in particular context, but sometimes they are used in books and articles to cover the entire field of game industry. For this reason, this thesis uses the term "digital games" to cover all games in PC, mobile (Android, iOS, Windows Phone) and console (Xbox, Playstation, Wii) platforms.

Game industry: In this thesis, game industry is used to represent companies that produce digital games to various technological platforms such as iOS, Android, Windows Phone, PC and gaming consoles. All other kinds of games are narrowed outside of this study.

SME: The definition of a small-to-medium-sized enterprise (SME) is viewed through employees, turnover and balance sheet total to dictate whether a company is micro- small- or medium-sized. However, it is important to notice that knowledge intensive firms, such as game companies, often have comparatively low number of employees in contrast to their turnover. Since Finland is member of European Union (EU) it is therefore justifiable to use the definition of SMEs by EU, which is found in table 1 and illustrates all firms categorized as SMEs.

Table 1 European Union definition of SMEs. (European Comission 2015).

Company category	**Employees**	**Turnover**	**or**	**Balance sheet total**
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

1.2 Structure of the Study

I begin the remainder of this thesis by explaining important matters concerning digital game industry and Finnish game industry to depict the context. The next section follows by discussing internationalization through classical stage models and INV theory as well as integrates internationalization to the digital game industry context. Another aspect related to internationalization, the network model and the use of relationships in the process, is discussed after that. Subsequently, I explain the methodology of this thesis and justify the choices made in research design. After that, the results are illustrated with comments from case firms and cross-case analysis, complemented by figures. The research questions are then discussed in next chapter in their own sections to seek clear answers to each of them. At this stage, theories and literature are integrated to the text to create discussion between this thesis and the existing knowledge. Finally, conclusion summarizes the most important findings, but also makes statements towards the theories used and what this thesis contributes to them. In concluding chapter, managerial implications are taken into account and future research areas are suggested.

2 OVERVIEW OF THE DIGITAL GAME INDUSTRY

This chapter explains the development and characteristics of digital game industry and also illustrates the state of Finnish game industry through literature and comments from interview with director of Neogames and expert of digital game industry, Koopee Hiltunen. The emphasis is to provide background on understanding the context of this study. Internationalization, sales and networks are discussed in more detail in chapter 3. Before delving into the facts about game industry, I would like to quote Michael D. Gallagher, president and CEO of Entertainment Software Association (ESA), regarding that digital games today are cultural products: *"Video games are ingrained in our culture. Driven by some of the most innovative minds in the tech sector, our industry's unprecedented leaps in software and hardware engages and inspires our diverse global audience. Our artists and creators continue to push the entertainment envelope, ensuring that our industry will maintain its upward trajectory for years to come."* (ESA 2015).

2.1 Brief History of Digital Games

The history of digital games has been traced back to the 1950's and 1960's to first computers and people working with them. The first true icons of game industry, Space Invaders (1978) and Pac-Man (1980) can be seen to truly create the game business. By the late 1980's consoles approached by Nintendo and Sega and in the 1990's we saw emergence of Sony Playstation. The consoles dominated industry in the 2000's with introduction of Microsoft Xbox and Nintendo Wii along with new generation of Playstation. Behind all this development was the fact that popularity and performance of personal computers was increasing all the time. Of course Internet has shaped very much the PC side of game industry, making DD and online gaming possible. Today digital games can be more and more ordinary leisure activity or very deep, strategical stories. They can be even a form of sports (esports), from which some gamers make their living out of playing in high ranked tournaments across the world. Without taking account social media and search engines, gaming is the most popular leisure time activity there is which tells us about its role in our society and economy. We can be certain that the game industry will see radical changes also in the future. (Chatfield 2010). Regarding the evolution and changes the industry has seen, Christian Adame, assistant curator for the Phoenix Art Museum, comments on the high-speed progress of digital games: *"I would say the evolution of video games has been very rapid. Because video games rely so much on technology and innovations, the possibilities of video games have been very quickly transforming before our eyes."*(ESA 2015).

2.2 Characteristics of Digital Game Industry

As for digital game industry in general, Cadin & Guerin (2006) explain that its characteristics include interactivity, velocity and interdisciplinary. Interactivity especially is what separates it from many other creative industries and forms of art, such as TV, radio, press. Digital games are by their nature interactive as even some of the earliest games had multiplayer option, but of course Internet and playing on-line in networks has revolutionized the way we play. Also the interaction between customers and creators has been increasing. Process of producing digital games is labor intensive and requires many skills, but at the same time is unconstrained by geographical and national location making them ideal for international business (Sotamaa, 2010). Interdisciplinary as recognized by Cadin & Guerin (2006) is also a very important aspect of digital games as some parts of them, for example graphics, are done by artists and other technical solutions by software specialists. On top of that we see music specialists, story writers, game designers, programmers and businessmen working in game companies, illustrating the variety of tasks. Velocity comes in the form of cycles and seasonality. Game projects have cycle as have the platforms as they are constantly developing with the technological advancement. Sales are also sometimes seasonal as games are purchased as gifts or players are waiting to get products at bargain price. (Cadin & Guerin 2006). Furthermore Allen & Kim (2005) mention that information technology (IT) has significant effect on game industry development. Thus if someone wants to predict future of the game industry, they should follow progress in the IT field.

Alpert continues of the characteristics of digital games agreeing that interactivity is one of the factors related to them that differs from many other forms of art. On top of that, the consumption experience of digital games is usually long, they are more expensive and there is a learning curve and skill requirement in comparison with other creative industry products. (Alpert 2007). These facts refer to the more mainstream products developed by big companies with large funds. In other words, the games of smaller independent studios can be very quick to play through, affordable in price and require only minor skills to play. Furthermore, Alpert argues that the diversity of modes of involvement probably make games the most intense experience of entertainment products. However, these factors can also be hindrances as for example watching movies or TV has significantly lower barrier of entry. Other creative industries such as movie industry have had more academic studies than game industry. The size attributes and growth trend of digital game industry give reasons to study the field further. (Alpert 2007). Often the competitors of digital games are in fact other cultural products and the lack of time consumer has to use on all of them.

One of the most recent big phenomena's in digital game industry is the differentiation of monetizing models, meaning how the firms actually do business with their products. As described by Hiltunen, Latva & Kaleva (2013) the models are roughly divided in two sections, premium and freemium (Free-to-

Play, F2P) games. The more traditional premium games are paid upon the purchase by physical retail, paid download or monthly license. Newer concept of F2P games on the other hand have free trials or are handed to the gamers completely free. In F2P games the revenue comes either from advertisement included in the game or different add-ons or extra features that the players are able to purchase. The dawn of F2P -model has been influenced by the Internet and all free contents there which competes with games. However, as for example the music service Spotify shows us, people will still pay for products upon purchase as long as the contents are reasonable compared to price. It is noticeable that F2P games have much lower barrier for customers to test them and it enables them to gain huge downloads and potentially lift them to be phenomena. F2P games are more often casual than premium games, reflecting usually to the size of content and gameplay being simpler. Nowadays mobile games are usually F2P games and PC as well as console games retain the status of Premium more often than not. There is, however, variance between these types of platforms and monetizing. De Prato, Feijóo & Simon (2014) predict that the sources of revenue and business models of digital game companies will be in constant change, evolving through trends on products and services in the industry. This creates a situation that as a game company it is hard to plan and strategize future.

2.2.1 Players and Platforms

A large number of people are playing digital games with various devices ranging from consoles to smartphones. There is huge selection of games from different genres from action to simulation, role-playing to sports and the gaming can be done in single, multiplayer or online connecting with people around the world (Greenspan, Boyd, Purewal & Datum 2013). As Alpert (2007) explains, the gamers' demographics are quite diverse, being on average thirty years old and the different genres are important way to appeal many types of players. Allaire (ESA 2014), co-director of the Gains through Gaming Lab also states that "*People of all ages play video games. There is no longer a 'stereotype game player,' but instead a game player could be your grandparent, your boss, or even your professor.*" As there is significant variety among game genres and gamers, it has become difficult to categorize players as they can be any of the family members (Niipola 2012). This fact is especially beneficial to SME game companies, which can concentrate on certain niche markets in their products.

Table 2 Three categories of digital games. (Adapted from Greenspan 2013).

Console	PC	Mobile
• Specific hardware • Expensive to develop • Market controlled by IP owners • Still dominated by boxed product, but also digital sales	• Windows, MAC or Linux • Wide variety of genres and prices • No single gatekeeper in terms of platforms • Majority of sales through digital (Steam)	• Tablets and phones • Least expensive to develop • Social and casual games • Highest number of potential players

The platforms (illustrated in table 2) for digital game products are mainly consoles (Playstation, Xbox, Wii), PC and mobile with their own subsectors and service providers, mainly Apple, Android and Windows. The so-called "traditional" video game market, console and PC gaming, equals 80% of the industry's revenue, thus dominating the big picture. If we look at the market straightly by revenue, handful of publishers and distributors control it. Digital games have developed from modest coding's to products with realistic graphics, character movement, voice-over, music and whole stories. (Greenspan et. al. 2013). Even to make a demo –version of these full-scale console games can cost 0,5-1,5 million euros, thus limiting the number of companies capable of crafting them (Hiltunen et. al. 2013). To further illustrate the situation in markets, De Prato, et. al. (2014) show in their paper that while PC and console games still make the most of the revenue in game industry, the growth rate is significantly meager than the growth of mobile and online games. Concerning the role of the high budget console games, it is important to notice that many smaller companies have recently surfaced due to DD becoming more available with lower costs for companies and the publisher is either not always needed or they do not take much of the cash-inflow. It depends greatly on what kind of game and on which platform the company is developing. SME companies which this thesis also concentrates on do not necessarily have the resources to make the movie-like products, but to compensate they seek to deliver original ideas and out-of-the-box thinking when developing their games to provide something new and fresh for gamers.

2.2.2 Traditional Value Chain

The traditional value chain in digital game industry (figure 1) is very much linked with physical retailing of products. Previously game developers did not have choices as opposed to now when DD is possible. In the early times of

game industry, the distribution and marketing were very costly in both money and labor. (Hiltunen et. al. 2013). In the model the game developer basically works for the publisher, producing from a game idea a demo. If the process is successful, the IP rights are sold to publisher and game development begins with publisher's expenses. When the game is finished, publisher brings the game to distributor which takes it to retail and finally available to customers who may buy it. Publisher also minds the marketing of the game. In the traditional value chain the game developer is basically in the role of subcontractor, with the extra benefit of netting royalties on top of projects if the specific game sells well (Hiltunen et. al. 2013).

In console platforms Cadin & Guerin (2006) point out that there are three major manufacturers (Microsoft, Nintendo, Sony) who define the business and at the same time create strong links between the developers, publishers, distributors and retailers, where usually publishers and distributors get a very leading position in the middle, whereas developers and retailers at the ends of value chain tend to be those who are controlled. The value chain depicted below is still widely used by many console and PC developers and even by some mobile developers. The game developer gets only 10% of the revenue, whereas the chain of publisher, distributor and retailer share 90% of the revenue usually spread to 30% for each actor.

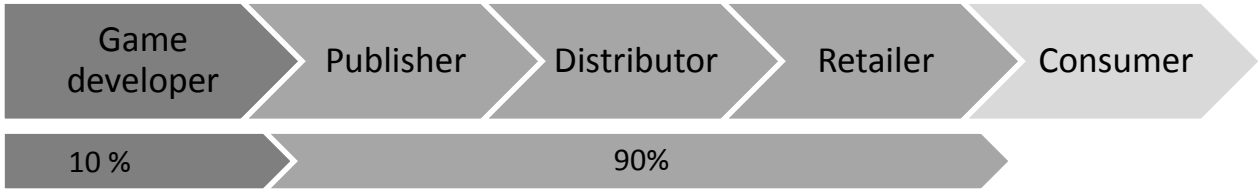

Figure 1 Traditional value chain in digital game industry. (Adapted from Hiltunen et. al. 2013).

2.2.3 Value Chain of Independent Publishing and Digital Distribution

To challenge the traditional distribution, value chain of independent publishing (figure 2) emphasizes DD, which is essential in game industry today and physical copies of games have become scarce as recognized by Newman (2012) and Berman-Grutzky & Cederholm (2010). This is mainly because technology provides us channels and networks to directly download games into our gaming devices or programs. It is more efficient for both game developer and customer. Only those who value actual copies and better preservation of games will miss the physical copies for now. Still many top titles in PC and console platforms can be found with boxed versions as the actors in traditional value chain want to keep their market share. Even with DD, the retail channels in game industry are highly concentrated. Valve's Steam, Electronic Arts' Origin as well as Amazon and GameStop distribute most PC games. In mobile sector the market is divided roughly in two large camps, Apple Store for iOS devices and Google

Play to Android based equipment led by Samsung. (Greenspan 2013). There are numerous upsides for DD of games such as unlimited supply, 24-hour access without travels, reduction for upfront investment, increased piracy control and use of add-ons and micro transactions. However, it must be noted that these advantages come with the cost of strong dependency on bandwidth infrastructure, payment security, lack of personal service, diminishment of retail channel and lack of payment options for youths (credit card). (Berman-Grutzky & Cederholm, 2010). It is the big players in the market who use more of traditional distribution and physical copies on top of DD, but the emerging SME and independent firms tend to distribute via digital channels only, as the costs are a major factor.

The value chain of independent publishing is more straightforward with minimum amount of intermediaries between the game developer and customer. However, it is critical to distinguish that in this model the game developer has to coordinate many of the sales actions, for example marketing of the game, themselves or hire an agency to do it. This means that with DD, the game developer has greater responsibility to ensure the game actually sells. Niipola (2012) describes that making and publishing games through DD is entirely based on decision by the game developer: they recognize the idea, start doing the project and finally promote the game. De Prato et. al. (2014) calls this change from traditional- into DD the era of "disintermediation". The value chain is illustrated below, where game developer gets approximately 70% of the revenue and 30% goes to the retail channel.

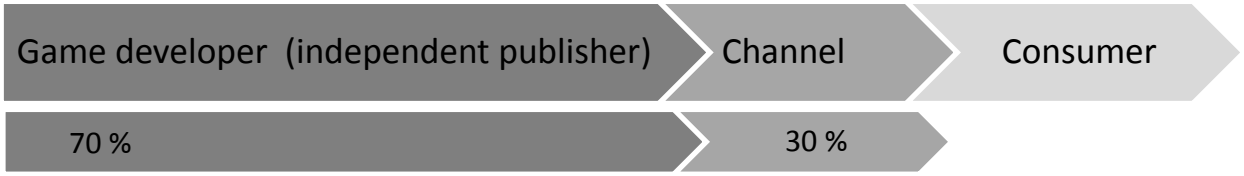

Figure 2 Value chain of independent publishing. (Adapted from Hiltunen et. al. 2013).

Zhu and Zhang (2010, 145) point out that via DD the firms do not have to compete for self-space as it is virtually unlimited in online markets. However, it should be recognized that there is a sort of pecking order also in online stores, since those firms which spend the biggest money on marketing tend to get the best visibility. Also if a particular game is very popular it usually ends up on the front pages of online stores, which improves its sales. Furthermore, Zhu and Zhang (2010) conclude that as a result of Internet and DD the digital game industry is shifting away from small number of mainstream products at the head of the demand curve into large number of niche products at the tail. Individual preferences and tastes are more and more taken into account as it is possible to pursue niche audiences that would have been considered uneconomic to make products for earlier. This does not always guarantee sales or success to all firms but broadens the market, clearing a way for SME companies. Egenfeldt-Nielsen,

Smith & Tosca (2008) continue that it is DD that has allowed digital game industry to surpass the so called "console wars", which previously led to the industry revolving solely around cycles of sale burst when new console was introduced and decline of sales as the equipment grew older. This could suggest that for digital games the introduction of DD is the single most industry changing event. The fact that also smaller firms are thriving in digital game industry further justifies the context of this thesis, as I concentrate on SMEs rather than the largest companies in the industry.

2.3 Finnish Game Industry – From Demo Scene to Success

To better understand the context of this thesis, I will briefly explain issues concerning Finnish game industry. Internationalization and sales in the industry are covered in chapter 3. At country level the community is supported by IGDA Finland, Neogames Finland and the Finnish game developer association. These organizations have vital role in community building, sharing information and lobbying. On top of that there is game education, maybe most importantly in Universities and Universities of Applied Sciences with total of over 20 institutions providing it in some form. (Hiltunen, Latva & Kaleva 2014).

Finnish game industry is considered to be 20 years old, as the first still functioning firms started their business in 1995. However there were some projects and try-outs in the so called "demo scene" already in the 1980s. Game industry in Finland started with somewhat hobbyist culture in the time when games and gaming were not mainstream phenomena yet. (Hiltunen et. al. 2014). Saarikoski & Suominen (2009) explain that the gaming hobbyists were really important for the birth of Finnish game industry and they have shaped and built the companies that are most stable today. The industry grew slowly in the late 1990s only to become more stagnant in the early 2000s as the "Internet Bubble" of financial speculation in the IT field took place and stopped investments flowing to the industry (Hiltunen et. al. 2014). At this point it is essential to acknowledge the impact of Nokia in the Finnish high technology business and especially to the birth of mobile games is significant by funding the projects and increasing the knowhow of individuals (Niipola 2012).

In the late 2000s the growth boomed again with DD giving more and more opportunities for the firms. The early 2010s and the success of Angry Birds by Rovio was followed up by start-up boom in 2011. The development and distribution of games was for the first time easy and affordable even to smaller studios. The financial success interested also investors, which elevated to the biggest transactions of Finnish game companies yet, as Supercell was acquiesced by GungHo/Softbank with sum of €1,1 Billion. Finally, in the mid 2010s the introduction of F2P model gave opportunity to make revenue in unorthodox way by letting the people play the base game for free, but charging for the various add-ons and extra materials inside the game. (Hiltunen et. al. 2014). The sign of the industry becoming mature can be also seen as there have lately been

many second round start-ups, consisting of founders who have strong experience of the industry.

Nowadays of the total turnover of €1,8 Billion most is gathered by around 20 studios, which have turnover of at least €1 Million, with Rovio and Supercell being clearly the biggest firms. This is less than 10% of the companies, which is quite typical in the game industry. The total turnover is notable enough to justify the game industry as a significant part of the Finnish industrial landscape, also with a strong belief that it will grow to become even more important. (Hiltunen et. al. 2014). Comparing the size of the digital game industry to the fact that there are roughly 5,5 million people living in Finland, it has seen very positive growth in worldwide scale under the circumstances (Niipola 2012).

Concerning the firms in Finnish game industry, Lappalainen (2015) explains that they are not a homogeneous group and she divides them into five different categories: matures, super performers, promising start-ups, small indie studios and start-ups with no experience. Matures (for example HouseMarque, Remedy, RedLynx) are the backbone of the industry, the group consisting of firms which have been successfully operating for a long period of time. The persistent work of matures has shaped the Finnish game industry and they possess deep knowledge of the field. Rovio and Supercell can be counted on super performers who have truly illustrated how fast game companies can grow nowadays. They have not been in the business as long as matures, but surpass them in revenue due to their global hit products. Promising start-ups can be considered to be those firms which have been founded by individuals who already have experience and networks within the game industry, thus making success seemingly easier to achieve. Major factor in this regard is that because of the experience and networks they often get funding which is sorely needed to be able to make many games in the search of a hit product. Small independent studios can possess knowledge and skills to make excellent games but often lack resources and business insight to finally penetrate the markets. In this category there are also lifestyle entrepreneurs who consider game making as part hobby, part business. Maybe the most challenging position is with the start-ups with no experience of the industry. Many of these companies struggle to survive the early years of business due to lack of resources, mainly finances. However, with persistency to establish networks and acquire the skills needed it is not entirely impossible to come up with a successful game or at least make a way to get hired by a publisher. All of the game companies except super performers can be classified as SMEs in global scale.

3 LITERATURE REVIEW OF INTERNATIONALIZATION AND NETWORKS

This chapter illustrates the academic literature concerning internationalization of firms, with special focus on SME internationalization. The purpose of this review is to provide background of the research area and how previous studies relate to this thesis, thus defining the theoretical frame of this research. First, I explain classical stages models of internationalization, with focus on the Uppsala model. The second section continues from newer concepts of INV theory and Born Global companies. A subsection of this chapter is dedicated to internationalization and sales specifically in digital game industry. In third part, Network model of internationalization is discussed. Several theories are used because the internationalization concept is hard to explain and study by taking into account only one angle of earlier evidence and because of that internationalization research should not be limited to cover only one theory (Coviello & McAuley 1999). Furthermore, empirical evidence is illustrated and discussed within the chapters to give insight and examples and also relate to knowledge-intensive firms and digital game companies. Much of the literature is related to SMEs, high-tech and knowledge-intensive firm studies which are in line with the context of this thesis.

3.1 Early Internationalization Models

At the end of 1970's we saw a new era of firm internationalization behavior studies. These models first illustrated by Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977) explained the slow, stepwise internationalization process of multinational manufacturing firms. Probably the most recognized of these models is the Uppsala model, named after its origins in Swedish firm studies by Johanson & Vahlne (1977) where they showed that the companies minimized risk by beginning the internationalization with psychologically similar and geographically close countries. The concept of psychic distance by Johanson & Wiedersheim-Paul (1975, 507-508) is especially important in this model as they describe it to be *"factors preventing or disturbing the flow of information between firm and market"*. These are for example differences in language, culture, political systems, level of education or level of industrial development. Regarding this issue in more recent literature, Ojala (2015) describes that while geographical distance is very stable, measuring psychic distance is complex because it varies and changes over time. On top of that the market size influences entry decision; bigger market can be more appealing in terms of business opportunity whereas smaller market opportunity can be for example geographically close country.

The early models have been also referred as the stage models, because they describe four different steps of the internationalization process of a firm:

1. No regular export activities
2. Export via independent representatives
3. Sales subsidiary
4. Production/manufacturing
(Johanson & Wiedersheim-Paul, 1975)

The stages 1-2 represent that firms favor indirect entry modes further minimizing their risks. It also means that in the beginning of internationalization they require less knowledge about the environment in target country and at the same time firms can gather intelligence about the markets. When the target market becomes more familiar to a firm, they are better equipped to establish direct operations there, which are the stages 3-4.

