

Master's thesis

Degree Programme in Creative Design Management

2024

Antti Junttila

# Starting video game business in Finland with minimal financial investments



Master's Thesis | Abstract

Turku University of Applied Sciences

Degree programme in Creative Design Management

2024 | 52 pages

Antti Junttila

## Starting video game business in Finland with minimal financial resources

Game business is a very competitive form of entrepreneurship globally. Starting a game business with minimal financial resources requires connections and knowledge about business principles and legal basis in the country where the business is run. Any optimization of cost structure greatly increases the possibilities of the business surviving. Games themselves are usually not producing income to the business unless there are at least some playable versions available which enables the income either by premium or other viable business options. This thesis addresses the optimization of initial steps to starting a successful game business.

Thesis has a theoretical background regarding Finnish legislation, basics of game business and other related issues. The survey in this thesis was made by interviewing known Finnish game entrepreneurs and also by autoethnography. Interviews were made by Google Forms questionnaire and results were analyzed to determine the optimization of the game business initialization process.

As a result, the most viable option for the business form would be either a limited liability company or a sole proprietorship depending on the plans to expand business and acquire additional partners. Clearly the largest expense was the labor force as expected. This expense could be diminished by using either secondary or tertiary education students by offering them internships in their on-the-job learning studies in the initial phase of the business.

Keywords:

Business, entrepreneurship, video game

Opinnäytetyö YAMK | Tiivistelmä

Turun ammattikorkeakoulu

Degree programme in Creative Design Management

2024 | 52 sivua

Antti Junttila

## Peliliiketoiminnan käynnistäminen Suomessa minimaalisilla taloudellisilla resursseilla

Peliliiketoiminta on erittäin kilpailtu liiketoiminnan muoto maailmanlaajuisesti. Peliliiketoiminnan käynnistäminen minimaalisilla taloudellisilla resursseilla vaatii sekä yhteistyötä että tietämistä liiketoiminnan periaatteista ja laillisista näkökohdista liiketoiminnan kohdemaassa. Suomessa liiketoiminnan olosuhteet ovat maailman mittakaavassa suhteellisen ankarat työvoiman korkean hinnan ja korkean verotuksen takia. Tästä syystä mikä tahansa kulurakenteen optimointi parantaa merkittävästi liiketoiminnan mahdollisuuksia selviytyä. Pelit itse eivät ole yleensä kannattavaa liiketoimintaa ennen kuin ainakin jonkinlainen pelattava versio on olemassa, joka mahdollistaa vähittäismyynnin kertahinnalla tai muun toimivan liiketoiminnan. Tämä opinnäytetyö käsittelee menestyvän peliliiketoiminnan ensiaskelia.

Tässä opinnäytetyössä teoreettinen tausta muodostui Suomen lainsäädännöstä, peliliiketoiminnan keskeisistä perusteista ja muista niihin liittyvistä asioista. Tutkimus, jota tässä opinnäytetyössä käsitellään, sisältää tunnettujen suomalaisten pelialan yrittäjien haastattelun ja autoetnografian. Haastattelut tehtiin Google Forms -työkalulla ja tulokset analysoitiin parhaiden käytänteiden määrittämiseksi pelialan yrityksen perustamisvaiheeseen.

Tuloksien perusteella paras yritysmuoto pelialan yritykselle on joko osakeyhtiö tai toiminimi riippuen tulevaisuuden laajentumissuunitelmista. Selkeästi suurin kuluerä yritykselle on odotetusti työvoimakulut. Yrityksen kuluja voi pienentää tarjoamalla joko toisen asteen tai korkea-asteen opiskelijoille harjoittelupaikkoja heidän työssäoppimisensa aikana yrityksen toiminnan alussa.

Asiasanat:

Yrittäjyys, liiketoiminta, videopeli

# Sisältö

<b>1 Introduction</b>	<b>9</b>
<b>2 Video game business in Finland and abroad</b>	<b>11</b>
2.1 Specific features of video game business product distribution	11
2.2 Monetization in video game business	12
<b>3 Initial procedures of starting a business in Finland</b>	<b>13</b>
3.1 Legal requirements considering the entrepreneur	14
3.2 Difference between an employee and an entrepreneur	15
<b>4 Game business relevant forms of enterprise</b>	<b>16</b>
4.1 Sole proprietor	17
4.2 Limited liability company	18
4.3 What business type to select for a video game business venture?	19
<b>5 Expenses of business ventures in Finnish environment</b>	<b>21</b>
5.1 Personnel expenses	21
5.2 Premises	22
5.3 Devices, software and utilities	22
5.4 Other expenses	23
5.5 Summary of expenses	23
<b>6 Questionnaire to game business companies</b>	<b>24</b>
6.1 Header and instructions of the questionnaire	24
6.2 Questions and answers	25
6.2.1 The establishment year of the business	25
6.2.2 The form of the business	26
6.2.3 The positions of the respondents in the company at the phase of establishment	27
6.2.4 Description of the initial establishment costs when the business was established in general level	27

6.2.5 Description of the sources of the financial resources to the establishment of the business	28
6.2.6 Limitations in the usage of initial financial resources in case it was external	29
6.2.7 Hiring of employees in the initial phase of the business and the expenses	30
6.2.8 Acquiring premises for the company in the initial phase of the business	30
6.2.9 Acquiring utilities for the business in initial phase of the business	31
6.2.10 Acquiring devices and software in the initial phase of the business	32
6.2.11 Other costs in the initial phase of the business	33
6.3 Maximum number of employees in the first six months of business	33
6.4 The part of Finland where the business resides	34
<b>7 Business case: PolarStorm OY</b>	<b>35</b>
7.1 Lessons learned	36
<b>8 Best practices in optimization of expenses and in video game business</b>	<b>39</b>
8.1 Personnel expenses	39
8.2 Optimization of personnel expenses	40
8.3 Premises	42
8.4 Optimization of premises expenses	42
8.5 Utilities	43
8.6 Optimization of utilities	43
8.7 Devices and software	45
8.8 Optimization of devices and software	45
8.9 Other expenses	46
8.10 Optimization of other expenses	47
8.11 Best practices of PolarStorm OY	48
<b>9 Conclusions</b>	<b>49</b>
9.1 Success of the research project	49

9.2Results of the research	50
9.3Results in action	51
9.4Further development	52

## **Appendices**

Appendix 1. Questionnaire about starting a video game business and the expenses related to it



# 1 Introduction

Running any business in Finland is regulated legally in multiple ways. In case the business discipline selected would be video game business, matter turns even more complex as the business field is the entire world by the fact that the distribution method in the gaming industry is Internet-based, yet the legislation in business requires complying with Finnish law and regulations. Finland has been an advanced country in game business for years. Many higher-level and secondary education institutions include game design, game programming and graphics. When a business is started, however, the initial phase of the business venture requires financial resources. This thesis research methods and practices which optimizes the usage of financial resources so that the new business venture does not go bankrupt in its initial phase for the lack of funding as the game projects are seldomly under circumstances of any chargeable fees in advance. The target group for the research questionnaire was located by determining Finnish game industry businesses who had identifiable management who were also present in the business when it was established. This was detected by combining available information from the business web page and other resources on the Internet such as LinkedIn, where the position of the person in the company is possibly available. Besides this, the possible target persons for the interview were determined by request of possible contact information from personnel in game business-related educational institutes.

The research describes financial legislation and limitations which relate to different forms of business ventures in Finland and projects the results of the questionnaire with them. The result of the questionnaire combined with the legal issues and possible sources of income produce optimization so that the future game business under scrutiny is started with minimal financial resources. The theoretical background relies on business legislation and game industry related statistics and information.

Game business is very competitive in the sense of the number of titles published on a daily basis. There are dozens of publications and to even be found in the middle of the title bombardment by the consumers, the game product must either have positively eccentric characters, significant marketing budget or some other factor which makes the difference in the awareness of the end consumers. As such, the entire game development budget can use nearly half of it to the marketing just to capture the attention of the end consumers.

There are possibilities to diminish the initial investment in the company. Most of them rely on cutting costs while there are some options to get initial funding from government-controlled instances which are not considered as a loan and thus have no obligation to be paid back. Costs in the Finnish business environment is vastly dominated by the salary costs and the collaterals in them which include social security, insurance and mandatory health plans for the employees. These costs can be addressed by collaboration with educational institutes who are eager to have on-the-job learning positions for the students. The premises and utilities are the secondary cost to the businesses. As current internet-related possibilities offer excellent remote working methods, the lack of office space could turn out favorable to a new business.

This thesis answers to following research questions:

- What are the most significant expenses when establishing a video game business in Finland?
- How can the expenses be minimized?

## 2 Video game business in Finland and abroad

In 2021, there were over 560 000 businesses in Finland (Tilastokeskus, 2023). In Finland there were approximately 230 active video game studios (Uusiteknologia.fi, 2023). According to Uusiteknologia.fi (2023) the cumulative turnover of video game business in Finland has been over 23 billion euros and has resulted in over 2,5 billion euros of taxes paid. Short supply of workforce is still plaguing the business and there are forecasts of at least 500 new positions in the business in the following two years. Recruiting in domestic employment markets is demanding due the short supply of specialists so the business targets recruitment to foreign markets also.

The video game business has grown from marginal business to mainstream form of business. Almost two thirds of American adults and 7 out of ten of minors in America play video games in regular fashion as there is a tendency for the younger portion of the grown-ups to play. Besides of this, the players consider the gaming both mentally and socially stimulating ("New ESA report shows gaming is no longer a niche market," 2020).

### 2.1 Specific features of video game business product distribution

Distribution in the video game business is dealt almost entirely online. In 2022, 5 of 6 games sold in US were distributed online ("U.S. computer and video game sales - digital vs. physical 2018 | Statista," 2019). In business sense, there is no reason to try to produce physical copies of any games for modern video game industry as the mere production and distribution expenses would both decrease profit and customer population as vast majority of any gaming devices do not currently include a removable media device or other way to install the video game product from any memory device. Besides of this, the progress in any reasonably designed video game product is currently stored to the game developer's cloud service in order to avoid a progress loss in case of corruption of game files or a loss of device.

The Internet being the primary sales and distribution channel, the target market area in maximum is global. Any language restrictions may differ. For example, the Finnish language is seldomly spoken abroad by people who are not Finns. This changes the competition scheme so that the video game business is very challenging to succeed in the global market. If the market would be just inside Finnish borders, the competition would decrease significantly. The only exception to global rule is the government-run monopoly of Veikkaus which runs online gambling in Finland by the mandate of the Finnish authorities. This 80 years old static legal issue is now under scrutiny ("Ajoiko aika monopolien ohi? Veikkauksen yksinvaltiuus horjuu Jo, Ja pian voi olla Alkon Ja apteekkien vuoro," 2023).

