Haaga-Helia
University of Applied Sciences

Forecasting financial needs and profitability for a clothing line in Finland

Adriana Ramona Pantea

Bachelor's Thesis
Degree Programme in International Business
2017

Haaga-Helia
University of Applied Sciences

Abstract

19.10.2017

Author
Adriana Ramona Pantea

Degree programme	**Year of entry**
International Business	2013
Thesis title	**Number of pages and appendix pages**
Forecasting financial needs and profitability for a clothing line in Finland	58 + 3

While finding a job in a company might be a tough process, establishing an own company is an attractive alternative in Finland. High quality hand-made products are valuable in Finland and the country has a favorable demographic and economic situation. The focus of this thesis was placed on establishing a small manufacturing company that produces its own clothing line. Financial management is one of the key aspects of a start up to become successful and this shaped the main purpose of the research into creating projections of the financial needs and profitability of the case company.

The sources includes the official websites of the Finnish tax authority (vero.fi) and the Finnish Patent and Registration Office. Market reports on the attitude towards entrepreneurship and other various online materials on the topic were researched and applied to answer the main research question, where two scenarios of setting up a clothing line start up were compared with respect to costs and profitability.MS Excel was selected to build financial statements as it is an affordable and easy to use tool.

The thesis is made up of four main subchapters: entrepreneurship, business idea, the SWOT analysis and the financial aspects of a start-up. Such a structure enables the author to first explain to the reader why Finland is a favorable market for the case start-up and what the different options of establishing a company are, and then to elaborate on the background of the business idea as well as to support and validate it with a competition analysis. Finally, the research is concluded with a discussion on the financial information answering the main research question. As an output of this thesis, costs and revenues are calculated and forecast financial statements are created. To support the analysis, breakeven points were calculated for each of the two business scenarios. Due to the high initial investment costs of the second scenario, it was found that the first scenario with a single owner and without employees is more favorable and turns into profit in three years.

All in all, the objectives of the research were met and this thesis can be used as a user guide to potential entrepreneurs interested in manufacturing clothes in Finland.

Keywords
Start-up, forecasting, income statement, balance sheet, breakeven point.

Table of contents

1 Introduction

In Finland, establishing a new business looks much easier than finding a job. This is one of the many reasons why many foreigners start their own businesses as soon as they have settled in Finland. Even though the idea of launching a new business seems easy to achieve, the entire process requires innovation, time, patience and various skills in running and managing the business and its resources.

The thesis focuses on the financial needs and profitability of a start-up, especially on forecasting the financial costs and sales in order to open and manage a clothing line in Finland. Forecasting the financial needs before the business is launched will provide the essential data that will help the writer of the thesis to prepare well from a financial point of view. Additionally, it will make it easier to avoid unwanted circumstances when launching the business; taking out loans or having a financial crisis.

Microsoft Excel has been useful, as a tool, for creating all the financial statements.
The resources used for writing the thesis consist of various literary sources from books, and materials available online. Exemplary forms data and the websites used are reports, statistics and information from Vero and the Finnish Patent and Registration Office (PHR).

1.1 Background

I have always been interested in being a self-employed entrepreneur. My interest in running my own business started as a child when my father opened a small food shop in my home country. I was his main assistant despite being only 15 years old. Opening your own business is what I considered back then, as similar to having something magical in one's self.

I have fifteen years of experience in creating (designing, making and sewing) clothing for women and children. From the years 2012-2016 I have worked as a financial secretary for the city of Helsinki. Additionally, I have worked for a year as a controller in a small department for the city of Helsinki. All these years of various work experiences and the studies that I have completed at Haaga-Helia University of Applied Sciences, have helped me learn more about the business life in Finland. The main purpose of this thesis is to have a better understanding of the financial costs and needs that a start-up faces, during its first three years as a potential business; and also its profitability based on sales forecast.

1.2 Thesis objectives

The thesis aims to analyse the costs and profitability of a clothing line business by modelling two different scenarios. In the first scenario there is only the owner of the company manufacturing the dresses, while in the second scenario two more employees are hired to manufacture the dresses.

The purpose of the thesis is to answer the following question:
R.Q. 1. Which of the two scenarios is the most reasonable in terms of profitability for the business?

In order to answer the main research question, financial statements have been forecasted and breakeven point has been calculated for both scenarios. Particular attention has been placed on the following aspects, which are formulated below as investigative questions:
I.Q. 1. What would be strengths and weaknesses of starting a clothing line business in Finland? At the same time, what could be opportunities and threats analysed by means of SWOT analysis.
I.Q. 2. In which year the business starts generating profit in both of the scenarios?
I.Q. 3. Which scenario has the highest expenses?
I.Q. 4. What should be the production capacity to achieve a breakeven point in each of the scenarios?