On top of the stages, knowledge of foreign markets was divided by Johanson & Vahlne (1977) to general information and market-specific knowledge. Whereas general internationalization intelligence is mainly objective and can be transferred to explain behavior of one market to others, the market-specific knowledge is subjective and only applicable in the context. Market-specific information is hard to gain as it is not communicated or shared often and it bases on personal experiences. General knowledge of the markets can be however learned via media and printed sources. Knowledge can help a firm to internationalize in countries that the management is familiar with. The lack of knowledge therefore is a significant obstacle for internationalization.

The early studies were followed by papers from several other authors (e.g. Bilkey & Tesar, 1977; Czinkota & Wesley, 1981; Cavusgil, 1984) concentrating on firm internationalization. At the time the consensus was quite certain that firms follow certain stages in the internationalization process. These studies were in line with the research of Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977), with only minor adjustments from their part. For example the model of Bilkey & Tesar (1977) introduced six stages of early internationalization process, which according to the authors was particularly suitable for SMEs at the time:

1. Management is not interested in exporting
2. Management would fill an unsolicited order, but is not interested to explore the opportunity further
3. Management actively explores the feasibility of exporting (can be skipped if unsolicited offers are received)
4. The firm exports to psychologically close country
5. The firm is experienced exporter to that country
6. Management explores the opportunity to export to other countries that are psychologically further away
(Bilkey & Tesar, 1977)

Their study put much focus on the experience and background of managers as they have such a decisive role in SME firms. Thus, the stages depicted above go into deeper level than those in model of Johanson & Wiedersheim-Paul. According to Bilkey & Tesar (1977) the quality and dynamism helped the firms to gain unsolicited export orders more easily and thus internationalize with greater potential.

Still, it has to be taken to account that these early stage models researched mainly large manufacturing firms, so it could be argued that the results do not apply straightly to knowledge intensive SMEs, for example digital game companies studied in this thesis. The classical models have been questioned by several authors (Bell 1995; McDougall, Shane & Oviatt 1995; Moen 2002) and even the earliest researchers Johanson and Vahlne (1990) themselves have recognized that the Uppsala model may not be suitable concerning service firms and that different approach could be taken to understand their behavior better. The stage model of internationalization was used in the study of Roberts (1999) in the end of 1990's with a different aspect for service firms, but many scholars argued that there is a need for a whole new theory. For this reason, we continue in the following chapters by discussing INV theory and Network model of internationalization, which are more recent studies in the field of internationalization research.

3.2 International New Venture Theory

To challenge the classical stage models of internationalization (for instance: Johanson & Vahlne 1977; Bilkey & Tesar 1977; Cavusgil 1984), INV theory seeks to describe behavior of firms that start international plans and business from the inception. The other theories of internationalization focus rather on firms which have saturated domestic markets and thus need to expand their operations to other countries. As written by McDougall et. al. (1995), these classical theories concentrate on larger companies and the firm level, ignoring individual and small group analysis of for example entrepreneur and his networks which have major role in SMEs this thesis studies. Oviatt & McDougall (1994, 49) define INV as a *"business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries"*. They were followed by several papers (for instance Knight & Cavusgil 1996; Madsen & Servais 1997; Coviello & Munro 1997; Preece et. al. 1999) regarding INV research. Furthermore, it has been found that INV firms often compete in industries with high degree of international competition (McDougall 1989) and high technology (Bell 1995; Coviello & Munro 1997; Moen 2002). Digital game companies fit especially well in this definition as they tend to sell 95 percent of their products abroad (Hiltunen et. al. 2014) and view internationalization as a basis for successful business. This means that their origins tend to

be international and the internationalization strategy proactive, which are also cornerstones of INV firms.

There is an extensive use of different terms regarding firms in the field of INV research. In the literature we find for example Born Globals (Knight & Cavusgil 1996), Instant Internationals (Preece et. al. 1999) and Global Start-ups (Mamis 1989; Jolly, Alahuhta & Jeannet 1992). There have been attempts to review these terms under a single term (Svensson 2006), but currently it seems that the original scholars are each holding on to their own terminology. One should not be confused of this rich language variation as the words are almost synonymous to each other. For the sake of clarity, this thesis uses terms international new venture and Born Global as they tend to be the most commonly used in this area of study.

In 1995 Oviatt & McDougall illustrated the characteristics successful INVs should have. These include global vision from inception, internationally experienced managers, strong international networks, having preemptive technology or marketing exploited, having unique intangible asset, product or service closely linked with extension and the firm being closely coordinated worldwide. Furthermore, the role of founder (past experience, motivation), organization (competence, governance structure) and environment (market situation, high/low technology, specialization) were emphasized by Madsen & Servais (1997) for Born Global firm development. I admit all of these characteristics might be important in the end, but for SME that are entering international markets it is hard to believe they possess such a wide range of assets, knowledge and networks at the beginning. Instead they might be built upon the process of internationalization.

Few Activities Across Countries	**Export/Import Start-up**	**Multinational Trader**
Many Activities Across Countries	**Geographically Focused Start-up**	**Global Start-up**
	Small Number of Countries Involved	Large Number of Countries Involved

Figure 3 Types of International new ventures (Adapted from Oviatt & McDougall 1994).

As explained by Oviatt & McDougall (1994) and illustrated in figure 3, there are different kind of INV firms. New international market makers can be divided to export/import start-ups and multinational traders. The basis of these firms is to move goods from nations where they operate to nations where there is demand, seeking to beat the competition through market knowledge and customer/supplier loyalty. Rasmussen & Madsen (2002) continue that these firms are for example traditional exporters and importers. On the other hand, geograph-

ically focused start-ups serve niche audiences with concentrating their efforts on specific regions, countries or cultural areas (Oviatt & McDougall 1994). Global start-ups are firms that operate wherever they find the greatest value, constantly seeking new opportunities. They are active in global markets to gain competitive advantage through various resources Rasmussen & Madsen (2002). Because of skills required in both geographic and activity allocation, Oviatt & McDougall (1995) claim that global start-ups may be the most challenging form of INVs, although once settled they have the competitive advantage of network alliances in several countries. As for most digital game SMEs, they are most likely to be either geographically focused start-ups or global start-ups. The value chain of DD is on its surface simpler but it actually requires many activities coordinated. Traditional value chain in digital game industry is far more stable and requires less coordination once the operations are set up. Regarding the entry modes of these firms Terjesen, O' Gorman & Acs (2008) deduct that it would be optimal for also global start-ups to work with intermediaries because of the vast amount of countries and activities to be coordinated. Still for game companies DD allows products to be easily available everywhere, meaning the firms can be global, but they can also focus their games into certain market areas with taking the target market characteristics into account in development. It could suggest that firms in this highly international industry can cope without intermediaries, although being available everywhere and actually getting the products sold are two different things.

Regarding the scope of internationalizing it is important to distinguish global diversity and international intensity of firms. Global diversity means companies being on multiple international markets concurrently, these are firms which operate globally and aim to achieve markets of the whole world. International intensity stands for limited geographic scope in internationalization, firms which focus on particular regions. According to Preece et. al. Born Global firms operate first with international intensity and may later become companies with global diversity. Their study of 75 small technology based firms shed light on the matter what factors influence internationalization. Resources (in general time, capital, capabilities and networks) necessary for the endeavor correlated positively with both aspects, but management attitude explained only international intensity and firm age global diversity. (Preece et. al. 1999). The interesting part of this is that they deduct that international intensity becomes first, followed possibly later by global diversity. In some aspect digital game companies can be seen breaking this pattern as at least they have the potential to sell their products fully globally through digital platforms. Moreover it must be recognized that very few games sell themselves, meaning it often takes sales work and contacts to enhance the business in specific regions. Still there are some hit games such as Angry Birds by Rovio which was ahead of its time; being on the reasons it managed to conquer markets worldwide. Similar game today is against the odds to be a product that gains significant sales.

Product specialization (Madsen & Servais 1997; Knight 2000) and firm adaptation (Knight 2000) are also core components for SME internationalization.

This means that by developing more niche products it is possible to gain market share where the bigger companies have no ability or interest to operate. This is relevant in game industry because the market has been shifting to producing huge amounts of different games. It means that big companies tend to make more mass appealing games which they are able to sell to large audiences whereas they often leave the niche genres for SMEs to provide products. Adaptation in game companies can refer to localization and culturalization actions regarding the products to make them more appealing in certain areas. Firms must be also ready to adapt in shifting trends in the market, which kind of games they are making and to whom. To cope in turbulent markets, INVs tend to create hybrid structures such as strategic alliances or make use of networks in business as ways to preserve their scarce resources especially in start-up phase (McDougall et. al. 1995). However, for example the study of Preece et. al. (1999) did not found linkage between strategic alliances and internationalization success. It could suggest that these factors may be industry and case-specific. Sometimes the need for special resources is the driving factor in internationalization (Fan & Phan 2007). For digital game companies this can mean for example resources in distributing or marketing the game in specific areas or channels.

The small size of domestic markets is a factor that could drive firms early on into international markets. The domestic demand might be too low even in bigger countries (Madsen & Servais 1997). The phenomenon was recognized for example in the study of Knight et. al. (2004) where Danish Born Globals had 71 percent of their sales abroad compared to American firms which exported only 47 percent of the total sales. Research of Fan & Phan (2007) further confirmed that size of home markets and firms' production capacity affects the internationalization decision of new venture. In this aspect Finland can be compared to Denmark as both are Nordic countries with relatively similar market size and business culture. The 95 percent of exports in Finnish game industry illustrated earlier indicates that the game companies in Finland do not even have an option; they either go into global markets or do not operate at all. However, as recognized by Kotha et. al. (2001), not all Internet-based companies with DD are automatically Born Globals. Many of them can operate in domestic markets if there is sufficient amount of demand as internationalization usually involves risk taking. The relevant factor of course is the size and demand of the domestic market. Within Finnish game industry firms that do subcontracting or for example learning games based on orders from other companies or public sector could manage in domestic markets. Moreover these firms should at least consider internationalizing as with DD the barriers are significantly lower than with traditional, physical distribution methods.

Especially Internet-based INVs are instantly involved in the global competition, meaning that they usually do not have time, money or experience (resources) ready at the time internationalization is undertaken (Sinha, Wang, Scott-Kennel & Gibb (2015). This is also true usually for other high-tech, knowledge-intensive SMEs which internationalize with haste (Autio, Sapienza, Almeida 2000) when opportunity arises and do not have the time to fully

strategize or gather knowledge (Coviello & Munro 1997; Crick & Spence 2005). The same situation might be true for digital game firm internationalization, opposed to many industries where there is an option to develop the business and gain knowledge in domestic markets in the lines of Johanson & Vahlne (1977). According to Petersen & Welch (2003) Internet speeds internationalization, allows commerce without limits of country borders. Rather than to seek markets, the companies seek resources. Furthermore, Petersen & Welch (2003) raise questions of does Internet-based internationalization slow down after the initial steps, do the firms need any physical presence in markets and is geographical segmentation totally unnecessary?

Sinha et. al. (2015) proposes that Internet-based INVs hold target market size as aggregate of entry decision. This is supported by findings of Cannone & Ughetto (2015) who state that the big markets of USA, China and UK are most attractive options for high-tech start-ups. In turn, Rothaermel et. al. (2006) researched U.S based Internet firms and found that also for those companies foreign market size is the most important factor in internationalization. As for specifically knowledge-intensive firms, which digital game companies can also be classified, it was revealed by Bell, McNaughton, Young & Crick (2003) that UK, Australian and New Zealand based small firms preferred to internationalize into specific "lead" markets. This means technologically and economically advanced areas with lots of potential customers, such as USA, Europe and Japan. For digital game companies this seems also viable path as the biggest potential is inevitably in those countries where there is time and money to put into leisure activities such as games. However, within gaming world there are different genres and culture plays a role in which type of games are purchased, which also affects the sales in particular region. Furthermore, the increase of F2P games enable vast amount of people to play games as long as they have the hardware required. In this sense mobile games are more accessible than for example console games, as often people have smartphones but the number of players investing on relatively expensive 300 - 400 € gaming console is more uncommon.

The role of manager or entrepreneur is usually very important for internationalization of SME companies (Madsen & Servais 1997; Crick & Jones 2000) as often the decisions of one or few persons of the management dictate the course of the firm. The study of Knight (2000) revealed that entrepreneurial orientation is key concept of improving performance of global SMEs. It drives them to make technologically advanced and high quality goods creating competitive advantage (Cavusgil & Knight 2014). This suggests that SMEs should emphasize characteristics of entrepreneurial orientation: innovativeness, risk taking and proactive behavior to cope in international markets. Knight (2000) illustrates that first the preparation for internationalization is essential and afterwards adaptation to the shifting situation in markets. This may indicate that while managerial experience as described by Oviatt & McDougall (1994) is in most cases beneficial, it is not necessarily a factor prohibiting successful internationalization for the companies lacking experience. However, Nummela,

Saarenketo & Puumalainen (2004) emphasize the management experience, more specifically international experience and education as drivers for managers to adapt global mindset aggregating SME internationalization.

Having discussed how INVs differ from the classical stage models of internationalization, not every researcher totally agrees with distinct division of these concepts. It is mentioned in the study of Fan & Phan (2007) that even for Born Global firms cultural distance plays a role in their decision making. The same was true in research of Rothaermel et. al. (2006) where they concluded that cultural distance prohibits internationalization of Internet firms. This suggests that we should be cautious to categorize firms too strictly into one internationalization behavior, as there may be overlapping within the concepts. Sasi & Arenius (2008) suggest that firms internationalize in two phases, first accessing to global markets and second growing the business in achieved market positions. It is also important to recognize that early internationalization is not the formula to success for all firms (Fan & Phan 2007). To Born Globals it is a logical way to increase performance and maximize profits and thus Finnish game companies are involved in this context. Furthermore Fan & Phan (2007) state that the future research of Born Globals should not focus on whether they exist or not, but for exploring how their internationalization decisions are made. This is in line with the main research question of this thesis; how do digital game companies organize international sales.

The literature of INVs has been developing from the late 1980s and it is still a topic under discussion. However the theory has been established and widely recognized that the earlier stage models do not explain internationalization of SMEs clearly enough. Also the fact that knowledge-based- and service firms differ significantly from manufacturing firms is essential to understand. There are distinct characteristics and reasons for existence of INV firms as illustrated earlier. Moreover, there are yet other approaches to firm internationalization and that is the role of networks in the process. I continue next by explaining internationalization and sales in digital game industry, followed by network model of internationalization.

3.2.1 Internationalization and Sales in Digital Game Industry

The digital game industry is highly international. Kerr (2006) explains that the bigger companies in the field have operated internationally for decades and established subsidiaries outside their home markets. DD has been speeding up internationalization along with flexible production networks. Research of Lauri illustrates the basis of game industry as he found out that most companies outside the United States tend to become Born Globals right from the beginning. This was because especially firms in smaller countries sold 95% of their products abroad and the people from USA made 50% or more of the purchases. (Lauri 2009). What this means is that behavior of companies in game industry does not fit well in the traditional internationalization models. It is however noticeable that Lauri studied only independent game firms, whereas this thesis

covers SME companies that do both independent game projects and work with intermediaries such as publishers. There might be a gap between these two operation approaches, which will be discussed more carefully with the results.

When considering INV characteristics (global vision, experienced managers, international networks, preemptive technology, unique intangible asset, product or service linked with extension and firm closely coordinated worldwide) described by Oviatt & McDougall (1995) with digital game industry and SME firms, many of them can be related. Several SMEs in game industry have global vision from the beginning. Experienced managers, however, are mainly related to second round start-ups only, whereas newer firms tend to lack in experience. After all, digital game industry is relatively new and turbulent with many firms in start-up phase. Strong international networks are very dependent on the individual manager, but the game industry being such international altogether means that most firms have wide networks. In the game industry preemptive technology can be seen as a new way to monetize a game, a new type of a game or a new platform. SMEs may be on the forefront in developing to new concepts as mobile game markets have shown us in the 2000s. Different use of platforms and monetization models are an example of adapting to environment and using new technology. At product level it is possible to develop totally different genre or original combination which has not yet been considered. Products linked into extension are at the core of game business as successful games are often continued with sequels of the same series. The game can be also commercialized in other ways as can be seen in the Angry Birds phenomenon of various products related to the game characters. There are also examples of cross-industry commercialization, for example Hitman (2007) and Hitman agent 47 (2015) are movies that are based on the original series of Hitman PC games. Finally, especially SMEs in the game industry are often coordinated in a very concentrated manner. They do not require many subsidiaries or business locations as the creative work is done with computers basically from anywhere from the world.

It is estimated that only 3 percent of games end up generating profit for companies making them. These successful games often spawn sequels, tie-ins and merchandise, because when the "hit" is realized, it must be fully utilized as it is uncertain when the company will make the next hit if ever. (Kerr 2006). Because the competition is very tough in digital game industry (Reunanen, Heinonen & Pärssinen 2013), firms have to ensure their sales by getting visibility for their products (Park & Kim 2013). Hiltunen (November 18th 2015) talks even of "hyper-competition" and states that *"a game company can do everything by the text book, all strategic choices correctly and still fail"*. What he basically means is that there is such a vast number of firms and products competing in same global markets that it is hard to distinguish from others. It may be because of the competitive environment that game companies in the field have been shifting to value chain of DD and on the other hand new firms are arriving in the industry with low entry barrier. De Prato et. al. (2014) explains that there is, however, an ongoing phenomenon of re-intermediation in the industry. Re-intermediation

means that after all many firms need partners to market games and that is where publishing companies may become more useful again.

In order to gain sales firms need reviews of critics and other consumers for a game to get positive coverage and visibility in general. According to Zhu and Zhang this is especially important for SMEs that rely more on Word of Mouth (WOM) information to get in touch with consumers. Their study revealed that online reviews are more important for niche- and online games. (Zhu and Zhang 2010). That means practically independent studios trying to reach certain gamer genres and mobile games which are more casual to play. SMEs should be eager to get in touch with these reviewers as the competition is getting tougher in digital game industry. Niipola (2012) continues that once the player's interest is gained it is important to maintain it by added material which aids both the basic game and possible new games related to the series. To communicate about a product especially before release, game companies use playable demos, screenshots and trailers through magazines and websites to show key features of a game (Kerr 2006). In the end, actual sales are gained when players find a game to be interesting, fun or somehow useful (Lappalainen 2015).

Interaction and social aspect is important part of monetizing digital games. Research of Wei and Lu has revealed of mobile game markets that the consumers prefer to play with other people, especially friends, rather than against computer opponents and it is this enjoyment that often encourage the gamers to start playing. Network externalities affect the success of particular game as it creates a snowball effect when more and more people play the game it becomes increasingly compelling to others. (Wei & Lu 2012). In practice this means that mobile game firms, but I think all digital game companies with multiplayer in their products should always consider the social aspect of the games and design various interactive mechanisms as well as networking functions. At the same time developers should think how to grow the user base, for example in ways to encourage and reward current users to invite their peers to play the game. One way for a firm to come closer to its customers is to collaborate with them in developing the products. In digital game industry some firms have adopted this mentality and it may result to better profits and innovations (Arakji & Lang 2007). Kerr (2006) also agrees that the role of game player has increased in the process as a tester and game designer through online communities and market research.

Important part of internationalization and sales of games is localization. Carlson & Corliss (2011) explain that traditionally when speaking of localization in the game industry it means only translation of texts and voice-work, but recently the localization process is considerably more involved in the development of digital games. At this stage when the content, for example characters, graphics or story of the game is modified to appease different cultural groups, the process is called culturalization (Chandler & Deming 2012). To clarify, localization and culturalization are done to improve sales of a specific game in target market and it is often related to differences in culture or gaming habits. Firms

can either do the modifications themselves or outsource the work to subcontractors. The quality of these actions must be very high or it may actually prohibit sales, if the content is not correct (Chandler & Deming 2012). It could be beneficial for a digital game firm to produce "culture neutral" games that have little or no need to changes, but the problem can be that stronger themes produce more interesting games and sometimes the developer does not even recognize their content being inappropriate within certain culture or religion. Moreover, all the variables are usually considered through whether the costs of making the changes generate enough sales for the operation to be profitable (Chandler & Deming 2012).

Internationalization and sales in Finnish Game Industry

When thinking the Finnish game industry more thoroughly in comparison with the global competition, Hiltunen says that the technological quality and uniqueness are the factors that Finnish companies should embrace in their business. As for the mainstream markets, there is huge amount of companies from bigger countries such as China and the United States, who have often more resources. (Hiltunen November 18th 2015). Niipola (2012) also acknowledges that most of the Finnish game companies are relatively small but at the same time they are agile and capable of embracing new technologies rapidly. Overall the fact about sales is that 90% of the revenue to Finnish game companies comes from exports so the markets are definitely abroad and home-markets play only a minor role in the business. Regarding the markets Hiltunen continues that the problem of Finnish game companies is often the lack of funds to invest into marketing and selling the game, as there are different preferences among countries and people as well as languages, cultures etc. that affect the popularity of the game. (Hiltunen, November 18th 2015). Furthermore Saarikoski & Suominen point out that confluences exist between Finnish and foreign gaming cultures, but it is important to recognize that gaming includes many national, local and unique features. For example Finland has very strict regulation concerning age limits, the market area is small and there is advanced use of mobile games and their integration with television. (Saarikoski & Suominen (2009).

According to Hiltunen (November 18th 2015) it is a strategic decision how Finnish game companies internationalize. Often they either try to cope independently or seek partnership with publishers and retailers. Moreover, most Finnish companies are SMEs, which have difficulties to attract these partners because working with small game developers contains financial risks (Hiltunen et. al. 2013). However, it is important to note that there are also game companies that stay independent purposefully and they do not necessarily use intermediaries in their business (Kemppainen 2008). DD has helped Finnish SME game companies as it enables independent publishing, allowing them to go straight to retailers and making the operation more affordable and accessible. Furthermore, Reunanen et. al. (2013 explain that Finns have always had tech-

nical skills, but harder time in selling and productizing the games. Moreover, Niipola (2012) argues that while many Finnish game firms have been making most of their products to hardcore players, the mobile game success in recent years has shown that Finns master marketing games also to wide audiences.