## 2.2 Monetization in video game business

Monetization has recently been under a debate in the video game business. In ancient days of the time before the internet, the premium model was the only way to sell games as there was no other way to collect the price for the product ("Pros and cons of various video game business models," 2021). When the product was published in carton box and sold in some of the removable media, the first public version of the game was also the very last one with all the features and glitches included. Current popular development methods such as live ops ("Understanding LiveOps, doing LiveOps," 2020) were not possible as there was no way of delivering updates or other material to the games. Free-to-play monetization (the product is free to use but includes items or services for sale during the play) is efficient only in case the payment system in the product is designed with one-click buy system or similar (Fallon-O'Leary, 2016), simple enough to allow the payment and purchase to be made in the middle of the game without hassle with payment cards or login credentials to other systems.

### 3 Initial procedures of starting a business in Finland

In Finnish regulation the entrepreneurial action is considered started when actual production or economic functions exist or when the business is added to value added tax register, taxation register or taxation official's employer register. Starting the business actions are the legal basis of the business despite not being registered to Finnish Business Register ("Milloin yritystoiminta katsotaan alkaneeksi?", n.d.).

Business of either sole proprietorship or limited liability company can be registered in Finland online without physically visiting any authorities. Business registration of limited partnership or general partnership do not require physical visit to authorities but are possible only with physical form which has to be sent to authorities. Business registration must be done in the Finnish Patent and Register Authority's business register and, if necessary, to taxation administration registers which consider the value added tax, taxation in advance and acting as an employer. Business register is public and thus should not include any information which is sensitive such as person identification numbers or other data which could harm either the company or the persons in it. ("Perustamisilmoitus," n.d.).

Registering a business has a registration fee in any business type in Finland. The registration fee for a limited liability company is 320 euros while the registration fee for a sole proprietorship is only 60 euros. Registration fee for both general and limited partnership is 240 euros and cooperative 380 euros ("Kaupparekisteri," n.d.).

### 3.1 Legal requirements considering the entrepreneur

When a natural person or persons establish a business in Finland, they are considered as entrepreneurs when certain criteria are met. Entrepreneur is a person who fulfills any of following criteria:

- Works for income without being employed or as a civil servant.
- A partner in general or limited partnership who has responsibility for the commitments of the company.
- A person who works in a management position in limited liability company or other type of a company IF
  - Person owns in limited liability company personally or by a holding company over 30 percent of the stock or has vote authority over 30 percent.
  - Person owns in limited liability company over 50 percent of the stock together with member(s) of person's family or has vote authority over 50 percent.
  - In other societies he works in management positions and has voting or other authority similar to described in two previous bullets.

Management position is considered when a person is working either as a chief executive officer or a member of the board or similar or any kind of real authority in the company. Family member is a person who is a spouse, child or a parent of the person and lives in the same household. When owning the company, ownership via companies or other entities is also taken in consideration (Self-Employed Person's Pension Act 1272/2006 3 §).

### 3.2 Difference between an employee and an entrepreneur

As described in the previous chapter, the entrepreneur is a different object from the aspect of the company than an employee. In Finnish legislation the employee is entitled to mandatory pension arranged by the company. This pension is carried within every salary paid with some exemptions like the minimum monthly salary for 41,89 euros or if the employee is less than 17 years or more than 70 years old or if the employer is entitled to a pension derived according to another pension law (Employees Pension Act 395/2006 4 §).

The employee social security contributions are a significant increase in business expenses where there are any employees. General rule of thumb is that the side expense (such as social security contributions) multiplier would be 1,3 for the employer when vacation salary is included and 1,5 when a voluntary health expenses insurance is added. Compared to the entrepreneur who has at least currently possibility to insure only by bare minimum which translates to equal of 8575,45 euros in 2023 ("YEL-työtulo | Työtulon vaikutus sosiaaliturvaan - Elo," n.d.). Therefore, the more the company has entrepreneurs, the more it has possibilities to avoid mandatory expenses when running the company.

The Finnish legislation allows certain different types of businesses to run in the Finnish business environment. Selection of type for the business depends on skill set, risk potential and other factors of the entrepreneur or entrepreneurs ("Yritysmuodot," n.d.). In case the enterprise is likely to expand or have outside monetization for it, a limited liability company is the most suitable option. On the other hand, simplicity of taxation in sole proprietorship offers more time to concentrate on producing the income to the company.

## 4 Game business relevant forms of enterprise

According to the results of the questionnaire, theoretical and legislative background, the clearly most viable option is to establish a limited liability company as it offers best possibilities to any expansion of business, optimization of taxation and easiest method of selling the entire business or intellectual property rights.

In case the game business is run by a single entrepreneur and the projected income from the project is small, the sole proprietor could be a viable option due the minimal administrative load for the entrepreneur in case there is a reasonably small risk against personal property of the entrepreneur.

Limited partnership and general partnership are seldomly used in any business ventures currently as the risk towards personal property according to the Finnish legislation ("Kommandiittiyhtiö," n.d.). The amount of limited partnerships and general partnerships combined is roughly one tenth of limited liability companies in Finland in the beginning of year 2024 ("Yritysmuodot," n.d.).

Cooperative has been used in some educational faculty -related business ventures (Kauppalehti, 2024) to diminish the business venture to lower the difficulty of starting a game business enterprise. However, handling IP rights in the later phase of the actions and Finnish legal concept of "entrepreneur" or "employee" alters in cooperative when there are seven or more members in it as all of the members turn to employees in the definition of Finnish legislation. This, in turn, causes an obligation to pay employee insurance which is almost a quarter of the salaries paid to the persons. The sudden increase of the expenses diminishes this business option ("Osuuskunta työnantajana," 2020).



#### 4.1 Sole proprietor

Sole proprietorship is most suited to small enterprises which sell some substance expertise of the entrepreneur. It is easy to establish, bureaucracy is minimal, and accounting is simple. In the year 2022 it was the second most popular form of business in Finland. On the other hand, the entrepreneur is held responsible for the commitments of the enterprise by the entrepreneur's entire personal assets. In sole proprietorship the profit of the business is an inseparable part of the personal economy of the proprietor. In case the business requires a significant number of investments to equipment or machines, this type of business is unlikely suitable ("Toiminimi," n.d.).

In game business, running sole proprietorship suits the bill mostly in cases the entrepreneur runs the business as the only employee of the company by selling either coding, graphics or production expertise for other companies. Even in this case, the heavy taxation easily overpowers the advantages of the simplicity of the enterprise form. Sole proprietors can make a tax deduction of vehicle expenses in Finland by the distance driven only in case less than half of the total amount of distance driven are work-related drives. In other cases, the vehicle is considered to be property of the business and thus the tax deduction by driven distance is not possible. This affects remarkably to deductions and tax-free compensation from business-related driving and therefore cannot be recommended in case significant vehicle usage is a foreseeable option in business. Other deductible expenses are computer and telephone expenses, marketing and networking expenses and entertainment expenses are mainly deductible apart from invalidity of value-added tax expenditures in entertainment expenses. Sole proprietors can also deduct proportional expenses of the personal living quarters for the part which is used conducting business operations. ("Toiminimen verovähennykset," 2023).

Sole proprietorship has significant disadvantages as there is virtually no possibility to either sell part of the company due the structure of it or collect profits any other way than a personal income which produces very heavy taxing in any kind of successful game business ("Palkansaajan veroprosentit 2023," 2022).

#### 4.2 Limited liability company

Limited liability company is mostly suitable for businesses which seek financial growth and when the company has more than one partner. Limited liability companies also have a better reputation considering both the customers and financial partners. Limited liability company is the easiest business type to acquire new business partners or investors and the partners are responsible for commitments and debts of the company only with their investment unless they have not guaranteed debts of the company with their personal possessions. Besides this, the form of income is more versatile than in person-related business described before as the limited liability company can pay dividends besides of salaries. As a negative side, limited liability company has rather work-intensive and legally strict administration which cannot be omitted ("Osakeyhtiö," n.d.).

When a limited liability company is formed, the shareholders have a possibility to make a shareholder agreement which may describe the limitations for selling stock of the company which would be unlimited without such an agreement. This is usually done to prevent receiving unwanted, new shareholders to the company ("Osakeyhtiö," n.d.). This is a plausible method of preventing, for example, a divorce-related new shareholder to the company. In case of a divorce the stock of the company could be in a possession of the ex-spouse of an original shareholder due legal division of possessions in the end of marriage ("Avioehto Ja osakeyhtiö - Minilex," n.d.).

### 4.3 What business type to select for a video game business venture?

Selection of business type to video game business venture is not an easy task by any means. On the other hand, easy initial phases without any significant investments or fees favors the sole proprietorship. Limited or general partnerships are less popular than limited liability companies due the legal change in July 2019 which removed the need for capital stock which was previously either 2500 euros or equivalent worth of property, a capital contribution ("Kaupparekisteri," n.d.).

As previously described the only negative issues in limited liability companies are the more complex administration and accounting. Advantages of limited liability company type surpasses greatly disadvantages as the limited liability company is the only type of company where external funding is a viable option. Besides this, any key personnel are subject to incentives such as a portion of the stock or options of the company in case incentive conditions are met. This can't be done in other company types except with salary bonuses as the stock is nonexistent. In game business, paying a steady salary on a monthly basis is, on the other hand, a viable option to hire personnel to work with the project but does not increase commitment to the company as the comparable salary without incentives could be available anywhere. In case there are other benefits such as incentives or share percentage from the profit, the personnel has a motive to stay in the business even if there would be an increase in base salary or other possibilities in another company.

The taxation and tax deductions are far more favorable in limited liability companies such as possibilities to avoid pension payments especially in the initial phase where financial resources are often minimal. In case the business turns out to be extremely favorable in the form of huge sales or propositions to buy the entire business or parts of it by other parties, a limited liability company

is the only viable way to transfer the legal and IP rights to the new owner without rather severe taxation consequences.

As an interesting factor in business options, there is a possibility to form a business group which is legal and tax neutral in Finland ("Yritysjärjestelyt Ja verotus – osakevaihto," n.d.). This is possible to minimize taxation by withdrawing the dividends from the mother company which in turn owns the entire stock of the original daughter company which has been valued by its mathematical stock value. By doing so, the parent company can pay dividends as is legal from unlisted limited liability companies: With a total tax percentage of 7,5% up to 150 000 euros (talvea.fi, n.d.). This calculation does not include the company tax of 20% which has to be paid before dividends.