The author of the thesis will benefit from the answer to the above questions.

1.3 Demarcation of the thesis

Although the thesis has reached its aims, there are unavoidable limitations/restrictions to the thesis. This thesis addresses the costs of the clothing line, to analyse the business's profitability in two different situations. The thesis is limited to a private trader in Finland. The first limitation, is that a marketing research about target customers, to find out if there is a market for the products, was not conducted. Another limitation is that the business sells only two types of products and the target customers are only young females. The profitability's calculation is limited to the sales revenues coming only from those two types of products. Finally, the business does not operate internationally and this limits the company in the cases of increasing profitability, growing locally and also internationally.

1.4 Key concepts

Start-up is an “early stage in the life cycle of an enterprise where the entrepreneur moves from the idea stage to securing financing, laying down the basis structure of the business, and initiating operations or trading.” (Business Dictionary)

Forecasting is “a planning tool that helps management in its attempts to cope with the uncertainty of the future, relying mainly on data from the past and present and analysis of trends.” (Business Dictionary)

Income statement is “an accounting of income and expenses that indicates a firm's net profit or loss over a certain period of time, usually one year.” (Dictionary.com)

Balance sheet is “a statement of the financial position of a business on a specified date.” (Dictionary.com)

Breakeven point is” the point at which the income from sale of a product or service equals the invested costs, resulting in neither profit nor loss; the stage at which income equals expenditure.” (Dictionary.com)

1.5 List of abbreviations

CM – Contribution margin
COGS – Cost of goods sold
EEA – European Economic Area
FC – Fixed cost
LLC – Limited Liability Company
OY – Osakeyhtiö
P&L – Profit and loss
PHR – Finnish Patent and Registration Office
SMP – Sales mix percentage
TVC – Total variable cost
USM – Unit sale mix
UVC – Unit variable cost
VC – Variable cost
WACM – Weighted average contribution margin

2 Theoretical framework

2.1 Entrepreneurship

New business formations are the foundation of any net increase in Finland's employment rate and they play an important role in the productivity growth of the country. Despite the fact that new entrepreneurs, if successful, can become immensely wealthy. They are nonetheless extremely essential to the creation of wealth. For the country in which they have their business, it provides employment and/or pays taxes to the government. The government can then invest the amount received from said paid taxes in public services, such as; hospitals, schools, transportation and other facilities. In other words, a business is part of the economic system that contributes to a better life not only for the business owners or workers but for everyone else living in that economic system. (Burns 2014, 8; McHugh, McHugh & Nickels 2016, 5.)

The word entrepreneur is derived from the French word *entreprendre* invented by Jean-Baptiste Say, a cotton manufacturer. The word is translated to *adventurer*. (Investopedia) The word entrepreneur defined by the Business Dictionary is described as one's willingness to organize, manage and develop a business and venture with all its risks to gain profit (Business Dictionary). The Oxford English Dictionary, describes an entrepreneur as a person who is willing to take high degree risks to profit (Oxford English Living Dictionary). There is no guarantee for any business starters that their business will succeed in today's competitive business world. However, if an entrepreneur is fully committed to their business and has the required determination and knowledge, they will succeed in dominating their business and thus, will be successful.

In Finland, a business can take any of the following forms: a private trader, a partnership, a limited liability company or a co-operative. There is also the possibility for a foreign organization or foundation to establish a business branch in Finland. The present thesis will focus principally on the form of a private trader business.

At the end of the year 2013, in Finland there were a total of 491 926 businesses registered, of which 41.11% were private traders. In the table shown below, the number of private traders has gradually increased during the period of 2013-2015, but in the year 2016 the amount fell back down to almost the same starting amount as in 2013. The only businesses which have increased continually are the limited liability companies. (Finnish Patent and Registration Office.)

Table 1. Number of business registered in Finland 2013-2016

	31 Dec 2013	**31 Dec 2014**	**31 Dec 2015**	**31 Dec 2016**
Limited liability company	242 363	251 421	261 080	268 093
Private trader	202 250	209 123	215 784	203 562
Limited partnership	34 802	34 315	33 825	29 361
General partnership	12 511	12 221	11 927	10 470
Total	**491 926**	**507 080**	**522 616**	**511 486**

Like with anything new, launching a new business requires a lot of research and gathering of information to be done beforehand, both during and after the launching process. Starting with only the rough idea of a business is just not enough. Understanding the differences between all business forms and their advantages and disadvantages, can help an individual make the first step in the right direction. This is one of the most important steps that has to be made when launching a new business. The chosen business structure will have a great impact on the amount of taxes that have to be paid, the paperwork done, personal liabilities and the owner's ability to attract potential and necessary investors. The advantages and disadvantages of each business type can be found in Table 2.

