THE CHOICE OF FINANCING INSTRUMENT IN GAME COMPANIES: WITH STUDY ON FINNISH START-UPS

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ABSTRACT

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Abstract

This study explores the funding choices of game companies in Finland, focusing on understanding the reasons behind these choices. The game industry is a growing industry, and Finland is an attractive country for the industry's international employees, as well as for international investors. The game industry is a significant cultural export industry for Finland, and external funding is crucial for its growth.

The research is conducted from the company level viewpoint, and the data collection method is qualitative research through multiple case studies with four interviews. The qualitative research method was preferred as it provides comprehensive answers, rich details, and in-depth information. The case companies are working in game industry, and companies are in different stages, providing a broader picture of the funding choices available to companies of different sizes and types.

There are diverse financing options available for game companies, but it varies which funding instruments are suitable for different projects, products, and teams. The study suggests that smaller funding options such as own money, public funding, and angel investors are used to build the product and team in the company's first phases, and when the company is growing, the company applies for bigger funding from venture capital investors. Additionally, the current situation and turbulence in financial markets were found to affect venture capital investors, leading to more careful investments. Overall, this study provides insights into game industry funding in Finland.

Key words
Game industry, funding, financing, funding instruments, business angel, venture capital

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Tiivistelmä

Tässä tutkimuksessa tarkastellaan suomalaisten pelialan yritysten rahoitusvaihtoehtoja keskittyen ymmärtämään, mitkä syyt vaikuttavat rahoitusvaihtoehtojen valintaan. Peliala on kasvava toimiala, ja Suomi on houkutteleva maa alalla työskenteleville kansainvälisille työntekijöille, sekä kansainvälisille sijoittajille. Peliala on merkittävä kulttuurivientiala Suomelle, ja alan kasvun kannalta ulkopuolinen rahoitus on ratkaiseva tekijä.

Tutkimus on tehty pelialan yrityksen näkökulmasta, ja tiedonkeruumenetelmänä on kvalitatiivinen tutkimusmenetelmä monitapaustutkimuksen kautta, ja se koostuu neljästä haastattelusta. Kvalitatiivista tutkimusmenetelmää käytettiin, sillä sen avulla saadaan kattavia vastauksia, monipuolisia yksityiskohtia, sekä syvällisempää tietoa. Tutkimukseen valitut yritykset toimivat pelialalla, ja ovat kasvun eri vaiheissa, jotta tutkimuksessa saatiin laajempi kuva erikokoisten ja -tyyppisten yritysten rahoitusvaihtoehdoista ja valinnoista.

Peliyhtiöille on tarjolla useita erilaisia rahoitusvaihtoehtoja, mutta erilaisten rahoitusvaihtoehtojen sopivuus erityyppisiin projekteihin, tuotteisiin, ja tiimeihin vaihtelee. Tutkimuksen mukaan yrityksen alkuvaiheessa rakennetaan tuotetta ja tiimiä pienemmillä rahamäärillä käyttäen esimerkiksi yrittäjän omaa rahaa, julkisia rahoitusvälineitä, sekä enkelisijoittajia. Yrityksen kasvaessa haetaan suurempaa rahoitusta pääomasijoittajilta. Lisäksi tutkimuksessa havaittiin rahoitusmarkkinoiden vallitsevasta tilanteesta ja turbulenssista johtuen riskisijoittajien tekevän nyt sijoituspäätöksiä entistä tiukemmin kriteerein. Yleisesti ottaen, tämä tutkimus antaa näkemyksiä pelialan rahoituksen tämänhetkisestä tilanteesta Suomessa.

Asiasanat
Peliala, rahoitus, rahoitusinstrumentit, enkelisijoittaja, pääomasijoittaja

Säilytyspaikka
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1 INTRODUCTION

1.1 Background

The gaming industry is a strongly growing industry worldwide, and it is even more significant than the movie industry. According to PwC’s report *Perspectives from the Global Entertainment & Media Outlook 2023–2027* (PricewaterhouseCoopers, n.d.), total gaming revenue is projected to increase from $227 billion in 2023 to $312 billion in 2027, and the sector is becoming a significant hub for creativity, consumer spending, and advertising. Gaming has also gained visibility in the entertainment and media industry, with video game-based movies and series (PricewaterhouseCoopers, n.d.).

From the viewpoint of the Finnish gaming industry, the topic is fascinating because the number of employees in the game industry is growing in Finland, and significant growth is expected in the future (Finnish Game Industry Report 2018, 2019). According to The Finnish Game Industry Report 2022 (Finnish Game Industry Report 2022, 2023), in the years 2021 and 2022, the Finnish game industry experienced challenges and faced uncertainty due to factors like Apple's new privacy policy and the macroeconomic turbulence caused by the war in Ukraine. Despite these obstacles, the Finnish Game Industry saw significant growth. Investments in Finnish game developer studios surpassed €300 million, which proves investors' interest in the industry (Finnish Game Industry Report 2022, 2023).

Finland is also attractive from an international viewpoint because of its skilled workforce and governmental grants for new companies. Also, global investors are interested in the Finnish gaming industry, and some promising studios have received significant funding rounds. There have been many successful game studios and games for international markets in Finland. The roots of successful game development in Finland are from the 80’s demo scene and amateur groups who have developed games as a hobby. The demo scene has created the foundation for Finland's current gaming industry culture. There are more than two hundred active game companies in Finland, and the gaming industry is focused on the international market (Finnish Game Industry Report 2018, 2019). Therefore, the game industry is one of Finland's most significant cultural export industries.

1.2 Scope and objectives of the study

The thesis aims to study how Finnish game start-ups choose their financing and which factors affect the choice of financing from the company's point of view. In particular, the purpose of the thesis is to increase the understanding of funding instruments and to focus on which factors lead companies to use particular funding or a combination of different funding instruments. The research question for the study is, *which funding instruments do game companies use, and in which situations do they use a specific funding instrument?* The sub-questions for the research questions are: *Why did the company choose a particular funding?* and *What are the advantages and disadvantages of different types of funding for the company?* The question is examined by focusing on company-level decision-making from the viewpoint of the game company.

There is existing Finnish and international research on start-up funding, planning the funding, and funding instruments, but the research is not specialised in the game industry. In Finland, there are few theses specialised in game start-up funding, but the research is narrower. Also, many current studies have used statistics as a source rather than qualitative research from the companies themselves. This thesis focuses on research on Finnish game company funding and which instruments are suitable for game start-ups. This study specifies which instruments are used and why the companies choose particular funding. The topic can be researched widely from different viewpoints, such as the viewpoint of the company leader or financier, but this thesis is limited to the company-level perspective.

1.3 Research structure

The study is divided into three parts. The first part is a literature review. In the literature review, I go through different financing instruments and reasons why companies need to apply for external funding. Then, I focus on the previous studies on how the companies choose the financing and which are the factories affecting the decisions. Funding choice theory is divided into two parts; in the first part, I go through the theory for companies which are applying equity-based funding for the first time, and in the second part is the funding choice theory for companies that have already applied and received equity-based funding. This division was made because the choice of financing is different for companies that have already received some financing, as this usually directs them to a specific following financial instrument. After funding instruments and the theory of funding choices, I go through the gaming industry in general and the characteristics of the industry concerning financing.

The second part of the study is data and methods, where I go through the chosen method, its pros, and cons, and why I chose it. Then, I went through the data collection process, how I collected primary data, the structure of data collection interviews, and how the data was analysed. The third part of the study presents the results and analysis of the study. There, I go through the findings of the primary data and combine them with the information from the earlier studies on the topic.

1.4 Use of AI

To transparency, I acknowledge that artificial intelligence software Grammarly and ChatGPT have been utilized to enhance the wording and grammar structure in the study. I have reviewed the study to verify its content to ensure that there are no errors or inaccurate descriptions.

2 LITERATURE REVIEW

This chapter reviews the various forms of funding for companies. First, going through company funding in general. Second, it presents public funding opportunities such as public grants, loans, and equity investments. Then, in the third section, going through private funding, which consist of entrepreneurs' own savings, banks, business angels, venture capitalists, and crowdfunding. The fourth section is the discussion about the choice of funding, and fifth section summarises the different funding options. Then, the section goes through the game industry in general. This study focuses on the company-level viewpoint and why the companies choose a particular funding.

2.1 Company funding

According to Knüpfer and Puttonen (2018, p. 31), the company can get capital from several sources, and the capital can be divided into equity and debts (Figure 1). Liabilities consist of, for example, bank loans - the company owes the bank a certain amount and pays it off with interest. Equity can be divided into external and internal equity. Companies are usually gaining capital by selling the products and getting cash flow, this is internal equity. Still, most companies need funding throughout its' lifecycle, for example for the growth and product development. Basically, the reason for obtaining financing is that the company's equity is not enough to make the necessary and targeted investments or to cover the costs (Kallio & Vuola, 2018, p. 39-40). The financing gives the company resources that it would spend a considerable amount of time with its own cash flow.

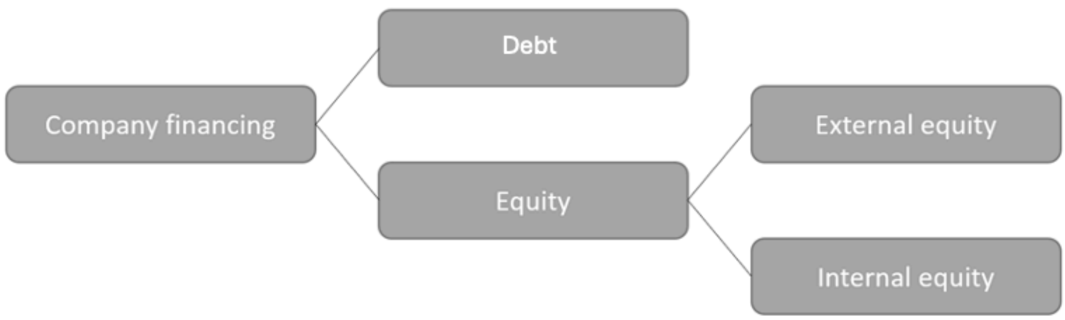

Figure 1. Company's capital types (Knüpfer & Puttonen, 2018, p. 32)

External equity is gained by share issues. The company is looking for the best price-benefit funding; on the other hand, the investors are looking for the best value for the money. Usually, funding is more expensive for risky investments, as investors demand higher returns on riskier investments.