Communality and transparency are one of the most important factors relating to why Finnish game industry is in a state which it is now (Niipola 2012; Lappalainen 2015; Hiltunen, November 18th 2015). As said before, the country is small in population and in the development of the game industry, the group of people working knew each other very well. While the digital game industry has grown, every company in Finland still knows each other relatively well. This combined to the openness of the industry and the fact that 90% of the sales come from abroad makes a potential recipe for competitive advantage in international scale as the Finnish firms are able to help each other. In fact, as Niipola (2012) describes, the firms have regular events and meetings to share the knowledge and Neogames as an organization to tie it up together. In most industries and countries this kind of cooperation would be unheard of, thus providing a possible explanation to why Finnish game industry is thriving.

Overall Finnish digital game industry is at a good position, having steady growth and anticipating the next hit games to make global breakthrough. Finnish game developers operate throughout the digital game field from mobile to consoles and PC, although mobile games are clearly the most produced form of games in Finland. The digital game industry itself is not very large in Finland, at least yet, but it is recognized as a serious industrial sector: Universities and Universities of Applied Sciences offer education and provide research regarding games and gaming. (Reunanen et. al. 2013). The education is especially important for the industry as it gains visibility, credibility and technological base from the faculties. Also the fact that talented Finnish employees can be hired by the firms is essential from governmental perspective, as it ensures they can cope with the demand and the companies are not necessarily forced to recruit abroad. Furthermore, Lappalainen (2015) explains that the success of Rovio and Supercell have attracted investors especially for the second round start-ups founded by people who previously worked in the large companies.

3.3 Network Model of Internationalization

In the late 1980s it became more and more evident in internationalization studies that most firms use various networks to improve their position in markets and facilitate their internationalization. Generally when doing business firms can have network ties with for example customers, suppliers, distributors, competitors, non-profit organizations and public/national governance administration units. Johanson & Mattson (1988) describe that networks for a firm can be divided into two sections: Its micro-position and macro-position. The micro-position consists of the role of a firm for other firm, its importance to other firm and the strength of the relationship with other firm. The macro-position on the

other hand explains the role of a firm in the network, the importance of the firm in the network and the strength of the relationships with other firms. Thus, according to Johanson & Mattson (1988) SMEs are dependent on the resources of other firms in the network. These relationships are mutually beneficial for them to motivate both parties involved. This thesis mainly concentrates on the micro-position of the case firms studied and their use of networks in the internationalization process. However, comments on macro-position of the case firms can also be made.

		Degree of internationalization of the market	
		Low	High
Degree of internationalization of the firm	Low	**The Early Starter**	**The Lonely Starter**
	High	**The Late Starter**	**The International Among others**

Figure 4 Four cases of internationalization. (Adapted from Johanson & Mattson 1988).

According to Johanson & Mattson (1988) and illustrated in figure 4, internationalization of firms can be divided into four different categories, the early starter, the lonely starter, the later starter and the international among others depending on the situation of the firm and markets. The model has also strong emphasis on networks as the aggregator of internationalization. In the case of early starter, neither the industry nor the firm has yet internationalized. This means a firm has little knowledge of the foreign markets and it is not possible to use domestic relationships to gain that knowledge. Thus, the firm needs resources to work its way towards international markets and may start this process in nearby markets to minimize need for knowledge development, adjustments and to utilize their current position. The lonely starter, on the other hand, is a firm which has successfully internationalized, while the market environment on average is not. The firm has been able to penetrate market abroad and has established relationships to cover this position. The case of late starter occurs when the market is highly international, but the firm initially is not. According to Hollensen (2007) this happens often when traditionally domestic firm is "pulled" to international markets by need of customers or suppliers. This could be because of indirect relationships the firm possesses. To establish position in markets that are already internationalized may be difficult, but on the other hand the firm could have expertise and knowledge from domestic markets. Finally, the international among others means that bot the firm and the industry have internationalized. This means overall only marginal penetrations and extension because of the competition.

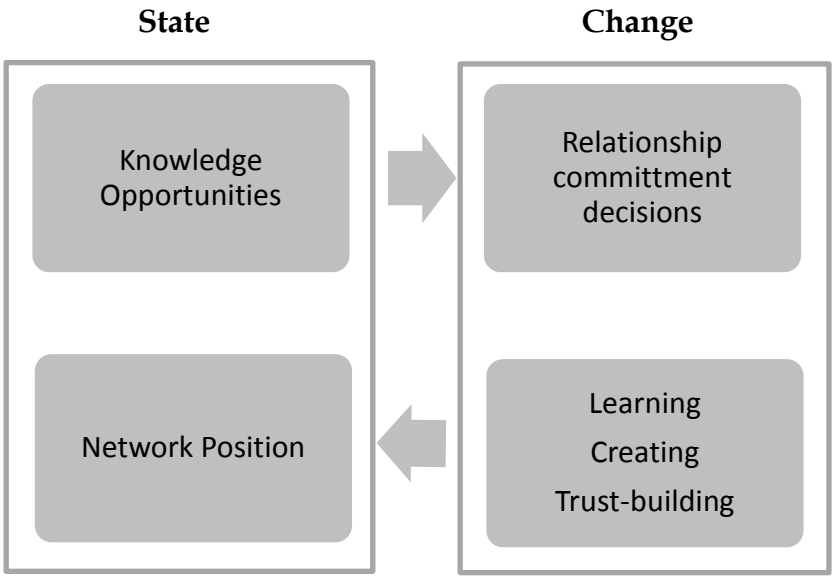

Figure 5 The business network internationalization process model. (Adapted from Johanson & Vahlne 2009)

Internationalization studies with networks have also a rather intriguing connection to earlier stage models. This is because recently we saw revisit of Uppsala model by Johanson & Vahlne (2009) where they acknowledge that the original framework has its flaws as the markets have evolved during last decades, mainly because internationalization process may be faster or start from inception (Oviatt & McDougall 1994). Still Johanson & Vahlne (2009) argue that with small adjustments the original model is still valid today as they put more emphasis on network relationships and explain that firms still need to learn and create or maintain networks to perform. Figure 5 consists of columns for "state" and "change" variables. The knowledge a firm possesses leads the firm to make change decisions regarding relationship commitment, while the networks allow learning and building of trust. This process enables the network position of the firm to evolve and develop, leading to internationalization through the relationships. Johanson & Vahlne (2009) further suggest that insidership, in other words participation in networks is crucial and internationalization depends on firms' networks and relationships.

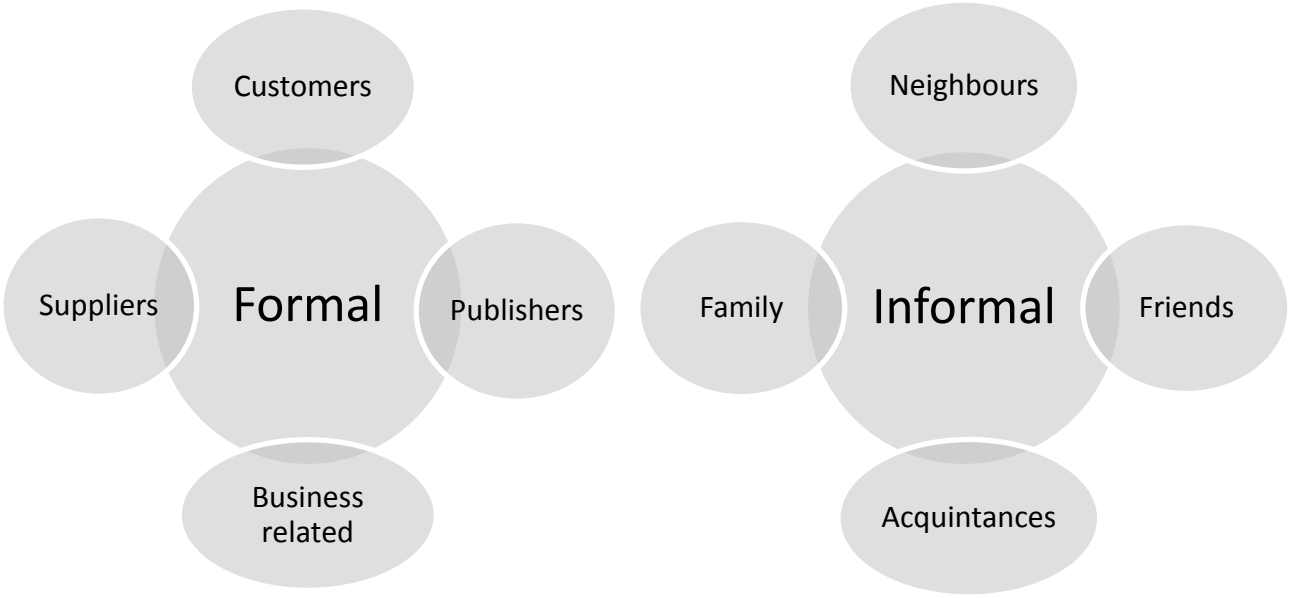

Figure 6 Formal and informal relationships of firms.

To make a distinction between different kinds of network relationships, they are divided into formal and informal ties illustrated in figure 6. Formal relationships are based on business or market relationships (Coviello & Munro 1997) and involve product or service exchange through use of currency (Adler & Kwon 2002). Informal networks on the other hand are viewed by others to contain more close social ties, for example relationships with friends and family members (Krackhardt & Hanson 1993), but can also include for instance geographically close firms the manager or company does not have initial relationship tie (Fernhaber & Li 2013). Network ties are further distinguished as direct and indirect relationships. Direct relationships as indicated by the term are those ties firms make business with themselves, whereas indirect ties are for example customer's customer and possible links to other networks. The network position and relationships dictate what opportunities the firm might have (Chetty & Agndal 2008), but also threats and restrictions may occur.

Network relationships are categorized by Johanson & Mattson (1988) as social-, economic-, technical-, planning-, legal- and knowledge bonds. These networks are used in business for firms to gain value for themselves. In the study of Chetty & Blankenburg Holm (2000) it was recognized that firms can benefit from networks in several ways: gain knowledge, combine resources and learn from each other's experiences. Nowadays knowledge of opportunities regarding internationalization may be acquired through networks rather than traditionally via market research (Ellis 2000). Existing knowledge and networks regarding target market can benefit firms towards internationalization. The important resources as mentioned by Sharma & Blomstermo (2003) are time and experience gained working in international markets, making the pattern very exquisite for firms. This could suggest that identifying the most appealing mar-

kets and working towards recognizing the key factors and networks may be needed before successfully going abroad. Furthermore networks can provide many intangible resources for a firm, for example market access, financing, distribution channels and general pool of contacts (Coviello 2006). Sasi & Arenius (2008) continue that the liability of newness/foreignness often related to SME internationalization can be tackled by effective use of networks. To maximize the potential value from networks, a firm needs to notice the relevant actors from the field and at the same time avoid unnecessary partners (Ojala & Tyrväinen 2011). After all there is a limited amount of time and money to invest into networks and networking, thus emphasizing the importance of choices made by a company. Furthermore, the key networks which straightly affect sales should be highlighted and limited in number when determining partner contracts. A firm can have more casual networks such as competitors, which are not crucial for performance.

According to Axelsson & Johanson (1992) there are three issues to consider when creating international networks. First, the firm representatives must be active participators. Second, networking should be viewed as an investment, it constantly consumes resources, but has the possibility of giving back. Third, participating in network activities is essential for firms because of the business opportunities they may bring. Overall, the finding indicates that building networks require significant resources. Furthermore, Coviello (2006) argues that as INV grows, its network expands in range and diminishes in density. This means that at early stage the firm is increasingly growing its networks and gaining new contacts, but at the same time the network becomes more fragmented, consisting of actors from different countries, cultures and industries. A firm should acknowledge its position in the networks and act accordingly.

Supplier-customer relationship can also be considered a way to internationalize. Making alliances or partnerships is endorsed by Child & Hsieh (2013) who state it to be a common way to internationalize for knowledge intensive SMEs. High-tech SMEs can use their relationship with larger firm to internationalize and gain more formal and informal contacts. (Coviello & Munro 1997). The smaller company can benefit by gaining visibility and recognition to elevate its position in the network. In digital game industry a game developer is supplier to publisher in the traditional value chain. Smaller independent firms follow the value chain of DD, thus coping without publisher, but can have different game projects in which they are in the role of supplier. These projects can arise for example from situations where another company needs a game for advertisement or teaching purposes. Research of Bradley et. al. (2006) uncovered that particularly high-technology SMEs that decide to internationalize early on can benefit from supplier-customer relationships with multinational firms. This phenomenon of client followership was also recognized by Bell (1995) when studying small software firms which are close in their characteristics with game companies. Terjesen et. al. (2008) explain that lack of finance, foreign market data and protecting IP rights might be some of the factors for firms to choose internationalizing with intermediaries. These supplier-customer contracts are

obviously mutually beneficial as the customer often seeks a firm that could do the project it needs and supplier is ready to make the product. However for the SME there is possibility to also increase visibility and position in the industry network, as working for the bigger company often provides these positive effects. It virtually increases the SMEs network resources and the position for it to negotiate with publishers later. Furthermore Terjesen et. al. (2008) state that supplier-customer relationships is still a form of internationalization which lacks research and this is definitely something to consider within digital game industry SMEs, whether to operate independently or with publisher.

One strategic asset apart from straight business networks are the firms networks with its customers. Regarding this topic the research of Shankar & Bayus (2002) in the home video game industry revealed that the size and strength of the customer network are essential in competitive market situation. Their study concentrated on the platform level of console manufacturers Nintendo and Sega and of course the digital game industry has changed heavily from those times, but the case can be still compared for example to market situation in consoles of Sony, Microsoft and Nintendo and in mobile markets stores of Apple and Android. As Shankar & Bayus (2002) continue, at the time Nintendo was able to overcome Sega because of its higher network strength, emphasizing its effect to the advertising and price of the final product. In firm level this thesis focuses the result may indicate that on top of distributing their game as widely as possible, SMEs can also benefit with exploiting networks to market the product and save in particular costs to be able to offer competitive prices. Concerning this issue, Karjaluoto (2010) agrees that interactive communication and developing the products with the aid of customers are important things to take into account.

Later there has been more emphasis on entrepreneurs and managers who make the decisions and do the actual networking when representing their firm in various events. Sasi & Arenius (2008) argue that social networks are important aspect that has been previously neglected in research regarding network theory. Initiatives coming from the network can have impact on firm internationalization and performance when managers do the crucial decisions in SME firms (Chetty & Blankenburg Holm 2000). This could suggest that international experience of manager would be beneficial in recognizing these opportunities and probable weak signals from networks associates. Furthermore there can be variety of reasons why an SME firm does not want to internationalize, because it depends significantly on the mindset of the entrepreneur. However, this is probably not the case in digital game industry as the field is highly international.

One unique branch among the network research is the concept of social capital. Nahapiet & Ghoshal (1998) explain that network relationships create useful resource for the particular members who are connected to each other. In this thesis particularly the networks of firms and managers/entrepreneurs are of interest. Adler & Kwon (2002) describe social capital that it is a long-lived asset that needs maintenance and investment over time, but at the same time a

type of capital which usefulness is hard to estimate. The broad term of social capital can be further divided into strong- and weak ties. Strong ties are close, intimate and developed through interaction over time, whereas weak ties are superficial, not emotional bonds which are interacted only occasionally, thus potentially providing more unique information (Granovetter 1973). An example of strong tie for manager/entrepreneur could be for example family member or close friend and weak tie could be for instance manager of another company. In the study of Kontinen & Ojala (2011) it was revealed that towards internationalizing their operations entrepreneurs in question had mainly weak ties, but they could develop into strong ties as the actors cooperated more. This is important finding illustrating that the network relationships can change significantly over time. Regarding social capital of a firm in general, Yli-Renko, Autio & Sapienza (2001) found out from their data that young technology-based firms benefitted from ties with key customers as they gained superior market and technology knowledge from them. In game industry this kind of cooperation could mean developer working with larger publisher or cooperation with end-customers, which is a growing trend. To further depict the importance of social capital, Yli-renko, Autio & Tontti (2002) demonstrated that the interaction between members of a firm with both internal and external relationships led them to gain knowledge and social capital, which could facilitate internationalization growth of SMEs.

Networks are usually seen to bring people closer together, opening new opportunities for companies. The study of Ojala (2015) has already indicated that it may be possible for SME firms to reduce effects of distance dimensions such as geographical-, cultural- and psychic distance via network relationships. This could mean that building networks is very important towards internationalizing businesses into distant markets. Ojala (2015) continues that Internet firms may overcome these obstacles more easily as they have access to DD, but at the same time possibility of networks lowering entry barriers is an area understudied at the moment. As Johanson & Vahlne (2003; 2009) state, internationalization is not affected by country boundaries as it was before, but the challenges come from establishing and developing network relationships. In addition, Coviello (2006) mentions that overall there is limited amount of studies regarding networks of INVs and how the networks change over time. Finally, as depicted in this chapter current literature indicates that network relationships have strong influence on how knowledge-intensive SMEs internationalize. The core emphasis in network studies seems to be that in one way or another, networks either encourage or tempt firms to enter markets abroad. These facts further validate the importance of this thesis and the question how do digital game companies use their networks to internationalize, which can shed new light into the discussion of network effects.

4 RESEARCH METHODOLOGY

This chapter illustrates and explains the research methods used in this thesis. They are explained and justified to make a clear view what is undertaken as a proper scientific research should have clear design and strategy. First, methodologic choices are presented and discussed from various angles as well as reflected to this thesis. Second, data collecting process is unraveled and explained why the particular case firms were chosen. Third, the analysis of data is depicted through inductive process and the accuracy and reliability of this study is discussed.

4.1 On methodologic Choices

Research strategy means more specific angle of study within qualitative, quantitative or mixed methods approach. This also relates to the study being either more positivist or interpretivist, with positivism centering on more clinical approach of diagnosis, design and change (Jonker & Pennink 2010), while interpretivism focusing understanding of a phenomenon and social human actions in specific context (Saunders et. al. 2007). This study leans on the interpretivist side of research as it is a qualitative multiple-case study. In the following subchapters I will discuss the chosen research strategy by briefly illustrating which choices are possible within qualitative study and arguing why the specific research method of case study is chosen.

Qualitative study
According to Creswell (2009), qualitative research can be divided into following strategies: ethnography, grounded theory, case studies, phenomenological research and narrative research. In ethnography research the scholar investigates cultural group or natural setting for a long period of time. Grounded theory concentrates on how individuals operate within the context phenomena studied and the researcher can form theory or model based on findings. Case studies inquire for example events, processes or activities of one or more individuals/groups/organizations to generate understanding of how and why something works in particular way. Phenomenological research is strategy in which participants experiences concerning specific phenomena are noted by scholar, thus often emphasizing the findings over theories. Narrative research may be the most descriptive of the qualitative methods as it focuses on stories of individual paths and lives, for example how has their career developed.

On top of the different strategies of qualitative research, there are several distinct characteristics that distinguish them. It may be easier to understand them in contrast to quantitative studies, which in many ways compared to qualitative studies represent opposite views of conducting research.

Table 3 Characteristics of qualitative and quantitative studies (Adapted from Bryman & Bell 2003).

Qualitative	Quantitative
Uses words	Uses numbers
Concentrates on participants	Concentrates on the researcher
Scholar close	Scholar distant
Process	Static
Varies on context	Structured
Specific, deep contextual data	Generalizable data
Natural setting	Artificial setting
Micro	Macro
Theory building	Theory testing

Table 3 illustrates that qualitative studies use words rather than statistics to represent findings (Bryman & Bell 2003). The research focuses on participants and the scholar is often in touch with them during the study. The research design is ongoing process where even research questions can be modified during the study and there is no strict structure of presenting the material, however some general rules of reporting apply. The data gathered is deep contextual data capable of solving specific issue in natural, often practical setting. The research usually concerns micro-level, for example individuals or organizations rather than for instance country-level economics. (Bryman & Bell 2003). As Ghauri & Grønhaug (2005) mention, when there is scarce amount of information about specific topic, conducting qualitative research is usually the correct step towards understanding the phenomena before delving into quantitative studies. This is due to the exploratory and flexible nature of qualitative research (Jonker & Pennink 2010). As this thesis has illustrated in chapters 1 & 3, internationalization behavior, network effects and industry related factors are still research areas that need further evidence, making qualitative approach feasible for this thesis. Eriksson & Kovalainen (2008) continue that qualitative research is a potent method to produce new knowledge from the data and even to create generalization and theories. The result of qualitative research is often theory or conceptual model of the characteristic and structure of the issue examined in its context (Eisenhardt 1989; Bryman & Bell 2003; Jonker & Pennink 2010). This thesis seeks exactly to challenge our current understanding and develop new understanding based on the data.

Case study approach

Case studies are common empirical methods of study in the field of business research as recognized by Yin (2003) and Ghauri & Grønhaug (2005). Case studies are well suited to practical, real-life studies of contemporary events, relating for instance to individuals, organizations or groups (Yin 2003). Eriksson & Kovalainen (2008) continue that one of the advantages of case studies is the ability to illustrate complex business issues into more understandable form.

According to Yin (2003) there are five components in case study research design:

1. Research questions
2. Propositions (optional)
3. Unit of analysis
4. Linking the data into research
5. Interpreting findings

When scholar wants to answer research questions of "how" or "why", conducting a case study is justifiable research method because of the explanatory nature of these inquiries (Yin 2003). This is clearly in line with research questions of this thesis. Study propositions are a slightly challenging matter to take into account. Yin (2003) explains that initial propositions of what results might contain can give direction to the study, but on the other hand he admits that there are legitimate reasons not to include propositions in specific investigations where the aim is to explore the phenomena. This thesis does not have initial propositions and thus can be understood to be explorative by its nature. The important matter to consider is that even explorations should have some purpose. Previously in chapters 1, 2 & 3 it is already explained that studies concerning digital games are scarce despite the importance of the industry. Internationalization of new ventures and the network effects are also areas needing additional empirical evidence as illustrated in chapters 1 & 3. To continue with the research design, unit of analysis means the actual cases of the study, what they are and why they have been chosen. Yin (2003) suggests taking a specific angle regarding the research and not trying to cover everything related to the topic. In this thesis it can relate to theoretical framing of the topic and research questions. The issue relating to actual collecting the data is further explained in next chapter. When linking the data into study and interpreting it, this thesis can discuss and understand the results through the theories chosen to illustrate earlier findings of the research field. Yin (2003) explains the method as "pattern matching", where potential patterns of, for example, firm behavior is demonstrated and how the new cases match them, do they support one or the other or could there be other patterns that have not been previously identified.