Registration of a new company is made through an application to the Trade Register or Register of Foundations office, which is maintained by the Finnish Patent and Registration Office, or under the Finnish name; Patentti- ja Rekisterihallitus (Finnish Patent and Registration Office). The registration also has to be made to the VAT register, Prepayment Register and Employer Register which are all maintained by the Tax Administration, known in Finnish by VERO (The Business Information System).

Any individual who intends to run a business in Finland should be a member of European Economic Area, EEA. The EEA represents a single market called the Internal Market where the same rules are applied between the 28 European member states and the three EEA EFTA States; Iceland, Liechtenstein and Norway. The EEA Agreement came into force on the 1st of January in 1994 and it covers the four following freedoms: the movement of goods, services, persons and capital. (European Free Trade Association.) Concerning the individuals coming from outside the EEA, a trade permit is required before registering any business to the Trade Register. (Finnish Patent and Registration Office).

2.1.1 Sole proprietorship

A sole proprietorship or a private trader is a business owned by one individual. In Finnish, a private trader is: yksityinen elinkeinonharjoittaja or Toiminimi. This form of business is

the easiest type of business to launch in comparison with the rest of the business forms. The capital for starting this kind of business is raised from the business owner's personal resources or by borrowing money from banks or relatives. The owner is fully responsible for all the business decisions made, the company's liabilities and the debts that are to be paid out. Furthermore, the owner's personal health has an influence on the amount of equity that can be gained. The owner's personal wealth can be taken to pay any debts that have been left unpaid to the creditors. The ownership of a private trader is difficult to transfer to another person. (Gitman & Zutter 2012, 6-7.)

In Finland, an individual can register as a private trader under following conditions:

- the individual is a resident in the European Economic Area (EEA)
- the business is registered at the Trade Register
- it is operated under a licensed trade
- it is operated in a permanent space or spaces (a place separated from its' home)
- it employs personnel which are not immediate family members (PRH Notification Private trader.)

Registration as a private trader can be made online or using a paper form which is then delivered to the Trade Register. When a start-up registration is made online the cost is 75€, meanwhile filling out the paper version and registering at the Trade Register's office, is 110€. Another inconvenient issue while filling out the paper form, is that the payment has to be made before the registration. Also a receipt or bank account statement confirming the payment has to be attached to the paper form.

For a private trader, the form needed to be filled is Y3. The form has to be filled in either Finnish or Swedish. The owner will then receive a business ID a few days after the registration has been processed. If the start-up is launching its business in an industry where a license is not necessary, the business can start operating immediately after it registers. It is however recommended to check beforehand if a license is required. The trade name of a private entrepreneur may include in its name the abbreviation Tmi in Finnish or Fma in Swedish, but it is not mandatory. In the trade name it is not allowed to include any other names besides the name of the owner. (Finnish Patent and Registration Office.)

2.1.2 Limited liability company

A limited liability company (abb. LLC) in Finnish is osakeyhtiö (abb. Oy). This type of company may be established by one or more shareholders. The advantage of a limited liability company is that its members are not held personally liable for the company's

debts, but the liability for the debts of the company is limited to the value of their shares. (Holopainen 2009, 34.) Furthermore, the ownership of an LLC can be easily transferred.

In Finland, an LLC can be established by one or more legal founders if at least one of the founders is a permanent Finnish resident or a resident in the EEA.
Limited liability companies are divided into two categories: private companies and public companies. A private LLC can have a minimum shared capital of 2 500 euros; meanwhile, a public LLC company's shared capital can amount to a minimum of 80 000 euros. The amount, however, must be paid in full to the company's bank account before it can be registered with the Trade Register. (Finnish Patent and Registration Office.)

A limited liability company can be formed after it has been officially registered. The form necessary to register a limited liability company is Y1. The same form can be used to register into the VAT Register, Employer Register and Prepayment Register. The start-up application form can be filled online with a handling fee of 330 euros. The paper form however amounts to 380 euros.
The YTJ page provides a package guide for the individuals interested in starting and running a limited liability company. The guide contains thorough information on how the forms have to be filled out, which documents are requisite and from which authority companies they should be obtained. (Finnish Patent and Registration Office.)