## **5 Expenses of business ventures in Finnish environment**

Expenses play an important role in any business. In Finnish society the multiple stages of taxation, significant personnel social security contributions in the form of vacation salary, social security fees and other expenses raise the total level of expenses remarkably. This fact combined with the reality of video game business as a global phenomenon and using the Internet as the sole method of distribution of games except some niche products, the equation of running a successful video game business in Finland raises a general question: Is there any reasonable way to make the ends meet? In case the game development takes for example a year and there are no sales before the game has been launched, the company must cover the entire development budget from a source or sources which are most likely not giving away financial resources without returning a favor.

### **5.1 Personnel expenses**

Personnel expenses are by far the largest one for the vast majority of companies in Finland. In video game business the average monthly salary for programmers in Finland in the year 2022 was approximately 4000 euros (Duunitori, n.d.). By multiplying this with approximation of social security contributions to the employer, every programmer cost 6000 euros per month to the company. This applies to other persons working in the same company as graphics or producing personnel etc. Running a company with 10 persons on it for a year totals 720 000 euros.

## 5.2 Premises

Premises are usually rented or bought to use from free markets. On rare occasions there are subvented premises or other positions which to use temporarily or by reservation and need. Renting the company premises from downtown of a larger city may cause very large expenses which are possibly continuing in the foreseeable future as the agreement for the rent could continue for years to come.

The rent for office space depends on the city. In the capital area the monthly rental price per office square meter is approximately 1,5-fold compared to all other major cities in Finland. In Helsinki the square meter was almost 40 euros per month while in other cities around 20 euros per month (Kopola, 2022).

## 5.3 Devices, software and utilities

Devices, software and utilities consists of following objects in video game business:

- Computers
- Smartphones
- Internet connectivity
- Cloud services
- Software
- Electricity
- Water
- Heating

#### 5.4 Other expenses

Other expenses, such as marketing and advertising fees, accounting and administrative expenses of the company are largely unavoidable.

#### 5.5 Summary of expenses

According to the results of the questionnaire and the theoretical background, the business environment in Finland includes a variety of expenses which are mostly related to personnel. Besides these, the premises and utilities produce a lesser amount of them. The game product does not generate income to the business until it has been published and therefore either initial monetization or minimizing the expenses are required.

## 6 Questionnaire to game business companies

The following questionnaire was offered by contacting game business companies and their management personnel by online tools such as LinkedIn, Facebook and email. The target group was selected by interviewing Kajaani University of Applied Sciences staff members about known game business companies and internet sources such as LinkedIn and Facebook. The total number of questionnaire target group members was 11 and the response amount was 6 so approximately half of the target group responded.

Determining the target group for the questionnaire was difficult as the game businesses are rather fast-paced and changes in personnel are relatively large. Therefore, it was difficult to find persons who would be both included in the starting phase of the questionnaire and willing to answer the questions. In case there would be organized information of the target group, the number of responses could have been somewhat larger to determine more accurate results for the research. The result, being still rather realistic, is formed by a small number of responses and therefore do not qualify as extensively made survey. When combined to the theoretical background in this research, the most reliable results are still available. The research does not acquire information of the companies which have been terminated by a bankruptcy or other business-related incident. This information would have produced more accuracy in the results.

### 6.1 Header and instructions of the questionnaire

The questionnaire was made in English and had a header which consisted of following:

“Questionnaire about starting a video game business and the expenses related to it“



The questionnaire had an instruction set which consisted of following:

“This survey addresses the initial costs of establishing a video game business in Finland and it is targeted to persons who were part of a video game business enterprise at the time of establishment and immediately after it. All the questions are considering the same business case. Survey is to define the minimal financial costs of establishing a game business in Finland and was made as a part of Master's Thesis in Turku University of Applied Sciences. Response to this survey is considered as complying with the conditions mentioned in this note.

The questionnaire is anonymous and does not contain personal information. In case the response in the questionnaire includes any information, which divulges personal information mentioned in GDPR, the results will be anonymized.

“The survey takes approximately 15 minutes. Participating in the survey is not financially or otherwise compensated. The results of the survey are available in the Master's Thesis when it is completed.”

## 6.2 Questions and answers

The following consists of questions to the respondents and their answers which were collected from the respondents

### 6.2.1 The establishment year of the business

The questions were selected according to the literature review of this thesis. As a result, the respondent's businesses are established in approximately a decade time frame, first being established in 2012 and last in 2022. The businesses present a wide time frame as the first ones have been established over a decade ago and there is relatively even saturation in the establishment

years. Game business being a rather new area of entrepreneurship, it was obvious not to find any Finnish companies from the computer era despite them existing, such as Japanese company Nintendo, which was founded in 1889 when it started making of hanafuda playing cards ("Corporate information : Company history," n.d.).

### 6.2.2 The form of the business

The form of the business was a limited liability company in all cases of respondents. Limited liability company has been possible to establish with a capital investment of 2500 euros before 1.7.2019 in Finland and after this with no mandatory capital investment. This seems to have no impact on the businesses which responded to the questionnaire as all of them are established with a form of limited liability company.

Besides the non-mandatory capital investment, an important issue in the Finnish business environment is the limited responsibilities of the shareholders which does not include the personal belongings or properties of the shareholders. Naturally, the expandability of the business like the easy sale of part of the company to venture capitalists or other business angels is a viable option only in limited liability companies.

It seems that a limited liability company is currently by far the most viable option to establish an entrepreneurship when there is more than one business partner. The amount of limited liability companies is roughly tenfold to the other forms of business partnership ("Kaupparekisteri, n.d.").

### 6.2.3 The positions of the respondents in the company at the phase of establishment

All the six respondents had a role which is described in the limited liability company law in Finnish Legislation (Limited Liability Companies Act 624/2006). Majority had a role of chief executive officer while only one respondent was the chairman of the board, and one was a board member. The roles described in the aforementioned law include a broad responsibility of restitutions and other business-related issues in case of a court verdict related to them succeeds.

Important factor in the business position of the respondents is that majority of the respondents being chief executive officers, the respondent is under supervision of the board of the company. Despite being a manager in the company, the chief executive officer is not even a necessary position in the business in the legal sense in Finland. The chief executive officer is responsible for establishing and terminating employment and organizing accounting of the company (Limited Liability Companies Act 624/2006 17 §).

### 6.2.4 Description of the initial establishment costs when the business was established in general level

“Describe the initial establishment costs when the business was established in general level”

This was an open question which was meant to clarify the total amount of money spent to establish the business. The responses had a quite wide variety:

The respondents report a variable amount of expenses ranging from no expenses to 200 000 euros. One of the chief executive officers reported a 2000

euros minimum deposit for capital stock at the time of establishment, so this company has been clearly established before the limited liability company law changed in July 2019.

Largest reported expense was 200 000 euros for establishing the business. Other expenses reported from different respondents were administrative fees required for the registering party Finnish Patent and Registration Office which charges these fees from companies which apply for registration.

Financially interestingly, one respondent reported for office rent for 500 euros per month and receiving old computers for free which were replaced with leased ones a year later and receiving a startup grant ("Alkava yrittäjä Ja starttiraha," n.d.) for the entrepreneurs as a personal income replacement and a Finnvera start-up loan which could be translated to Start Guarantee which is offered by Finnvera ("Start Guarantee," n.d.).

#### 6.2.5 Description of the sources of the financial resources to the establishment of the business

"Describe the types of source where the business acquired the financial resources to the establishment"

This was an open question to determine the source of funds or other financial resources to establish the company.

A half of the respondents reported self-funding either by savings and loan or from existing financial resources. One respondent reported angel investors and Business Finland as the source of the financial resources.

One respondent reported receiving 19 000 euros from AVEK (“Tailwinds for audiovisual culture,” n.d.) and the startup grant for both entrepreneurs. Others reported start-up grants and interestingly old computers with little to no monetary value. Considering computers as a financial resource shows the expandability of the entrepreneurial mindset as the computers are fully exchangeable to funds in case, they should be acquired by buying them.

#### 6.2.6 Limitations in the usage of initial financial resources in case it was external

“In case the business did get financial resources to the establishment for the company, were those resources loan or gratuitous? If the resources were external, were there limitations in usage?”

This question was to determine the possible limitations in the external financial resources and the type of the resource, either loan or gratuitous.

None of the respondents reported any limitations for the usage of the financial resources so as a result the companies have had a possibility to decide on the usage freely. No respondents reported the financial resources as gratuitous besides the free computers so all of the other resources would be considered as a loan.

By having loans, the companies position themselves in a debt and so are required to generate profit in order to pay the loans back. Otherwise, the companies would either go to bankruptcy or require additional funding which would be needed to run the enterprise further. This would not be a viable option

unless the company has something valuable enough either as an immaterial property or otherwise significantly. None of the companies reported any valuable possessions such as properties or other large investments.

#### 6.2.7 Hiring of employees in the initial phase of the business and the expenses

“Did the business hire employees immediately at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments personnel expenses covered?”

This was an open question to determine the proportional number of resources used to the hiring of the employees in the initial phase of the business.

The respondents reported hiring of personnel which covered over 80 percent to initial investments. Some of the companies did not hire personnel and one reported using subcontracting while the founders used the startup grant as a financial income for themselves. Interestingly, only one company reported use of interns as a labor force in the initial phase of business.

The personnel expenses are clearly the largest expense in game business and thus should be addressed in the early phase of any plans to establish a game business. The startup grant initiates possibilities to start the business with more flexible salary solutions.

#### 6.2.8 Acquiring premises for the company in the initial phase of the business

“Did the business acquire, rent or buy any office space or other space at the start of the business? If it did, were the expenses covered with initial

investments? Approximately, how large portion of the initial investments premises expenses covered?”

This question was to find out if the company acquired any premises for the use of the company and the proportional amount of the financial resources used to it.

The respondents reported office space to cover from 5% to 100% of the initial expenses in case they acquired them. The question was clearly misunderstood by one of the respondents as it was meant to clear out the part of total initial investment used for office spaces since the 100% would not allow any other expenses towards anything. Some of the respondents declared no expenses for the premises due the remote work or use for educational faculty space for free. One respondent reported the cost for premises as 50% of total cost. One responded by acquiring a property for the company.

The acquisition of premises seems to be a little of financial trouble as remote work is rather easy to arrange in a game business and secondly there are communal premises or space available. Finnish taxation laws also allow deductions for working from home and rental of business premises for the company which are owned by the entrepreneurs themselves.

#### 6.2.9 Acquiring utilities for the business in initial phase of the business

“Did the business acquire any utilities like electricity, internet, water or other and insurance policies at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments premises expenses covered?”

This question was to determine possible utilities and their proportional cost acquired to the business in the initial phase of the business.

One respondent has answered 100% for this question also, so this should be declared as a misunderstanding from the respondent. Others report of percentages from 1% to 7% and others none. One respondent reports the internet connection and mandatory employer insurance while all other utility expenses were included in the rent.