According to Honkinen et al. (2016, p. 67), the lifecycle of a start-up is typically divided into pre-seed, seed, start-up/survival, later/rapid growth, and expansion. Funding grounds are commonly called Series Seed, Series A, Series B, and so on. The financing source depends on the company's current stage (Figure 2). When the company is at the pre-seed stage, there is a team and an idea, and the investment is used for product development and the first stages of the idea. At the seed stage, the company already has the tools and the first preliminary version of the product/service. At this stage, the investment is usually used to research, evaluate, and develop the idea or validate the business model. In the start-up phase, the investment is used for product development to start commercial manufacturing and sales. Then, in the survival phase, the company is already selling its products commercially but is not yet profitable, so the investment is used to cross the "valley of death." Once the survival phase is over, the company enters a rapid growth phase and aims to enter the international market; in this case, the investment accelerates the growth. (Honkinen et al., 2016, p. 67-68)

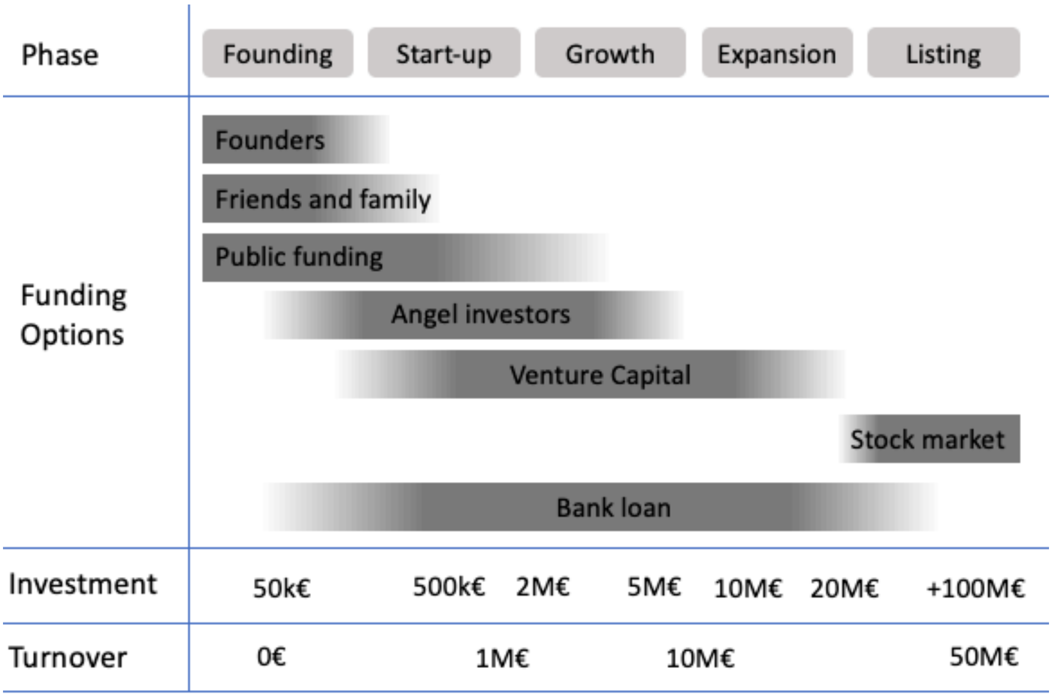

Figure 2. Funding sources at different stages of growth (Ahokas, 2012)

According to Honkinen et al. (2016, p. 67) and Lainema (2011, p. 19), the seed round is the start-up's first round of funding, typically implemented in the seed phase of the start-up. At this point, the investments usually come from business angels and are 10-20% of the company's shares (Honkinen 2016, p. 67). Honkinen et al. (2016, p. 67) continue that the Series A round is typically the first significant funding round for the company. In the Finnish context, the size of the series A round starts from less than one million euros to ten million euros, and the investment aims at product/service development and access to the markets.

Figure 3. shows there has been growth in early-stage start-up funding in Finland. Exceptionally, there has been a growing number of international investors. This is a positive sign for Finnish start-ups and shows that the value of Finnish start-ups has risen internationally. There are several reasons that have affected the phenomenon; for example, Slush has attracted the interest of international investors (Vimma, 2018). Also, the Finnish public funding system is attractive from the viewpoint of global investors (Nordgren, n.d.). Furthermore, there have been many successful Finnish start-ups which have been noticed internationally, therefore rising the reputation of quality of Finnish start-ups.

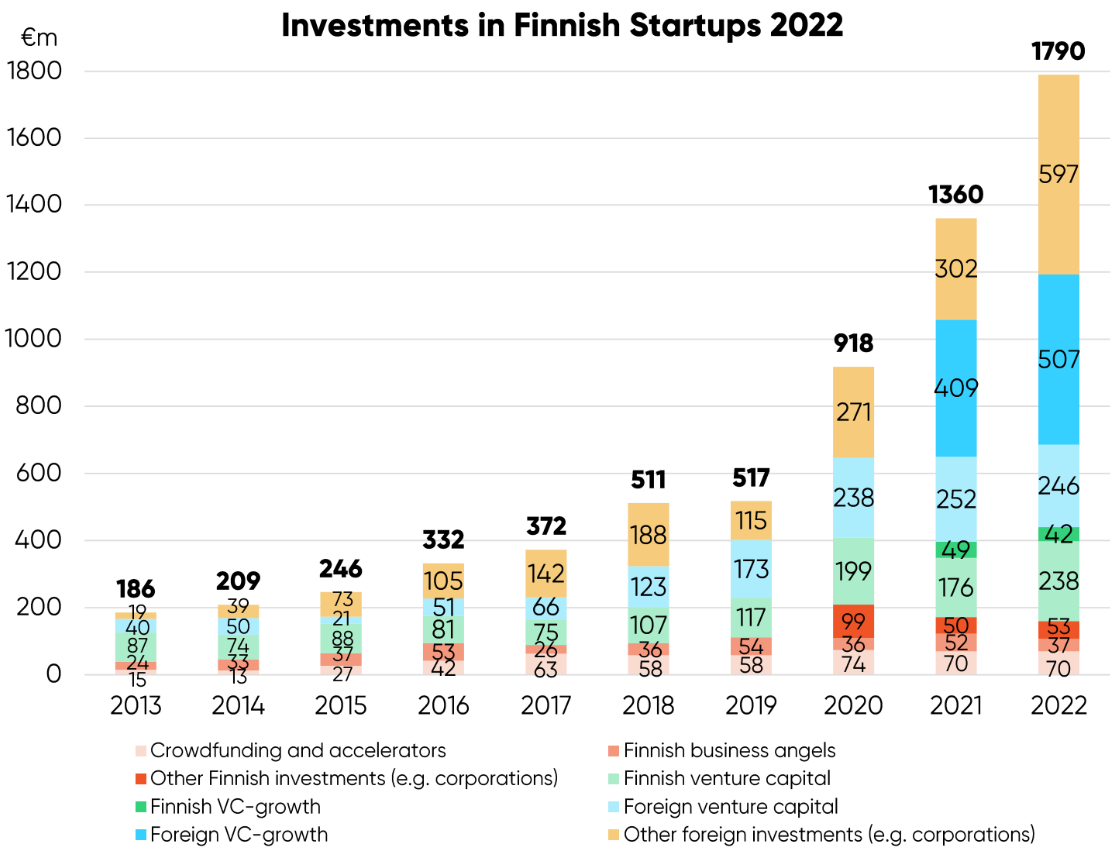

Figure 3. Start-up financing in Finland (Finnish Venture Capital Association, 2023).

2.1.1 Public funding

Several countries have noticed how the emergence of new businesses positively impacts the country’s economy. As a result, many countries offer companies, for example, grants and loans. Public funding primarily focuses on companies in the first steps: establishment and start-up. The public funding can be divided into grants, loans, and equity investments, and they are suitable for different phases and needs of the company.

In Finland, Business Finland offers public funding and loans for companies in different phases and needs, and the funding is intended for internationalization and R&D with its various funding programs (Business Finland, n.d.). In addition, in Finland, game companies can get grants from AVEK, such as DigiDemo and CreaDemo, for cultural content and development work in the creative industry (Kopiosto, 2023). The Finnish government also owns a capital investment company, Tesi, that invests capital in internationalizing companies on market terms (Tesi, n.d.). The Finnish government therefore supports companies with different funding options, and these options suit the various situations and needs of the company.

2.1.2 Private funding

When public funding mainly concentrates on the company’s establishment and start-up phases, private funding is needed when the company is developing further. There are many options for private funding, and the choice of the funding source depends on the company's current situation. Several things affect which funding source is suitable for the company, for example, the status of the company, the need for financing, the risk profile of the company, and the owner’s risk-taking ability. Below, we go through different options for private funding.

Own funds

According to Ahokas (2012), entrepreneurs' own funds are the most commonly used source for the funding. In this case, the control of the ownership and funding remains with the entrepreneur, without third parties. Of course, the risks are with the entrepreneur. Some funding options require that the company also has its own funding, so entrepreneurs’ funds are usually complementary alongside public funding and venture capital (Ahokas, 2012). Furthermore, entrepreneurs should also consider funding from their families. It is also said that entrepreneurs should rely on three F’s as long as possible (Lainema, 2011, p. 50; Parviainen 2017, p. 97-98), where these F’s are Family, Friends, and Fools. Parviainen (2017, p. 97) points out that a start-up in a seed stage might be a successful investment – but on the other hand, the entrepreneur often has no evidence other than his own words on this point, so it is also a risky investment. In summary, entrepreneurs’ own money and friends' and families' support are important financing options in the early stages of the company, as well as when applying for larger initial funding.

Banks

Companies can apply for funding or loans from the banks throughout their whole lifecycle. Bank loan is available for many different situations, for example, for investments, internal development, acquisition, and balancing the cash (Ahokas, 2012). There are several criteria for a bank loan. The most important criterion for a bank loan is the company's ability to repay the loan. Usually, loan security is needed. The bank determines the repayment capacity of the company and does not grant loans to overly risky applicants. As a loan security, the entrepreneur usually provides some personal property, such as an apartment, retirement savings, or bonds. Also, some private loan institutions grant a loan without security, but the interest expenses are higher than normal bank loans. Compared to other external funding instruments, such as business angels or venture capitalists, the decision-making stays in the company. To conclude, a bank loan is a good option if the company needs external funding but does not want third parties to control and own the company. Still, a bank loan is a suitable option only when the entrepreneur has enough loan securities, so it would be problematic for an early-stage company that still needs assets.

Business Angels

When entrepreneurs' own money has been spent, the company should consider funding outside the company. One option in the early stages of the company is business angels. Business angels are enthusiastic and experienced investors who want to share their expertise and funds with promising and interesting companies. Business angels invest money in the company and usually exchange it for shares, becoming owners. Usually, their share is 10-20%, and they want to participate on the board of the company. Typically, the investment is from 10 000€ to 150 000€. Furthermore, the company benefits Business angels because they provide their experience and knowledge to the company. (Ahokas, 2012; Lainema, 2011, p. 50; Parviainen, 2017, p. 98-99)

Often, business angels look for the investments that match their professional expertise. Usually, they want to participate to the activities of the investment, and self-development is important for them. Before making the investment, business angel evaluates company's business idea and business model, then they evaluate the owners and personal chemistry. According to Parviainen (2017, 98-99), business angels often join forces in syndicates with other angels, and they invest together in promising companies. He continues, that it is easier for business angels to find best deals when they are networked, because finding the most promising companies is not easy when you are alone.

According to the Finnish Business Angels Network, in 2019, business angels invested 54 million euros in 415 startup companies in Finland. In 2019, the company-specific median of a funding round was 240 000€, and individual business investment was 20 000€. According to The Finnish Venture Capital Association (*Venture Capital in Finland 2022*, n.d.), business angels typically invest in early-stage companies. According to Ali-Yrkkö et al. (2019), business angels generally invest in young and small firms; the median age ranges between 4 and 5 years. They also mention that their study shows that most of the business angel-funded companies made an operating loss in the investment year.