2.1.3 Limited partnership

In a limited partnership business, there should be at least one responsible partner and one silent partner. The partners have limited liability and power to make decisions in the business. The limits depend on the extent of each partner's amount invested in the company. Therefore, a legal partnership agreement should be developed and agreed on. In it is documented: how the business decisions will be made, the profits will be divided and how the partnership will be dissolved should this happen. In a limited partnership, the decision-making belongs to the responsible partner and also the full responsibility for all of the company's debts and his/her personal property. (Holopainen 2009, 34.)

2.1.4 General partnership

A general partnership company must have a minimum of two responsible partners who are personally liable for all of the company's debts and other obligations that may arise in the partnership along with their personal property, similarly to a private trader's. Regardless of the importance of the decisions, partners should nonetheless consult with each other. In a general partnership, the partners can be natural persons or other companies.

Since it is a partnership, all the decisions made should abide to the agreement formed before the partnership was officiated.

A general partnership or a limited partnership business, are both required to fill the start-up notification before being initiated. The partnership is officiated through a registration that requires at least one of the partners to fill. The Y2 and the Personal data form are the required papers to be filled out, and any of the partners are allowed to sign. The same forms can be used to register with the Tax register, employer register and prepayment register offices. Additionally, a copy of the partnership agreement made has to be attached alongside the forms.

In the trade name of a partnership the words “avoin yhtiö” should be included alongside with the names of the partners involved in the business. At the current moment this thesis was written, there is no possibility of registering online for a general or limited partnership business. The handling fees for registering is 240 € and the amount has to be paid in advance in order for the forms to be filled out.
The Trade Register requires the following information to be specified on the partner agreement:

- the name of the partnership;
- the place of registered office
- the type of business
- the name of the partners
- general partners and silent partner for a limited partnership business type
- the contribution of the silent partner of a limited partnership in euro

Besides the above requirements, in the partnership agreement there should also be included the distribution of profit, the resignation from the partnership, and other legal and financial issues that may arise later in the business. Furthermore, the responsible partner should be a permanent Finnish resident or reside in the EEA. If the responsible partner cannot meet these requirements, a permit ought to be acquired from the Trade Register office. The silent partner does not need to meet these requirements. (Finnish Patent and Registration Office.)

The table below, Table 2, summarizes the advantages and disadvantages of each business forms that has been explained in the above subchapters.

Each of the types of ownership comes with its own risks profile. Every business contains various advantage and disadvantages that can have a direct or indirect impact on the owner of the business (Gitman & Zutter 2012, 7).

Table 2. Advantages and disadvantages of each business form

	Private trader	Limited liability company	Limited partnership	General partnership
Advantages	- complete managerial control of the business - receives all the profit - low business costs - independence -easy to close down	- limited liabilities, shareholders cannot lose more than they have invested - long life of firm - better access to financing - can hire professional managers	- can raise more funds than private trader - more work power and managerial skills - the silent partner is liable only for investment	- can raise more funds than private trader - more work power and managerial skills - there is no minimum amount of capital
Disadvantages	- liable for all the financial obligations - limited fund-raising power - difficult to offer a long term contract to employees - in case of illness the business will be on loss - ownership difficult to transfer	- higher taxes - more expensive to launch - subject to greater government regulation - no secrecy because regulations to disclose financial results	- owners have unlimited liabilities - one partner has to cover debts of other partner - difficult to transfer partnership - partnership is dissolved when a partner dies	- owners have unlimited liabilities - one partner has to cover debts of other partner - difficult to transfer partnership - partnership is dissolved when a partner dies

2.2 Business idea

The very first step that a founder has to do is to come up with a business plan. New entrepreneurs get their business ideas from their own work experiences or from the desire of having a new or modified product or service. An entrepreneur creates either a business opportunity which did not exist before or spots the opportunity that involves product or service innovation and modification and the expansion in a specific market. The main source of any business opportunities are usually found in: technology developments, law and regulations, demographics, culture, fashion, unmet demands and product or service deficiencies. (Burns 2014, 5.)

Any new start-up needs six components in order to launch a business; the business idea, the personal attributes of the owner, knowledge of customers and of competitors, marketing strategy, and resources (Burns 2011, 143).