Case studies are further divided into two sub-groups of single- and multiple-case studies. As the names of the terms explain, single-case studies concentrate only on one in-depth case and multiple-case studies contain several cases regarding the same research setting. Yin (2003) argues that multiple-case studies should be preferred over single-case studies for various reasons: multiple-case studies enable the replication of the experimentation and the material is overall more robust. However, it should be noted that the choice between single-case study and multiple-case study depends also on the research setting and questions. Eriksson & Kovalainen (2008) address these concepts in slightly different way by discussing intensive and extensive case studies. At surface level these terms can be contrasted with single- and multiple cases, but they are still more in depth terms. The purpose of intensive case study is to understand how a specific individual, organization or other variable works. The study area of extensive case studies is broader in the sense that the cases together create un-

derstanding of a bigger phenomenon, for example in this thesis how the firms studied internationalize and use their networks.

A matter of criticism towards case studies has been that the results are hard to generalize. However, Yin (2003) argues that multiple-case studies can be related to experiments in the sense that they are generalizable regarding theoretical propositions in specific context. Eisenhardt mentions that theory building is actually one of the core contributions case studies can develop from the data. When conducting case research, an investigator should narrow the research problem and come up with variables reflecting earlier literature, but in early stages avoiding setting the research too much to make room for exploration. (Eisenhardt 1989). This thesis contributes especially by reflecting the findings to earlier literature and theories regarding internationalization and networks.

To summarize, this thesis being a multiple-case study captures well the characteristics described earlier. It concerns practical real-life case and the main research questions seek to answer questions of "how", emphasizing the explorative and explaining aspect of the study. Even without specific propositions, theoretical framework is clearly defined and the results can be discussed through earlier literature.

4.2 Data Collection

Yin (2003) describes that there are six typical of ways of gathering data in case studies: Documentation, archival records, interviews, direct observations, participant-observations and physical artifacts. Regarding this choice, Eriksson & Kovalainen (2008) remind that interviews are the core source of data in business research. The primary data of this thesis includes ten (10) semi-structured interviews of Finnish game companies. The method is in line with what Bryman & Bell (2003) emphasized in the previous chapter as the data consists of individuals/organizations of participant firms. Furthermore, the amount of cases is within what Eisenhardt (1989) has suggested (4 to 10 cases). With a larger collection of empirical cases there would likely be issues with complexity and sheer volume of the information. The interview data reflects the answers of the interviewees at certain day and time, meaning that the time horizon of this thesis is cross-sectional. The bias of this approach is that the answers may have been totally different when asked in some other day, which is of course unlikely, but possible especially when taken into account the turbulent nature of digital game industry. The interview questions concerned mainly behavior of previous actions and that is why I believe there would not have been benefits from using longitudinal study. As shown on table 4, one person was interviewed per firm and the interviewees of seven companies were CEOs, while the other three were top managers. The interviews were conducted within time frame of two months and lasted on average 60 minutes per case depending on the interviewee.

Table 4 Information about the interviews.

Organization	Interview Date	Duration	Title of interviewee
Firm A	6.7.2015	68min	CEO
Firm B	7.7.2015	69min	CEO
Firm C	8.7.2015	45min	CEO
Firm D	16.7.2015	81min	CEO
Firm E	20.7.2015	49min	CEO
Firm F	21.7.2015	35min	CEO
Firm G	28.7.2015	46min	Communications Manager
Firm H	27.8.2015	59min	CPO
Firm I	27.8.2015	35min	Head of Licensed Games
Firm J	28.8.2015	60min	CEO

The criteria for choosing the case firms were following:

- The firms primary objective is to develop digital games
- The firm operates or aims to operate in international markets
- The firm is based in Finland
- The firm belongs to category of SMEs based on the European Union definition (described in chapter 1)

To further explain this outlining, the group of companies was homogeneous in the sense that all of them are Finnish SMEs working in digital game industry. However, the sample was in purpose heterogeneous enough to examine variations and differences between the cases as the game industry firm studies are still scarce (Fromme & Unger 2012; Cadin & Guerin 2006; Corliss 2011), and basic knowledge of how SMEs internationalize (Arenius et. al. 2005; Schweizer 2012; Zander et. al. 2015) and network (Coviello 2006) is needed before more in depth research. Furthermore, having extreme cases is usually valuable for the research. Eriksson and Kovalainen (2008) also assert that up-to-date topic is important when conducting business research. In practice the heterogeneity is seen in that the companies are of different age, develop games in various platforms and are located in different regions of Finland. There are also differences in the size of the companies, others being in the start-up phase and some of the sample more experienced medium sized firms, but still all of them are SMEs. The different time of establishment may affect to the internationalization level of the firm, possibly creating a pattern to how game companies operate in their early years and after that. The diversity among cases is encouraged for example by Eisenhardt (1989) as long as they can be generalized to phenomenon studied and not be totally random. Furthermore, Finland was chosen to be the country of origin due to my understanding of Finnish culture and Finland being small

open economy with limited domestic markets. After all, also my own identity as a Finn affected to the decision in practice.

Table 5 Strengths and weaknesses of interviews as data collection method. (Adapted from Yin 2003).

Source of Evidence	Strengths	Weaknesses
Interview	• Targeted: Focuses directly on case study topic • Insightful: provides perceived casual inferences.	• Bias due to poorly constructed questionnaires • Response bias • Reflectivity: the interviewee gives what the interviewer wants.

In table 5 the strengths and weaknesses of interview method are illustrated by Yin (2003). Interviews provide very focused and descriptive data straight from the interviewees, which results to a great foundation for a case study. However, it is important to be alert at the stage of analysis in case there happens to be any biases in responses or in question layout. Regarding the questions they were formed systematically based on the literature, own consideration and discussion with the supervisor of this thesis. In other words, biases should not appear from questions as they were prepared carefully. The interviews were conducted in Finnish for mainly practical reasons, being the native tongue of both interviewer and interviewees. I believe the interviewees were able to explain matters best with the language most familiar to them. Later, the interviews were recorded and transcribed to be able to analyze the matters discussed. There was a clear focus on the themes of the research, but semi-structured interviews gave the extra flexibility even for new ideas to appear from discussion. This is important as Eisenhardt (1989) and Yin (2003) explain that when conducting case studies the design can be further modified based on the new information during data collection. Furthermore, the interviews were not strictly structured because of avoiding reflexivity, in other words guiding too much of the interviewee in certain direction or conclusion. Some structuring was of course needed to be able to produce cross-case comparison of the firms studied. Overall this data collection method provided rich and in-depth knowledge of the research topic with targeted focus on research questions.

4.3 Data Analysis

Data analysis is a crucial part of conducting scientific research. The research process was circulative meaning that there were various steps of writing and analyzing followed by editing and revising before the final version. According to Eriksson & Kovalainen (2008) this is usual in study process and the possibility to do so is one the strengths of qualitative research. It can be viewed to be

path of working through the empirical data. According to Saunders et. al. (2007), within qualitative studies there is no single method of analysis every research should use, but at least attention should be paid to whether the study is inductive or deductive.

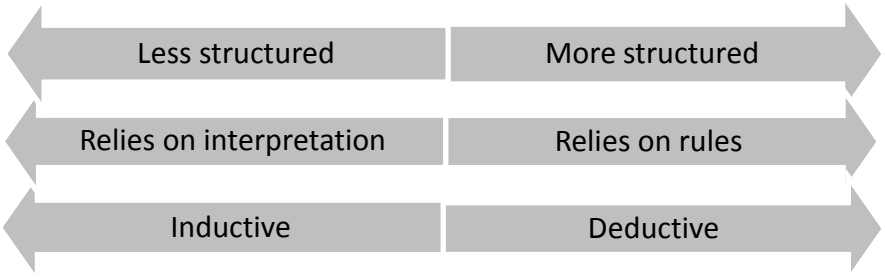

Figure 7 Dimension of qualitative analysis. (Saunders et. al. 2007).

The difference among inductive and deductive studies comes from the approach to structuring the analysis. In deeper level this can be seen as whether the study is more prone to interpretation of the researcher or only about the clear facts and statistics. This thesis represents inductive approach of qualitative research, as suggested for example by Jonker & Pennink (2010). The interviews form data which is interpreted in the context of research questions of this study and reflected to internationalization and network theories. The inductive process affected the study in the way that the research design was more flexible to allow the understanding of the research topic in its context rather than forcing the investigation too strongly into structured format.

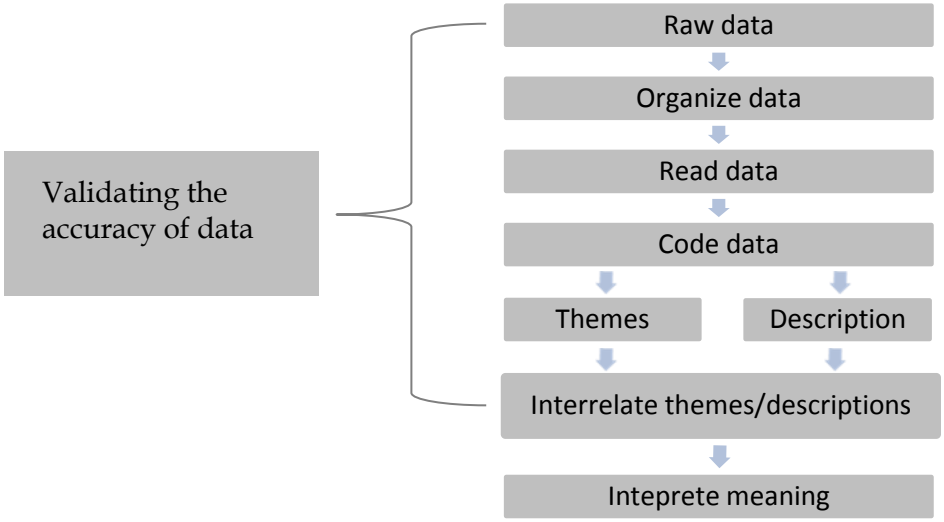

Figure 8 Process of inductive data analysis. (Adapted from Creswell 2009).

The inductive data analysis process I followed in this thesis, adapted from Creswell (2009), is illustrated in figure 8. As mentioned the data from interviews was recorded to produce the raw data for the purpose of this thesis. After that the data was transcribed to prepare for careful analysis. The lettering was very time-consuming, but as explained by Bryman & Bell (2003), the hours put on this process is well worth the inconvenience since one cannot memorize all the facts or constantly take notes during the interview. It also means that the data can be dealt with rigorous attention to details, thus elevating all of the important findings within the exploration. This also helps to recognize and overcome possible biases within the data and increase its reliability. To get a general sense of the data as a whole, it was red many times from top to bottom. As for data coding, various methods can take place. In this thesis I categorized the results on themes as suggested by Creswell (2009). To make a clear view about each case, mind mapping -technique was used to produce image of the firms studied. This was helpful to better compare the cases and find key elements interrelating to other factors within the study matters. In results chapter, the data in this research is divided between research questions regarding internationalization and networks. Finally, the results are discussed and analyzed with the theories used and main findings concluded at the end of this thesis.

4.3.1 Validity & Reliability of the Study

Throughout the process of analyzing data, its accuracy and validity should be also considered. According to Yin (2003), there are four aspects which have to be taken into account to ensure quality of case study research design: construct validity (1), internal validity (2), external validity (3) and reliability (4). In this chapter I will provide brief answers to these matters from the perspective of this thesis.

Construct validity
Yin (2003) suggests the tactic of using various sources of evidence to make the study valid by the construct. Because of limited resources with this research and the information available from the firms, only interviews were used in this thesis. However, I would argue that conducting ten interviews from different companies diversifies the data to justify the validity from this perspective and this is agreed by Simons (2009) who states that at least three sources of information should be used.

Internal validity
Regarding internal validity Yin (2003) explains that in case studies it is measured only if the research is explanatory or causal. Because this thesis is explorative and answers questions of "how", internal validity should not be the main concern. As for the theories applied there is emphasis on being critical and I am taking into account rivaling views of the internationalization processes. Fur-

thermore, the research data was gathered carefully and this thesis throughout follow recommendations of how to conduct scientific research.

External validity

Yin (2003) depicts that multiple-case studies should have replication logic to be externally valid. This means that could the study findings be generalized into larger context and not be totally context depended. As this thesis concentrates on digital game companies this is a relevant question to ask, because the context is heavily exploited in the research process. The companies in this study are related to firms from small and open economies as well as knowledge-intensive SMEs, making the study replicable at least within those contexts. It may limit the study, but I would also argue in line with Eriksson & Kovalainen (2008) that that the context also brings extra value for the study.

Reliability

For a study to be reliable and credible, it should be able to produce same results if repeated with the same procedures. Yin (2003) explains that it is important for the research that as much of it as possible is documented and the parts explained. As described before, this thesis was analyzed through inductive process. At every stage the findings were documented carefully and reviewed after the full analysis to spot any mismatches. In this chapter of methodology, the research process is clearly depicted overall.

In the next chapter I present the findings of this thesis. The cases are illustrated carefully but not in fully narrative way as suggested by Eisenhardt & Graebner (2007), because of the multiple cases involved in the study. After that the matters are discussed through themes regarding internationalization and networks with cross-case examination to find similarities and differences among the cases. Furthermore, this finally leads to discussing the findings and answering research questions as well as concluding the topic.

5 RESULTS

This chapter delves into the core of this study, results of the ten case companies interviewed to gain understanding about internationalization and networks of these firms. Within the analysis, there is considerable use of quotations and figures to illustrate the cases and findings rigorously. First I will offer brief description of the case companies to describe basic characteristics of the case firms. Second, internationalization of the firms is depicted from aspects of internationalization pace, -patterns and –mode. Third, networks of the case firms are illustrated through cases of network development and shown through local, domestic and international aspects. Model explaining phases of network development and role of mentoring is formed based on the data. Finally, the biggest challenges of internationalization are depicted. Industry related factors are not present in results section within their own subchapter, but the data to answer the third research question is gathered throughout this chapter as it overlaps on many of the themes. All in all, the results provide insight and data to answer the research questions carefully in the next chapter where findings are discussed.

5.1 Brief Introduction to Case Companies

In this subchapter, age, number of employees, platforms and operation mode of case companies are depicted. This provides basic information to better understand and compare the firms in following sections. The information is gathered in a figure after the single firm descriptions.

Firm A
Firm A is under two year old company working mainly with mobile games. They employ seven (7) people and have published one game so far. Of mobile platforms they view iOS as the main one, but also emphasize Android. In their monetization model the firm prefers Premium games, which they aim to produce 2-3 per year at this stage. They operate independently, but also look for possible partnerships with publishers.

Firm B
It has been less than two years since firm B has started operating and currently they have 4 employees, which of 3 are also owners of the company. The company has officially published one game, but there has been many other projects regarding games, developing their experience. The interviewee acknowledged that their choice of platform is project dependent, being first either PC, mobile or console and possibly expanding if the project is successful. Their aim is to

make 1-2 games per year. Monetization models of games are also project dependent for the firm

Firm C
Firm C is founded within two years from now and contains currently six employees. They have published one game so far and are working with PC games, but are also open-minded to possibilities in other platforms. They aim to produce at least one game per year with strong emphasis on quality. Current monetization model is Premium, but that is also a matter which depends on project. The company has publisher on their current game, but it is yet unsure will they work independently or with the publisher in future projects.

Firm D
Firm D is in the category of 2-5 year old companies and holds three employees. They are working in mobile platforms of iOS and also in smaller extent, Windows Phone. The monetization of games is based on the project. Their operation mode is independent, while publisher would be also welcome if there would be interesting partnerships available.

Firm E
Strongly a start-up company, Firm E has been operating for less than two years. They are currently working with their first game project. The choice of platforms is in this stage mobile, iOS and Android. Monetization depends on project, but F2P is appealing since it can deliver mass audience more easily. The main goal could be to get publisher for their product if a right deal is proposed, but as for now they are working independently.

Firm F
Currently maintaining twelve employees, firm F is in the category of 2-5 year old companies. They have published one game on PC, but have been also extending it to mobile platforms. The major retailers for them are Steam and Appstore, where they are selling the game as a Premium product. They work independently for now and if they would partner with publisher, they would have to gain significant benefits from the contract that it would be appealing.

Firm G
Probably more established than most of the firms in this study, Firm G is in category of 5-10 year old firms and has fourteen employees working on game projects. They have published in total three Premium games, all on PC. They are working tightly with publisher who funds their business based on game projects they make.

Firm H
Firm H is in the category of 2-5 year old companies, containing thirteen employees. They do mobile games which concentrate on F2P elements with specific platform of iOS devices, but also Android is taken into account in smaller

extent. The company either works independently or with publisher based on project and market area.

Firm I
Company I is run by hefty number of sixty employees and is in the category of companies established 2-5 years ago. One of the reasons for the employee count is that they are a second-round start-up consisting of industry veterans who were able to grow the business fast. Currently, they have two games published and their platform of choice is mobile, iOS and Android with F2P strategy. The company publishes the games independently, but an interesting twist in their developing strategy is that they also use license IP's, meaning that they produce games out of successful and recognized brands, such as popular TV series.

Firm J
Firm J is the oldest of the case companies, they are a veteran firm with operations for over ten years in digital game industry. The company works tightly with a publisher but is also planning on making independent publishing on some of their projects. The core emphasis is on console games, but PC and mobile are also taken into account. The firm has published numerous games, mostly Premium, and is overall well established in the industry. In the future they might investigate possibility of F2P games.

Table 6 Case firms' basic characteristics.

Company	Firm age	Number of employees	Platforms used	Monetization model	Operation mode
A	> 2	7	Mobile	Premium	Independent
B	> 2	4	PC, Mobile, Console	Project dependent	Independent
C	> 2	6	PC	Project dependent	Publisher, Independent
D	2-5	3	Mobile	Project dependent	Independent
E	> 2	9	Mobile	Project dependent	Independent
F	2-5	12	PC, mobile	Premium	Independent
G	5-10	14	PC	Premium	Publisher
H	2-5	13	Mobile	Free-to-Play	Independent, Publisher
I	2-5	60	Mobile	Free-to-Play	Independent, License IP:s
J	10 >	50	Console, PC, Mobile	Project dependent	Publisher, Independent

5.2 Findings on Internationalization and Sales

Regarding internationalization of game companies, it is important to notice that in the light of this thesis it is seen almost synonymous to efforts of getting the games sold. Of course there are different aspects in actual sales work, for example marketing, but as the reason of internationalization is to grow the business and sell more games, I see this justified. Thus one aspect of internationalization in game industry is the efforts to develop and modify games in a manner that they generate more sales in broad range of markets.

5.2.1 Pace of Internationalization

The speed of internationalization is a key factor in recognizing behavior of the case firms' strategy and operations. Next, the comments by case firms regarding internationalization pace are revealed.

Table 7 Case firm comments on internationalization pace.

Company	Internationalization pace citation
Firm A	*"It is a thing we planned right from the start"*
Firm B	*"In game industry everything is global and sales abroad, Finland is not even viewed as a market of its own"*
Firm C	*"It is essential in game industry, you cannot make games only to domestic markets, but have to be internationally available from the beginning"*
Firm D	*"Nowadays internationalization in game company happens when you establish the firm"*
Firm E	*"We have strategy that is international from the beginning"*
Firm F	*"It has played a part since the beginning"*
Firm G	*"We were straight-up born global company, in Finland there is not even a publisher that we could work with"*
Firm H	*"Mobile game business is born global, ecosystems are international"*
Firm I	*"It was clear from the beginning that we head into international markets"*
Firm J	*"During our first years we got contracts with international publishers and then it was pretty much 100% exporting"*

As illustrated in table 7, all the interviews confirmed that internationalization is essential for digital game companies coming from small and open economies as they seek international sales from the beginning. Finland is a small country in terms of population, which means there are not simply enough customers for game firms. Internationalization is part of firms' strategy from the beginning, as they view that in order to profit they must pursue sales abroad. Also DD is major aggregator of internationalization as it lowers the barrier significantly.

5.2.2 Patterns of Internationalization

Although the case firms are international from the inception, it is essential to understand that in this context it does not necessarily mean they have no patterns in the process. Overall many of the firms stated that they view the whole world as a single market, but there are still some segments and areas which may need specialization. For this reason, I will illustrate next the main market areas as well as attitude towards localizing and culturalizing games to culturally distant markets through comments from case companies. In the last paragraph I compiled from the data what it requires to localize and culturalize the products.

Table 8 Market areas, localization and culturalization of case companies'.