While the utilities do not form a large expense for the company as a total, these expenses are covered by the employees themselves when working remotely from home. The exception would be the employer insurance which is still carried by the business.

#### 6.2.10 Acquiring devices and software in the initial phase of the business

“Did the business acquire any devices and software at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments premises expenses covered?”

This question was to determine what kind and proportional investments to the software and devices of the total expenses was spent.

In this question, the respondents reported either no expenses in the initial phase or from 8% to 15% of different expenses such as computers and software and cloud service spaces. One respondent reported only free software and licenses. Once again, the answer of 100% is included as a misunderstood question.



Game development can be done with free software tools and services rather easily. In case any commercial software is needed, the companies still do not have to use significant financial resources to them compared to personnel expenses.

#### 6.2.11 Other costs in the initial phase of the business

“Describe other than aforementioned expenses which were related to establishing a business venture?”

This question was to cover other expenses in the initial phase of the business.

Some respondents reported accounting expenses, others travel to game related events in Europe for promotion. One respondent reported freelancer work for game development and one reported furniture expenses.

All the other costs and expenses are relatively minor compared to the other ones as they were reported little in this question.

#### 6.3 Maximum number of employees in the first six months of business

Half of the businesses started with less than 4 employees while only one company had from 4 to 6 and one had 7 to 9 employees. Only one had 10 or more in the first 6 months of establishment of the business. As all of the respondents indicated their business being a limited liability company, this description covers the limited liability part of the legislation. All of the businesses had at least one employee. In Finnish legislation the concept of entrepreneur is exclusive to a concept of an employee and covers a person who both

- is in an administrative role in a limited liability company.
- owns at least 30 % of the company alone or 50 % with a family member.

(Self-Employed Person's Pension Act 1272/2006 3 §).

#### 6.4 The part of Finland where the business resides

The physical location of the businesses seems to be in Northern Finland. In Finnish legislation, any business must have a physical address which is considered in Finnish legislation as a literal translation "a home location." (Business Information Act 244/2001 4 §). Almost all of the companies were established in Northern Finland. The concept of the part of Finland was interpretable by the respondent as there is no exact definition of Northern or any other part of Finland. The only area which has more exact boundaries would be the Greater Helsinki Area which is widely considered being Helsinki and its surrounding municipalities ("Helsingin seudun yhteistyökokous," 2023).

## 7 Business case: PolarStorm OY

PolarStorm OY ("YTJ Tietopalvelu," n.d.) is a limited liability company established in February 2022 to run multiple business disciplines such as private medical practice stationed in other business enterprises' premises. Besides this, the company has been delivering recreational vehicle building, tool rentals, cyber security services and esports consulting. In January of 2023 the company started to develop a mobile game around the concept of *kaisa* billiards, a billiards game traditionally played in former Soviet Union areas and in Finland.

PolarStorm OY is a company owned mainly by the author of this thesis. The other entrepreneur is the spouse of the author. The company has no premises other than the living quarters of the entrepreneurs and all the utilities are run in the living quarters. The company owns its own devices and other hardware.

The game idea was to offer a new mobile game which had no competition in business sense as there are no other known *kaisa* billiards mobile games. The *kaisa* billiards has rule principles which are rather complex compared to ordinary billiards such as pocketing balls by bouncing them across the table. Besides this, the game uses a concept of two cue balls which are dedicated to two players in the similar manner as in *carambola* which is more popular globally ("Kaisan esittely," n.d.).

The new business venture was easy to start administratively as the company had already functioning accounting and other necessary entities. The corporate name "PolarStorm OY" did not appear as a tempting and describing game company name, so the company acquired a trade name "Cyber Goat Technologies." In Finnish legislation the auxiliary corporate name cannot

contain the form of the business (Yrittäjyyden puolesta - Yrittajat.fi, n.d.), so there are no letters "OY" after the name (a Finnish equivalent of limited liability company). The business area determined to the PolarStorm OY in the Finnish Business Register is "other consultation for business administration" which includes all the trade names which the company currently possesses.

Main reason for the new business venture was the opportunity to use the game development students of Kajaani University of Applied Sciences ("Peliala, tietojenkäsittely - tradenomi (AMK)," n.d.) as a work force in the game development. This was a benefit for the students as there were virtually no possibilities to complete on-the-job learning in game business in Raasepori as there were no known game companies available. Only option would have been either to apply for companies in other municipalities or a vague possibility to remote work. This could have been an unlikely option with a minimal experience and portfolio for the students. Therefore, PolarStorm OY offered a possibility to develop a mobile game with remote work and cooperation via online services to complete the on-the-job learning and on the other hand, to start a game business venture expansion in the company portfolio. Students were informed in the start of their project and on-the-job -learning that the company expects no profit from the game project but a possibility to offer the students a safe and supervised position to complete their studies.

### 7.1 Lessons learned

Starting a game business was easy with an existing company. The only necessary expenses were the new trade name by the expense of 60 euros ("Aputoiminimi," 2020) and the fee for the Google Play Developer account of 25 dollars ("How to get started with play console," n.d.).

As the students were in on-the-job learning, there was no obligation to hire them with a salary. In case there would be a mandatory employment either legally or by an agreement, PolarStorm OY could not have started the entire project as the salaries would have exceeded any reasonable possibilities of the company. This option would both terminate the development of the business and all the on-the-job learning possibilities before the project could have even been started. The on-the-job learning option made the entire project feasible for both parties.

The game product itself was rather complicated to complete as the physics of billiards balls require other than a direct angle bounce from the wall. Any spin applied to the ball affects both bounce and speed of the ball and the spin transfers partially to the target ball in contact. All these details were rather difficult to apply to the game physics with little experience the students had. This was completely understandable, and the risk was taken in account in this project. In case there would be significant investments to be made in order to start the project, the option to use inexperienced students would not be viable. Online work was easy to arrange as there are several free tools to conference online which are easy to use and allow sharing of desktop and other such functions.

The expenses were minimal due the remote work done with free tools and student project work. The entire project cost for PolarStorm OY was 60 euros for the trade name and 25 US dollars for the Google Play Developer account. The project itself took 5 months. The product was made to early beta phase where the product was playable, but there were significant shortcomings and malfunctions included. Therefore, as the student work force was not available to use after the on-the-job learning ended, the project was discarded as incomplete. However, the project produced valuable input for both future business ventures and for this Master's thesis.

In case the business venture is going to either start or use later student workforce for either mediocre or vital functions in the game development the steady supply of workforce should be ensured in advance as any breach in workforce could significantly disturb or even terminate business operations and game development. In case the work is made remotely and with a student's own or educational faculty's computers and development tools, usage of any commercial tools or software cannot be recommended if they are other than SaaS -based tools. In case the software should be installed to devices owned by the students, there is no method of ensuring there are no violations of license agreement without supervision.

## **8 Best practices in optimization of expenses and in video game business**

This chapter describes the optimization of expenses in the initial phase of the business. The optimization is planned by the theoretical framework and the responses of the business representative described in the previous chapter. Optimization principles are to minimize the expenses of the business in the initial phase.

### **8.1 Personnel expenses**

The results present clearly that the personnel expenses cover a major part of the expenses in the company. One of the respondents stated that the personnel expenses were 80% of the proportional expenses.

Another respondent stated that their business acquired starttiraha ("Starttiraha," n.d.) which is meant to ease a start of a new business.

Third respondent stated that the personnel expenses were 84% of the proportional expenses.

All of this presents rather clearly that personnel expenses are commonly the largest expense in the business in case the personnel is hired with a monthly salary and collateral costs. In the Finnish business environment ("Työnantajan sivukulut palkasta," 2020) the rule of thumb shows that the collateral costs are at least 25%. In some business sectors the insurances cause significant cost in the collateral costs. Besides this, the vacation salary and other issues increase costs. In some occasions, the generally used collateral cost multiplier is 1,5

including the average sick and maternity leaves and other unexpected costs ("Mistä työntekijän palkan sivukulut muodostuvat?," 2023).

## 8.2 Optimization of personnel expenses

As the collateral costs concern only persons with employee status, the easiest way in the initial phase of the business is to acquire an entrepreneur status in the company. The legislation (Self-Employed Person's Pension Act 1272/2006 112 §) offers a minimum amount of good 9000 euros annually as the calculated value of labor for the entrepreneur pension insurance policy. The calculated value of labor is an estimate of the value of work or labor made by an entrepreneur. This value does not interfere with the salary payments for the entrepreneur. In case the entrepreneur manages to acquire a confirmed entrepreneur pension insurance for minimum amount, it covers a collateral cost of equal to approximately the same amount of salary paid annually to the person as the entrepreneur pension insurance amount is 24,10% in year 2023 ("Yrittäjäeläkkeen määrä Ja maksut," 2023).

If a business needs a workforce which has no establishment connection to the company, the most obvious solution would be acquiring interns from any reasonable academic or vocational faculty which produces game development capable students. The students need on-the-job learning positions and experience and a possibility to use students in tasks suitable for their capabilities seems a viable option. Students will receive school credits from the time of the internship and for that also a governmental study allowance. The businesses established to the area will eventually offer new employment positions for the students. This can only be done in case the business does not go to bankruptcy due the cost structure or other reasons in the initial phase.



In case the entrepreneur in the business is student and still receive student allowance from the government, both salaries and capital income affect to the amount of allowance and can be collected afterwards by the government ("Mitkä tulot huomioidaan opintotuuessa," n.d.). However, under Finnish legislation any company-related expenses such as travel expense compensations, per diems or other similar issues do not affect the study allowance. Therefore, establishing a game business in the time of the studies would be beneficial as the daily income is provided by government as long as salaries for the entrepreneurs would not be paid, which would decrease the amount of study allowance.

The student internship should be beneficial to both parties of the on-the-job learning. While the students need the credits and the internship experience, the usage of the interns cannot be the status quo work force for all tasks as it would be highly unethical to use free labor to improve profitability of the company without the student party to benefit from the work. On the other hand, this would be highly unlikely to succeed as the skillsets of the students are somewhat limited in the late phases of the studies and therefore the tasks in the business cannot be completed sufficiently. The initial phase of the company without a significant number of resources has generally options to either run the company by the entrepreneurs and acquire interns to work for entry-level work to convert the company profitable and then be able to hire personnel or to hire no personnel and run the company entirely by the entrepreneurs who are responsible for their own salaries. Of course, there is always a possibility to agree with interns about a share of the company and some form of options program in case the product turns profitable.