Venture capital

Venture capitalists invest their funds in unlisted companies with growth potential, intending to exit them after the prescribed increase in value has taken place (Honkinen et al. 2016, 71; Lainema 2011, 150). The venture capitalist is active in the company for a specified period of time in business development, after which it seeks to exit in accordance with the agreed plan for the company. The means are usually either selling the business to another company or listing it on a stock exchange. An increase in the value of the company is realised at the exit stage when the venture capital firm sells its holding.

Venture capital investing has investment-related risks that investors consider when making investments. According to Andersin (Andersin, 2021, p. 33), the investments which are made in the early stage are especially uncertain because the company does not yet have concrete proof of functionality. Andersin continues that many investments should be put down due to unprofitability. According to Lainema (2011, p. 51), venture capitalists enter the company's later growth phase. So, Venture capital funding it is not suitable for an early-stage company, because the company must already have a certain amount of evidence in order for VC investor to be interested in the company. To conclude, VC investing is high-risk investing, but on the other hand, the return expectation is also high.

At its best, the added value that a venture capitalist brings is invested capital, including expertise in strategy creation, overall financial arrangements, board work, budgeting, marketing, management system development, network, and industry knowledge. In addition, the involvement of private equity investors increases the company’s credibility with its other stakeholders and improves the possibilities for organising additional external financing. On the other hand, according to Andersin (2021, p. 37), in return for the benefits, the investors take the shares and decision-making power of the company, and a shareholder agreement can influence these matters. All in all, the company gets a lot of benefits from the investor, but in return, it has to give up part of the company and its control and comply with the conditions set by the investor.

VC investors have different preferences and requirements about what kind of companies they invest in. Still, according to Andersin (2021, p. 36-37), there are several common ranking criteria: team, product/service, target market, and scalability. The importance of the criteria is determined by the investor but also by the stage of the company. The earlier the company is in the phase, the more criteria are influenced by the team. In contrast, the selection criteria of the company in the later stage are influenced by product, result, and valuation (Andersin, 2021).

According to The Finnish Venture Capital Association (*Venture Capital in Finland 2022*, n.d.), Finnish VC funds have increased the amounts collected in recent years, and in 2019, the funds raised a record amount, a total of 384 million euros. Later ventures received the largest amount of funds (163M€), the second biggest part went to start-up phased companies (98M€), and the smallest part went to seed-phase companies (32M€). When comparing the industries in Finland, the ICT sector has received the most significant VC investments.

Crowdfunding

Crowdfunding means that the funding is collected from a large crowd and is usually used for a particular project or a single product. Crowdfunding has increased its position in recent years, becoming a popular alternative channel for early-stage companies' funding. Crowdfunding can be divided into two main categories: donation- and rewards-based crowdfunding and equity-based crowdfunding. There is also a third significant crowdfunding category, which is crowdlending. Typically, crowdfunding refers to funding raised through crowdfunding platforms. Popular crowdfunding platforms are, for example, Kickstarter and Indiegogo. In Finland, there are also platforms for crowdfunding such as Invesdor and Fundu. (Ahokas, 2012; Honkinen et al., 2016, p. 73; Kallio & Vuola, 2018; Vulkan et al., 2016)

In donation- and rewards-based crowdfunding, product development is funded with money donated by people – and in these cases, special consideration must be given to the fundraising law. In donation- and rewards-based crowdfunding, the money is requested free of charge, or for example, by pre-selling the product. When the crowdfunding is arranged on a crowdfunding platform, the company should provide compensation that is the size of the investment. That is why crowdfunding can be used as a pre-selling or pre-marketing campaign. On the other hand, the product must already be productized at that point. In crowdlending, the beneficiary obtains credit from the public. In return, the beneficiary pays interest and commits to repay the credit after the agreed deadline. Equity-based crowdfunding provides financiers a share of the profit of the company or project. In equity-based crowdfunding, the company issues shares, bonds, or other financial instruments to investors. This differs from an initial public offering, so the shares are not generally traded on the aftermarket (Honkinen et al., 2016, p. 74-76; Kallio & Vuola, 2018, p. 75-76, 79, 112, 117)

From the entrepreneurs' point of view, crowdfunding has several benefits. A set of financing allows the funding itself and the preservation of the rights, product development, design and artistic freedom, and direct interaction with fans. From the viewpoint of an entrepreneur, crowdfunding gives new possibilities for innovative products that do not get funding from traditional sources (Kallio & Vuola, 2018, p. 65; Määttä & Nuottila, 2016). Crowdfunding is voluntary, and an entrepreneur usually draws up the terms of the investment (Parviainen, 2017, p. 100). From this viewpoint, crowdfunding is not that profitable for the investor, because the terms of the investment are not for the investor to decide but are the favourable from the point of view of the invested company. Thus, it is better suited for projects where the investor has other motives than financial return (Parviainen 2017, p. 100).

Of course, crowdfunding has downsides when compared to VC and business angels. According to Bonini and Capizzi (2019), one of the challenges is that often the investor do not have the skills and capabilities to offer anything more than money for the company to support the growth and value creation – this is so-called "dumb money". Also, there are problems with legal regulations because crowdfunding is still a fairly young financial instrument, and countries have not been able to update legislation at the same pace (Bonini & Capizzi, 2019; Kallio & Vuola, 2018, 147). According to Walthoff-Borm et al. (2018) findings, companies usually use crowdfunding as "a last resort." This means that the companies resort to crowdfunding when other possibilities have been used and the company already has run out of its internal assets and debt capacity. They also mention that this might explain the relatively high failure rate of companies looking for crowdfunding. Kallio and Vuola (2016, p. 66) remind us that there is a default risk in crowdfunding because it is estimated that 90% of start-ups fail.

Strategic investment, corporate venture capital

There are also corporate venture capital investors, who differ from venture capital investors in that they are large companies who usually only invest their own funds (Andersin, 2021, p. 38). According to Hellmann and Da Rin (2020, p. 517), corporations invest in other companies with a strategic motive. Corporate can establish a CVC program, which looks for innovative entrepreneurial companies and start-ups and then directly invests in the company (Chesbrough, 2002; MacMillan et al., 2008). MacMillan et al. (2008) mention that CVC is one way for corporations to carry out, for example, research and development activities externally. According to Chesbrough (2002), CVC investment does not bind the corporation too tightly to the investment, and corporations can, for example, invest in companies that produce technology that is not the corporation's own technology standard. On the other hand, the company can invest in a startup that makes complimentary products or services.

CVC investment gives a large corporation the opportunity for agility and entrepreneurial spirit. According to Andersin (Andersin, p. 2021), making investments in startups is faster and cheaper to learn about new technologies than developing them within the company. Also, Andersin (Andersin, 2021, p. 33) mentions that some common reasons to make strategic investments are to make new contacts and expanding the services to the new market areas, and expanding company's own offering with the help of the investee company's technology. All in all, CVC investment gives the company access to a wide range of new innovations and can be applied to different industries in different ways.

Publisher

One possibility for funding a game project is the publisher. There is relatively little amount of literature on the subject, but the topic is talked about a lot regarding game industry funding. If the game has an external publisher, it is possible to get funding from a production company. In some cases, the company has already developed the game, and when the game is ready, the company will look for a publisher. In this case, the publisher mostly helps with marketing. When the publisher is used, the risk is usually small for the company, but so are the profits.

2.1.3 Benefits of an external investor

What are the benefits for the entrepreneur and the company of an external investor? Of course, when the funding instrument is carefully selected, both an entrepreneur and an investor benefit. When an investor receives value for the invested money, an entrepreneur gets from an investor, for example, network, experience, credibility, a board member, and, of course, money for company development. For example, the knowledge, networks, and support from a business angel or venture capitalist are essential resources, especially for early-stage companies with scarce resources (Lainema 2011, p. 147). These are essential factors that are influencing funding choices.

According to Schwienbacher and Larralde (2010), companies usually end up with VC funds, business angels, and strategic investors when the managers need additional support, such as sales, marketing, accounting, distribution, or other fields. From this viewpoint, investors have an essential value-adding role for the company in value creation (de Bettignies & Brander, 2007; Hellmann & Da Rin, 2020). According to Lainema (2011, p. 147-148), the company benefits more from the investor when the investor's profile and expertise meet the company's requirements. He continues that new companies may have difficulties recruiting, but a trustworthy and well-known investor will also bring credibility to the company in this sense. Furthermore, skilled investors will find more investors who will bring additional expertise, if needed (Lainema 2011, p. 149).

According to the findings of Ali-Yrkkö et al. (2019), companies funded by business angels perform better in terms of employment and short-term profitability when compared to nonfunded companies. Furthermore, the results show that receiving business angel funding increases the probability of survival. Chemmanur et al. (2011) study indicates that VC-funded companies' overall efficiency is higher at every point than non-VC-funded control companies. According to Hellmann and Da Rin (2020), the benefit of the investor is that they are interested in the company and help develop it. This is because, usually, business angels or VCs already have experience in the industry that they end up investing in. This is a benefit when comparing an investor, for example, to a bank debt. With a debt, lenders are no longer interested in a company after the company can repay the debt. Actually, according to Schwienbacher and Larralde (2010), debt is called "dumb money" because it does not give support. Also, de Bettignies and Brander (2007) show that bank debt would not add value to the company, but VC will.

According to Ahokas (2012), entrepreneurs should consider the responsibilities that external private investors require. For example, investments are business activities for external investors, and investors invest to get the profit for their investment. That is why the external investor, as VC or business angel, wants to control the activities and decision-making of the company. Also, nearly without exception, the investor requires a position as a board member. Then, a private investor seeks to exit a company within 3-7 years of their investment, and the exit is typically done by selling the entire company. (Ahokas, 2012)

There are differences between the funding instruments in how the investment is monitored and evaluated during the funding period. For example, the capital could be released at certain stages, so the risk is smaller for the investor. In staged capital infusion, the company is re-evaluated periodically, and this is a great way to control the owner and reduce potential losses and bad decisions. In the best scenario, the incentives motivate entrepreneurs to work harder to grow their startups. (Gompers & Lerner, 2010)

Of course, external funding has downsides, and the disadvantages must also be considered when choosing funding. For example, external investor is not suitable for all companies because external pressure is not suitable for all entrepreneurs. Also, if the company wants to have all the control over the decisions, then the external private investor is not a solution (Lainema, 2011, p. 143).

2.1.4 Choice of funding

In which phase should the company use each funding instrument, and how does the company choose the most suitable instrument? According to Knüpfer and Puttonen (2018, p. 34), companies need to find the most convenient way to fund the company so that both the company and investor benefit. That is why companies need to consider different funding instruments in different phases of the company lifecycle and analyse the most suitable financing instrument. For example, Lainema (2011, p. 143) recalls that if a company wants to keep control in its own hands, then external investor is not an option. Kallio and Vuola (2018, p. 40) remind us that when the company decides to rely on debt and liabilities, there is always an emphasis on the demand for repayment.

There are many reasons why the company is looking for funding. Additionally, companies have different financing needs in different life stages. The reasons for the funding are, for example, starting the company, development project, new product, international expansion, and many more. The things that affect the access to funding are, for example, the status of the company, the need for financing, the risk profile of the company, and the owner's risk-taking ability.