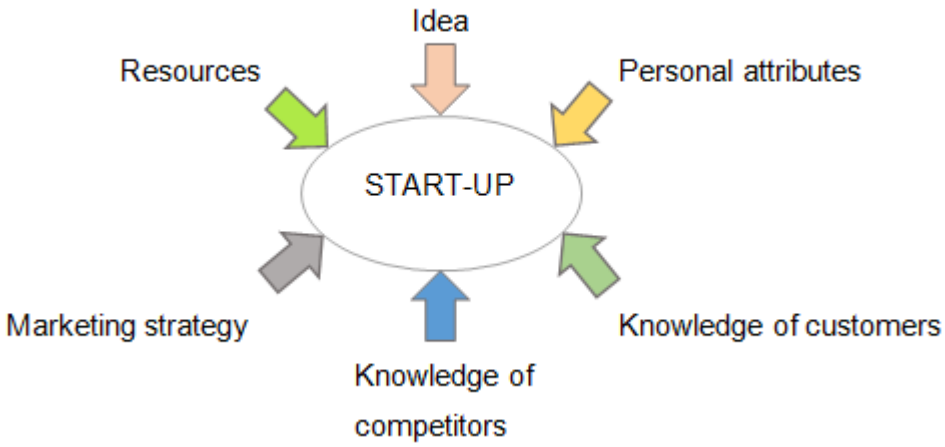


Figure 1. The six components needed to start a business

Personal attributes are characterized by creativity, innovation, independence, achievement, and acceptance of the possible risks and uncertainty.

Knowledge of customers is the component needing prior-research for a start-up to find out the amount of buyers interested in buying the products or services. Additionally, the research must contain the reason behind purchasing, using the new products or services and if the products or services will satisfy the customers' need.

Knowledge of competitors can help a new business to set prices fairly but competitively and to find a different strategy to respond and counter competitors' marketing campaigns.

Marketing strategies of a business informs the potential customers about a company's value proposition, selling proposition and prices of the product or services.

In addition to all of the components, *resources* are indispensable to new enterprises. Besides financial resources, which are necessary for any start-up business, there are also other resources that are overlooked. Human, emotional and educational resources are also just as essential in starting a business. (Burns 2011, 154.)

An original business idea can be secured through patents, trademarks, copyrights and designs. All these types of protective methods are known as intellectual property. (Burns 2011, 129.)

A patent is intended to protect new inventions and cover every detail and function of the invention, such as; function capabilities, material composition and how they are manufactured. It also prevents others from copying, making, using, importing or selling the invention without owner's permission. (Burns 2011, 133.)

A trade mark is a logo or a branded name or both, and it differentiates products or services from the ones of other business traders. Products which are registered as a trade mark have the ® or ™ sign next to it. (Burns 2011, 134.)

Copyright © can be used to protect any form of media from being copied or used without the owner's permission to some extent. Copyrights do not protect business ideas but protects the outcome of the idea, e.g. stories or songs. (Burns 2011, 135.)

2.3 SWOT analysis

The SWOT analysis is considered to be one of the most useful tools for any business. It monitors the internal capabilities and external environmental factors of a business. The acronym SWOT stands for **s**trengths, **w**eaknesses, **o**pportunities and **t**hreats.

The SWOT analysis enables a firm to develop strategies that make use of the firm's individual opportunities for growth. At the same time, it assists the company to spot their weaknesses and to strengthen them and additionally to eliminate the threats.

The SWOT analysis can be used to analyze an entire or part of the company, or the company's product or service. It can also be used to analyze their competitors. (Burns 2011, 300.)