The game business scene in any area needs several businesses which run a successful game business in order to maintain business operations and eventually, offer new employment openings and internships for the students

who need internship positions to completion of their studies. The internship and on-the-job learning is critical to both parties of the agreement and should be done in fair business symbiosis where the students have both opportunities to increase their skills and have work experience while the businesses have possibilities to lower their overall expenses and have possibilities to recruit new employees from the interns.

Best practices:

- Whenever viable, make all the company key personnel entrepreneurs.
- If possible, use interns from academic or vocational faculties in suitable tasks if there are no resources to hire personnel.
- In case the entrepreneur is entitled to study allowance, do not pay salaries or capital incomes unless the profit is larger than the allowance-based benefit.

### 8.3 Premises

The premises seem to play a strongly variable role in the initial business expenses. Considering the business area, the premises required are common office space as the game development does not require any larger production space. In case the business is producing some motion capture products or other related issues, the space required may increase (Okoyomon, 2023).

### 8.4 Optimization of premises expenses

Results show the problematics in the premises sector and estimation of the expenses. In case the business considers the office space inevitable, they can be either rented or bought for the company. Buying an office space unfortunately calculates against business in the balance sheet and produces an

obligation to pay corporate taxes for it after the next settlement of the accounts which can severely impair the total profit withdrawable from the company.

Besides this, current methods of remote work offer a significant possibility to cut expenses in the company and hire personnel from wider geographical areas. Using remote tools for collaboration and conferencing, every entrepreneur and employee can work from their home or other location. This option is usable in case the material used in the development is not classified. Working remotely carries some benefits which are covered under sections “Utilities” and “Devices and software.”

Best practices:

- Rent the office space instead of buying it to avoid corporate tax from the property.
- In case no classified materials or other danger to IP, use remote work to minimize office space.
- Working remotely offers some tax-related advantages to the employees also.

## 8.5 Utilities

Utilities were presented as a rather small proportion of the total expenses for businesses. One of the respondents stated that the percentage of total costs was approximately 7% of the expenses. Other respondents stated that the proportion of the expenses was hard to determine. This produces an impression of rather small expenses as the amount was not known and so seemed as a relatively unimportant issue.

## 8.6 Optimization of utilities

Utilities, being small expenses, are also tied somewhat to the question of premises as many of them are derivatives of acquiring premises in the first

place. Any office location insurances, electricity or water bills are avoidable by not acquiring the office. Only reasonable utility bill which will likely increase from remote work is the internet subscription provided to remote working personnel by the business. By paying multiple simultaneous subscriptions to employee homes instead of merely one to the business office, the expenses increase. However, this solution competes successfully with virtually any rental office space as the flatrate internet connections are relatively cheap and fast in Finland. Internet subscription as a work-related benefit is tax free in Finnish legislation. Besides this in remote work, workroom deduction and working equipment deduction are also applicable in Finland. ("Etätyö Ja vähennykset," n.d.). These are worth mentioning when hiring personnel to remote work as they might not be informed about the deductions.

In case business needs to meet persons physically, virtually every larger city offers rental office negotiation facilities or rooms. These could become less expensive than renting a static position. Besides this, the negotiation facilities are available in target areas, not just where the business has stationed its headquarters ("Neuvottelutilat," 2018).

Many of the employees enjoy the personnel sport, cultural and other benefits which are legal to offer tax-free to employees and entrepreneurs to some extent. As far as the personnel benefits "Henkilökuntaedut verotuksessa," n.d.) are handed out to all of employees with unified practice, the entrepreneurs can also withdraw the legal number of different benefits and use them to their pleasure and refreshment.

Best practices:

- If possible, offer remote employment with hardware and cellular phone provided by business if necessary. Send them with a courier if applicable.
- In case of remote employment, offer internet subscription to employee as a benefit from the business.
- Besides of salary, offer all possible and affordable tax free or tax-deductible benefits and mention them in recruiting process.
- Inform the employees about any applicable tax deductions in their personal taxation which are applicable in the remote work.
- Rent office space or meeting facilities if necessary.
- Arrange free or cheap collaboration utilities such as Discord and Google Business accounts.

### 8.7 Devices and software

Devices and software also were stated rather small expenses in the larger picture. One of the respondents in the questionnaire used in this thesis stated the percentage from the total cost being approximately 8%. Other respondents stated usage of only free software. Another respondent stated that the business has bought computers and some software besides Git and Google spaces. Another stated that they had some mobile test devices which were paid from initial investments and besides used free software and free licenses from Microsoft BizSpark. Another described the proportion as 100% of the investment. Another stated the percentage of the devices and software acquisition being 15%.

### 8.8 Optimization of devices and software

Devices, unlike software, are physical and therefore more difficult to acquire freely as there are certainly some kinds of manufacturing costs. However, the devices such as desktop computers or mobile devices do not cost very significantly. The variation from free to 15% of the total initial expenses describe

a large variety between the investments and prices for the aforementioned items. Judging from some of the answers, as the respondents state usage of free software, the assumption would be the businesses used the entrepreneur's home computers to initial business as the software itself cannot be used to game development without computer hardware.

Acquiring devices on one-time buy will cause significant initial investments. Therefore, any kind of leasing should be taken into consideration to get the necessary hardware to develop the product to sell in the game business to reduce costs. An example of leasing offering describes the difference in purchase price and leasing price ("Edullista laatua kuvankäsittelyyn Tai suunnitteluun," n.d.).

The game development software such as game engines (Sibony, 2023) are mainly free or at least free to start development. Some of them may include small fees on time or download basis. Therefore they do not form a significant expense. Google Play service developer account one-time fee is USD25 which does not form a significant addition to expenses either ("Publishing your first app in the play store: What you need to know," 2023).

### 8.9 Other expenses

Other expenses descriptions were scarce in the respondent pool. One respondent described the other costs were travel costs for participating in conferences abroad to promote the upcoming product. Others described the other expenses as some freelancer game developer and accountant expenses while another respondent mentioned furniture as other expenses.

## 8.10 Optimization of other expenses

Traveling costs are difficult to avoid as there is virtually no way to avoid plane or train fares and other participation costs to any game development events. Therefore, the optimization should be done by carefully studying all the possible events and calculating would attending multiple of them in the same travel be possible or is the target market or the attending crowd likely to end up to future customer. Attending events either populated with too many similar titles or targeted outside the target market of the customers would be a waste of precious time and scarce resources.

Accounting expenses are not very big in an initial phase of business as the transaction amounts are rather small. Some services are available with less than 100 euros per month without VAT ("Pienyrityksen kahdenkertainen kirjanpito Holvista | Holvi Suomi," n.d.).

Furniture is possible to acquire with small expenses from either recycling centers or from used office furniture suppliers. They are available in various businesses in all major cities and online. However, if there is no transport capability in the company itself, the pricing of transport should be clarified first.

Best practices:

- Travel only when really necessary and select the events which are really important.
- Buy freelancer services or outsource issues or tasks which are not viable to be done by the internal team.
- Acquire the office furniture from recycling centers or secondhand office supplies vendors

### 8.11 Best practices of PolarStorm OY

Best practices in case of PolarStorm Oy as a bullet list when starting a game business with minimal financial resources:

- Ensure availability of on-the-job learning students, recommendable source a tertiary education faculty. Have a good business relationship with the faculty staff. Interview the students who apply to the project or arrange a meeting in the faculty.
- Offer reasonable and feasible possibilities to students which help them to develop their professional skills and portfolio
- When the product is generating income, hire personnel to develop
- Use free software and online tools for teleconferencing with the game development team.
- Use a limited liability company if you already have one or if the product is going to be very small and projected income is reasonable to have as a salary, a sole proprietor business model.

Develop the product for a target market mainstream platform such as Android or Windows. Any other product has less likely sales



## 9 Conclusions

The expenditure structure of game developer companies shows rather clearly the overwhelming proportion of salaries as the primary expenditure. All other areas are presented with relatively similar proportions in the expenses.

Therefore, minimizing salary costs is critical to succeed with the initiation of business in the game development sector.

The subject for the research was interesting as the author of the thesis already has a Master of Business Administration and a Master of Engineering degree. Therefore, such business-related research had possibilities to cover previously learned subjects from earlier work.

This research produced somewhat reliable basics of initiating a game business venture in Finnish business ecosystem. Nevertheless, the small amount of responses and target businesses resulted decrease in the reliability of the research. This was partially addressed by the theoretical basis of the research as the business-related legal issues and basics are same in all businesses in Finland, despite the business area.

### 9.1 Success of the research project

The research started in autumn of 2023 and the results were concluded at the end of the year. The questionnaire was planned for October 2023 and concluded in the beginning of December 2023. Difficulties to obtain both viable interviewees and responses were visible as the administration or management of the game development businesses reported being very busy with their professional duties. This did not come as a surprise, as it is the status quo in every business sector.

Response rate being 6/11 requested offered enough material to understand the general initial expenses. At least one of the respondents had misunderstood the meaning of some questions as the answer for the proportion of total expenditure was 100% in every question which produces incorrect sum of percentage. Most likely all the other respondents had understood the question correctly and their responses for multiple questions totaled 100% as meant in the questionnaire. The questions should have been more specific so that there would not be any possibility of such a misunderstanding.

Most of the respondents were from businesses which were established in Northern Finland. This could result from the early onset of the game business related education in Kajaani University of Applied Sciences as it established the game development program almost two decades ago.

## 9.2 Results of the research

Results of the research were hypothesized: The salary has a major impact on expenditure and flow of resources for the game business companies. Besides the salaries, the premises, utilities, devices, and hardware show a minor role in the entire picture.

The optimization had relatively simple structure as the results were easy to interpret. Free labor force is available virtually only by using game development oriented or other academic or vocational faculty students as interns. This option has a prerequisite to detect the correct skill set needed in business and after that locate suitable students who are both available and willing to participate in the project. In case any kind of incentives are needed, a stock option or hire after graduation persists as a possibility to reward the students. The business is highly unlikely to succeed in case of using the students as a constant free work

force without intentions to hire more experienced employees later when the initial phase is over as the student workforce would be both highly unethical and would have a very limited skillset.

### 9.3 Results in action

The results of this research are usable to any game development business about to start or recently started to minimize resource expenditure. Video games development requires financial resources from the start, but the product creates income to the business when it has been published and it gathers enough success to produce sales. This does not apply to large titles which have significant hype around the concept and possibility to earn the entire development budget in advance merely by announcing the product and collecting early access sales profit.

Small enterprises must either acquire the development budget from the entrepreneurs or receive either loan or gratuitous resources from external sources or investors. As any other than gratuitous funds include later obligations towards the external source, the option usually comes in more expensive in total compared to internal funding.

The response from the questionnaire produces clearly a dilemma: Salaries consume a vast majority of the resources. The optimization to the business to succeed requires minimization of the expenses which, on the other hand, cannot be done by running the company entirely with interns which is not ethical and not suitable.