Company	Main market areas	Attitude towards localizing and culturalizing games	What localization and culturalization (to Asian countries) requires?
Firm A	USA, China	*"We must be aware not to limit the development based on where the buyers might be… to localize the Western game, it must be modified to look like it has been originally made for example to Chinese or Japanese customers"*	Culture affected modifications to game after basic version (monetization, graphics, marketing, in-game ads)
Firm B	Europe, North-America	*"Eventually you must localize, but at this stage it is secondary goal, first we are happy to gain market share in smaller areas"*	Culture affected modifications have to be taken into consideration very early on
Firm C	USA	*"Users can localize our games by themselves via creating language files"*	Language files
Firm D	Europe, North-America	*"Market knowledge is very important, if you want to make a product for certain market, a partner is crucial. We have a game that is totally localized to Japan, it is very different than the Western version"*	Culture affected modifications (contents, in-game ads, theme), partnership, market knowledge, language files
Firm E	USA	*"We could localize our marketing story to China, it is huge market opportunity"*	Marketing needs to be localized
Firm F	Europe, North-America	*"The theme of our game appealed heavily on Western people… Asian market is so different in terms of visual style for example. Also localization takes up a lot of resources.*	Localization requires significant resources, theme of the game affects much on sales
Firm G	Europe, North-America	*"Publisher has the IP rights so they decide"*	Language files and small modifications to games, publisher decides
Firm H	Europe, North-America, China	*"We must modify elements of games to what people are used to in certain markets… it is done based on the success of game compared to success in other markets"*	Culture affected modifications (monetization, theme, graphics, marketing), language files, importance of partners
Firm I	USA, Europe	*"In localization it is useful to rely on partner insight and more important to decide what modifications to make rather than who makes them"*	Culture affected modifications (monetization, marketing, theme, graphics), importance of partners
Firm J	Western countries	*"It is mainly language versions, our publisher wants to do about 15 of them"*	Language files, publisher decides

Most important market areas for the case firms are heavily leaned on culturally similar Western countries as shown in table 8. The probable explanation for focusing on Western markets is that the case firms recognize there are barriers of

entry which prohibits sales in Asian markets due to differences in gaming- and business culture. Culture affected modifications are important to localize the product into culturally different markets as they were mentioned at some level by all of the case firms. Localization decision depends on how culturally bound their games are from the angle of theme and monetization models of the product, or could they succeed globally with minimal or no changes. The modifications are a matter that is useful to acknowledge already in the development phase (firm A), but they can be also done to product after its release (firm H). The comments of case firms also correlate to their choice of culturally close market areas, as many of them view localization and culturalization as secondary goal. In the simplest form, this localization meant different language files (firms C, G, J), but the culturalization of product denoted significant changes in design, for example graphics (A, H, I), theme (D, F, H, I) and monetization (A, H, I). Also marketing in culturally different areas has to be modified to meet the requirements (A, D, E, H, I). The firms with partnership with publisher stand out by all of them (C, G, J) stating that the modifications usually limit to language files. This may be because of the publisher influence, as firm G depicts in table 8. Overall it is clear that these actions towards success in culturally distant markets require significant investment, which of course poses risks to SMEs with limited resources.

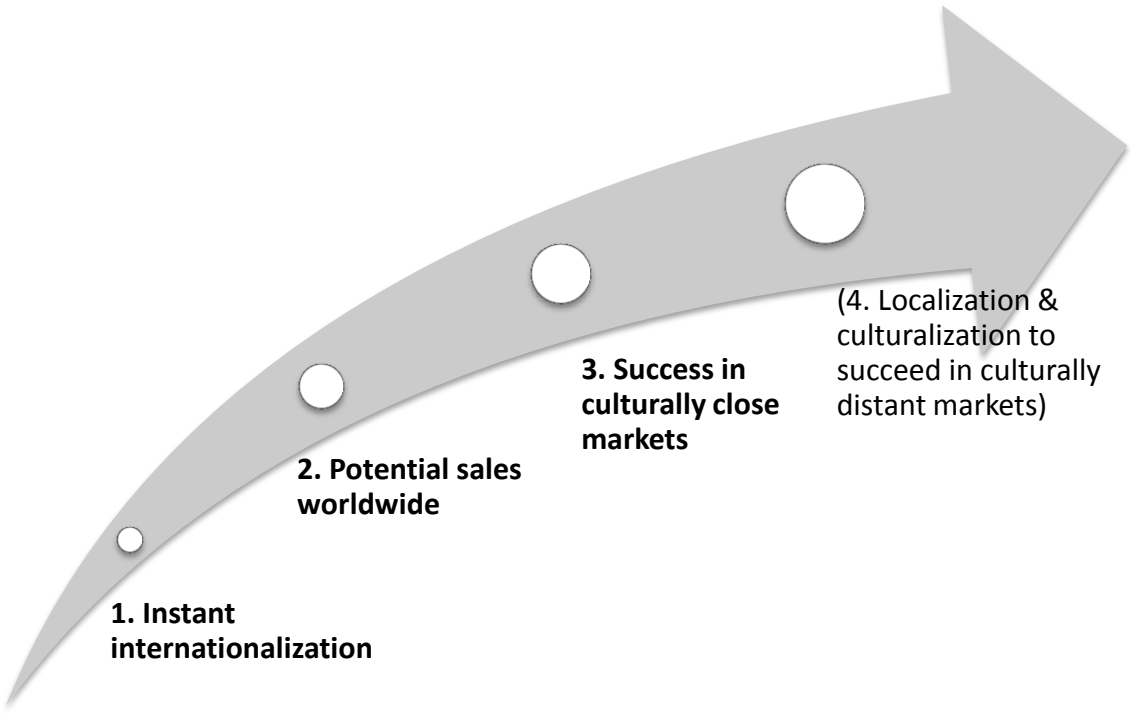

Figure 9 International sale stages of case firms.

Based on the data and behavior described before, I formed a model to illustrate the international sale stages of the case firms (figure 9). First, the firms are instantly international as described before. With DD they have potential sales

worldwide, but due to cultural differences in game design and business among Western- and Asian countries, the games from Finnish developers are likely to be first successful in culturally close Western markets. The last step of localizing and culturalizing the products to succeed in culturally distant markets is optional, some of the companies in the data did not have the resources or were not ready to make these changes to their products. They could also be rather pleased with the current state of business. In some cases, publisher did the decisions whether to localize products or not, and more often this led to making only different language files probably because of investment risks involved in making radical modifications.

5.2.3 Internationalization Mode

Regarding internationalization mode, two paths for these firms were recognized from the data. In figure 10 it is illustrated that internationalization decision is based on to either work independently or attempt to partner with a publisher. Noticeable in this process is that the findings indicate the decision is project dependent, meaning that the choice of internationalization mode does not lock the firm into specific path, but instead they can change their strategy among different game products. For example, firm F states: *"it depends on project and what the publisher has to offer"*. This is a factor providing agility and flexibility for those SMEs studied, helping them to cope in the turbulent industry. Six of the companies (firms A, B, D, E, F, I) are working mainly independently, whereas firm C, G & J are connected with publisher. In firm H there is currently a hybrid structure where both independent and external publishing takes place. The decision of publishing independently or with a partner affects heavily on the later stages of how they act with retailers and do marketing to end-customers.

Figure 10 Case firms' internationalization mode decision.

Publisher vs. Independent Publishing

Continuing with figure 10, independent publishing gives the companies much more revenue, but also leaves all the retailer and marketing efforts to do by themselves. Working with publishing company obviously cuts most of the revenue the game developer directly gets from the sales, but also aids in terms of marketing and cooperation with retailers. Thus the decision is based on whether the company sees that it is able to gain significant sales by working independently, or do they need the visibility and contacts provided by the external publisher, for example firm F: "*the publisher has to bring something else to the table than just money and taking the game to retail*". It came evident from firm H that a publisher may be also used only in certain market areas that are rather unknown for the developing company: "*regarding Chinese markets, we know that someone else can do it better than us and that is why we seek local help who know the market and how to work there*". This could suggest that for smaller rather unknown firms, it would be beneficial to work with publisher to overcome the liability of newness and develop network relationships through them. Bigger and older companies could be able to leverage their existing knowledge and networks to profit without publishers. However, the data tells us a more complicated situation with this decision. For example, firm J, medium-sized well-

recognized company with over 10 years of experience in the industry still prefers to work with publisher in some projects. The smaller firms were open-minded towards publishers if one would be interested in their products. However there was for example company C which told that previously they thought of doing the publishing independently, but for the sake of visibility chose to partner with external publisher: *"they (publisher) have much of these press contacts and Youtubers, which are very hard to reach without relationship, we have put messages to them ourselves but never got answered"*. The open-mindedness towards publishers is rather surprising finding, since DD for game developers has become available, it could be seen as no-brainer to publish by themselves. For example, if we view two major firms from Finland, Rovio and Supercell, they tend to publish their own games and are very successful. This may point out an era where these companies were in the head front, but now as the digital game industry grows and more games are produced resulting in very competitive environment, the need for visibility in many cases makes up for the lost direct sales for these SMEs studied. For example, firm A explains that: *"the most important thing is visibility, publisher can advertise the game so that people find it, because that is crucial. I can tell you that we have a very good game, but it just is not enough on its own"*. In other words, with external publisher games are more easily found and purchased by gamers resulting that the partnership may be worth overall.

Sales & Marketing

Within the case companies, major retailers are on PC Steam (firms B, C, F, G, J), on mobile Google Play (firms A, B, E, H, I) and App store (firms A, B, D, E, F, H, I) and in smaller extent console specific online stores (firm J) such as Playstation Store and Xbox marketplace and in one case (firm G) even physical stores selling the copies. The major retailers control the sales channels in the industry, making it very concentrated in that sense. Ultimately these retailers want to have more and more products within their system as the virtual shelf-space is nearly unlimited. The significant difference regarding visibility and actual sales comes whether the company gets it game to the front page of those stores or not. Often this requires first and foremost quality product that customers are interested in, but it also helps if the firm and/or publisher behind the game is previously well-known and has networks to the retailers.

The case firms' sales and marketing strategy depends much on the choice of whether they operate independently or via publisher. Independent firms market and sell their games straight to gamers through the retail channels, whereas companies who have partnership with publisher sell their game ideas to them and receive funding based on the size of the project. It is also possible for the companies to make the game first, and then seek publisher solely because of the marketing aspect (firms C & H). In this scenario marketing and sales work is mainly done by the publisher, who contacts retailers and ensures visibility of the game in various marketing channels. Within the study, firms G and J are such companies.

Sales strategy in independent companies starts with development choice, in digital game industry this is referred to monetization of the game. The com-

panies studied have either Premium or F2P games. For many firms, this is also a project dependent decision, for example firm B: "*first we think about the contents (of the game) and what monetization model suits to that context*". To dictate the price for the Premium game, many companies viewed competitive products as good benchmarks as what they can realistically charge from their games. Many of the Premium games by case companies are relatively inexpensive, costing typically fewer than ten euros, which of course is relevant when thinking the sales. Firm A explains that "*almost nobody needs to think whether they can afford to buy our games*", but the level of competition means it is still not easy to sell even low priced games. Offering discounts time to time is important to get larger number of downloads for Premium games (firm F: "*in Steam, sale seasons are the biggest yearly sales events*"), but because of the discounts the initial price has to be on a level that there is room for profit (firm F: "*the product has to be priced so that it can be sold for reasonable prices after discount*"). An interesting point was made by firm J, which considered long-time planning critical: "*you got to invest in business development so that the focus is on a longer scale than just one game or project to ensure the continuity, even though the resources are limited*". By some people Premium games are viewed as quality products, which firm A explains that it may affect the purchase decision: "*For example if parent buys our product as family game or for the children, it is valuable that there are no commercials and that the game does not encourage you to buy more. That makes it a quality product*".

In F2P games the selling is entirely different, as firm H explains: *the game itself is the place where sales happen and there are mechanics to sell the in-game currency to players*". Firm I continues regarding F2P: "*to us, the game is store and factory*". On top of the in-game purchases of add-ons to the product, F2P games often use in-game advertisement, which enables the companies to get secondary revenue stream from the actor that buys the ad, but also in some games that the players can pay to skip the ads otherwise pausing their gaming session. The pricing is based on what feels reasonable or if the firm wants to be more precise, on expected gaming time and earlier data. Few of the firms (A, B, D, H) also emphasize the role of monetization in entry decisions, as especially Chinese gaming culture leans heavily on F2P games. For instance, firm A: "*our game would be difficult to change into F2P game, and that is one barrier to Chinese markets because it would be necessary to change the monetization*". Firm H continues of the difference in market areas: "*monetization in Chinese markets has to be more aggressive, there are more straight systems which people have used to locally…certain items in game can be bought only by real money*" (opposed to Western markets where it is possible via in-game currency achieved by playing).

All of the case companies prefer digital marketing tools which do not require significant budgets and are able to reach large number of customers through Internet. Within the cases, Youtube, Facebook, Twitter, streams, trailers/videos, forums, in-game ads, own website, blogs, articles and reviews were mentioned to be the main channels to market games to customers. As for F-2-F marketing, gaming events were seen beneficial especially in the sense of marketing to publishers. Marketing is critical to get visibility for the game. At first, the strategy is usually to investigate what would be relevant (firm A: "*we start*

testing with small budget which channel works and evaluate how much we would be willing to invest in it"). The general idea for many firms studied was to raise interest in their products (B, C, E, F, H) and build community early in development (B, G, H, I). Community building also helps the firms to leverage their network to customers in product development. The firms with publisher (C, G, J) rely heavily on them in terms of marketing.

5.3 Findings on Networks and Internationalization

On top of internationalization pace, patterns and mode discussed through sales work, there are other factors relating to how the case firms establish themselves in international markets. As it is clear in the light of this thesis that digital game companies from small and open economies have to internationalize, next I examine the role of networks regarding the matter. Despite the firms having internationalization as strategy straight from the beginning, some of them may not possess international networks to aid the business. *"It is pure networking"* as Hiltunen (November 18th 2015) describes internationalization in game industry, also mentioning that the number of people working in the industry is still relatively low. I begin this chapter by describing case firms' network development and follow it with model illustrating the patterns recognized. After that, networks of the case firms' are revealed in more detail and examined in cross-case analysis.

5.3.1 Case Firm Paths towards International Networks

In the beginning firm A had only local networks of Peliosuuskunta Expa and individuals working in game industry. The company also received start-up sparring and mentoring which is not critical to them anymore. The CEO thinks that there has been huge growth in networks since that time. The company is now active in local, domestic and international events to network further. The CEO feels that especially their local network is really strong and emphasizes that many of the business relationships have evolved into friendships. The company meets international networks in big events and trade fairs, but so far contacts limit to individual actors such as Youtubers and few contacts from Chinese markets. The CEO estimates international relationships are about 1/10 of their network ties. He also states that it is easier to network domestically, because the relationships develop more easily from straight business (formal) to friendships (informal). Recently, gaming and publishing related networks have grown to be more important for the company to get visibility for their product.

Firm B had first local and domestic networks in the form of Peliosuuskunta Expa, Jyväskylä Entrepreneurship Society and external mentors who were entrepreneurs they knew. Through these networks, the firm has gained much experience in building the business. Later they have acquired con-

tacts from game industry, developers, experts and potential publishers. The network has been gathered mainly via events and trade fairs as well as through existing relationships who have introduced them to new networks. On international level the network is limited to individual contacts.

The local ties are important for firm C in form of mentoring from various business experts, university of applied sciences and family. Through these networks they have gained advice and help in building the business. Local IGDA hub Peliosuuskunta Expa provides valuable information for the company. The CEO states that because of time and money being scarce resources, they have not been networking in many events. Still, from the events they have attended, they have always gained new contacts. The company has been focusing on game development in their office and networking online with the aid of Internet, mainly in global developer forums. Through their work and own initiative they have made a deal with international publisher.

The CEO of firm D is very active in local and domestic events, where most of the networks are gathered and maintained. The CEO is one of the founders of local IGDA hub Peliosuuskunta Expa and it is still one of the most important networks for the firm with other developers. After several meetings, the local and domestic networks with many game developers have evolved to friendships. Events and trade fairs are crucial for the CEO to meet new people and establish contacts. Through these networks the firm has gained mentoring and relationships to potential publishers, but international ties are still somewhat scarce. The CEO also emphasizes online networking for example in LinkedIn.

The CEO of firm E has expanded networks mainly through events in local and domestic setting. With this networking the firm has gained mentors which aid building the business and provide advice. The CEOs brother has also helped the firm in terms of building the company and giving advice in practical matters. International networks are still under development, but the company has some individual contacts already. The CEO also mentions online networking through LinkedIn to be a potential way for small company to gain international contacts.

Firm F started with getting coaching and mentoring from local sources, mainly from IGDA Finland and local university. As for domestic networks related to game industry, the CEO states that they probably have ties with all relevant actors. Through IGDA connections the CEO was able to develop international networks to game industry veterans and game developers, who have also become mentors for the company. The company has had success in expanding the networks through their existing relationships. Even though they have relevant international contacts, domestic ones are still important, but in a lesser extent than previously. As for channels, events are important and the CEO mentions specifically the annual Game Developer Conference (GDC). The CEO also notices online networking with especially LinkedIn to be one channel from where to seek potential partners.

Firm G had a straight strategy to identify potential publishers and seek a contract with one of them. They did demo of their product and presented it to publishers in various events. The company got help in developing their business and demo first from local and domestic sources, especially from IGDA Finland. Eventually, it was in an event held in Germany where they got their deal with the current international publisher. The critical factor in gaining the contract was the quality of the demo which got the publishers interested in the capabilities of the company. As the interviewee stated, publisher are very cautious towards SMEs that they can handle the business and thus must be convinced by showing the company's expertise.

Firm H being a second-round start-up consisting of industry veterans had their previous local, domestic networks to start with. Especially within Finnish game industry their networks were very good and through them the firm acquired knowledge about investors and introductions to get in touch with them and strike a deal, which led to even more contacts expanding the network. Basically, they were able to use their previous networks to leapfrog into international networks very quickly. The international network is diverse consisting of various actors such as game developers, publishers and retailers. Events have also been important for the company to learn and expand networks.

Firm I has similar path than Firm H in the sense that they are second-round start-up consisting of founders who were already recognized in the game industry. The existing relationships were essential in finding major investors and building the business quickly into international settings and networks. The firm still benefits from the local and domestic networks because the industry is turbulent and there is constant need for information and opinion. Regarding the business, their networks are very international with for example retailers, potential publishers and marketing-related ties.

Regarding firm J, it is essential to understand the extremeness of the company compared to other firms in this study. Being over 10 year old company in game industry means they have been pioneering in Finnish gaming field and at the time had very different setup in the beginning related to internationalization and networks. At first, without proper DD, seeking a publisher was the only opportunity to fully internationalize. The CEO emphasizes previous experience and dedicated work towards getting the international networks. As they were building the company they got their first publisher in the 1990s. Their current publisher they met in an event, although the publisher was already familiar of the work the company had done, making it less of a sales pitch and more of a discussion of what they could do together.

5.3.2 Phases of Network Development and Role of Mentors

Based on the previous depictions of case firms' paths towards international networks, I created figure 11 which weaves together the network development. There is a pattern that the firms' first form local networks, followed by domestic ties and finally international relationships. In the initial stage a firm is estab-

lished and is considered as a start-up. In the first (1) phase of local networks the firm possesses relationships in its geographically close business area, practically in the city and area it operates from. Second (2) phase of domestic networks means that the firm has established country-level relationships. Third (3) phase of international networks illustrates that the company is recognized worldwide with networks abroad. There is definitely overlapping within the phases, as in the digital era we live in firms may develop even international networks very early on. Also the international nature of the industry and ways to communicate digitally via Internet affect that it is hard to make a very clear distinction between the phases of networking. Still, I believe this model illustrates best the behaviour of the case firms, because relationships with more distant domestic and international networks are very hard to establish before the business is running and the firm is recognized in their local and domestic area. In many of the cases the existing relationships aided the companies by introducing them to new networks.

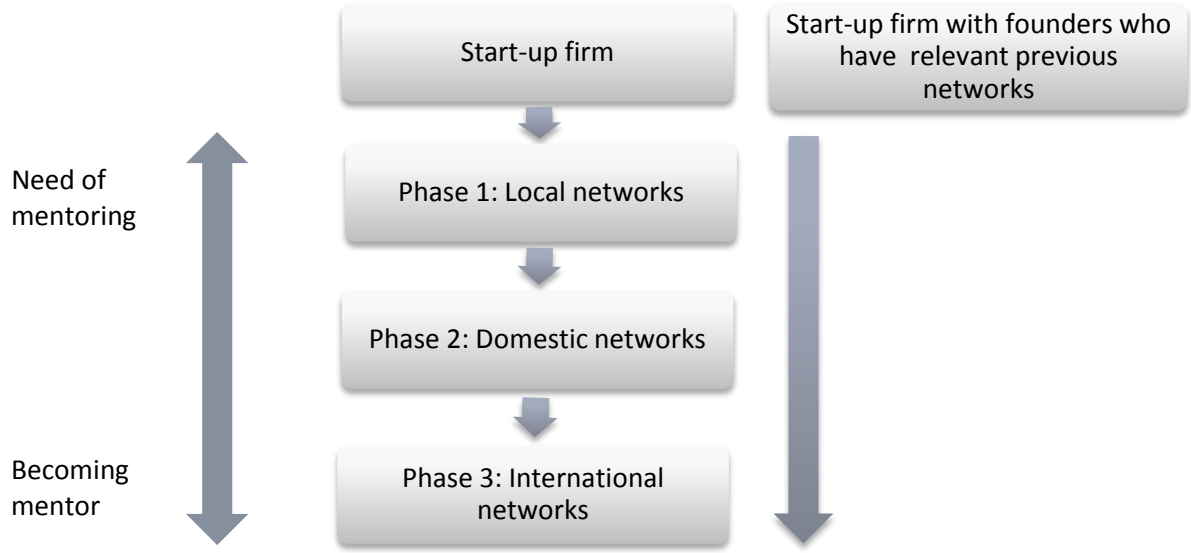

Figure 11 Patterns for network development and role of mentoring.

Especially firms H and I which are second round start-ups were able to leverage previous networks and contacts to gain funding and speed the process of internationalization and successful sales. For example firm I: *"many of the networks we have were already our networks before this firm started… if you do not have this kind of networks the internationalization process is an uphill-battle"*. When asked from the interviewees would they do something differently if they now started a new firm now, the answers revolved almost single-handedly around one theme: it would be easier and faster for them to build the company, internationalize and start making games and selling them with the aid of their existing networks. For instance firm E: *"it took me some time to figure things out, but now I would start faster making networks. I believe it would have helped the firm building process"* and

firm F: "*Of course if I now started a new company, the networks would be ready*." Furthermore firm I gives an example of new opportunities arising from networks: *"if we see interesting opportunity with license IP, we think how we could contact the actors, it is just calling to somebody we know, who knows somebody else who might know the ones we are after and could introduce us. It affects very much compared to if we would be just 'cold calling' that 'hey, we are game developers from Finland', it would not raise the interest."* These comments emphasize the importance of networks for the case companies, without them running the firm successfully is more difficult. In addition, some of the interviewees said that they lack either finances (firm C) or time (firm C, D) to do the networking properly, which they felt affects negatively to the firm performance. For new firms networking starts from local and domestic relationships even though the purpose is to get international networks eventually. The exceptions to this are those firms which already possess previous networks, allowing them to leapfrog these earlier stages.