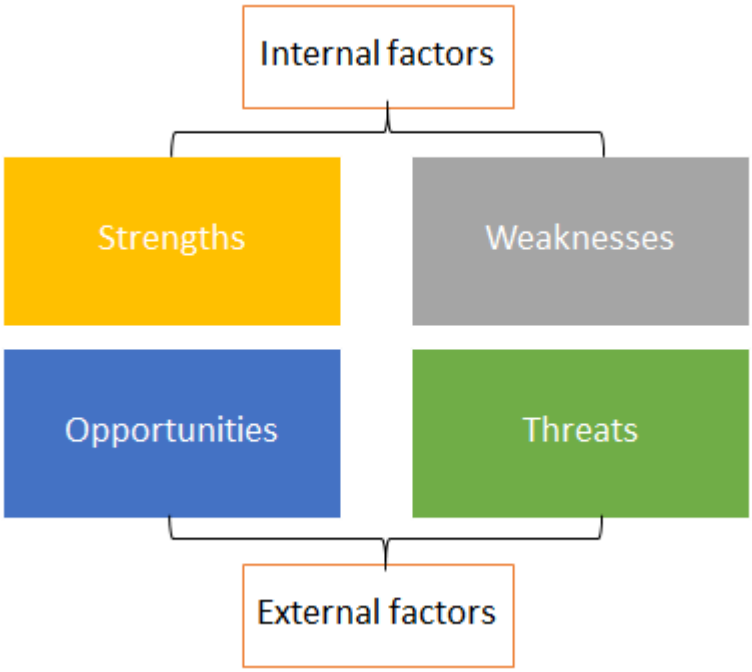


Figure 2. SWOT analysis

The SWOT analysis has four elements. Two of the components: strengths and weaknesses are internal factors whereas the other two factors: opportunities and threats are external.
A company's strengths could be: the location of the business, quality products or a new, innovative product. A weakness could be the lack of financial resources or personnel, or undifferentiated products. Looking at the external factors, an opportunity could be an international market, mergers or joint ventures. As for a threat, a business can faces a new competitor or higher taxation. (McHugh, McHugh & Nickels 2016, 189-190.)

2.4 Financial aspects of a start-up

All firms need time to patiently and carefully set up their businesses along with the financing that they need to back up their system. The amount of money necessary entirely depends on the business type, the machinery, services and the utilities needed for it to operate.

Before applying for any type of financing, it is important to know the amount that is necessary for the launch of the business. In other words, it is necessary to predict, calculate, and map out all the possible costs as a whole. In doing this, it is also possible get an idea

of the expenses and revenues that the business could possibly generate. Having a realistic prediction will thus help the owner estimate the amount of financing required to launch the business.

2.4.1 Business finance and loans

Business financing is the main key factor for any start-up to get a firm base in the market in order to grow successfully. Thus it is important to determine the amount of financing required, what kind of financing would fit the business best and also to locate secure sources of investment and financial aid.

Types of finance

There are two main types of financing: debt financing and equity financing.
Debt financing is money borrowed from external lenders such as but not limited to; friends, family members or banks, and it must be repaid within a fixed time period. Loans are considered as external capital for new businesses. (Investopedia 2017.)
A loan can be borrowed for a short period of time (under one year), a medium period of time (up to five years) or a longer period of time (over five years). A loan for a start-up usually means extra expenses for the business. In other words, when a loan is granted to a new entrepreneur, a margin of interest and a handling fee are charged. The annual interest rate is often higher in comparison to a normal loan. (Becoming an Entrepreneur in Finland 2014, 20.)

An entrepreneur can raise *equity financing* from interested investors, such as friends or family members (Burns 2014, 287-288). Entrepreneurs are required to put in some of their personal equity if their business structure is that of a private trader or partnership. In Finland, the equity raised by the owner is required to be around 20% of the amount needed, in order to receive a loan for the business. (Becoming an Entrepreneur in Finland 2014, 20.) For a limited liability company, the personal equity is called shared capital. Capital investments come from investors who expect shares of ownership over the business, in exchange for their invested money. The value of the shares can amount to as much as fifty percent of the business. (Burns 2014, 288-289.)

A start-up company is eligible to receive grants, which are meant to encourage new businesses and to help entrepreneurs in the early stages of the business (Becoming an Entrepreneur in Finland 2014, 21).

Sources of finance

A start-up can obtain finances from various and multiple sources. Most of the new entrepreneurs prefer to stay away from loans, due to the increase of expenses and the repayment periods a loan has.

Short-term financing can be obtained from sources such as investors, and/or banks. Another way of getting short-term financing is by using trade credit. Trade credit allows an entrepreneur to delay the payments for purchased goods or services. A trade credit is often offered to an entrepreneur in exchange for the possibility to buy either goods or services and to pay for them later. (McHugh & al. 2016, 514)

Medium or long-term financing can be obtained from various banks and/or financing companies. In Finland, the financing company Finnvera is owned by the State of Finland. Finnvera grants loans to newly established and existing, small or medium-sized, companies. (Finnvera).

A *start-up grant* is offered to an entrepreneur as a secure income for a limited period of time, usually lasting to no more than eighteen months. Normally, a start-up grant is given for a half year period but it can be extended to eighteen months in special cases. Start-up grants are considered as income, therefore they are taxable. (Becoming an Entrepreneur in Finland 2014, 21.)

A popular way to fund a start-up is to self-fund, also known as bootstrapping. This method of financing can be used until more funding opportunities arise and/or become affordable to the company. Investors may fund the business in return for a certain percent of shares. (Burns 2014, 287.)

Private investors, also known as *business angels,* expect in return of the invested money, shares of ownership that can be as large as 50 percent of the company. This type of equity is not open or possible for private traders and partnerships. (Burns 2014, 288-289.)