Although different funding instruments have been studied separately, the instruments should not be considered in isolation, as start-ups often use multiple funding instruments at the same time (Baker & Welter, 2014, p. 193). According to Baker and Welter (2014, p. 200), the various financial instruments have been studied in isolation because many of the research sources have been databases and not the start-ups themselves.

In the exploration of the reasons influencing the choice of funding instruments, de Bettignies and Brander (2007) and Fairchild (2011) remind us that the funding decision is made by a human being, so according to their study, the determination of funding options is not a purely rational process. The acknowledgement of the human agency in funding decision-making implies an interplay of emotions, personal experiences, and individual biases that contribute to the selection of funding instruments.

This part is divided into two parts: how the companies applying for the funding first choose the funding instruments, and the second part is about the companies that have already used and received the funding. This is because there are differences between these two types of companies and many times, the first received funding instruments affect the choice of later funding.

Companies that apply equity-based funding for the first time

Choosing the right funding source is especially important for new businesses because the financing decisions from earlier stages often affect the company's future, even at the later stages. According to Cassar (2004), the financing decision for a new business is essential for the company’s future, including the company’s economic situation, employment growth, competition, innovation, internationalisation, and future development. Also, the choice impacts the business operations and risks of failure.

According to Ahokas (2012) and Berger and Udell (1998), companies that are just established or in the early stages usually get funding from the entrepreneurs themselves and family. Additionally, public funding and its opportunities are also easily accessible for early-stage companies (Ahokas, 2012). Berger and Udell (1998) say that when the company grows, it will access intermediated funding from the equity and debt sides. When the company grows and remains, it might gain access to public equity and debt (Berger & Udell, 1998).

Cassar's (2004) study shows that startups that intend to grow are more likely to use bank financing. Still, debt financing usually requires stable company cash-flows and loan securities. According to Berger and Udell (1998), the smallest companies have problems reliably showing the quality of the company, which means that startups are unlikely to get bank loans or other debt financing. Also, Hellmann and Da Rin's (2020) study shows that banks are not usually interested in lending money to risky start-ups. Bottazzi and Da Rin (2002) sum up that banks are more interested in customers who have reasonably predictable cash flow and pay the debt in a short time period with a reasonable profit. Hence, when the company has significant intangible assets, years of negative earning expected, or uncertain prospects, the company should consider less formal financing as a business angel, venture capital, or crowdfunding (Cassar, 2004; Cosh et al., 2009; Gompers & Lerner, 2010).

Companies that have already received equity-based funding

Less formal funding instruments constitute significant investors for young companies and start-ups. Still, according to Ibrahim (2008), venture capital financing is not always available for early-stage companies immediately because most VCs fund companies that have already survived from the earliest stages. Also, the Cosh et al. (2009) study shows that young, innovative companies with high growth seek VC funding, but funding is not widely available and there are also significant rejection rates. The same direction also appears in Chemmanur and Chen's (2014) study, which indicates that venture capital firms invest in later-stage companies, while angel investors invest in early-stage companies. At this point, business angels are critical, filling the gap between VCs and entrepreneurs' own funds (Ibrahim, 2008; Wong et al., 2009). Fairchild (2011) presents that angel investors are more common because they are considered more trustworthy compared to VC because they can give more empathetic and trusting relationship with an entrepreneur.

Of course, there are also differences between industries in which financing sources are popular. For example, Chemmanur and Chen's (2014) study shows that VC funding is chosen for industries where there is more potential for VC to add value, for example, in technologically sophisticated industries. According to them, angel financing is used for less technologically sophisticated industries, and therefore, there are fewer opportunities to add value for the company.

It is also possible for companies to use multiple funding instruments. But in this case, it should be considered whether there is a conflict between different financial instruments (Bellavitis et al., 2017). For example, there could be a conflict between the interests of VC and crowdfunding. On the other hand, some instruments can be complementary to each other's. For example, business angels and VCs can be complementary if they are used in different stages – business angels in the early stage and VCs in a later stage. Additionally, Ali-Yrkkö et al. (2019) study shows that public R&D&I funding is typical among firms that are funded by business angels.

Furthermore, according to Kaiser et al. (2007), there are benefits to the syndication of investments, for example, if there is more than one VC. Then, there are second opinions from different sources, and syndication can potentially complement management skills. According to Dimov and Milanov (2010), alliances between two VCs are established to reduce the risks, especially when the projects are novel and uncertain for them. Also, according to Kerr et al. (2014), business angels syndicate investments with other business angels through semiformal networks. Especially business angels use syndication with other business angels when investing in riskier ventures (Wong et al., 2009).

Not all actors under the same financial instrument are always equal. Brander'sDe Bettignies and Brander (2007) study compares bank and VC financing. They conclude that VC investors usually focus on specific industries based on their experience. Still, investors should be compared to each other, as Brander'sde Bettignies and Brander (2007) study shows that bad VC is comparable to a bank loan.

2.1.5 Summary of company funding

The table 1. summarises the findings based on the literature review in section 2.1. In the table is listed the funding options mentioned in section 2.1, and it includes the advantages and disadvantages mentioned in the literature, which affect the decision-making from the entrepreneurs' point of view.

Table 1. Based on a literature review, the advantages and disadvantages of each funding instrument are summarized in the table below.

Funding instrument	**Advantages**	**Disadvantages**
Public funding	Small risk. No third parties. Easy for early-stage company.	
Own funds	No third parties.	Personal risk.
Banks	Decision making stays in the company. Suitable for different stages of the company.	Need for loan securities. Personal risk. No effort (from bank).

Business angels	No personal risk. Experience and knowledge. Networks.	Ownership of the company.
Venture capital	No personal risk. Experience and knowledge. Networks.	Ownership of the company.
Crowdfunding	Small risk. Pre-marketing. Direct interaction with fans.	Usually not profitable for the investor. No external experience and knowledge.
Publisher	Small risk. Help for marketing.	Small profit. For one project. No help for product development.

2.2 Game Industry

According to Määttä & Nuottila (2016), the game industry and its' big profits have attracted investors last years. Still, the problem with the game industry is that the succession is based on hits. Due to the industry's unpredictability, investors and publishers are evaluating the ability of gaming companies to succeed in the competition. Still, skilled companies get suitable financing as long as they have credibility. This has led to the need for competence requirements, and business understanding has increased. Figure 4. shows the size of the game industry globally, divided among different platforms.

The game industry consists of many different games and game consoles (*Finnish Game Industry Report 2018*, 2019; Lappalainen, 2015). Types of gaming can be divided into PC gaming, console gaming, and mobile gaming. There are significant differences in games for different consoles; for example, new artistic games for PlayStation are almost like movies; the games have stories, actors are real, and they are visually very impressive. Then, we can compare these movie-like games for the mobile games from different app stores, which are more software development than art. Of course, there is also a difference in the resources needed for the distribution. Big games need more effort in marketing and distribution than smaller mobile games. Also, bigger games have more significant risks because of higher development costs.

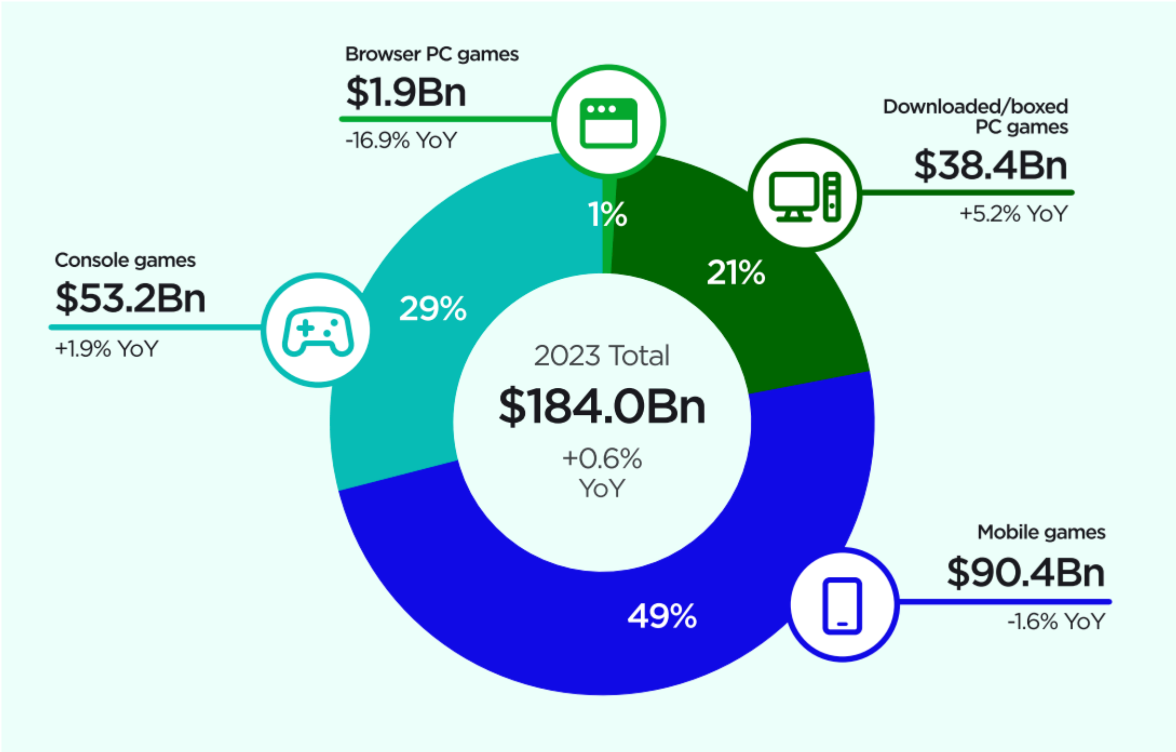

Figure 4. Global games market 2023. (Chen et al., 2023)

Game start-ups depend on an external investor due to the nature of the product. In this case, the game as a product is challenging because the development is expensive, and new companies do not have the product to sell to gain the funds (Lappalainen, 2015; Vimma, 2018). Game companies need external funding for game development, and the results are seen when the product is ready. Of course, this is extremely risky for the funders because there is no evidence of how the product will succeed in the markets. Sure, there are some things to avoid the riskiest investments, for example, test markets for the games. Also, in the game business, the team's reputation plays a significant role from the investors’ viewpoint.

2.2.1 Different game companies

Of course, all the game companies are not similar. There are different kinds of game companies, and the companies have different goals. Some companies aim for high growth and returns, while others are more likely hobbies. According to (Lappalainen, 2015 p. 297-299), game companies can be divided, for example, into five categories, which are settled companies, successors, hot startups, small indie studios, and companies set up by young first-timers.

Settled game companies are an essential foundation for the Finnish game industry. In Finland, settled companies are, for example, big studios such as Housemarque, Remedy, RedLynx, and Frozenbyte. Settled companies already have a lot of experience and knowledge, and these companies have survived through different phases and finally have settled in the markets. These companies are successfully making a profit, and each company employs 50-130 people. (Lappalainen, 2015)

According to Lappalainen (2015), Supercell and Rovio are great examples of successors, and these companies prove what companies can reach. Even if the company succeeds, it does not mean that the company succeeds all the time. It needs a lot of work to compete in the changing markets, where new competitors constantly emerge. The problem is that even the successors need to constantly react to the markets and create new hit games.