#### 9.4 Further development

This thesis researched and described the optimization of the initial phase of expenditure in game business. A reasonable continuation for the topic would be:

- Business development after first successful publication
- Personnel acquisition to game business company
- Leadership profiles of game business

Any of the topics would serve the game business scene significantly and help new companies to succeed. However, there is always a risk when a new business is established. The risk is one determining factor of business existence.

## References

1. *Digitaalisten pelien pelaaminen nelinkertaistunut 25 vuodessa.* (2019, January 31). Tilastokeskus. Retrieved October 10, 2023, from [https://www.stat.fi/til/vpa/2017/02/vpa\\_2017\\_02\\_2019-01-31\\_kat\\_001\\_fi.html](https://www.stat.fi/til/vpa/2017/02/vpa_2017_02_2019-01-31_kat_001_fi.html)
- Ajoiko aika monopolien ohi? Veikkauksen yksinvaltiut horjuu Jo, Ja pian voi olla Alkon Ja apteekkien vuoro.* (2023, January 22). Yle Uutiset. Retrieved December 27, 2023, from <https://yle.fi/a/74-20013892>
- Alkava yrittäjä Ja starttiraha.* (n.d.). Paikalliset TE-palvelut - TE-palvelut. Retrieved August 12, 2024, from <https://toimistot.te-palvelut.fi/uusimaa/asioi-meilla/alkava-yrittaja-ja-starttiraha>
- Aputoiminimi.* (2020, January 9). Bisnes.fi. Retrieved June 24, 2024, from <https://bisnes.fi/aputoiminimet>
- Avioehto Ja osakeyhtiö - Minilex.* (n.d.). Minilex.fi. Retrieved October 11, 2023, from <https://www.minilex.fi/a/avioehto-ja-osakeyhti%C3%B6>
- Avoin yhtiö.* (n.d.). Yrittajat.fi. Retrieved October 11, 2023, from <https://www.yrittajat.fi/tietopankki/yrittajaksi-ryhtyminen/yritysmuodot/avoin-yhtio/>
- Business Information Act (n.d.). Finlex.fi.* Retrieved December 28, 2023, from <https://www.finlex.fi/fi/laki/ajantasa/2001/20010244>
- Corporate information : Company history.* (n.d.). Nintendo Co., Ltd. Retrieved August 12, 2024, from <https://www.nintendo.co.jp/corporate/en/history/index.html>
- Duunitori. (n.d.). Ohjelmistokehittäjä palkka - Duunitorin Palkkavertailu.* Duunitori.fi. Retrieved October 11, 2023, from <https://duunitori.fi/palkat/ohjelmistokehittaja>
- Edullista laatua kuvankäsittelyyn Tai suunnitteluun.* (n.d.). IT on meillä helppoa | TDP. Retrieved December 29, 2023, from <https://www.tdp.fi/leasing-paketit/laatukone>
- Employees Pensions Act. (n.d.). Finlex.fi.* Retrieved October 10, 2023, from <https://www.finlex.fi/fi/laki/ajantasa/2006/20060395>
- Etätyö Ja vähennykset.* (n.d.). vero.fi. Retrieved December 29, 2023, from <https://www.vero.fi/henkilöasiakkaat/verokortti-ja-veroilmoitus/vahennykset/et%C3%A4ty%C3%B6-ja-v%C3%A4hennykset/>
- Fallon-O'Leary, D. (2016, January 20). The one-click-Purchase revolution.* business.com. Retrieved December 27, 2023, from <https://www.business.com/articles/one-click-purchasing-how-click-to-buy-is-revolutionizing-ecommerce/>
- Google forms: Online form creator | Google workspace.* (n.d.). Google. Retrieved October 12, 2023, from <https://www.google.com/forms/about/>
- Helsingin seudun yhteistyökokous.* (2023, January 11). Helsingin kaupunki. Retrieved December 28, 2023, from <https://www.hel.fi/fi/paatoksenteke-ja-hallinto/tietoa-helsingista/yhteistyö/helsingin-seudun-yhteistyökokous>
- Henkilökuntaedut verotuksessa.* (n.d.). vero.fi. Retrieved December 29, 2023, from <https://www.vero.fi/syventavat-vero-ohjeet/ohje-hakusivu/62486/henkilökuntaedut-verotuksessa7/>
- How to get started with play console.* (n.d.). Google Help. Retrieved June 24, 2024, from <https://support.google.com/googleplay/android-developer/answer/6112435?hl=en>
- Kaisan esittely.* (n.d.). Suomen Biljardiliitto ry. Retrieved June 24, 2024, from <https://www.sbil.fi/kaisa/kaisan-esittely/>
- Kauppalehti. (2024, June 23). Kajak games Osk | yritys- Ja taloustiedot.* Tärkeimmät talousuutiset | Kauppalehti. Retrieved June 24, 2024, from <https://www.kauppalehti.fi/yritykset/yritys/kajak+games+osk/23383390>

- Kaupparekisteri*. (n.d.). PRH - Etusivu. Retrieved October 11, 2023, from <https://prh.fi/fi/kaupparekisteri/osakeyhtio/muutosilmoitus/osakepaaoma.html>
- Kaupparekisteri*. (n.d.). PRH - Etusivu. Retrieved October 10, 2023, from <https://www.prh.fi/fi/kaupparekisteri/hinnasto/kasittelymaksut.html>
- Kaupparekisteri*. (n.d.). PRH - Etusivu. Retrieved August 12, 2024, from <https://www.prh.fi/fi/kaupparekisteri/yritystenlkm/lkm.html>
- Kommandiittiyhtiö*. (n.d.). Yrittajat.fi. Retrieved October 11, 2023, from <https://www.yrittajat.fi/tietopankki/yrittajaksi-ryhtyminen/yritysmuodot/kommandiittiyhtio/>
- Kopola, M. (2022, August 1). *Näin toimistotilan vuokrahinta muodostuu*. Sponda. Retrieved October 11, 2023, from <https://sponda.fi/nain-toimistotilan-vuokrahinta-muodostuu/>
- Leasing*. (n.d.). Verkkokauppa.com. Retrieved October 12, 2023, from <https://www.verkkokauppa.com/fi/yritysmyynti/leasing>
- Limited Liability Companies Act*. (n.d.). Finlex.fi. Retrieved December 29, 2023, from <https://finlex.fi/fi/laki/ajantasa/2006/20060624>
- List of top 10 game marketing strategies & campaigns to follow*. (2023, September 21). Logicsimplified. Retrieved October 12, 2023, from <https://logicsimplified.com/newgames/game-marketing-strategies-the-must-dos/>
- Milloin yritystoiminta katsotaan alkaneeksi?* (n.d.). Kaikille avoin työttömyyskassa - YTK Työttömyyskassa. Retrieved October 10, 2023, from <https://ytk.fi/ohjeet-ja-tuki/tietopankki/yrittajan-tyottomyysurva/milloin-yritystoiminta-katsotaan-alkaneeksi->
- Mistä työntekijän palkan sivukulut muodostuvat?* (2023, August 14). Accountor. Retrieved December 29, 2023, from <https://www.accountor.com/fi/finland/artikla/palkan-sivukulut>
- Mitkä tulot huomioidaan opintotuessa*. (n.d.). Kela. Retrieved December 29, 2023, from <https://www.kela.fi/omat-tulot-mitka-tulot-huomioidaan>
- Mobile game business models*. (2023, January 1). ironSource. Retrieved October 12, 2023, from <https://www.is.com/glossary/mobile-game-business-model>
- Mobile gaming market and usage statistics for 2022*. (2021, March 18). HotPlay. Retrieved October 12, 2023, from <https://hotplay.games/mobile-gaming-market-and-usage-statistics-for-2021>
- Neuvottelutilat*. (2018, August 20). Liiketilavuokraus. Retrieved December 29, 2023, from <https://liiketilavuokraus.fi/neuvottelutilat/>
- New ESA report shows gaming is no longer a niche market*. (2020, July 25). TheGamer. Retrieved October 10, 2023, from <https://www.thegamer.com/esa-gaming-niche-popular-die-mad-gamers/>
- Okoyomon, A. (2023, August 21). *How motion capture works*. Science World. Retrieved December 29, 2023, from <https://www.scienceworld.ca/stories/how-motion-capture-works/>
- Osakeyhtiö*. (n.d.). Yrittajat.fi. Retrieved October 11, 2023, from <https://www.yrittajat.fi/tietopankki/yrittajaksi-ryhtyminen/yritysmuodot/osakeyhtio/>
- Osuuskunta työnantajana*. (2020, October 5). Osuuskunnan perustajan opas. Retrieved October 11, 2023, from <https://perustajanopas.pellervo.fi/osuuskunta-tyonantajana>
- Osuuskunta*. (n.d.). Yrittajat.fi. Retrieved October 11, 2023, from <https://www.yrittajat.fi/tietopankki/yrittajaksi-ryhtyminen/yritysmuodot/osuuskunta/>