2.4.2 Start-up costs

A costs is “a resource sacrificed or forgone to achieve a specific objective”. An actual cost is a cost that has be paid whereas a budgeted cost is predicted. (Datar, Horngren & Rajan 2015, 29.)

Start-up costs are the expenses that are incurred during the early stages of creating a new business. Different businesses are required to manage different types of costs. Manufacturing businesses usually have higher costs than service businesses, due to the necessities of buying large machinery and the required larger premises for operating. However, some of the costs affect all businesses equally; business registration fees, rent and security deposits, office supplies, marketing and internet resources are some of the commonly shared costs of all businesses. Additionally, estimating start-up costs will help the business owners eliminate the risk of launching and running out of financial resources just before the business can start to generate revenue.

Costs are classified as fixed assets, investments or expenses. A cost is classified as a fixed asset only if the item is used over long periods of time and is used in daily operations of a business. Assets that are purchased for the possibility of a future resale and are not used for daily operations of a business, are considered to be investment costs. (Duchac, Reeve & Warren 2012, 446-447.) Business expenses are generated from daily operational activities. Thus business expenses are divided into two categories: fixed expenses and variable expenses.
Fixed expenses remain unchanged over a set period of time and they are not affected by the increase or decrease in production. On the other hand, *variable expenses* fluctuate with the increase or decrease in production. (Kieso, Kimmel & Weygandt 2012, 1012-1013.)

2.4.3 Sales forecast

Forecasting sales is the cornerstone of all forecasted financial statements. The level of sales affects the variable expenses and the bottom line of the income statement.

The objective of forecasting sales, is to advise on production planning or the purchasing of raw materials, usually on a short-term period. If the forecasting is done for a longer term, it is to estimate the cash inflow or to forecast financial requirements on a longer scale of time. A sales forecast can be done by using several different methods. Some of the methods require a quantitative research, such as a survey of the buyer’s intention. Other meth-

ods are non-quantitative in nature, such as the market test method. There is no method that will provide a 100% efficient result as each has its own errors. (Vashisht 2006, 181.)

Sales forecasting can be affected by general business conditions, such as the economy of the country, population, fashion, and seasonal fluctuations (if the product is seasonal). It is also affected by the conditions of the industry, such as the quality and design of the products, the price policy, and also by the internal factors of the company, such as production capacity and advertisements. Another factor that affects the sales forecasting is the market behaviour, e.g. demand. (Kumar & Sharma 1998, 134-135.)

2.4.4 Costs of goods sold

The cost of goods sold (COGS), included all of the following; the materials used, labour and allocated overhead costs that are associated with the manufacturing of the products. Materials costs consist of: raw materials and supplies.

Labour costs are divided into two categories: direct labour which are salaries paid to the employees that work directly on the products, and indirect labour which are salaries paid to other employees involved in the production.

Manufacturing overhead costs are all the other costs that cannot be traced to the cost object in a feasible way. Example of manufacturing overhead costs include factory insurance, depreciation on factory equipment, factory utilities, and machineries' maintenance. (Datar & al. 2015, 38-40.)

To calculate the COGS it is necessary to track the flow of direct materials and total costs incurred during the accounting year (Datar & al. 2015, 42). The figure 3 is listing all the costs that are needed to calculate the COGS.

Cost of goods sold XX Company		
Direct materials:		
Beginning inventory, January 1, 20YY	0,00€	
Purchase of direct materials	0,00€	
Cost of direct materials available for use	0,00€	
Minus ending inventory, December 31, 20YY	0,00€	
Direct materials used		**0,00€**
Direct manufacturing labor		**0,00€**
Manufacturing overhed costs:		
Indirect manufacturing labour	0,00€	
Supplies	0,00€	
Depreciation of furniture/plant/equipment	0,00€	
Other expenses	0,00€	
Total manufacturing costs		**0,00€**
Manufacture costs during the year		**0,00€**
Beginning work in process inventory, January 1, 20YY		0,00€
Total manufacturing costs to account for		**0,00€**
Minus ending work in process inventory, December 31, 20YY		0,00€
Cost of goods sold (to Income statement)		**0,00€**

Figure 3. Cost of goods sold

The end result of the COGS are for all the manufactured units. To find out how much is the COGS for one unit, the total COGS is divided by the total number of manufactured units.

2.4.5 Analysis of transactions

Business accounting is based on day-to-day transactions. A transaction is an event that occurs during the accounting period of a business and has an impact on the financial statements of the company. The impact made by the events will influence the business's assets and liabilities (owns and owes). (Horngren, Harrison Jr & Oliver 2012, 13.)