Hot startups are created by serial entrepreneurs with experience in the game industry. These companies are in a unique position and get big funding rounds even if the company itself still needs to have outstanding achievements. This is primarily because of the entrepreneurs behind the company and their earlier achievements. Of course, all these hot startups that collect big funding rounds do not succeed. And the investors might have high expectations for these companies. (Lappalainen, 2015)

Small indie studios are usually established by lifestyle entrepreneurs. These are small studios, which might create quality games, but the company management need more business and marketing experience. Therefore, small indie studios have problems to grow. Of course, not all indie studios want to grow. (Lappalainen, 2015)

Then, last group is game companies established by young first-time entrepreneurs. The hot industry has attracted many young people, but the company might need to be riskier for this group. It is unlikely that many companies from this group survive from the first years. (Lappalainen, 2015)

2.2.2 Game companies in Finland

Finland is internationally well-known for its' successful games in the last decades. The game industry has grown in Finland, and for example, according to Neogames (2018), there were 3200 people working in the game industry in Finland, when in 2016, the amount was 2750. Currently, the most popular platform for Finnish game studios is the mobile platform (*Finnish Game Industry Report 2018*, 2018). Over the decades, Finland has developed favorable conditions and know-how, which is what game development needs (Lappalainen, 2015). According to Lappalainen (2015, p. 10-11), there are several reasons for that, and this section goes through the reasons.

The Finnish game industry's roots date back to the 80's, when first Commodore 64 -computer came on the market. Then teenagers inspired in gaming and coding, which also created an active group of gamers. Demo groups were made, and these groups formed networks. Almost all the oldest Finnish game companies have roots in this demo scene. At the beginning of 90's Assembly, event was created. These were the beginning of the successful Finnish game industry. Because of the history, Finnish game developers are a close group, and the atmosphere and culture inside the industry also positively affects the success. Some entrepreneurs who established a game company already beginning of 2000 are serial entrepreneurs and working on new game studios. (Lappalainen, 2015, p. 11; Vimma, 2018, p. 22-24, p. 72-77)

Beginning of the new millennium, Nokia was successful in the mobile phone industry. Nokia outsourced game development for Finnish game studios. That time game production for mobile phones was a small business, but this helped many game studios in Finland to survive. Producing games for mobile phone platforms was not a money maker until Apple's iPhone was published in 2007. iPhone and Appstore started a whole new world for the game industry, and Finnish game studios got enthusiastic about the new distribution channel. (Lappalainen, 2015, p. 11-12)

One of the success factors in Finland is public funding. Public funding is a loan or a grant. Public funding is targeted to companies in all life stages for different kinds of projects. This is especially helpful for companies in the early stages because it is easy to apply. Tekes (now Business Finland) has invested in supporting the technology sector. In 2015, Tekes published a research on 10 years of Tekes funding and networks for the Finnish game industry 2004-2014, and according to the study, the revenue of the Finnish game industry has grown in 10 years from 40 million euros in 2004 to 1,8 billion euros in 2014. From 1996 to 2014, Tekes funded over 100 game companies with 70 million euros. According to Lappalainen (2015, p. 13-14), Tekes' funding helped the companies to gain an advantage over the international competitors.

Finland has had a startup boom in the game industry in the last decade. The atmosphere around entrepreneurship has changed in a more positive direction. Some reasons for the boom are, for example, startup accelerators and Slush events. The game industry is firmly located in Helsinki, but luckily, the role of other regions has grown in recent years, and there are more and more game companies in smaller cities. Also, universities in different regions have opened new education lines for the game industry. (*Finnish Game Industry Report 2018*, 2019; Lappalainen, 2015, p. 15-16; Vimma, 2018)

Due to the success of Supercell and Rovio, international investors are more interested in the Finnish game industry. For example, Index Ventures, Accel Partners, Sunstone Capital, and London Venture Partners have invested in Finnish game companies. Finland is also interesting for international game companies, and some of them have opened their office in Finland. (Lappalainen, 2015 p. 275-277)

2.3 Funding of game companies

According to Määttä & Nuottila (2016), the most crucial source of funding for game companies is the cashflow from products and services. Game companies need external funding, for example, to start up, develop, and achieve international competitiveness. External funding is essential when the company targets fast growth and global markets. In the gaming industry, financing is often front-loaded since the first game production and international marketing are resource-intensive.

Even if the game industry is booming industry, it takes work to get the funding for the companies. According to Lappalainen (2015, p. 275), even if there are a lot of international investors interested in Finnish startups, the most significant funding rounds go to the companies that already have experience. Therefore, it would be more difficult for newer and smaller game companies to get international funding and bigger funding rounds. According to Määttä & Nuottila (2016), during 2013-2015, risk financing often targeted startups set up by veterans with experience in successful gaming companies who also have a clear business strategy to operate in a competitive market. A clear plan, for example, to build your own product family or otherwise to grow the business, is an advantage when applying for financing. Often, investors want a clear growth plan that allows for significant wins if a hit occurs. The whole logic of risk investing is based on the fact that a few successes generate enough money for failure losses
cover.

Finland has a public funding system, which was created to keep Finland competitive in the field of innovation. Public funding opportunities play a particularly important role in Finland and make Finland an attractive place to set up a gaming company. In Finland, public funding is usually mainly focused on new companies at the beginning of the lifecycle of (Ahokas, 2012). Public funding comprises subsidies, grants, development loans, public loans, and equity investments. In Finland, public funding is offered by Business Finland, Finnvera, and Centre for Economic Development, Transport and the Environment. Loans and guarantees for the entrepreneur are provided in addition to banks, for example by Finnvera and Sitra.

One possibility for funding a game project is publisher, which is a strategic investment by a corporation. If the game has an external publisher, it is possible to get funding from a production company. In some cases, the company has already developed the game, and when the game is ready, the company will look for the publisher. In this case, the publisher mainly helps with marketing. When a publisher is used, usually the risk is small for the company, but so are the profits.

Also, crowdfunding is a good solution for funding a game company. One of the most significant advantages that game developers can achieve with crowdfunding is communication with the fans. According to Smith (2015), game developers and prospective players can communicate during the crowdfunding campaign by using polls, collecting feedback, and recruiting backers as testers. With other funding instruments, there is no possibility for this much interaction between developers and prospective players. Also, when using different instruments, it would be more expensive to arrange this kind of interaction between the fans and get possibilities to customize the game according to the fans' wishes.

3 DATA AND METHODOLOGY

This chapter describes the research design and method to approach the research question. First, the qualitative research is presented in section 3.1, then the data collection method is presented in section 3.2, and data analysis is presented in section 3.3.

3.1 Research method

For primary data, the data collection method is qualitative research, and the research strategy is multiple case studies. The primary data is collected through interviews and there are 4 case studies. The aim of the research is to get a good picture of game industry funding in Finland, and why the companies are using specific funding instruments. The primary focus of the research is equity-based funding.

The qualitative research method provided the most comprehensive answers for the points needed for the research when comparing to quantitative method. With the qualitative research it is possible to gain clear answers and a lot of information. It also gives the possibility for the interviewees to describe with their own words, getting deeper look to the topic. Therefore, it is possible to get the information about the things that the respondent feels important but were not asked. Qualitative research gives a possibility to focus on phenomenon and gathering explanations giving rich details and in-depth information.

With qualitative case studies, it is not possible to get as wide picture of the phenomenon, and it is not generalisable or transferable comparing to broader studies with larger number of participants (Saldana et al., 2011, p. 8). Still, the purpose of case study is not to get the wide picture of the industry, but to get but to get a broader picture of the reasons behind the choice of financing for companies of different sizes.

However, there are also disadvantages with the qualitative research. For example, some people are unable to answer because might not remember or maybe they are unwilling to respond for unknown interviewer. Sometimes the respondents answer the questions even if they do not know the answer or they just try to help the interviewer. It is also more time consuming to collect and analyse all the answers with qualitative method compared to quantitative. Analysing might be challenging in some cases because it is important to correctly understand the answers. There also might be divergent answers from different interviewees.

3.2 Data collection

Data for the study is collected through the primary data which is collected through qualitative interviews. The aim of the study was to obtain 4-6 interviews, and finally, 4 people gave consent to participate in the study. The theory is built from 4 case studies, where each case stands on an own analytic unit (Eisenhardt & Graebner, 2007). The sampling quantity is not representative and it does not provide credible findings, but it gives a broader picture of the topic (Saldana et al., 2011, p. 34). The reason for case studies as a sampling method is because cases are chosen for theoretical reasons, not statistical reasons, and the study does not aim at statistical generalizability. The aim of the study is that it will provide better starting points for future research on the topic.

The target case companies for the study are Finnish game companies that have applied for specific funding. The sampling method used is purposive sampling, which is a technique commonly used in qualitative research to identify and select the participants, focusing on individuals based on specific qualities they possess, as their knowledge or experience (Etikan, 2016). In this case, the participants were chosen by their earlier experience in the game industry and applying funding for the game company. The goal was to get different types and sizes of game companies to see how different game companies choose the funding instrument as broadly as possible. It did not matter if they had yet to get the funding because the purpose of the study was to find out why the company ended up with the funding. This allows to gather a broader sample of different companies and find out the various reasons for the choice of funding.

Primary data is collected by conducting interviews, more specifically, unstructured interviews. The unstructured interview allows a more flexible format, and it gives a possibility to get a deeper look at the interesting aspects that I have not even considered (Walliman, 2017). An unstructured interview is based on a well-planned question guide that helps to keep on track with the interview situation. The guide is built so that it starts from more general questions, leading to more specific questions, but it still makes the interview situation flexible. According to Saldana et al. (2011, p. 35), it is essential that all the questions provide some value for the research because the time during the interview is limited. That is why it is essential to have the question guide beforehand.

The interview guide's (appendix 1) first questions were grounding questions with the purpose to find out the interviewee's level of knowledge on the subject. Then moving to company related questions with the purpose to find out what kind of funding the company has applied for, what funding the company has received, for what purposes the funding has been used, and how the funding has affected the company. The last part of the interview's guide included the questions finding out the interviewee's opinions and experiences about different types of financing, and also a question about their knowledge and experience of other game companies funding solutions.

Interviews were conducted using online Microsoft Teams tools, not face-to-face meetings. In the interview situation, sound and a video were transmitted in real time. Through the video the facial expressions, gestures, and tones of voice were transmitted. The online video interview of course affected so that the visual signs are limited and might affect the responses. Still, the online tools help to avoid traveling, and the interviews can be carried out more quickly. Interviews are recorded for later transcription.

Table 2. Interviews, duration, and dates. Company names changed.

Interviewee	**Product**	**Duration**	**Date**
COO, MobileGaming	Mobile games	50 min	June 2023
CEO, NexGen Play	Mobile games	45 min	October 2023
CEO, NovaPlay	Mobile games	30 min	February 2024
CEO, Nexus Studio	Html5 games	35 min	March 2024

3.3 Data analysis

According to Yin (1994), data analysis is one of the most difficult processes in case studies because the results are not measurable. Walliman (2017, p. 151-152) also says that because qualitative data is difficult to measure, it is difficult for people's minds to process a lot of data, and therefore, the data should be simplified. The data can be facilitated by examining, categorizing, tabulating, adding data into diagrams or tables, or recombining the evidence (Walliman, 2017, p. 152; Yin, 1994, p. 102). When the data is transcribed, the most suitable analysing method should be chosen for the research.