Mentors

Also regarding figure 11, a matter that came evident from the data was that mentors and mentoring was important for most of the companies researched. External mentors can be divided into two groups, those which help the firms in general business decisions and those who know the game industry and can help with matters regarding this specific context. Both of these mentor types provide the firms a chance to network even further, as mentors are often experienced people with wide and deep networks. Many of the firms studied stated that their mentors have straightforwardly introduced them to new people based on what the firms' need is, for instance firm B: *"especially with other entrepreneurs, if you got a problem they guide and recommend new contacts for you and they can become your mentors"* and firm E: *"if your mentors are good, they open new network possibilities, through them we have found most of our important relationships"*. In many cases mentoring was related to be a matter inside the Finnish game industry, as firm H explains: *"Finnish game industry is very communal, projects are discussed and demos shown in early development to get feedback… there is much information sharing"*. Some firms also have international mentors, for example veterans from game industry: *"we got mentor who is board member of IGDA USA, he knows well all relevant actors in the industry"* (Firm F). Furthermore, as illustrated in figure 11, newer firms with local networks are more in need of mentoring, whereas experienced firms with international networks stated that they are the ones newer firms are asking information and often they are willing to provide it when they have the time, for example: *"first we had mentors from Finnish game industry, but lately it has changed that we are the mentors"* (Firm G). This creates a unique ecosystem that is not regulated by any means, but has developed for the industry probably due to factors related to Finnish digital game industry. Also, the experienced firms often have their own mentors, but the relationships can be somewhat different or more international, *"I had lunch with one founder of significant international game company and nowadays I can ask all sorts of questions from him and get feedback for our games"* (Firm F). Mentoring in practice is still constrained by time and possibilities as Hiltunen (November 18th 2015) explains.

5.3.3 Network Relationships of Case Companies and Cross-Case Analysis

In this section I will go more in-depth to what networks the case firms have in local-, domestic- and international settings. First, I will compare and depict the networks and do cross-case analysis among the cases. At the end of each network phase, the relationships are illustrated in a summarizing table.

Local Networks

Local networks are especially important for smaller companies that are building their business. Local game developers were mentioned to be important networks in seven (7) of the ten (10) interviews by firms A, B, D, E, G, H and J. Other game developers act as mentors for the companies by providing practical support (development choices, business problems) and strategic information (market knowledge). Local game industry hubs came up in four interviews, with firms A, B, C and D. An interesting detail is that these companies situate in the same city (Jyväskylä, Finland), depicting the importance of the particular IGDA hub Peliosuuskunta Expa. This hub provided them external projects (A), a way to get interns (A), knowledge about the markets (A, B, C, D) and a channel to get support in practical matters (A, B, D). For these companies, Peliosuuskunta Expa has been the first network relating to digital game industry and as such was important part of their relationships. For the companies A, B and D, Expa gatherings act as a bridge for the developers to meet each other in regular basis. These meeting are often very informal and relaxed, not traditional business meetings.

Schools were commented from the angle that the firms get interns from Universities and Universities of Applied Sciences (Firms E, G, H). With general business related contacts external mentors (firms B, C, E, F) were mentioned. The mentors are consultants or experienced businessmen who are capable and willing to provide advice for the companies, often free of charge because they are interested in the firms or industry and this helping does not take too much of their time. Especially in the stage of company building they are invaluable, but can also help in various business problems. Furthermore a local entrepreneurship society was mentioned by firm B to gain support in business. The ties with external mentors are more formal in the beginning, but have a chance to develop into informal ties. Two of the case companies (C, E) also pointed out that they have informal ties in terms of family members who have been helping with the business decisions and company building.

Table 9 Case companies local networks.

Firm	Game Developers	IGDA hub	University/ University of Applied Sciences	External mentors	Family	Entrepre-neurship Society
A	X	X	X			
B		X		X		X
C		X	X	X	X	
D	X	X				
E	X			X	X	
F				X		
G	X		X			
H	X					
I	X					
J	X					

Domestic Networks

Domestic networks contain many aspects of the local networks, but in bigger, country-level context. Game developers are important relationships and they were mentioned by eight (8) firms (A, B, D, F, G, H, I, J). This reflects to the Finnish game industry as a community of developers. The benefits for this co-operation is same as for with local developers. All of the firms studied confirmed that Finnish digital game industry is very communal and that there is general attitude of assistance, even towards competitors:

Firm A: *"In game industry there is this attitude that sharing information is not harmful to your firm… there is much of this helping and teaching from one's mistakes. This is very important especially because the industry is so turbulent."*

Firm F: *"We have called on weekly basis to firms we compete with and asked for tips and suggestions, because they may have done some matter ages ago and it is pointless for us to repeat the same mistakes".*

This is traditionally very unusual characteristic in business as the firms often do not have time or desire for this kind of activity. The open-mindedness showed also in the fact that the firms were very interested in this research and willing to help by providing the interviews. It is hard to know the certain factor for this behaviour, but the data of this thesis gives many possible explanations. Small size and the relatively young age of the industry (Firm A, D) may be factors affecting this issue. However, firm H stated that the Finnish digital game industry is relatively big in terms of what we have accomplished, but at the same time the level of hierarchy (Firms D, G) is low. Relating to the small size and newness of the industry, some of the firms viewed that the game development is passionate work which unifies the managers to act towards the benefit of whole industry (Firm, D, H, J). Maybe the most obvious explanation provided was that because the firms are Born Global reaching for international sales from the

start and hardly compete domestically, they have no reason not to help each other (Firm A, D, G). Overall this open-mindedness and mentoring provided by other firms in the industry creates unique competitive advantage for Finnish digital game firms compared to others in global setting. They can leverage the knowledge and insight of experienced managers to make their own decisions with more haste and precision. While the explicit reason for this behaviour is hard to point out, it seems that the attributes depicted in this chapter influence the behaviour.

Finnish game giant Supercell arranges networking event Gamesfirst to invite Finnish developers to discuss game industry and meet with representatives of publishers and retailers. This is an example of real competitive advantage from the communality of Finnish firms: "*From Games First we got networks to game industry… it was relatively small event where there was CEOs of game companies... in comparison to Games First, Slush for example contains lots of people that are not probably very useful to you* (Firm A).

Instead of local hubs, in domestic setting there are country-level organizations such as IGDA Finland and Neogames which are associations for the whole Finnish game industry, mentioned specifically by five of the firms (D, F, G, H, J). These organizations facilitate meetings and provide information. Regarding finances, Tekes was mentioned by firm A, G and H and Finnvera by firm A and G as domestic organizations that can provide loans. Also public finances such as "Starttiraha", a subsidy provided for some start-ups was brought up as a source of early finance (Firm A). Game industry organizations and financiers can also provide the firms with business advice and market knowledge. General business related ties were mentioned by three of the firms (D, E, F). These are relationships that provide advice and mentoring for the firms, helping with their business.

Table 10 Case companies domestic networks.

Firm	Game Developers	IGDA	Neogames	External mentors	Finances: Tekes, Finnvera
A	X				X
B	X				
C					
D	X	X		X	
E				X	
F		X		X	
G	X	X	X		X
H	X	X			X
I	X				
J	X	X	X		

International Networks

International networks may be the most diverse among the companies studied, but also the hardest to truly establish. High level of trust and commitment in the relationships is important and advantageous when firms exploit their existing networks to expand their networks further (Sasi & Arenius 2008). Within the data the role of Internet was important regarding sales, but rather surprisingly the firms preferred face-to-face contacts even though their business is otherwise very digital and online-based, for instance firm B: *"the networking may start with e-mail, but it becomes a real relationship only after meeting the acquaintance live, only then trust can develop between the parties"*. International events and trade fairs, while not networks on their own, provide important venue for the firms to meet new contacts or strengthen the existing relationships and are the biggest chances for firms to establish international ties. Furthermore, many interviewees stated that there are simply many actors within the game industry and in order to develop trust between network partners, they must be met personally. Comment from firm J *"Small industry size makes the business personal"* emphasizes the importance of personal meetings, but also indicates that they view the industry is not large. The number of actors and size of industry is likely to be a matter of view depending on the age and experience of the firm. Personal meetings are often held in events related to game industry, either local ones arranged by hubs or country-level organizations or international game fairs such as Gamescom or Nordic Games. Sometimes the CEOs arrange business lunches with other managers in the industry (for example firms A, J).

International game developers as a network came up in six of the interviews (firms B, C, F, H, I, J). There are also game developer related communities in Internet and social media (firms A, C, D, E, F) where it is possible to network online. At international scale other developers were mentioned especially by the more experienced companies, but also few of the newer firms noticed them as networks. Still it tells the about the community of developers also in international setting as they were the most mentioned relationships. If a game firm has reached international networks it is probable that they have connections to other developers abroad they can discuss the products and industry with.

In terms of networks, publishers are very potential and international ones. In Finland there hardly are significant publisher that firms could partner with and this is a factor pushing the companies to seek them abroad. All of the case companies mentioned that they have at least talked with potential publishers. Six of the case firms (C, D, G, H, I, J) viewed them as network partners, with D, H and I mentioning potential publishers and C, G and J the publisher they work with. There were differences within the firms how they viewed publishers as others were very open minded as some firms more sceptical. It is an ongoing debate in game firms whether it is beneficial to partner with publisher or not and in the light of this thesis it remains an open question.

Four of the case companies (A, F, H, I) mentioned retailers are important network to gain visibility for products. Also some of the other firms mentioned

they would be valuable networks if they had relationships to them, for example firm A: *"If we could get some person from Apple or Google to recognize that our games are great, it would be very valuable, and the partnerships to retailers is also becoming more important overall"*. Retailers are important, because especially the independent companies often make all of their sales through these retail channels. If a company is recognized by retailers, it can mean more visible spot in sales channels and even featuring, which basically is front page advertisement in the channels and recommendation to try the product. This can be also achieved by the game being very popular, but it is easier with good relations and past results. The importance of retailers is reflected in the companies' comments: firm I: *"Retail channels are critical to us and that is why we have to be closely contacted to Apple and Google."* and firm H: *"we got editor's choice status for our game in App store and it had big impact on downloads"*. Furthermore, the retailers can share market information: *"they can see many country-specific trends" (*Firm H). Especially in mobile platforms where the number of individual products may be the highest, this extra visibility through good reputation and close relationship with retailers is valuable, the firms which mentioned them as important network all develop to Appstore and/or Google Play, where also competition is probably the highest.

For some firms, subcontractors are relevant networks, even if they themselves work as a subcontractor to publisher. This can be a strategic decision to lower costs in development: *"subcontractor from Ukraine has been important to us to do graphics… it is much more cost-efficient than having Finnish employee do it"*(Firm G). Companies may also want to focus more in their core competences: *"we have no full-time music composer, so I figured out we use our resources more efficiently if we buy the music from subcontractor… now it comes from one composer from Los Angeles"*(Firm A). Getting subcontractor can be also based on getting best quality and personal relationships: *"for example music to our games comes from one person… he's starting to be sort of family member and we have the luxury to work with the best people"* (Firm J).

Two of the companies have international investors (firms H, I). They are particularly important networks for them and in case of firm H investors act as board members driving the business onwards: *"if we have to find certain talent in recruiting, investors may obtain it or if we need to get in touch with certain publisher it is possible… also we may do cooperation with other firms they have invested in"* (Firm H). The investors allow firms also to pursuit more challenging game projects based on the financial and intellectual resources they come with.

Especially for firm G, their developing tool supplier (Unity) has been important network to help in development process and hasten problem solving. In this matter, personal relationship of their employee has been crucial: *"One of our employees has very close relationship to Unity… it is remarkable help if we encounter some problem in development"*.

None of the case companies have any kind of office abroad, but instead they rely on their networks to be more successful in those market areas. This may be because lack of resources these SMEs have, but it could be also viewed that the firms do not gain enough value from subsidiaries that they would be

worth investing in. Especially regarding internationalization to culturally distant markets, networks are in crucial role and Chinese markets in particular have different structure compared to the rest of the world. Many of the companies (A, B, D, E, H, I) explained that in order to succeed in Asia/China, one needs partnerships. Networks aid especially in localization and culturalization efforts to provide advice and expertise to modify the games to better suit culturally distant markets (B, D E, H, I). This can be done for example through consultants or relationships that provide information for free such as other game developers and mentors. Regarding mobile games, the situation in China is that instead of single retailer, Google Play, there are hundreds of Android markets which act as retailers for games. This means that the network of retailers is fragmented and leads to need of relationships and publishers regarding the market (A, B, D, E, H, I). For example by firm D it was stated that publisher would be actually mandatory for Chinese markets because setting up own actions in the country is rather challenging: *"if you establish a firm in China, it is the law that Chinese partner must own at least 51% percent of it…. so it requires a publisher to get into retailers"*. There are a lot of publishers available and firm I emphasized that in the future it will be critical to find reliable and suitable partners. However, it was described by firm I that a game can be successful all over the world without these actions: *there are cases that a firm has independently published to the whole world and it has started to sell in Japan, China and Korea, it is good for them"*. Furthermore, the partners obviously affect revenues the firm gains as the middlemen always take their share of profits, although it is possible to gain advice from local game developers on how to localize games.

Table 11 Case companies international networks.

Firm	Game Developers	Publisher/ (Potential publishers)	Retailers	Subcon-tractors	Investors	Marketing networks	Developing tool supplier	Individual contacts
A			X			X		X
B	X							
C	X	X						
D		(X)						
E								X
F	X		X					
G		X		X			X	
H	X	(X)	X		X			
I	X	(X)	X		X	X		
J	X	X		X			X	

Most Important Networks

When asked about the most important networks, for five of the companies there was Finnish game industry (A, D, F, G, H) and also five said mentors (B, C, D, E, F). For those companies who had publisher (G, I, J) and/or investors (H, I), they were major network partners. The only exceptions were firm C which has just established the publishing contract and firm H which works with publishers

only occasionally. The biggest firms in the study, I and J, also stated game developers in general, demonstrating their international and wide networks. The most important networks thus related to either those which were the companies' straight business partners (publishers, investors), the ones providing practical and strategic information (Finnish game industry, game developers) and the one they leverage to gain general business related information, support and new contacts (mentors).

5.4 Biggest Challenges of Internationalization

As for the biggest challenge of internationalization among the case firms, it was clear that many interviewees stated problems in getting the games sold. For half of the firms studied (A, D, E , F, G) visibility was the biggest obstacle. With an industry with global competition and abundant products, it is hard for SMEs to distinguish from others and overcome the liability of newness. As firm A mentions, it is not about getting the games to retailers (*"to getting the game into stores is not a problem, we can do it anytime")*, but for someone to actually purchase the game is the issue (*"how do we get the Brazilian mother of three children to know that this is the game she wants to buy and play with her children, that is the thing, to get the customer to make the purchase decision")*. Firm D adds that *"it is the product that needs the visibility, not necessarily the company itself"*. This is a factor true to many knowledge-intensive products. In general, the liability of newness is a factor that prohibits internationalization at first in both independent publishing and working with external publishers, for instance firm E: *"in the beginning we were students and started to create something different compared to others, then people thought will it work and are those guys even serious about it"* and firm G: *"in the beginning we wondered how to convince publishers that this company even exists and there are workers that master their jobs, and that our company can handle the business and finances"*.

Firm H, I and J are on the same lines with the challenge of visibility, but also mention more directly high level of competition in the industry as the biggest challenge, with firm J also continuing with the need to produce unique ideas. Networks were emphasized by two companies to be critical in the internationalization process, B (*"it is hard to find the right contacts and people and to actually hold on to them"*) and I (*"the challenge is opening the doors, games made in Finland easily look like Finnish and it is important you have contacts that can tell you how it looks… and another thing is that you should consciously look for contacts that can help you or you end up with a basement firm"*). Furthermore, firm C stated that they need to still develop their core competence to be able to fully internationalize: *"in the beginning only I had experience of game development, so we learned how to work and at the same time it was hard to plan the future"*.

In terms of visibility, limited resources can also be challenge, as firm E mentions: *"to get proper visibility we should do mobile commercials, but bigger firms have basically raised the costs through the roof, so competing is hard"*. Many of the

companies recognize the fact that they are SMEs with limited resources, which creates barrier for fully utilizing the business as firm D explains: *"the challenge of internationalization is often lack of resources… that you would have person to maintain international relationships, publishers, recruiting, community management or anything, it is the lack of human resources. If we think about independent start-up firm, one person has too many things to do".*

From these comments we can deduct that the need for visibility and getting the products actually sold are the main concerns for case companies. This may in future indicate the importance of publishers if they provide the assistance with these factors to create partnership benefitting both parties. The high level of competition in the industry also supports the need of partners to overcome liability of newness.

6 DISCUSSION & LIMITATIONS

Through the data and findings this chapter discusses and answers research questions of this thesis. This is also the chapter where I reflect the results into earlier literature and theories this thesis uses. For the sake of clarity, the questions are mainly discussed within their own chapters, but obviously there is overlapping in the paragraphs, because the matters are connected to each other in terms of internationalization. At the end of this chapter I acknowledge and ponder limitations of the thesis that have affected the research process.

6.1 Answering and Discussing Research Questions

Research question 1: How do digital game companies organize international sales?

First, to understand the case firms' behavior, we must acknowledge that they are Born Globals with an instant strategy to internationalize, which leans on the INV theory (Oviatt & McDougall 1994). The firms can get their products distributed by global retailers (for example Steam, Appstore, Google Play) very easily, enabling people worldwide to purchase the games. Internet-enabled internationalization allows the firms to reduce or remove some of the costs and resources related to foreign market entry. It is not a matter of will the companies internationalize or in what circumstances they internationalize, but how they internationalize and what factors affect the process. This further confirms study of Lauri (2009), which concluded that independent game companies are Born Globals, but also adds that those working with publisher are also international from the inception.

The pattern where firms are in global markets from the inception could be thought that internationalization process is somehow "ready" or "fulfilled", but this was not the case based on the results of this thesis. It is entirely different matter will the games actually sell as the competition is tough, requiring efforts to market and promote the products. Culturally and economically Finland belongs to Western countries, which means that it is easier to sell and develop products which appeal to gamers in these countries. The behavior is partially explained also by the fact illustrated by Sinclair (2015) that North America and Europe cover over 40% of the global digital game market. However, the firms researched would prefer to do sales also in Asian markets, mainly in Japan, China and/or South Korea as those markets are growing fast and already cover about the same market share (Sinclair 2015) as North America and Europe. Thus the numbers do not offer explanation to why the firms hold Western countries as their target market. Regarding decisions on further internationalization and sales in these otherwise global markets, it was evident that Western

and Asian markets in the digital game industry are very different and require specific knowledge and effort to succeed in terms of monetization, theme and marketing of the product. However, in the light of the results, it is still unclear whether the companies benefit from the modifications to their products to cover the investment. I think this is case-depended, as in some cases these changes are favored, while other firms keep them at minimum. Still, the fact that these modifications are made at some level by all of the firms in this study, acts as evidence that they are important part of internationalization and sales in digital game industry. To counterbalance matured markets, now would be a very good time to plan the entry into Asia as the local markets are growing with high speed (De Prato et. al. 2014).

The bigger phenomenon why Asian markets are challenging to gain sales was psychic distance between the game developers and customers. The situation that these SMEs gain sales first in culturally close Western markets support Uppsala model (Johanson & Vahlne 1977). The firms have the option to localize and culturalize their products into culturally distant markets in lines with Chandler & Deming (2012), but have to be aware is it wise in terms of costs and resources. This leads to process where initial internationalization is fast, but localizing and culturalizing the products slows down further internationalization. This develops our understanding on how Internet-based companies might internationalize slowly in stages, which is mentioned by Petersen & Welch (2003) to be an unresolved issue. The finding is also important from the perspective of psychic distance influencing market entry, an area of international research still lacking further evidence as Sinha et. al. (2015) mention. Internationalization patterns of the case companies provide hybrid structure owing to both Uppsala model (Johanson & Vahlne 1977) and INV theory (Oviatt & McDougall 1994). While these theories both concern internationalization, they have very different agenda, but maybe it is time for them to coexist and add to one another, at least in the context of knowledge-intensive firms from small and open economies combined with possibility of DD. It was also clear in the study of Mahnke & Venzin (2003) regarding digital information good providers that Stage models and INV theory do not explain internationalization of their case company, Ebay, further suggesting current internationalization theories may need closer inspection because of the digital changes our markets have seen. The finding of this thesis regarding psychic distance is also opposed to what Johanson & Vahlne (2009) state in their revisited Uppsala model article that internationalization becomes more relationships- and network-specific, rather than depending on country borders. Petersen & Welch (2003) pondered in their study whether country borders are irrelevant with Internet firms and this thesis argues that they are, except between culturally distant market areas. The internationalization pattern of case firms is supported by study of Fan & Phan (2007) who stated that even for Born Global firms cultural distance is a factor affecting internationalization. First, the firms are globally diverse and later via localization and culturalization of the products international intensity is an option. It is

also in line with Sasi & Arenius (2008) who suggested firms enter first into global markets and then grow their business in specific market positions.

The earlier evidence of lead markets (Bell et. al. 2003; Cannone & Ughetto 2015) seems viable in the light of this thesis, as big markets such as USA and China were seen very important. Small domestic market of Finland creates environment where internationalization in digital game industry is necessary, which supports findings of Knight et. al. (2004) and Fan & Phan (2007). Regarding Johanson & Mattson's (1988) four cases of internationalization, the case companies' situations of the late starter (new company) and the international among others (existing company) are true as the industry is highly international. However, as opposed to Hollensen (2007), I would argue that the existing firms are not "pulled" to international markets, but they are "pushed" there in their early years. The necessity of internationalization in combination with the fact that it starts from inception, creates situation where in the beginning companies develop and sell their products into markets abroad with scarce resources and lack of knowledge, supporting study of Sinha et.al. (2015). This is unless they have previous experience of the industry and business in general or relevant networks.