- Palkan sivukulut.* (n.d.). Yritystulkki. Retrieved October 10, 2023, from <https://www.yritystulkki.fi/fi/alue/oulu/toimiva-yrittaja/taloushallinto/palkan-sivukulut/>
- Palkansaajan veroproositit 2023.* (2022, December 19). Etusivu – Veronmaksajain Keskusliitto ry. Retrieved October 11, 2023, from <https://www.veronmaksajat.fi/tutkimus-ja-tilastot/tuloverot/palkansaajan-veroproositit/#5c3dd6b5>
- Partnerships Act.* (n.d.). Finlex.fi. Retrieved December 29, 2023, from [https://www.finlex.fi/fi/laki/kaannokset/1988/en19880389\\_20151444.pdf](https://www.finlex.fi/fi/laki/kaannokset/1988/en19880389_20151444.pdf)
- Peliala, tietojenkäsittely - tradenomi (AMK).* (n.d.). Koulutuskeskus Brahe. Retrieved June 24, 2024, from <https://www.brahe.fi/amk/peliala>
- Perustamisilmoitus.* (n.d.). YTJ. Retrieved October 10, 2023, from <https://www.ytj.fi/index/ilmoittaminen/perustamisilmoitus.html>
- Pienyrityksen kahdenkertainen kirjanpito Holvista | Holvi Suomi.* (n.d.). Holvi. Retrieved December 29, 2023, from <https://www.holvi.com/fi/kahdenkertainen-kirjanpito/>
- Pros and cons of various video game business models.* (2021, September 17). trendblog.net. Retrieved December 27, 2023, from <https://trendblog.net/pros-and-cons-of-various-video-game-business-models/>
- Publishing your first app in the play store: What you need to know.* (2023, June 12). Android Authority. Retrieved December 29, 2023, from <https://www.androidauthority.com/publishing-first-app-play-store-need-know-383572/>
- Self-Employed Person's Pension Act.* (n.d.). Finlex.fi. Retrieved October 10, 2023, from <https://www.finlex.fi/fi/laki/ajantasa/2006/20061272>
- Sibony, J.* (2023, November 9). *The best gaming engines for 2023.* Incredibuild. Retrieved December 29, 2023, from <https://www.incredibuild.com/blog/top-gaming-engines-you-should-consider>
- Start guarantee.* (n.d.). Finnvera. Retrieved August 12, 2024, from <https://www.finnvera.fi/eng/financing/guarantees/start-guarantee>
- Starttiraha.* (n.d.). Paikalliset TE-palvelut - TE-palvelut. Retrieved June 24, 2024, from <https://toimistot.te-palvelut.fi/pirkanmaa/starttiraha>
- Starttiraha.* (n.d.). Yrittajat.fi. Retrieved December 29, 2023, from <https://www.yrittajat.fi/tietopankki/liiketoiminta/rahoitus/starttiraha/>
- Steam annual game releases 2023.* (2023, October 6). Statista. Retrieved October 12, 2023, from <https://www.statista.com/statistics/552623/number-games-released-steam/>
- Tailwinds for audiovisual culture.* (n.d.). Etusivu - Kopiosto. Retrieved August 12, 2024, from <https://kopiosto.fi/en/avek-frontpage/>
- (n.d.). talvea.fi. Retrieved October 11, 2023, from <https://talvea.fi/palvelut/osakevaihto/>
- Tilastokeskus.* (2023, March 6). Yritykset. Retrieved October 10, 2023, from [https://www.tilastokeskus.fi/tup/suoluk/suoluk\\_yritykset.html](https://www.tilastokeskus.fi/tup/suoluk/suoluk_yritykset.html)
- Toiminimen verovähennykset.* (2023, July 3). Accountor. Retrieved October 11, 2023, from <https://www.accountor.com/fi/finland/artikla/toiminimen-verovahennykset>
- Toiminimi.* (n.d.). Yrittajat.fi. Retrieved October 11, 2023, from <https://www.yrittajat.fi/tietopankki/yrittajaksi-ryhtyminen/yritysmuodot/toiminimi/>
- Toimitusjohtajasopimus – miten se eroaa muista johtajasopimuksista?* (2023, August 28). LAKIUS. Retrieved December 29, 2023, from <https://www.lakius.fi/kirjoituksia/toimitusjohtajasopimus-miten-se-eroaa-muista-johtajasopimuksista>

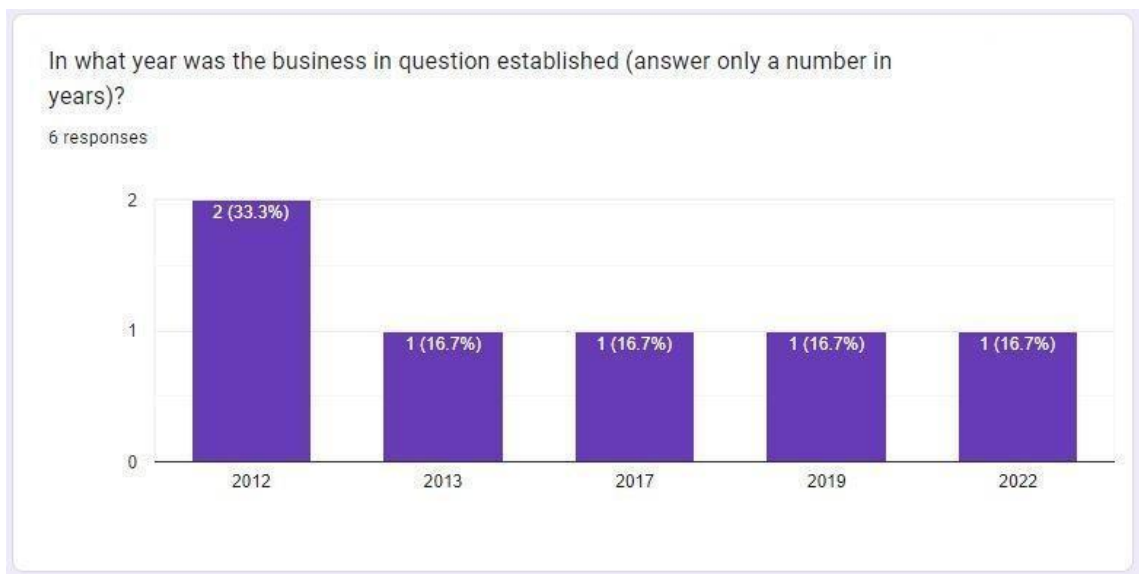
- Työnantajan sivukulut palkasta.* (2020, December 30). Palkkaus.fi. Retrieved December 29, 2023, from <https://www.palkkaus.fi/abc/tyonantajan-sivukulut/>
- Törmänen, J. (2023, December 13). *Mitä yrityksen perustaminen maksaa? Katso tiedot kuluista!* Yrityksen Perustaminen. Retrieved December 29, 2023, from <https://yrityksen-perustaminen.net/yrityksen-perustaminen-hinta>
- U.S. computer and video game sales - digital vs. physical 2018 | Statista.* (2019, May 9). Statista. Retrieved December 27, 2023, from <https://www.statista.com/statistics/190225/digital-and-physical-game-sales-in-the-us-since-2009/>
- Understanding LiveOps, doing LiveOps.* (2020, March 27). Game Developer | Game Industry News, Deep Dives, and Developer Blogs. Retrieved December 27, 2023, from <https://www.gamedeveloper.com/design/understanding-liveops-doing-liveops>
- Uusiteknologia.fi. (2023, May 17). *Suomen peliala kasvoi 3,2 miljardin euron bisnekseksi.* Retrieved October 10, 2023, from <https://www.uusiteknologia.fi/2023/05/16/pelialan-on-kasvanut-suomessa-positiivinen-kaikilla-mittareilla-mitattuna-alan-liikevaihto-kasvoi-jo-vuonna-2021-32-miljardiin-euroon-jo-2021-ja-myo-viime-vuoden-liikevaihto-pysynee-samoissa-luvuis/>
- YEL-työtulo | Työtulon vaikutus sosiaaliturvaan - Elo.* (n.d.). Työeläkeyhtiö Elo - paras kumppanisi YEL- ja TyEL-asioissa!. Retrieved October 10, 2023, from <https://www.elo.fi/fi-fi/yrittaja/yel-vakuuttaminen/yel-tyotulo?>
- (n.d.). *Yrittäjyyden puolesta - Yrittajat.fi.* Retrieved June 24, 2024, from <https://www.yrittajat.fi/uutiset/lakilaari-mita-tarkoittaa-jos-osakeyhtiolla-on-aputoiminimi>
- Yrittäjäeläkkeen määrä ja maksut.* (2023, October 30). Työeläke.fi. Retrieved December 29, 2023, from <https://www.tyoelake.fi/yrittajan-elaketurva/yrittajaelakkeen-maara-ja-maksut/>
- Yritysjärjestelyt ja verotus – osakevaihto.* (n.d.). vero.fi. Retrieved October 11, 2023, from <https://www.vero.fi/syventavat-vero-ohjeet/ohje-hakusivu/48557/yritysjarjestelyt-ja-verotus-osakevaihto2/>
- Yritysmuodot.* (n.d.). Etusivu - Suomi.fi. Retrieved October 11, 2023, from <https://www.suomi.fi/yritykselle/yrityksen-perustaminen/yritysmuodot>
- Yritysmuodot.* (n.d.). Yrityksen Perustaminen. Retrieved June 24, 2024, from <https://yrityksen-perustaminen.net/yritysmuodot/>
- YTJ Tietopalvelu.* (n.d.). YTJ Tietopalvelu. Retrieved June 24, 2024, from <https://tietopalvelu.ytj.fi/yritys/3116086-7>



## Questionnaire about starting a video game business and the expenses related to it

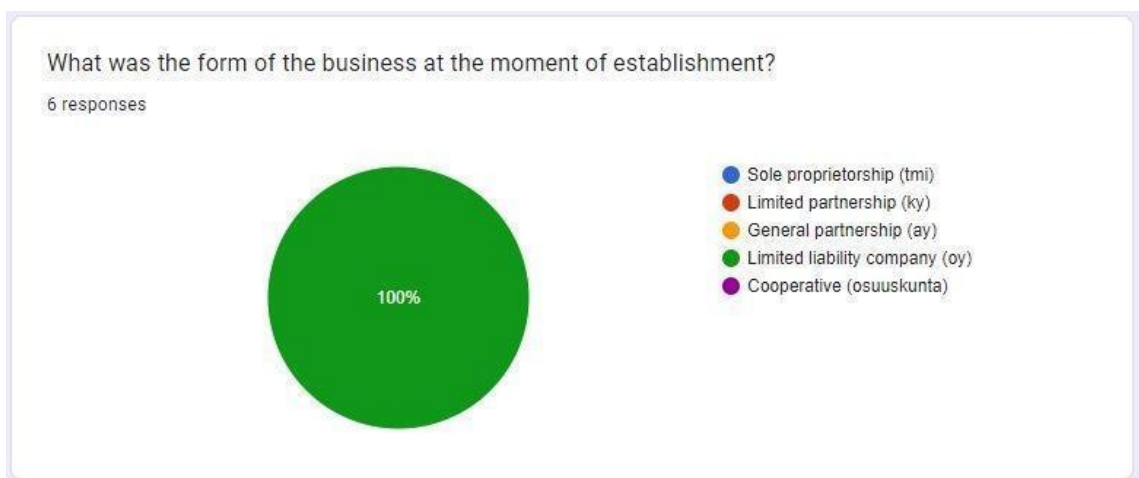
The following consists of questions to the respondents and their answers which were collected from the respondents.

The establishment year of the businesses



The year of establishment of the company.