In this study, the analysis can be done with pattern-matching, where the case studies can be compared with the previous studies on the topic to see if the patterns match (Yin, 1994, p. 107). According to Walliman (2017, p. 153-154), the data is put into smaller analytical units corresponding to the themes and explanations in pattern coding method. Finding the patterns from the case studies is suitable for this study because the study aims to find the reasons why the companies are choosing specific funding instruments. Then, the data can be compared to the previous studies on the choice of financing. Also, when simplifying the data from interviews, data can be split into table and used, for example, variables, age of the company, and funding instrument.

The interviews have been analysed by first transcribing the interviews. The interviews were transcribed using the Microsoft Word dictation tool, and afterwards, after several listening times, the text was improved by hand to fill in the misspelt parts. Data was anonymized during the transcription process. Each interview was saved as its own file with identification information. Also, a summary of each interview was written by hand afterwards, according to the transcription and recording. The summary included the main points and most important points for the research. The transcription was colour-coded, where each colour stands for the subject; for example, each mentioned funding instrument, and reasons to choose particular funding had its own colour codes. Also, any significant matters from the point of view of the research problem were colour coded. Colour coding was used to track the main points that were valid for the research. From the colour coding, the Excel sheet was made where the subjects were collected to their own sheets. The data was simplified by adding the data in Excel tables and finding the patterns from the summaries and data tables. Finally, the conclusion was written according to the findings.

4 RESULTS AND ANALYSIS

This section presents the main findings collected and analysed from the interviews. This section first introduces the observations of the collected data, including the funding options and choices, and then goes through the advantages and disadvantages of each funding instrument mentioned in the data. The second part includes the discussion, such as the findings compared to the previous research, study reliability and validity, implications for practice and future research ideas. The interviews were conducted in Finnish, so the quotes have been translated into English.

4.1 Observations

Based on the interviews, the same pattern repeats in the game of startup funding; companies start with smaller funding, such as own money and time, public funding, and angel investors. With this funding, the company starts to build the product, which allows it to apply for bigger funding from venture capital investors. The characteristics of the gaming industry become clear from the interviews, i.e. that funding is essential for the company to complete the product. The cost and time of manufacturing the product and the fact that there is no turnover without a finished product are the problems in the industry. It is crucial to make a good impression on investors, even if the finished product itself is not to be shown when applying for funding. In addition, there is currently a lot of competition in the industry, and it is important that the company's product stands out enough from its competitors to be successful and attractive to investors.

Networking became particularly important among all interviewees. In every interview, it came up that bigger funding had been obtained specifically thanks to networking. It is important that entrepreneurs have direct relations with investors or good recommendations through relatives. In general, VC investors focused on the game industry are more interested in the team itself than in the product. This means that it is important to get to know the investors and highlight the expertise of you and the team. Networking is also important in terms of allowing other companies in the same situation to advise each other. For example, finding grants and investors is a constant search, so it is important that the companies in the same business field help each other. The game industry in Finland is well-networked, and entrepreneurs are happy to help each other. Investors in the game industry are also well-networked, and they recommend investments to each other, so making an impact on one investor can mean investing from others as well, and vice versa.

In addition, the current situation and turbulence in the financial markets were brought up. This affects especially venture capital investors, who usually bring the biggest money for the game companies. This means less external money enters the funds and is distributed more precisely. The current funds have problematic investments, which leads to problems in generating value for existing investors, and makes investing less attractive, and existing funds are more carefully invested. In addition, previously no monetary contribution of any kind was expected from entrepreneurs, but now investors expect the entrepreneur to invest their own money in the company.

Of course, there are many kinds of funding instruments available, so venture capital investors are not the only option. Other options besides that are crowdfunding, angel investors, public funding, loans, friends and family, and subcontracting/work for hire. For example, now there is an increase in work-for-hire or subcontracting, with which making one's own games is financed by making games for another company. Anyway, it has been generally discussed in the industry, that product development is expensive, so to be honest, only risk investors' funding is in the category that supports product development and possibly also product scaling.

Usually, applying for funding starts by checking public grants and loans from Business Finland and Avek. Avek's Digidemo is a grant allowing companies to develop a demo that can be presented to investors for funding. Business Finland grants allow start-ups to do preliminary research and development or internationalization. Business Finland loans can be used for the company's different phases. However, to get the Business Finland loan, the company usually needs to partly self-finance the amount, so it is not possible to get a 100% loan. This means that the company needs its own money to apply for the Business Finland loan. Usually, this is own money, friends and family money, or an angel investor's money. In addition, public grants are intended for the development of a specific product or technology and not for the company's daily, ordinary expenses. This means that public funding cannot be the main funding source for the company; it is more of supplementary funding. The interviews show that Business Finland grants and loans are common and particularly valued in the game industry, and they are very important funding instruments in Finland.

According to the interviews, the companies are constantly applying for funding because it is important that funding is secured in the future as well. Usually, the funding is monitored so that the funding is secured for 1-2 years at a time.

> *All the time you have to keep in mind that you have to have enough money for a year's expenses. So you have to think about financing all the time. Once you have received money, you have to start thinking about the next funding application, how, from where and what kind of money. So, pretty soon we will have to apply for a new round of money. (CEO, Nexus Studio)*

> *Risk factors have been calculated that when we have more money in the bank, it gives us a little more room for changes, even if everything*

doesn't go quite as planned. It is necessary that money comes in to be able to maintain the existence of employees. (CEO, NovaPlay)

Also, all interviewed companies have combined different types of funding instruments, and they said that it is common in the industry. In particular, public grants and loans are used with other funding instruments, and public funding can be applied at different stages of the company. In these cases, public funding is usually used, for example, to develop new technologies, while other funding is used for daily expenses. This allows companies to develop other technologies and products alongside their main product if the main product is unsuccessful, i.e. the company is not left with only one product or technology.

The interviewees were familiar with the various financing options, as well as the purposes for which the options are suitable. On table 3 is listed the funding options which the interviewee mentioned, as well as funding applied, and funding received. From the table 3 we can notice that the company has applied only certain funding options, and the reasons are discussed in the next section. From the results we can also notice that the interviewees were aware of several financing options, but not all of the options have been applied for

Table 3. What funding the interviewee mentioned, applied, and received.

Company	**Funding mentioned**	**Funding applied**	**Funding received**
MobileGaming	Public funding, angel investors, VC, bank, own time and money, consulting/subcontracting	Public funding, VC	Public funding, VC
NexGen Play	Public funding, angel investors, VC, publisher, bank	Public funding, angel investor, VC	Public funding, angel investor, VC
NovaPlay	Public funding, loan, own time and money, angel investor, VC, institutional investors, crowdfunding, equity crowdfunding	Public funding, angel investor, VC	Public funding, VC
Nexus Studio	Public funding, friends and family, own time and money, angel investor, VC, crowdfunding, equity crowdfunding, work for hire	Finnvera loan, public funding, angel investor, VC, own money	Finnvera loan, public funding, angel investor, VC, own money

4.1.1 Funding options

Funding is often planned even before the company is founded because external funding is necessary for this type of startup company. For each funding, the company has to have a plan where the money will be used, to get the funding. Compared to the literature review and previous research on the subject, applying for funding follows a certain pattern. Based on the interviews, it can be concluded that following the pattern is important because deviating from it can make it difficult to get future funding. Of course, this does not mean that you absolutely have to follow certain funding cycles, but it is important to follow certain patterns.

In all interviews, certain types of financing came up, which came up already on the literature review. The funding options mentioned during the interviews were public funding, loans, own time and money, friends and family, angel investors, venture capital, institutional investors, crowdfunding, equity crowdfunding, work for hire, subcontracting, and publisher. Public funding includes public grants and loans, where the larger amounts are usually loans; but these can also be combined. So, there are funding options, and thus, they are suitable for different types of companies. Different types of funding instruments are used in different phases of the company.

As identified in the literature review, the interviews also showed that different financial instruments were used in different phases of the company. The companies interviewed were in start-up, growth, and expansion phases, and these observations apply now to the interviewed companies. In the founding phase, the interviewees started with their own time and money, financing from friends and family, angel investors, and public grants and loans. In the early stages of the company, these financings were the most easily accessible. When the company grows to start-up phase, the funding usually consists of angel investors, venture capital, public funding, and loan. Later, in a growth phase, the funding consisted of venture capital, public funding, and loans, and in the expansion phase, the funding options were venture capital and loans.

The results, therefore, suggest that there are some differences in funding options in the different phases of the company, and the options actually decrease as the company grows. It is worth noting that the company requires more money as it grows, which has a limiting effect on financing options.

> *In the initial rounds, there are more investors on the move, i.e. private individuals who have e.g. themselves received the money from the game, etc., and there are more smaller funds. When talking about the funding of millions, the number of funds is significantly smaller.*
> *(CEO, Nexus Studio)*

4.1.2 Funding choices of the companies

This section discusses the reasons why interviewed companies chose to use specific funding options in their operations. In addition, it presents direct quotations from interviews in which the interviewee discusses issues that influenced the choice of financing.

Although there are several funding options, we notice that the interviewed companies have ended up with very similar solutions (table 3.). Based on the interviews, the reasons why these options have been decided upon are also similar. In addition, it is common to apply and use different funding instruments simultaneously because they complement each other. As in table 4., the companies seem to have received the funding they have applied for. Still, according to the interviews, there have been dozens of applications for investors, but only a few of them have been received. On the other hand, in the end, the companies have had at least a few investors, from which they have been able to choose the most suitable one for the company. It must be mentioned that there is a limited amount of VC funding available, and for example, in Finland, there are only a few specific investors who invest in the game industry.

Between investors, companies have had to think about the most suitable investor for their company; in particular, the investor's conditions, values, operating methods, company culture, geographical location, and investor’s reputation have influenced the decision-making process. In general, the terms of the investors are good for the company because it is important for the investors that the entrepreneurs remain satisfied. Most companies have thought about how investors fit into their company’s culture and values, for example, in the way that the company has chosen an investor from whom it has received less money, because otherwise the investor was the best fit for their company.

The choice of financing options differs depending on the company's stage. In the company’s founding phase, the need for financing was smaller, so the funding consisted of money and time, public grants and loans, and perhaps angel investors. When the company grows, the needs for funding also grow, and the company moves to bigger money, i.e., venture capital investors. From the funding instruments that emerged in the study, crowdfunding, bank loans and friends and family money were not particularly popular among the interviewees.

The choices are also influenced by the certain path that investors assume the companies will follow. If the company deviates from the path that has become the norm, this can be challenging in terms of getting new investors.

> *They (investors) have certain expectations of companies at certain different stages. It is very, very systematically formed that there is pre-seed, seed, series A and so on. And if you say that you are at a certain stage, then they assume that the company is at a certain stage, which*

means that there is a certain amount of funding that has already been used in the past, and yes, it has a huge impact on that. It's hard to skip too many of those steps. It's challenging when you haven't gone through the basic steps and explain what the stage is now. It slowly becomes a situation that if you don't get involved in the game, it's hard to get involved in it later. (COO, MobileGaming)

A certain kind of path, i.e. first an angel investor and after a couple of years a seed or a funding round, but this can be different for different companies: sometimes you can deviate from the way you think is normal, and some funding rounds can be missed. Sometimes the company can grow bigger, quickly. But companies must strive to stay on this "curve", i.e. to keep growth at this pace. If the company does not grow at this rate but falls behind, it will not look good in the eyes of e.g. investors. (CEO, Nexus Studio)

The table 4. lists a summary of the reasons why the companies choose a specific funding instrument. Based on these matters, it can be noticed that different types of funding are used to achieve different goals. For example, public funding, publisher and crowdfunding are best suited for implementing a specific game project. If the company does not want to commit to implementing a specific project but wants free hands for possible changes, then more suitable options are own money, angel investors, venture capital and subcontracting.