For a digital game company, internationalization and sales lead into many decisions. At least on project basis they have to strategize whether to partner with publisher (if even possible) or distribute independently and this decision leads to many outcomes, for example will they market the game themselves or will the publisher do it. The choice is tricky, as even among literature it is not clear whether partnering is necessary for successful internationalization. Many scholars (Bradley et. al. 2006; Terjesen et. al. 2008; Child & Hsieh 2013) support the need for partners, but for example in the study of Preece et. al (1999) there was no evidence between international success and strategic alliances. Within the cases of this study, most of the companies did not have publisher, but on the other hand all of them were open-minded towards possibility of working with one. This may indicate that re-intermediation regarding publishers depicted by De Prato et. al. (2014) is true. However, as the game companies can choose either route, this thesis argues that successful internationalization can be done with or without publisher (partner). However, the role of partners in internationalization is a factor that I think should be studied further.

In development the firms have to choose monetization model and obviously theme as well as mechanics of the game, which greatly affect the revenue stream, target customers and how the game can succeed in certain market areas. Marketing of the games is concentrated on digital tools. Arakji & Lang (2007) and Kerr (2006) emphasize the cooperation with customers by utilizing them in development and marketing of products, but in the cases of this thesis end-customer as possible collaborators were surprisingly hardly mentioned by the interviewees. They were taken into account in the form of localizing products, but in many cases the end-customers were not seen as active participators in product development or marketing. There were mentions about marketing actions to build community and attract gamers, but not anything concrete. Re-

viewers, other marketing-related partners explained to be important by Zhu & Zhang (2010) to get visibility was also ignored in many interviews. These findings could be related to the interviews and themes which did not go very deep with the topic of marketing, but these actions were still discussed with the interviewees. Because of the opposed views within cases and literature, customer collaboration should be studied further.

Based on the results I agree with Reunanen et. al. (2013), Park & Kim (2013) and Hiltunen (November 18th 2015) that visibility and tough competition in the digital game industry are the main challenges for SMEs. These factors prohibit sales and further internationalization actions into distant market areas, reflecting to scarce resources they possess in comparison to major companies in the industry. Zhu & Zhang (2010) explained need for visibility from the perspective that even in online stores with virtually unlimited shelf-space, there is competition of the best spots. This drives the SMEs to make more niche products as they have hard time to compete with bigger companies if their products are too similar. Still, it should be noticed that games as products do not necessarily exclude one another, but a person that is interested to play certain type of games could try a second within the same genre after completing the first game.

Research question 2: How do digital game companies network to internationalize?

Regarding network model of internationalization (Johanson & Vahlne 2003; 2009) the results provide contribution and matters to discuss. Digital game companies do not technically need other networks than retail channel to internationalize and sell worldwide and even the retail network does not necessarily contain any relationship to particular individual. This might be true if their own expertise is enough to produce and market the games. This is opposed to what the current literature of network model explains that relationships are essential for internationalization (Johanson & Vahlne 2009). It may be that partially these SMEs with scarce resources avoid "unnecessary" partners in the lines of Ojala & Tyrväinen (2011).

Despite the need for network relationships is not totally necessary because of DD, networks are still very valuable for the case firms on their road to success. From their initial networks the firms gain many indirect ties and opportunities, the existing ties provide firms new relationships allowing the network to grow. The finding is in line with what Coviello (2006) found that first the firms networks are dense consisting of few close relationships, but over time the networks expand in range and lose some of the density. The development of games is based on number of strategic decisions by companies, but international sales are more of recognizing opportunities through networks and exploiting them whenever possible. The main benefits from networks for the firms were to gain market knowledge and learn from each other through business advice regarding practical and strategic matters. Finnish game industry, international game developers and publishers were the main sources of intelligence within

the cases. These are external relationships that facilitate internationalization (Fernhaber & Li 2013). In the light of the results, networks are especially beneficial to be competitive in culturally distant markets. However, the firms do not have time to gather knowledge before internationalization, a finding opposed to Uppsala model (Johanson & Vahlne 1977) and network model of internationalization (Johanson & Vahlne 2009). Still, market knowledge provides firms advantage at the time of localizing to specific markets when it can hasten decision making and enhance product development.

Even with the case firms having international aim from the inception, their networking tends to follow pattern of first developing local and domestic networks before gaining major international contacts. They are gradually built into more important relationships, which eventually aid to overcome liability of newness. This is also affected by their previous networks, as companies that are for example second-round start-ups with knowledge of the industry and networks established can leapfrog the early phases. It may also not be such a straightforward line, as the firms can meet domestic and international partners also very early on, but in the light of this thesis it was evident that local and domestic relationships were established first. Often it is true that a firm must familiarize itself in the business and networks before gaining international networks, because for the relationships to become one that both actors see beneficial the firms should have fairly equal expertise. The firms with international networks maintain the benefits of earlier phases, but in addition make use of new relationships. Still, time is always a resource making it difficult to maintain all relevant networks. As a firm develops the domestic networks seem to become less critical and international networks rise in the importance. In conclusion, experience and previous networks seem to be the main factors to network development.

Opposed to much of current literature (for example Coviello 2006; Johanson & Vahlne 2009), networks in this thesis did not directly correlate on how markets are entered, except in culturally distant markets. This is heavily related to DD the firms have available. There rarely is a need for local physical presence in the markets as the SMEs can rely on their networks, a finding that answers question proposed by Petersen & Welch (2003) whether Internet firms need offices abroad. The firms, however, have the internationalization mode decision of working independently or with publisher and weighing the option could be related to networks. Through relationships the firms may be able to cope without publisher, or on the other hand strong networks with publishers may tempt firms to partner with them. Supplier-customer relationship was true for three of the firms in this case, two used publishers in some game projects and others also confirmed it to be possibility. Internationalization through supplier-customer tie is supported by earlier literature (Bradley et. al. 2006; Terjesen et. al. 2008; Child & Hsieh 2013), although many firms in this study operated independently, proving that it is also possible option. In all these aspects, networks aided internationalization and sales efforts. Regarding culturally distant markets in Asia, especially Chinese markets were seen one that the firms needed

networks to perform better. With the networks, the firms can lower effects of cultural and psychic distance which supports study of Ojala (2015), but it takes a lot of resources, effort and time to establish these relationships abroad.

Based on the cases, the actors in Finnish game industry are very open-minded to help each other, a finding that was also illustrated in several sources (Niipola 2012; Lappalainen 2015; Hiltunen, November 18th 2015). As a further result, I noticed that mentoring takes place between the companies. The firms save considerable amount of time and money in using these rather informal relationships as advisory service, a factor helping them to cope with limited resources they possess. The newer firms receive practical and strategic advice from experienced companies within the industry. This can be seen as a phenomena of "giving back to the society", as the experienced developers often have had their own share of support earlier. I would argue that only in Small and open economy the industry can develop into society which it is in Finland nowadays. In addition, this phenomenon could be also relevant in other small, young, international industries in small and open economies and would be fruitful area to investigate thoroughly. However, as illustrated in chapter 2 the industry is growing and it is hard to predict will it affect this open-mindedness. Nevertheless time and the shaping of the industry will probably provide us more answers. Hiltunen (November 18th 2015) also explains that in the future it might be hard to maintain the communality when the industry grows, but he is also hopeful that value from this network is realized and that there is general attitude towards preserving it. I believe that the associations in country level, IGDA, and local hubs are very important in this sense.

On top the Finnish game industry, there are external mentors who are experienced entrepreneurs or consultants either from domestic or international sources. These actors are particularly important in the early stages of the business development. Furthermore, international game industry veterans or investors are often mentoring and advising even the experienced companies in the field. Mentoring is rather new finding in the network research as at least in the scope of this research the term was not mentioned in literature. It may be that mentors are related to knowledge acquisition and learning from networks and not clearly separated from other relationships in earlier studies. Still, I believe that mentors are important and influential matter within the network research that we should pay more attention and investigate their role to internationalization and firm performance.

The firms in this research did not mention many informal networks of for example family, neighbors or other acquaintances to be major factor regarding their business. The formal relationships of case firms were fairly traditional, consisting of customers, suppliers, publishers and other business related ties. However, within the Finnish game industry the initial formal relationships between managers often developed to informal relationships as the other game developers became friends. This supports finding of Kontinen & Ojala (2011) that weak ties may develop into strong ties with enough interaction and mutual will. Traditionally other firms within the same industry are more formal ties

and strict competitors, making this an interesting discovery. This is because many of the firms do not feel they are strict competitors, making the relationship less formal from the beginning. It was also indicated that first these ties with other developers were fairly weak, but with interaction in various meetings, events and contacts they often developed into strong ties. The setting for this relationship development was often domestic and restricted in Finnish game developers.

The companies in this study used events and trade fairs as a major networking channel to form local, domestic and international relationships. This is rather surprising when taken into account the digital nature of the industry. In the interviews there were mentions that digital networking for example in LinkedIn is also important, but various events and F-2-F meetings are still very popular as the firms are able to show their products and expertise to possible investors, publishers and other interested actors. The main benefit of events was that in F-2-F contacts it is easier to develop trust, emphasizing personal meetings even in today's world. The companies studied being SMEs the managers and CEOs clearly have crucial role in the business decisions. Regarding this topic, Sasi & Arenius (2008) agree that INVs rely on the relationships and networks created and maintained by the founders and managers. This means that the managers themselves are the networking force of these SMEs.

Research question 3: How do industry characteristics affect internationalization and networking of digital game companies?

To evaluate the role of industry related factors, game industry specific characteristics should be recognized. The deduction is done through literature explained in chapters 2 and 3 as well as case firm data presented in chapter 5. Thus the industry related factors discussed in this chapter are DD, tough competition, concentration in the number of retailers, regulation and technological state. As Johanson & Vahlne (2009) point out, international environment may affect strongly on the behavior of companies regarding internationalization. I believe that is the case also in this study, as the industry related factors and global environment were mentioned often within the data.

DD may be the single biggest matter to affect internationalization of the case companies, a finding in line with what Egenfeldt-Nielsen et. al. (2008) explain. The barriers to entry game business are low as in the most simple form publishing requires a team to make the game and upload it into retail channel. Andersson et. al. (2014) considered whether internationalization is enabled by industry related factors and the evidence of DD suggests that it does enable it for the case firms. Still, game development needs expertise and innovation to be able to make attractive products. From this aspect it is fascinating to also ponder whether we will see even more industries benefitting from- and dominated by DD in the following years as now it is somewhat limited to content and services rather than physical products. For example other creative products such as movies and books already have ways to distribute them online. With our

technology developing with increasing speed, maybe we will even see some more traditional industries adopt DD in the future? For instance, if the technology of 3D printing becomes common in consumer use as suggested by Berman (2012) and Wittbrodt et. al. (2013), it would revolutionize the distribution of physical goods by allowing people to print products in their home by downloading the "scheme" via Internet. In other words, are we in fact moving towards a world where all firms will be able to use DD and thus would be Born Globals with possibly similar pattern in internationalization as the case companies in this thesis? I believe the scarcity of papers regarding internationalization and DD today is explained by the facts that Internet-based solutions are relatively new in business. Based on the speed of our technological development, I believe it will be a major topic to discuss when more firms use Internet to distribute their products and services.

Tough competition affects the companies in the way that they need visibility and market knowledge which are often gained through networks, for example partnering with publisher. Despite the significant growth of the industry, competition remains tough mainly because of DD allowing firms to easily enter the markets. Based on the data, firms working on console and PC platforms may be more probable to seek for publisher. This may be because of the development costs for more complex games usually seen in those platforms are higher, meaning that it requires significant investment to make the game for which the SMEs cannot afford themselves because of financial reasons or risk avoidance. Overall in the industry the biggest studios are highly successful and dominate the market shares, whereas SMEs have more risks in their business. The largest companies have abundant resources which they use to gain the best visibility and image for their products, making it hard for the SMEs to succeed. To compete, SMEs should focus on niche markets which Zhu & Zhang (2010) also depict the firms are leaning more. On the other hand the bigger firms provide visibility for the whole industry (Lappalainen 2015), which at the growth stage attracts investors.

Majority of game companies use digital retailers, which are very limited in number. In PC platform Steam and mobile platform Apple and Google basically control the digital retail and they also dictate part of the revenue they get which is usually around 30%. There are also other smaller retailers, but they hold very minimal market share and are not often considered to be potential by game developers. However, as depicted before, in China the situation is entirely different and the market is flooded with hundreds of digital retailers. It is invaluable for game developers to gain contacts with these actors to ensure better visibility. Especially in Chinese markets regulation in the industry affects internationalization and networking. The local laws, environment and culture make it very difficult for Western game company to be successful without local partners. This affects to revenue of the case companies as the partners obviously get their share of the profits.

The technological state of the industry is turbulent; there are various different platforms and monetization models. The companies need to weigh these

choices in order to achieve best combination for their strategy and products. Digital game industry can be also considered to be high-technology field where sudden new technology, for example virtual reality device, could surpass the existing platforms and generate massive changes for the industry. This supports what De Prato et. al. (2014) have written that digital game companies are in constant uncertainty because new trends might suddenly change the business. Thus the environment contains risks, but on the other hand, the development of new technologies might bring new opportunities for SMEs to penetrate the markets and possibly reap high rewards.

6.2 Summary of Key Findings

Next I will illustrate the main themes discussed in chapter 6 in a summarizing figure 12. There is a column for each theme of internationalization, networks and industry related factors and every unit describes a key finding followed on its right side by conclusion what the finding more specifically means. With this figure I intend to make a clear statement of what has been discovered, but I recommend also paying attention to the whole chapter, as the matters are discussed in more detail within the paragraphs above.

Summary of key findings					
Internationalization	Conclusions	**Networks**	Conclusions	**Industry related factors**	Conclusions
The case firms are Born Globals, instant strategy to internationalize	Supports INV theory, role of Internet and DD are very important	Networks other than to retailer are not necessarily needed to internationalize	Opposed to Network model of internationalization. Networks are still very important in terms of market knowledge, business advice, visibility and finances	Digital Distribution	Major aggregator of internationalization as it almost eliminates barrier of entry. Possibilites of DD in other industries in the future?
Psychic distance affects sales of these knowledge-intensive firms with DD	Supports Uppsala model. Cultural and business differences between Western and Asian countries leads to localization & culturalization of products	Network development: Phase 1: Local - Phase 2: Domestic - Phase 3: International ties	At early phases firms need mentoring, later they become mentors. Network development is gradual despite the firms are Born Global	Tough competition	Low barrier of entry in digital game industry leads to large amount of firms and need for visibility
Lead markets are important for case firms	Small domestic markets such as Finland are not enough to generate sales in knowledge-intensive and international industry	Earlier networks and experience affects network development	These factors speed the process and allow firms to enter straight into international networks	Retailers concentrated in number, markets overall dominated by biggest companies	SMEs should specialize or develop niche products and get contacts to retailers to ensure visibility
Internationalization mode is either to partner with publisher or implement independent strategy	A firm has to have either networks to retailers and marketing expertise or seek to partner with publisher. The mode affects value chain and strategy of sales & marketing	For case firms networks do not correlate on how markets are entered	Opposed to Network model of internationalization. The case firms rarely need physical presence or offices in target markets with the exception of Chinese markets	Regulation	Sometimes prohibits sales and entry, e.g. China
Biggest challenges in internationalization are visibility, competition and limited resources	For SMEs with scarce resources and networks, publishers (partnering) might be more important in the future	High communality of Finnish game industry	Mentoring between companies, formal networks developing into informal, competitive advantage in global scale, local hubs are important for securing communality in future	Technological turbulence	Which platforms and monetization models succeed in future? Opportunities might arise from new innovations.
		Events and trade fairs are the most important venues for establishing ties, but online networking tools such as LinkedIn are also used	F-2-F contacts are the best for building trust		

Figure 12 Summary of key findings.

6.3 Limitations of the Study

The main limitation of this study is its relatively small scope. All of the ten (10) case firms come from small and open economy, Finland, and it has to be noticed that there are thousands of game studios worldwide, operating basically in the same global markets. An obvious limitation is that the firms are part of the same industry, which can limit the generalizability of the results. It could be questioned is the context heavily specialized? This paper argues that the context is not too unique as many high-tech and knowledge-intensive firms and industries can be related to case firms. For example study of Andersson (2004) has already indicated that context of industry and environment can affect internationalization behavior. Regarding the theories used, Uppsala model, INV theory and Network model of internationalization, they are supposed to explain internationalization of firms, but all have different emphasis on how it happens which means there is a need to study how firms internationalize (Arenius et. al. 2005, Zander et. al. 2015). Therefore I would argue that various contexts, including digital game industry, should be studied to develop our knowledge of internationalization process as a whole and the results of this thesis can be generalized to similar firms and industries.

On deeper level, the case firms have a few differences. First, there is variance in size of the companies, but none of them is a major corporation, thus they can be classified as SMEs. Second, they produce their games to various devices, for example to PC, consoles (XBOX, Playstation, WiiU) and mobile platforms of iOS (Apple), Android and Windows. All of the companies develop digital games so other kinds of games (for example board- and card games) that are not played with technological devices are outside the scope of this research. A firm can specialize to produce their games only in one or some of those platforms or it can be project dependent choice which do they use. Thus, firms in this study operate in different platforms, but with the unifying aspect of developing digital games. Third, the companies come from different areas of Finland, which can affect to some of their actions, but as game industry is highly international, it should not be a major differentiator. As the firms come from one country and from one culture environment, they can be compared reliably which helps the study to be more precise.

Managers' role and entrepreneurial orientation could have been more carefully studied within the case firms as they are SMEs and CEOs have significant influence on the decisions of particular firm. It was conscious decision to put more emphasis on the firm level as the theoretical framework used as a whole best represents this view. Moreover, the interview answers represent opinions and statements of CEOs and managers. Actually, it would provide fruitful future research to investigate managerial decision making within digital game companies more in detail.

To limitations could be also counted that this research is conducted by a single person with limited amount of time and other resources, and whose lan-

guage skills is constrained to Finnish and English, which are factors resulting the number and origin of firms studied. I still believe ten (10) cases is sufficient enough to provide reliable answers to research questions in this multiple-case qualitative study. The thesis might have benefitted from several data gathering methods, but as pointed above, time and resources were limited in this sense.

7 CONCLUSIONS

The purpose of this study was to explore internationalization and networks in the context of knowledge-intensive SMEs from small and open economy. The topic is relevant to study further as it is debated how firms internationalize (Arenius, Sasi, Gabrielsson 2005; Zander, McDougall, & Rose 2015). From the network perspective how relationships are utilized (Coviello 2006) and how external and internal ties generating knowledge source aid internationalization (Fernhaber & Li 2013) are unclear issues in today's literature. As data I used ten interviews of managers/CEOs of Finnish digital game companies to conduct this multiple-case study and through this context is was also possible to evaluate whether industry related factors affect internationalization, which is also a matter needing further evidence (Andersson et. al. 2014; Fernhaber & McDougall-Covin 2014). Widely recognized concepts within the field of internationalization, Uppsala model, INV theory and Network model of internationalization, were selected to form the theoretical framework of this research and the results were analyzed concerning these earlier findings. More specifically, this thesis sought to answer following research questions:

1. How do digital game companies organize international sales?
2. How do digital game companies network to internationalize?
3. How do industry characteristics affect internationalization and networking of digital game companies?

The contributions of this thesis were identified within the rivaling theories of Uppsala model and INV theory, as well as network model of internationalization. There are several angles in the study which makes it rather multifaceted. The case firms' internationalization from inception is explained by INV theory (Oviatt & McDougall 1994), but the problem is that psychic distance negatively affects their sales process to culturally distant markets and before possibly modifying the products, the firms tend to gain sales mainly from culturally similar areas, supporting Uppsala model (Johanson & Vahlne 1977). Curiously, the finding is opposed to what Johanson & Vahlne (2009) currently state that the role of country borders and psychic distance would be diminishing, but with these highly international companies with access to DD psychic distance actually is a major factor prohibiting internationalization and sales.

The reason these companies are INVs is strongly related to industry characteristic of DD and to the fact that the industry itself is highly international. The finding uncovers that internationalization is enabled and required by these attributes. The evidence from data also highlighted the small domestic markets as a factor affecting internationalization. Attributes of DD and small domestic markets combined with tough competition in the industry are "pushing" the case firms into global markets from the inception. On the other hand, internationalization is very much based on the decision of case companies to either

adopting customer-supplier relationship with publisher or working independently with the aid of DD. In this situation the decision is often evaluated through financial and visibility factors. For the reason that DD was such a major factor in internationalization, I suggest that knowledge-intensive firms with access to DD should be further investigated to clarify their stance with the current literature.

The internationalization behavior is further complicated by the fact that without relevant previous networks or experience, new firms developed their networks gradually from local ties to domestic relationships and finally international networks. Even though the firms' intentions are international, the network development process evolved this path because international networks are hard to establish without reputation and recognition. This thesis cannot state that networks are mandatory for internationalization of the case firms, a finding opposed to what Johanson & Vahlne (2003; 2009) explain with network model. This is because the firms are technically able to sell their products with very minimal investment in networking, but I have to acknowledge that networks were important part of the internationalization and sales process as there was evidence that networks increase performance of the companies by allowing them to gain market knowledge, business advice, visibility and finances, all essential for the performance of these SMEs. On top these factors, the network within Finnish game industry provides competitive advantage for case firms because there is exceptional communality where these traditionally formal ties develop into informal ones and the companies aid each other.

To tie the findings together, it appears that no single existing theory can fully explain the internationalization of the case firms in this thesis and the theories have to be somewhat combined to understand the findings. I believe the current internationalization theories are very much complementary in the lines of Coviello & McAuley (1999) and they all explain certain aspects of internationalization. It could mean that the theories used in this research are applications to a more general concept of firm internationalization, yet unrevealed despite valuable information gathered and deducted in earlier literature. Yli-Renko, Autio & Tontti (2002) have already suggested that knowledge-based theory of firm internationalization could explain broader area of this phenomenon and based on the findings of this thesis, internationalization behavior should be studied further to uncover these issues.