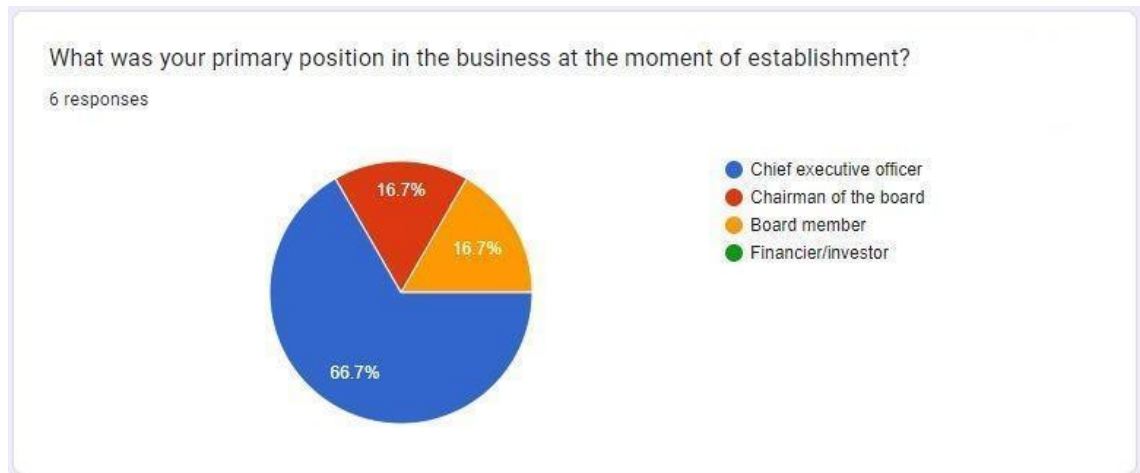
The form of the business



## Appendix 1

The selected form of the business at the moment of establishment.

The positions of the respondents in the company at the phase of establishment



The primary position of the respondent at the moment of establishment

Description of the initial establishment costs when the business was established in general level

“Describe the initial establishment costs when the business was established in general level”

A board member of a business responded:

“240 € for the registering of the company.”

Chief executive officer responded:

“200000”

## Appendix 1

Another chief executive officer responded:

“0”

Third chief executive officer responded:

“There was 2000€ minimum deposit required at the time for capital stock, in addition a few hundred euros for basic office supplies and ~500€/month for office rent. We got old computers for free (which we replaced with leased ones a year later) as well as starttiraha for the founders and a start-up loan of 35000€ from Finnvera.”

Chairman of the board responded:

“20000”

Fourth chief executive officer responded:

“140,00€”

Description of the sources of the financial resources to the establishment of the business

“Describe the types of source where the business acquired the financial resources to the establishment”

A board member responded:

## Appendix 1

“Self sourced, 5 members of the board and the CEO paid 40 € each.”

A chief executive officer responded:

“Angel investors, Business Finland”

Another chief executive officer responded:

“We get 19000eur from AVEK. Ja me kaksi perustajaa saimme starttirahaa vuodeksi.”

Third chief executive officer responded:

“Small investment from the founders for the capital stock, Finnvera loan, starttiraha from KEHA-centre. We got the free computers from KUAS, they were old ones with little to no monetary value.”

Chairman of the board responded:

“Personal savings and loan”

Fourth chief executive officer responded:

“Self funding”

## Appendix 1

Limitations in the usage of initial financial resources in case it was external

“In case the business did get financial resources to the establishment for the company, were those resources loan or gratuitous? If the resources was external, was there limitations in usage?”

This question was to determine the possible limitations in the external financial resources and the type of the resource, either loan or gratuitous.

A board member did not respond at all.

A chief executive officer responded:

“Loan and equity investments”

Another chief executive officer responded:

“No”

Third chief executive officer responded:

“The external resources (aside from the free computers) were loans, so there were no limitations as far as I can remember.”

Chairman of the board responded:

“Loan”

## Appendix 1

Fourth chief executive officer responded:

“Loan”

Hiring of employees in the initial phase of the business and the expenses

“Did the business hire employees immediately at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments personnel expenses covered?”

This was an open question to determine the proportional amount of resources used to the hiring of the employees in the initial phase of the business.

A board member responded:

“We did not hire anyone. We had around 5 interns in addition to the founding members.”

A chief executive officer responded:

“Yes. 80%”

Another chief executive officer responded:

“We did not hire employees. We all bootstrapped.”

A third chief executive officer responded:

## Appendix 1

“We did hire a few employees, there were 10 of us altogether with 7 founders. We were lucky enough to have some subcontracting work that covered the salaries and founders lived off the starttiraha for the first 9 months.”

A chairman of the board responded:

“No”

A fourth chief executive officer responded:

“Yes. Yes. 84%”

Acquiring premises for the company in the initial phase of the business

“Did the business acquire, rent or buy any office space or other space at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments premises expenses covered?”

This question was to find out if the company acquired any premises for the use of the company and the proportional amount of the financial resources used to it.

A board member responded:

“We did not, all work is done remotely on our own PC's”

## Appendix 1

A chief executive officer responded:

“Yes we had offices. Around 5%”

Another chief executive officer responded:

“We did not rent office space. We were able to use Oulu Game Lab premises and later my owned space, what we renovated a little.”

Third chief executive officer responded:

“Yes, it is hard to say what was the percentage as we did have some income too, maybe 50/50?”

Chairman of the board responded:

“Yes. 100% from initial investments.”

A fourth chief executive officer responded:

“Rent. Yes. 5%”

Acquiring utilities for the business in initial phase

“Did the business acquire any utilities like electricity, internet, water or other and insurance policies at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments premises expenses covered?”



## Appendix 1

This question was to determine possible utilities and their proportional cost acquired to the business in the initial phase of the business.

A board member responded:

“No.”

A chief executive officer responded:

“Yes, around 7%”

Another chief executive officer responded:

“None”

Third chief executive officer responded:

“We paid for internet, and mandatory employer insurance, the rest was included in the rent. It is hard to say what was the percentage as we did have some income too.”

A chairman of the board responded:

“Yes. 100% from initial investments.”

Fourth chief executive officer responded:

“Yes. 1%”

## Appendix 1

### Acquiring devices and software in the initial phase of the business

“Did the business acquire any devices and software at the start of the business? If it did, were the expenses covered with initial investments? Approximately, how large portion of the initial investments premises expenses covered?”

This question was to determine what kind and proportional investments to the software and devices of the total expenses was spent.

A board member responded:

“No, only free to use software has been used in development.”

A chief executive officer responded:

“Yes, around 8%”

Another chief executive officer responded:

“We bought computers and some software. And git and google space. Covered 100%”

Third chief executive officer responded:

“We only got a couple of mobile test devices that were 100% from the initial investment, otherwise we used free software as well as some free licenses from Microsoft BizSpark.”

A chairman of the board responded:

## Appendix 1

“Yes. 100% from initial investments.”

Fourth chief executive officer responded:

“Yes. 15%”

Other costs in the initial phase of the business

“Describe other than aforementioned expenses which were related to establishing a business venture?”

This question was to cover other expenses in the initial phase of the business.

A board member did not respond.

A chief executive officer did not respond.

Another chief executive officer responded:

“None”

Third chief executive officer responded:

“Travel, we traveled to some European events such as Nordic Game Conference and Pocket Gamer London to promote our upcoming games.”

## Appendix 1

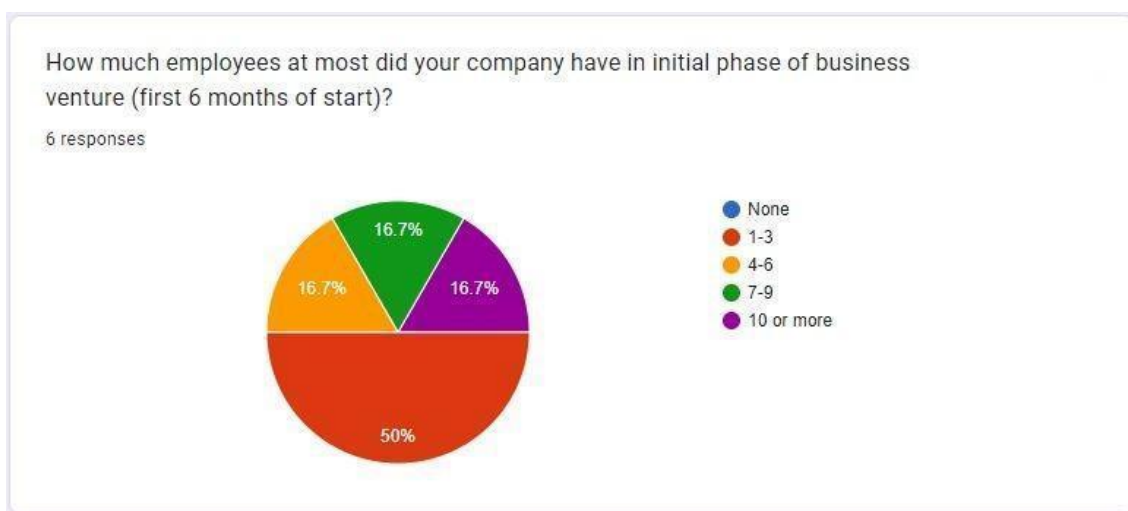
A chairman of the board responded:

“Some freelancer for game development and accountant expenses.”

Fourth chief executive officer responded:

“Some furniture”

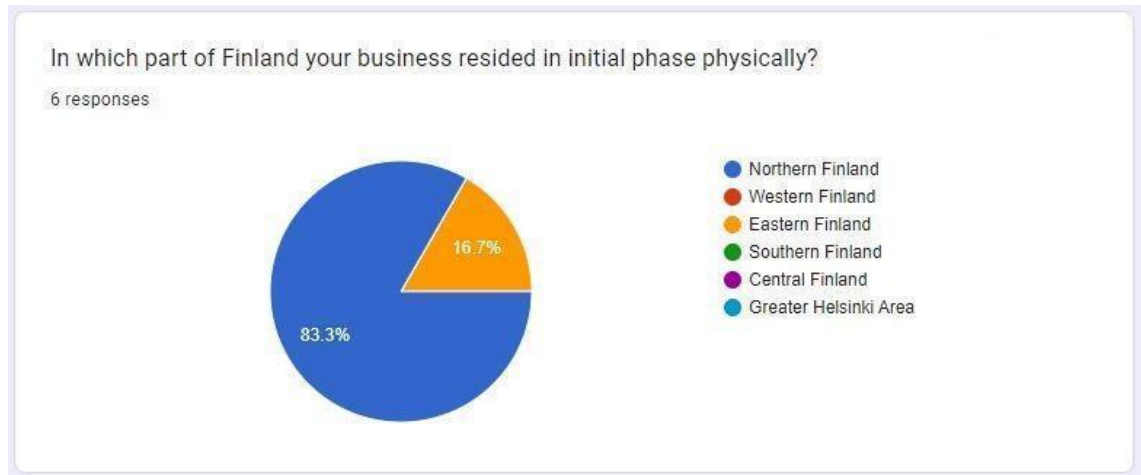
Maximum amount of employees in the first six months of business



The maximum amount of employees in the company in first 6 months from establishment

The part of Finland where the business resides

## Appendix 1



The part of Finland where the business resided in initial phase when estab