Table 4. Reasons to choose a specific funding method.

Funding	**Reason to choose**
Own money Friends and family	Free hands for projects and development. No restrictions on how/where the money is used, no reporting/monitoring obligation.
Public funding	No need for a finished product when applying for financing. Can be applied on the funding phase. Can be used for game research and development work (for things that other investors' funding cannot be used for).
Publisher	Funding for a specific game project. There is no need to give up the company's voting rights. Marketing and distribution.
Bank	If no other financing is available, you can apply for a bank loan. No restrictions on how/where the money is used, no reporting/monitoring obligation.

	No need for a finished product when applying for financing.
Angel investor	Especially in the early stages of the company, for a smaller financing need.
VC	When larger financing is needed for the company's growth.
Crowdfunding	Funding for a specific game project.
Work for hire / subcontracting	Monthly income from another company, which allows to develop own products.

Table 5 contains direct quotes from the interviewees' answers regarding their reflections on how they ended up choosing or not choosing certain funding methods. The purpose of the summary is to bring out the thoughts of the interviewees about what kind of factors influenced decision-making when certain forms of financing were chosen or not chosen.

Table 5. Direct quotes of answers on how the interviewees chose the funding.

	MobileGaming	NexGen Play	NovaPlay	NexusStudio
Public funding	*Grants were applied for, because they are basically free money for the company. There are some things that have to be done and fulfilled and requirements […] and the company gets money from them so that the company can move forward.*	*In addition to other funding (angel investors and Venture capital), Business Finland grants were applied for. In public support, the monitoring and reporting of expenses must be accurate, and the company's credit rating must be in order.*	*There always has to be a project. The challenge and risk is inflexibility, i.e. perhaps due to legislation, you cannot finance the company's existence and basic operations. It's easy to come up with all kinds of technical ideas to get the money.*	
Angel investors	*We've talked to angel investors, but for the most part, we're already a little bit too big […] they usually want a bigger stake and to get in a little earlier relative to their money. It hasn't been applied per se, because it was determined very quickly that it doesn't necessarily make sense at this point.*	*Angel round was applied purely for starting the company, i.e. for the office and salaries.*	*Angel investors were considered at first, and they were found at first, but at that point, it was a mess, and we needed more time to think about what to do... (now) for the angel investors, the value of the company is already at a level where the angels do not find this suitable for them.*	
Venture Capital	*VC investors are the ones who gives the most money in the initial phase. They usually want previous experience from the founding members and a strong vision of what we are doing.*	*[…] most influenced by the term sheet, i.e. how many people on the board are from the company, and how many board members from investors, climate policy, etc […] The reputation effect has influenced […], and the fact that investors are different in Europe and the United States. It is important that the investor's values correspond to the company's values.*	*The important thing is that the investment supports the strategic line of the company that has been chosen and there is enough space and credit to not spend too much energy on selling and insuring. About US investors we thought that they are located on the other side of the globe, and in any case meeting corporate cultures and differences were things that were thought about.*	*If you start looking for investment money from private investors, you have to take into account that the investor's idea is to exit and sell the company at some point. In other words, even when applying for financing, it should be taken into account that the company will be sold at some point.*

Bank	*It was not felt that it was necessary […] a large loan requires a reasonably large turnover, which is not a realistic option for a couple of years in a product development company like this.*	*A bank loan has been thought about, but when applying for a bank loan, the company should already have income, so it is difficult for a gaming company that is just established.*	*It is really difficult for a new company to get, for example, a bank loan, quite impossible. Even if the person himself has a lot of experience in the field, if the company is new, banks will not trust what the company does.*	*A bank loan is always a hard loan, and it is difficult to renegotiate it. The bank usually requires a personal guarantee section as a guarantee, but I would never put personal money up as a guarantee because then it is too tied up in the company.*
Publisher		*For a long time, we were between the publisher and the investor, and we weighed whether we wanted to give up the voting power of the company or the ownership rights of the games. The final decision was made due to fact that very often mobile game companies make one really big hit that takes the company far: what if our big hit is stuck with the publishers. In general, VC investors can be allowed to make a deal with the publisher at a later stage, but if you are stuck with the publisher […] then that publisher may have the rights to your next hit games as well, so it is really difficult for you to apply for investor money at that point.*		*[…] the problem here is that the publisher invests in a certain game. So this commits the company to one game, and changing the product is problematic. The VC investor invests in the company and the team, not in a specific game, so even changing the product or other changes does not affect the investment. That is, the VC's interest remains the same, but the publisher's focus is only on one specific game. […] Also, the game has to be very advanced before the publisher is interested. […]. The publisher easily finances only marketing. So where does the money for the game's development phase come from?*
Crowdfunding	*In general, crowdfunding in mobile games is rarer, and also more challenging due to Finnish laws and regulations.*		*[…] we had different ideas about what we wanted to try, but […] there must be a certain game to get funding in order to get it published, but we were more of an experimental group that wants to try things quickly and did not want to commit to a specific product.*	*It used to be popular, but maybe it's not so popular anymore as a way to finance. There must be a really interesting product here to get people interested in investing. Here you have to tell right away what kind of game you are making and what it will be like.*

4.1.3 Pros and cons of different funding options

As discussed in previous sections, different types of funding are suitable for different purposes; they also have pros and cons. This section discusses the advantages and disadvantages of each funding instrument, according to the points which came up in the interviews. These points have also been summarized in table 6. These aspects have been highlighted in the study, as they contribute to the choice of financing and to why the companies did not end up with which financing options.

Table 6. Advantages and disadvantages of the specific funding.

Funding	Advantages	Disadvantages
Own time and money	Free to decide what to do.	It is your own responsibility to get something done. It is not easy to operate only with your own money and time. It takes a lot of time, and the company often gets stuck in this phase.
Public funding	Availability. For different purposes. Suitable alongside other financing. Basically "free money"	Accurate reporting and monitoring of money uses. Also needs other financing, cannot be the main financing of the company. It takes time to search for available grants and apply for them. Inflexibility.
Publisher	Financing without voting power in the company. A popular financing model. Publishing and marketing of the game.	Contract lengths. Ownership of game rights. Be careful with the terms of the contract. Cannot be combined with other financing. Is only used for one product, and changes to that product are difficult.

Bank	No restrictions on what/how the money is spent.	Personal guarantee. A large loan requires turnover. Challenging to get a bank loan for a new company.
Angel investor	Suitable for the initial stage of the company. Help from the investor for the company's operations.	Only for initial funding, difficult to get later. A large ownership for the investor. Small investments.
VC	Help with the company's operations from the investor.	Be careful with the terms of the contract. Difficult to get the funding as a woman leader.
Crowdfunding	Low risk financially.	Only for a specific project. It cannot be combined with other financing.
Equity crowdfunding	Low risk financially.	Difficult for game companies, because this instrument is usually used for loyalty programs. Give up some of the shares of the company.
Work for hire / subcontracting	Low risk financially.	Time consuming. The risk of not getting your own product ready. Difficult to combine with other funding options.

The most disadvantages were mentioned regarding the publisher model, bank loans, and crowdfunding; it is worth noting that the interviewed companies had not used those funding instruments, but still, all interviewees experienced these instruments in the same way. The study did not find out whether this was because there was insufficient information about these financing models or because they were not suitable for the company in question.

The advantage of using your own money and time is that you can make the product exactly what you want and with your own timetable. Anyway, according to MobileGaming, it would be very time-consuming to work on the product by yourself, and it is your responsibility to get something done. Usually, game companies that operate only with entrepreneurs' own time and money get stuck and will not get the product ready to release. According to NexusStudio, another solution is to work as a subcontractor when the entrepreneur is working for another company to make games. With that money the entrepreneur can develop own products. NexusStudio brings up that the risks of subcontracting is that it is time consuming to make own game when working for another company. Also, it would be difficult to combine with other funding instruments, such as angel investors or venture capital, because for the investors, it is important that the entrepreneur works only with the funded projects.

Public funding is a very popular funding instrument in Finland because it is easily available, can be used by companies of different sizes, and is suitable for combining with other funding instruments. All the interviewees had used public funding for several projects. According to MobileGaming, Public funding requires accurate reporting and monitoring of money uses, which may be seen as heavy compared to the amount received. In addition, it was mentioned in the interviews that making funding applications is time-consuming, which makes this instrument less attractive. In particular NovaPlay brings up the point that public funding is also quite inflexible and cannot be used for the company's daily expenses. Also, applying public funding means that funding should be actively sought, as funding is published at different times of the year for different operators. NexusStudio and NovaPlay also mentions that public loans have been seen as difficult, as they usually require a self-financing component, i.e. own money. For an early-stage company, it is important that meaningful results are achieved in the short term; But the problem with public funding is, that the results are seen only in a long term due to the characteristics of the funding.

According to NexGen Play the publisher model is growing its popularity as a funding instrument for the game companies. In that case, the company does not have to give up decision-making power to others or give up the company shares. Anyway, the funding is focused only on a specific game project, and usually the product must already be ready to some extent in order to get the publisher interested in the product. The publisher is suitable when the company needs help with publishing and marketing the product.

> *However, the trend seems to be a shift to more publishers, because due to the market situation, it has become more difficult to get VC funding, while publishers have become more active and funding is more easily available. (CEO, NexGen Play)*

According to all interviewees, bank loans were considered a big risk, as banks require personal guarantees. None of the interviewees had applied for a bank loan, and they did not want one, as the risk of putting their own finances at risk was high. With the risk, they mean that the danger in a bank loan is the fact that the bank requires the applicant's own assets as a guarantee for the loan, and in addition the bank's inflexibility in repayment. Also, NovaPlay mentions that banks do not like to finance early-stage companies easily. Unsecured loans with high interest rates are also problematic, and this option was not used. As an advantage, the bank loan is suitable when the entrepreneur does not want to give up the shares or decision-making power to others.

> *A bank loan is not that bad when you need a little money and don't want to give up your shares but there is the personal risk that usually has to be concerned. (COO, MobileGaming)*

NexGen Play and NovaPlay had received angel funding, which is usually applied in the initial stages of the company. As advantages they have seen, that there are many options for angel investors, and terms can be negotiated. The problem with angel investors was that the angels wanted a relatively large share of the ownership, but the amounts of money were not particularly large. Because of this, angel investors are suitable for the initial stage of the company, and it is no longer suitable when the company grows larger.

Venture capital investors are popular among companies with strong growth and development needs. It became clear during the interview that investors usually like to invest in a group, and the leader investor makes the decisions. This has advantages and disadvantages. In the first place, the company gets several investors, but if the lead investor chooses not to invest in later funding rounds, the company will lose many investors. If several investors withdraw from the company, this looks bad in terms of getting new investors because even if investors withdraw from the company for reasons unrelated to it, it is difficult for the company to convince new investors.