7.1 Managerial Implications

The research was very practically oriented in the sense that it describes real case companies and their behavior. This enables managers of other knowledge-based SMEs to learn from the results and evaluate their own operations based on what was found. Especially digital game companies and other Internet firms with possibility to DD should especially pay attention to the findings.

It should be noted by managers in highly international industries, such as game industry, that after setting up a company there is little time to gather knowledge before entering international markets. If for example game development starts when the firm is founded, managers should already in this phase take into account how are they selling their product and are there culturally bound factors. Regarding game companies, I suggest that they should first develop a game that is either culturally neutral or one that they are able to sell first in Western markets. Another possibility is to develop a game that fits Asian markets, but that likely requires special expertise and partners.

To gain the knowledge, networking should be started as early as possible to first establish local and domestic relationships, followed by international ties whenever possible. Especially Finnish game developers should utilize the communality within the game industry to build their networks and get mentors to help in business decisions. I would encourage experienced managers to aid newcomers within their timetable, as the new developers might have very fresh ideas that are worthwhile to investigate and provide mutual benefits. If there is a possibility for new firm to gather networks before setting up the business, it is highly recommended as relationships are likely to aid the business. I would suggest that new firms build their networks first in local and domestic areas and then leverage the existing ties to gain meaningful international contacts.

Regarding mode of internationalization managers should have clear strategy whether the company wants to be independent or establish supplier-customer relationship. The strategy can be changed, but in this decision I would emphasize a clear focus on what the firm wants. Because of challenges in gaining visibility and selling the products, the supplier-customer relationships are becoming more important in knowledge-intensive industries if firms do not have previous networks and marketing expertise themselves, which is common among SMEs.

Managers in knowledge-intensive industries should recognize how impactful DD can be if it is available. Especially in game industry, the competition is fierce with hundreds of new products coming to markets every day and the industry is very hit-centric, which is common in the creative field. This means that only few companies and products in the end are successful. Because large companies easily end up dominating the market of mass-appealing products with their seemingly boundless resources, SMEs in the knowledge-intensive field should focus on niche markets, which is possible today with DD. Changes regarding the value chain with future technologies or trends should be monitored to be able to remain flexible.

7.2 Suggestion for Future Research

As firms with DD pose a dilemma for our current understanding of internationalization, these types of firms should be target of future research. It would be important to illustrate the factors affecting on how and why the firms inter-

nationalize and is DD major aggregator of internationalization. On broader scale, industry related factors affecting internationalization is a topic which we have been able to merely scratch the surface. One could delve deeper to industry characteristics to provide more data on what industry related factors there are (1) and do they correlate on internationalization process (2). For example mentoring and communality in industries of small and open economies could be an interesting research area. Overall the situation about industry related factors demands various studies across different fields to develop our understanding further.

The localization aspect of products, in the context of this study digital games from Western countries to Asia, should be more carefully studied. This gives opportunity for small and open economies such as Finland to potentially grow their exports in sector which is not yet utilized as heavily as it could be. As the individuality may rise also in Asian countries in the future there may be more need for custom-made products rather than standardized fit-for-all commodities.

The digital game industry is still in turbulent state and prone to rapid changes. Thus, it is also a difficult subject to sustain research as the information can easily become outdated regarding industry needs. Moreover, the impact of digital games in our culture and economics is important enough to justify increasing number of studies also in this field. In current literature, there is more information about digital games in general, but much fewer studies of the game companies and the business side. It could be beneficial for further studies to focus on specific platform (console, PC or mobile) to gain deeper knowledge of particular game companies and maybe allow even more specific cross-case analysis of the firms.

There could have been also another aspect to conduct this research by emphasizing more on entrepreneurial decision making of these SMEs. With this kind of focus network development of individuals could be tracked more carefully. This might be an area of interest if otherwise similar study is conducted. I believe especially the network studies would benefit from this kind of examination.

REFERENCES

Adler, P. S. & Kwon, S-W. 2002. Social Capital: Prospects for a New Concept. The Academy of Management Review, 27 (1), pp. 17-40.

Allen, J. & Kim. J. 2005. IT and the Video Game Industy: Tensions and Mutual Shaping. Journal of Information Technology, 20 (4), pp. 234-244.

Andersson, S. 2004. Internationalization in Different Industrial Contexts. Journal of Business Venturing, 19, pp. 851-875.

Andersson, S., Evers, N. & Kuivalainen, O. 2014. International New Ventures: Rapid Internationalization Across Different Industry Contexts. European Business Review, 26 (5), pp. 390-405.

Arakji, R.Y. and Lang, K.R. (2007). Digital consumer networks and producer-consumer collaboration: innovationand product development in the video game industry.Journal of Management Information Systems, 24, pp.195–219.

Arenius, P., Sasi, V. & Gabrielsson, M. 2006. Rapid Internationalisation Enabled by the Internet: The Case of Knowledge Intensive Company. Journal of International Entrepreneurship, 3, pp. 279-290.

Autio, E., Sapienza, H. J. & Almeida, J. G. 2000. Effects of Age at Entry, Knowledge Intensity, and Imitablitiy on International Growth. Atademy of Management Journal, 43 (5), pp. 909-924.

Bell, J. 1995. The Internationalization of Small Computer Firms: A Further Challenge to "Stage Theories". European Journal of Marketing, 29 (8), pp. 60-76.

Bell, J., McNaughton, R., Young, S. & Crick, D. 2003. Towards an integrative model of small firm internationalisation. Journal of International Entrepreneurship 1, pp. 339-362.

Berman, B. 2012. 3-D Printing: The New Industrial Revolution. Business Horizons, 55, pp. 155-162.

Berman-Grutzky, M. & Cederholm, A. 2010. The Obstacles and Opportunities for Digital Distribution in the Video Game Industry, Today and Tomorrow. Master of Science Thesis, Stockholm, Sweden 2010.

Bilkey, W. J. & Tesar, G. 1977. The Export Behavior of Smaller-Sized Wisconsin Manufacturing Firms. Journal of international business studies (1977), pp. 93-98.

Bryman, A. & Bell, E. 2003. Business research Methods. Oxford University Press.

Cadin, L. & Guerin, F. 2006. What Can We Learn From the Video Game Industry. European Management Journal, 24 (4), pp. 248-255.

Cannone, G. & Ughetto E. 2015. Internationalization Flows of High-Tech Start-Ups: A Gravity Model. European Business Review, 27 (1), pp. 60-79.

Carlson, R. & Corliss, J. 2011. Imagined Commodities: Video Game Localization and Mythologies of Cultural Difference. Games and Culture, 6 (1), pp. 61-82.

Cavusgil, S. 1984. Differences among exporting firms based on their degree of internationalization. Journal of business research, 12 (2), pp. 195-208.

Cavusgil, S. & Knight, G. 2014. International Business. Pearson Australia.

Chandler, H. M. & Deming, S. 2012. The Game Localization Handbook. Second Edition, Jones & Bartlett Learning.

Chatfield, T. 2010. Hupi Oy: Miten Pelaaminen Mullisti Viihdeteollisuuden. Docendo.

Chetty, S. & Agndal, H. 2007. Role of Inter-organizational Networks and Interpersonal Networks in an Industrial District. Regional Studies 2007, pp. 1-13.

Chetty, S. & Blankenburg Holm, D. 2000. The Role of Business Networks in the Internationalisation of Manufacturing Firms: A Longitudinal Case Study. Advances In international Marketing 1, pp. 205-222.

Child, J. & Hsieh, L. H. Y. 2013. Decision Mode, Information and Network Attachment in the Internationalization of SMEs: A Configurational and Contingency. Birmingham Business School, july 2013.

Coviello, N. & Munro, H. 1997. Network Relationships and the Internationalization Process of Small Software Firms. International Business Review, 6 (4), pp. 361-386.

Coviello, N. & McAuley, A. 1999. Internationalisation and the Smaller Firm: A Review of Contemporary Empirical Research. Management International Review, 39 (3), pp. 223-256.

Coviello, N. 2006. The network dynamics of international new ventures. Journal of International Business Studies 37, pp. 713-731.

Corliss, J. 2011. Introduction: The social science study of video games. Games and Culture, 6, pp. 3–16.

Creswell, J. 2009. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.

Crick, D. & Jones, M. 2000. Small High-Tech Technology Firms and International High-Tech Markets. Journal of International Marketing, 8 (2), pp. 63-85.

Crick, D. & Spence, M. 2005. The Internationalisation of 'High Performing' UK High-Tech SMEs: A Study of Planned and Unplanned Strategies. International Business Review, 14 (2), pp. 167-185.

Czinkota, M. & Wesley J. 1981. Segmenting US firms for export development. Journal of Business Research 9 (4), pp. 353-365.

De Prato, G., Feijóo, C. & Simon, J-P. 2014. Innovations in the Video Game Industry: Changing Global Markets. Digiworld Economic Journal, 94, pp. 17-38.

De Villiers, M. R. 2005. Three Approaches as Pillars for Interpretive Information Systems Research: Development Research, Action Research and Grounded Theory. In Proceedings of the 2005 annual research conference of the South African institute of computer scientists and information technologists on IT research in developing countries (pp. 142-151). South African Institute for Computer Scientists and Information Technologists.

Egenfeldt-Nielsen, S., Smith, J. H. & Tosca, S. P. 2008. Understanding Video Games: The Essential Introduction. Routledge: New York and London.

Eisenhardt, K. M. 1989. Building Theories from Case Study Research. The Academy of Management Review, 14 (4), pp. 532-550.

Eisenhardt, K. M. & Graebner, M. E. 2007. Theory Building From Cases: Opportunities and Challenges. Academy of Management Journal, 50 (1), pp. 25-32.

Ellis, P. D. 2000. Social Ties and Foreign Market Entry. Journal of International Business Studies, 31 (3), pp. 443-469

Entertainment Software Association (ESA). 2014. Essential Facts About the Computer and Video Game Industry. Sales, Demographic and Usage Data 2014.

Entertainment Software Association (ESA). 2015. Essential Facts About the Computer and Video Game Industry. Sales, Demographic and Usage Data 2015.

Eriksson, P. & Kovalainen, A. 2008. Qualitative Methods in Business Research. Sage Publications.

European Comission. 2015. What is an SME? http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index_en.htm. Referred 13.10.2015.

Fan, T. & Phan, P. 2007. International New Ventures: Revisiting the Influences Behind the "Born-Global" Firm. Journal of International Business Studies, 38 (7), pp. 1113-1131.

Fernhaber, S.A. & Li, D. 2013. International Exposure Through Network Relationships: Implications for New Venture Internationalization. Journal of Business Venturing, 28, pp. 316-334.

Fernhaber, S.A. & McDougall-Covin, P. 2014. Is More Always Better? Risk Trade-Offs Among Internationalizing New Ventures. European Business Review, 26 (5), pp. 406-420.

Fromme, J. & Unger, A. 2012. Computer Games and New Media Cultures : A Handbook of Digital Games Studies. Dordrecht : Springer Netherlands : Imprint: Springer, 2012.

Gaudiosi, J. November 16th 2015. 'Fallout 4' $750 million game launch leaves 'Call of Duty' in the dust. Article in Fortune, referred 15.1.2016.

Ghauri, P. N., & Grønhaug, K.. 2005. Research methods in business studies: A practical guide. Pearson Education.

Granovetter, M. S. 1973. The Strenght of Weak Ties. American Journal of Sociology, 78 (6), pp. 1360-1380.

Greenspan, D., Boyd, G., Purewal, J. & Datum, M. 2013. Mastering the Game: Business and Legal Issues for Video Game Developers. World Intellectual

Property Organization, Creative industries No. 8. http://www.wipo.int/edocs/pubdocs/en/copyright/959/wipo_pub_959.pdf

Hiltunen, K. Director, Neogames. Phone interview, November 18th, 2015.

Hiltunen, K., Latva, S. & Kaleva, J-P. 2013. Peliteollisuus – kehityspolku. Tekes.

Hiltunen, K, Latva, S., Kaleva, J-P & Ronkainen, E. 2014. The Game Industry of Finland: Report 2014. Neogames.

Hollensen, S. 2007. Global marketing: A decision-oriented approach. Pearson education.

Johanson, J. & Wiedersheim-Paul, F. 1975. The internationalization of the firm - four swedish cases 1. Journal of management studies, 12 (3), pp. 305-323.

Johanson, J. & Vahlne, J-E. 1977. The Internationalization Process of the Firm-A Model of Knowledge Development and Increasing Foreign Market Commitments. Journal of International Business Studies, 8 (1), pp. 23-32.

Johanson, J. & Mattson, L.G. 1988. Internationalization in Industrial Systems - A Network Approach. In I. Hood, & J. E. Vahlne (Eds.), Strategies in Global Competition: 287-314. New York, NY: Croom Helm.

Johanson, J. & Vahlne, J-E. 1990. The Mechanism of Internationalisation. International Marketing Review, 7 (4).

Johanson, J. & Vahlne, J-E. 2003. Business Relationship Learning and Commitment in the Internationalization Process. Journal of international entrepreneurship, 1 (1), pp. 83-101.

Johanson, J. & Vahlne, J-E. 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. Journal of International Business Studies, 40, pp. 1411–1431.

Jolly, V. K., Alahuhta, M. & Jeannet, J-P. 1992. Challenging the incumbents: How high technology start-ups compete globally. Strategic Change 1 (2), pp. 71-82.

Jones, M. V., Coviello, N, & Tang, Y. K. 2011. International Entrepreneurship Research (1989–2009): A Domain Ontology and Thematic Analysis. Journal of Business Venturing, 26 (6), pp. 632-659.

Jonker, J. & Pennink, B. 2010. The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science. Berlin: Springer-Verlag.

Karjaluoto, H. 2010. Digitaalinen markkinointiviestintä. Esimerkkejä parhaista käytännöistä yritys- ja kuluttajamarkkinointiin. Docendo.

Kemppainen, J. 2008. Independent games: What they are and are they different. Master's Thesis, Digital Culture, Jyväskylä University.

Kerr, A. 2006. The Business and Culture of Digital Games: Gamework/Gameplay. Sage Publications Ltd.

Knight, G. & Cavusgil, S. 1996. The Born Global Firm: A Challenge to Traditional Internationalization Theory. Advances in International Marketing, 8, pp. 11-26.

Knight, G. 2000. Entrepreneurship and Marketing Strategy: The SME Under Globalization. Journal of International Marketing, 8 (2), pp. 12-32.

Knight, G., Madsen, T. & Servais, P. 2004. An Inquiry Into Born-Global Firms in Europe and the USA. International Marketing Review, 21 (6), pp. 645-665.

Kontinen, T. & Ojala, A. 2011. Network ties in the international opportunity recognition of family SMEs. International Business Review, 20 (4), pp. 440-453

Kotha, S., Rindova, V. & Rothaermel, F. 2001. Assets and Actions: Firm-Specific Factors in the Internationalization of U.S. Internet Firms. Journal of International Business Studies, 32 (4), pp. 769-791.

Krackhardt, D. & Hanson, J. R. 1993. Informal Networks: The Company. Harvard Business Review July-August, pp. 104-111.

Kuhn, K-A. 2009. The market structure and characteristics of electronic games. In Digital sport for performance enhancement and competitive evolution: Intelligent gaming technologies. IGI Global, United States of America, pp. 257-285.

Lappalainen, E. 2015. Pelien valtakunta: Miten suomalaiset peliyhtiöt valloittivat maailman. Atena Kustannus Oy.

Lauri, J. 2009. Internet-enabled internationalization: a study of the online independent gaming industry. Master's Thesis, International Business. Aalto University.

Madsen, T. & Gervais, P. 1997. Differences and Similarities Between Born Globals and Other Types of Exporters. International Business Review, 6 (6), pp. 561-583.

Mahnke, V. & Venzin, M. 2003. The Internationalization Process of Digital Information Good Providers. Management International Review, 43 (1), pp 115-138.

Mamis, R. A. Global start-up. Inc., August 38 (1989): 47.

McDougall, P. 1989. International Versus Domestic Entrepreneurship: New Venture Strategiec Behavior and Industry Structure. Journall of Business Venturing, 4 (6), pp. 387-400.

McDougall, P., Shane, S. & Oviatt, B. 1994. Explaining the Formation of International New Ventures: The Limits of Theories From International Business Research. Journal of Business Venturing, 9 (6), pp. 469-487.

Moen, O. 2002. The Born Globals: A New Generation of Small European Exporters. International Marketing Review, 19 (2/3), pp. 156-175.

Nahapiet, J. & Ghoshal, S. 1998. Social Capital, Intellectual Capital, and the Organizational Advantage. The Academy of Management Review, 23 (2), pp. 242-266.

Newman, J. 2012. Best before : videogames, supersession and obsolescence. Milton Park, Abingdon, Oxon ; New York : Routledge

Niipola, J. 2012. Pelisukupolvi: Suomalainen menestystarina Max Paynestä Angry Birdsiin. Johnny Kniga Publishing: Helsinki.

Nummela, N., Saarenketo, S. & Puumalainen, K. 2004. A Global Mindset: A Prequisite for Successful Internationalization? Canadian Journal of Administrative Sciences, 21 (1), pp. 51-64.

Ojala, A. & Tyrväinen P. 2011. Value Networks in Cloud Computing. Journal of Business Strategy, 32 (6), pp. 40-49.

Ojala, A. 2015. Geographic, Cultural, and Psychic Distance to Foreign Markets in the Context of Small and New Ventures. International Business Review, 24, pp. 825-835.

Oviatt, B. & McDougall, P. 1994. Toward a Theory of International New Ventures. Journal of International Business Studies, 25 (1), pp. 45-64.

Oviatt, B. & McDougall, P. 1995. Global Start-Ups: Entrepreneurs on a Worldwide Stage. The Academy of Management Executive, 9 (2), pp. 30-43.

Park, HJ. & Kim, SH. (2013). A Bayesian network approach to examining key success factors of mobile games. Journal of Business Research, 66 (9), pp. 1353-1359.

Petersen, B. & Welch, L. S. 2003. International Business Development and the Internet, Post-hype. Management International Review, 43 (1), pp. 7-29.

Preece, S., Miles, G. & Baetz, M. 1999. Explaining the International Intensity and Global Diversity of Early-Stage Technology-Based Firms. Journal of Business Venturing, 14 (3), pp. 259-281.

Rasmussen, E.S., Madsen, T.K. 2002. The Born Global concept. University of Southern Denmark Department of Marketing: Paper for the EIBA conference December 2002

Reunanen, M., Heinonen, M. & Pärssinen. Pelitutkimuksen vuosikirja 2013, pp. 13-26.

Rothaermel, F., Kotha, S. & Steensma, K. 2006. International Market Entry by US Internet Firms: An Empirical Analysis of Country Risk, National Culture and Market Size. Journal of Management, 32 (1), pp. 57-82.

Saarikoski, P. & Suominen, J. Pelitutkimuksen vuosikirja 2009, pp 16–33.

Sasi, V. & Arenius, P. 2006. International new ventures and social networks: Advantage or liability? European Management Journal, 26 (6), pp. 400-411.

Saunders, M., Lewis, P. & Thornhill, A. 2007. Research Methods for Business Students. Pearson Education.

Schweizer, R. 2012. The Internationalization Process of SMEs: A Muddling-Through Process. Journal of Business Research, 65 (6), pp. 745-751.

Sharma, D. & Blomstermo, A. 2003. A Critical Review of Time in the Internationalization Process of Firms. Journal of Global Marketing, 16 (4), pp. 53-71.

Simons, H. 2009. Case Study Research in Practice. SAGE Publications, Ltd, London.

Sinclair, B. 2015. “Gaming will hit $91.5 billion this year – Newzoo”. Referred 16.9.2015. http://www.gamesindustry.biz/articles/2015-04-22-gaming-will-hit-usd91-5-billion-this-year-newzoo

Sinha, P., Wang, M., Scott-Kennel, J. & Gibb, J. 2015. Paradoxes of Psychic Distance and Market Entry by Software INVs. European Business Review, 27 (1), pp. 34-59.

Sotamaa, O. 2010. When the Game is not Enough: Motivations and Practice Among Computer Game Modding Culture. Games and Culture, 5 (3), pp. 239-255

Svensson, G. 2006. A Quest for a Common Terminology: The Concept of Born Glocals. Management Decision, 44 (9), pp. 1311-17.

Terjesen, S., O' Gorman, C. & Acs, Z. 2008. Intermediated Mode of Internationalization: New Software Ventures in Ireland and India. Entrepreneurship and Regional Development, 20 (1), pp. 89-109.

U.S. Legal. Digital Distribution Law & Legal Definition. http://definitions.uslegal.com/d/digital-distribution/. Referred 12.1.2016.

Wei, PS. & Lu, HP. (2014). Why do people play mobile social games? An examination of network externalities and of uses and gratifications. Internet Research, 24 (3), pp. 313-331.

Wittbrodt, B. T., Glover, A. G., Laureto, J., Anzalone, G. C., Oppliger, D., Irwin, J. L. & Pearce, J. M. 2013. Life-cycle Economic Analysis of Distributed Manufacturing With Open-source 3-D Printers. Mechatronics, 23 (6), pp. 713-726.

Yin, R.K. 2003. Case Study Research. 3 ed. Thousend Oaks: Sage Publications

Yli-Renko, H., Autio, E. & Sapienza, H. J. 2001. Social Capital, Knowledge Acquisition, and Knowledge Exploitation in Young Technology-Based Firms. Strategic Management Journal, 22, pp. 587-613.

Yli-Renko, H., Autio, E. & Tontti, V. 2002. Social Capital, Knowledge, and the Internationalization Growth of Technology-Based New Firms. International Business Review, 11 (3), pp. 279-304.

Zander, I., McDougall-Covin, P. & Rose, E. 2015. Born Globals and International Business: Evolution of a Field of Research. Journal of International Business Studies, 46 (1), pp. 27-35.