> *There are a lot of risks in VC funding, because many entrepreneurs do not know the investors, nor their thinking or where the money comes from, because the money is other people's money, for which the investors are responsible. The entrepreneur has no understanding of the owners of the money. There have been situations where entrepreneurs have been required to go in some directions, which may not really make sense, or the team is not motivated to do so. (CEO, NovaPlay)*

If the investors have been correctly chosen, it helps the company to apply more funding in the future. In addition, when acquiring investors, the company must be ready to give up part of the ownership and decision-making power and note that the investor's purpose is to exit the company when the company grows to a certain point. Furthermore, Nexus Studio mentioned that the investment industry is very male-dominated, and as a woman, getting investments has been challenging.

Crowdfunding has been quite popular, but according to the interviews, popularity has dropped. According to Nexus Studio and NovaPlay, crowdfunding is a low-risk way of raising funds for a specific project, but there must be a really interesting product to get people interested in investing. When leveraging crowdfunding to fund game development, it's important to have a clear understanding of the intended game vision before the development phase. While game development inevitably involves some level of evolution, it's crucial for the company to accurately present their plans to the crowdfunding community to ensure the final product matches investor expectations. Therefore, it's important to provide a detailed overview of the concept while allowing for flexibility during the development process to ensure the game can take shape as intended. Furthermore, the problems of crowdfunding in terms of Finnish legislation were mentioned, which makes it difficult to use crowdfunding. Also, Nexus Studio mentioned equity crowdfunding, i.e., money for the company shares, as an option, but it is not particularly suitable for the gaming industry, as loyalty programs, for example, are not easy to implement in gaming.

4.2 Discussion

The thesis aimed to understand why Finnish game startups choose certain funding instruments. It investigated the funding options available to Finnish game startups and their reasons for selecting specific funding instruments. The study was conducted through qualitative research with four Finnish game startups, and the collected data was compared. Below, the study's results are discussed.

Findings contrasted in the prior study, and similarities can be found from the prior research. Especially the characteristics of the game industry can be seen from the study results; the external funding is crucial for the companies in the industry, because the companies need to build the product first, and after that, it is possible to get the cash flow. In addition, in the literature review, we noticed that certain types of investments are used for certain phases of the company, and investments follow a certain pattern. Based on the interviews, we notice that in reality, it is important that the funding follows this pattern, and that the company's growth follows the pattern. Also, the fact that investors often invest together in groups of several investors came up in the literature and the interviews. It can be noticed that there are similarities between literature and interviews; different financial instruments can be combined, but there are also financial instruments that are not suitable for use together.

The industry itself is challenging from an investor's point of view as it operates in the B2C sector. Since preparing the finished product takes time, its succession cannot be concluded in advance. It is easier to get financing in this field for B2B products, i.e. technology products, because this is more understandable for investors. In addition, the current situation of the financial market brings difficulties in terms of financing.

In general, the funding choice seemed to be influenced by a certain pattern that a start-up company should follow, as well as by the conditions of various financings and suitability for different kinds of gaming products or teams. A certain pattern must be followed when applying for funding so that the next funding rounds and the company's growth are easier. The industry has developed certain operating methods and an order for how a company should grow and apply for funding. In addition, the study noticed that funding varies based on certain types of products and the team's own preferences, values, operating methods and wishes.

4.2.1 Reliability and validity

There are some limitations to the study. Reliability and validity are based on objective reality and objective truth and are used to measure the results, and in this study the people interviewed might have biases affecting the results, which affects to the reliability and validity. According to Singleton and Straits (2018, p. 131-132), reliability means the consistency of the study, whether the study's result would be the same if it were repeated, and validity means whether the study measured what it was intended to measure, and are the results accurate.

Because the study was conducted with interviews, the reactive measurement effect is considered to be that people behave differently in different situations and in different companies when they know that what they say is being investigated and measured (Singleton & Straits, 2018 p. 133). In this study, this means that people may not want to bring up bad things in an interview, or things that make them appear in a bad light, when they know that what they say is being studied and published. Social desirability effect means that the interviewees prefer to agree on statements that the interviewer presents (Singleton & Straits, 2018 p. 133), but in this study this has been avoided by asking open-ended questions. In addition, according to de Bettignies et al. (2007), entrepreneurs' decisions have “bounded rationality” and “cognitive bias,” which lead to suboptimal decisions, also when the company is choosing the financing, which should be taken in account when the results are interpreted as it affects the results that are brought out in the study.

When considering the reliability and validity, the group of people studied was not very big, because there are over 200 game studios in Finland (The Finnish Game Industry Report 2022, 2023), so there can be no full certainty about the repeatability of the study. There might be errors due the researcher’s inexperience in making the study, which affects to the internal validity and repeatability of the study. Finding the interviewees for the study was challenging, which affected the number of interviews and choosing the cases for the study. The study was focused on game companies, so the results cannot be applied to all companies. Also, because the study was done in Finland, the results might not be useful for companies in other countries. Futhermore, there is a possibility of making mistakes when analysing the information because the skills and understanding of the researcher can influence the results. For this reason, direct quotations from the interviews have also been brought forward in the study so that the reader can conclude for himself whether the researcher has made the correct conclusions.

In any case, it is important to note that the results of the interviews corresponded well to each other, and the interviewees were very much in agreement about the issues. The same ideas about different financial instruments and their strengths and weaknesses were brought up in the interviews. In addition, the results of the interviews correspond to previous research on the subject. All the interviewees stayed on topic and gave important information exactly to the questions I asked them.

4.2.2 Implications for practice

From the entrepreurs' viewpoint, this study can be useful for newly founded game companies who are struggling with what kind of financing the company should apply. Game startups should be aware of the various funding instruments available and carefully consider their options based on their specific needs and goals. Understanding the general principles and challenges of start-ups in the broader start-up ecosystem and from the global perspective can benefit this study, but of course understanding the characteristics of their local markets when applying these insights.

Recognizing the preferences and expectations of different types of investors is crucial. Whether dealing with venture capitalists, angel investors, or public funding, the company should tailor their pitches and proposals to align the criteria of each investor category. In addition, it must be understood that different funding options are suitable for different products and companies in different ways.

From the perspective of a public investor, various public grants and loans are an important means of supporting companies, supporting the establishment of new companies, attracting international companies, and, in the long term, increasing tax revenues. Furthermore, in the best scenario, public funding supports the research and development to create new innovations that benefit the whole society.

Private investors, such as VC and angel investor, seek a higher return than investing in the stock market, which is why they invest in promising new companies, hoping for bigger profits when exiting the company. Especially in the gaming industry, it is important that the investor understands the industry in which they are investing as well as what they can expect from the company and what kind of demands they can make. For example, if the investor sets too high demands, the company's motivation towards the product may run out, and the investment will fail because of this. In addition, the investor must understand the importance of the team, because investors are usually sought in the industry precisely to complete the product, so the investor must make an investment decision before the final product is available.

4.2.3 Future research

In future studies, we can look at various ways of researching, exploring different industries, and considering other countries. This will help to make sure that the results are accurate and can be improved. For example, conduct a comprehensive study comparing funding trends and instruments across different regions and countries, and analyze the factors influencing funding decisions and the effectiveness of various funding models. Also, the differences in how the Finnish game industry compares to the game industry financing in other countries.

Further research into the impact of public funding on game start-ups is necessary to fully understand how government support influences innovation, job creation, and overall success within the gaming industry. The findings suggest that companies often utilize a combination of funding sources, indicating a need for additional investigations into the effectiveness of hybrid funding models that integrate traditional investment with alternative financing methods.

It is worth considering the possibility that investor preferences may undergo a shift over time, thus rendering it challenging to predict the long-term success of investments. Furthermore, it is crucial to take into account the potential impact of regulatory changes on the gaming industry, as this may have a significant effect on investment decisions. Additionally, there is a need to address concerns regarding the absence of reliable data on the success of emerging technology or AI-driven companies.

A possible area of further study could be to investigate the reasons behind game companies' decisions to go public and list on the stock exchange. This could involve analyzing the financial benefits and risks of such a move, as well as examining the impact it has on the company's operations and strategies. Additionally, understanding the motivations and goals of game companies when listing on the stock market could provide valuable insights into the broader gaming industry and its dynamics.

In addition, the male dominance of the investment industry was mentioned during the interviews, which might affect the funding of women-led companies. There could be a future research discussing the reasons why women-led companies receive less funding compared to companies led by men.

5 CONCLUSIONS

The focus of the study was on game start-ups' financing choices, which financing instruments the companies are applying, and why they are using particular funding. The difference to the more recent research is the focus specifically on start-ups in the game industry. The literature review consisted of the study of different funding options, their advantages and disadvantages, and the theory of when the companies apply for each kind of funding. Additionally, five Finnish game companies were studied with interviews to get an insight into how the theory is applied to game start-ups.

The study shows that for start-ups, from a financing perspective, it is especially important to network with other companies in the same industry and investors. Building strong networks with potential investors, both within and outside the gaming industry, can positively impact a start-up's ability to secure funding now and in the future. Establishing and nurturing relationships with investors can open doors to various funding opportunities.

Based on the research, the study highlights the importance of diversifying funding sources for game start-ups. Relying solely on one type of funding may limit financial and decision-making flexibility. Start-ups should explore a combination of funding instruments to mitigate risks and ensure growth. Understanding the dynamics of when and how to seek funding can enhance the likelihood of success in securing funding. Because of the characteristics of the gaming industry and the dynamics of financial markets, start-ups should stay informed about emerging trends and changes in the funding landscape.

Getting an external funding for companies has been important, even mandatory. Compared to more common industries, where company is financed with daily cashflow, the need for external funding is emphasized in game industry. External funding secures hiring employees, and other daily expenses, so that the production of the product is faster. Getting smaller funding has had the effect of getting bigger funding later. External financing is seen as important from the point of view of new investors.

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APPENDIX 1 Interview frame

Grounding questions:
- Would you tell me about your company?
- What financing options are available for your company/companies in the same industry?
    - How well do you know the different financing options?
    - Do you know through which / platforms companies can find different financing options?

Questions for the company:
- Tell me about your company's financial situation.
- What kind of funding has your company applied for, and for what purposes?
    - How/why did you end up applying for this/these funding?
    - How have you found different financing options?
- Have the terms of the money/advice influenced the choice? Has the reputation effect had an effect?
- Did you compete VC investors?
- At what stage of the company has any funding been applied for?
    - Has the phase in question contributed to obtaining specific funding?
- What kind of funding has your company received?
    - What did getting the financing in question require of your company?
    - How has your company benefited from this funding?
    - What is your opinion about the funding in question?
    - For what purpose has the company applied for/used the funding in question?
    - How important have you seen this financing for the operation of your company?
    - How would you see specific funding affecting the company's operations?
- Has your company considered a bank loan/crowdfunding / angel investment?

Common questions:
- What is your opinion on different types of financing? What experiences do you have with different types of financing?
- What threats or opportunities do you see in different types of financing for gaming companies?
- How useful do you see the different financing options for a gaming company?
- Do you have any experience/knowledge/have you heard about choosing the financing of another gaming company?