All business transactions have to be recorded by double-entry book keeping. Under the double-entry book keeping, every transaction is recorded in two different accounts. The basic tool for a double-entry system is the accounting equation which states that the assets must equal to the liabilities plus the owner's equity. The accounting equation shows the relationship between its three elements: the assets, the liabilities and the owner's equity. (Horngren & al. 2012, 11-13.)

In the analysis of transactions, all the events are recorded by using the same principle as in a balance sheet.

2.4.6 Depreciation of assets

Assets are a valuable resource owned by a business. Assets can be tangible items, such as machineries or buildings. Assets identified as intangible items can be, for example, patents or trademarks. Assets are divided into three categories: current assets, fixed assets and intangible assets. Current assets are items that are to be converted into cash within a year, while fixed assets (also called non-current assets) are long-term items such as land or equipment. (McHugh & al. 2016, 483-484.)

According to Investopedia, depreciation is "an accounting method of allocating the cost of tangible assets over its useful life". Businesses depreciate non-current assets for accounting and tax purposes. (Investopedia.)

There are two methods to calculate depreciation: one method is the straight line depreciation and the second is the declining balance depreciation. The straight line depreciation allocates the same amount of asset's cost over the assets useful life until the depreciable base is reduced to zero. The declining balance depreciation adjusts the depreciable base of an asset every year over the asset's useful file. (Thomsett 2004, 161-163.)

The straight line depreciation method is used in this thesis.

2.4.7 Income statement

An income statement (also known as a profit and loss financial statement) (P&L) measures a company's performance over a month, quarter of a year or a year. The income statement lists all of the company's revenues that come from sales of products or services. It also reports all of the expenses that have occurred from the company's operating activities during the specified period of time. The resources left over are referred to as net income or net loss. The income statement provides valuable information for investors or banks and for the owner of the company. (McHugh & al. 2016, 485.)

There are two formats of income statements that can be used: the single-step format and the multiple-step format. The single-step format lists all types of revenues and continues with all the expenses from operating activities. At the end, it presents the net income or net loss of the company. The multiple-step income statement uses subtotals before it reaches to the net profit or net loss. (Elliot, Horngren, Philbrick & Sundem. 2012, 172-173.)

An income statement consists of the following elements:

Table 3. Income statement elements

	Sales revenue
-	Costs of goods sold
=	Gross profit
-	Operating expenses
=	Net income before taxes
-	Taxes
=	Net income or loss

The income statement provides an answer to one of the most important questions asked in business: Was the business profitable or did it lose money during the specific reporting period? The answer to this question is the main purpose of the income statement. (McHugh & al. 2016, 486.)

The income statement is also linked with the balance sheet and with the statement of the owner's equity.

2.4.8 Balance sheet

The balance sheet (also known as the statement of financial position) is a financial statement that reports the value of the assets, liabilities and the owner's equity at a particular point in time. The balance sheet is like a "snapshot" of a company's financial state at a particular date that provides information about the company's ability to pay its debts and meet its operating needs. (Burns 2011, 229-230.)

The three components of the balance sheet form the fundamental accounting equation. The accounting equation measures the resources of a business's assets and claims against resources that are part of the liabilities and the owners' equity. (McHugh & al. 2016, 482.)

Assets = Liabilities + Owner's equity

On the left side of a horizontal balance sheet are listed the company's assets. This should equal to the liabilities and the owner's equity which are listed on the right side of the balance sheet. A vertical balance sheet lists the company's assets at the top, followed by its liabilities and the owners' equity (Gitman & Zutter 2012, 62).

Assets are the valuable possessions of a company, such as cash, merchandise, furniture, land and buildings that generate economic benefits to the company for the future. (Horngren & al. 2012, 11.)

Despite assets being classified into three categories, what is most often done in a balance sheet is that the assets are classified only in two categories. One is the current assets and the non-current assets. Fixed assets and intangible assets are long-term assets. Therefore, they can be put together in the non-current assets category.

Current assets are the assets that have the potential to be transformed into cash within one year from the recorded date in the balance sheet. Long-term assets will generate benefits to the company over a period of time longer than one year. (McHugh & al. 2016, 484.)

Liabilities are the company's debts to any outside parties, such as creditors, merchandisers and service providers. Liabilities can also be classified into two categories: current liabilities that are to be settled and paid in one year's time and long-term liabilities in which the payment can be extended to more than one year. Current liabilities can be payable accounts, notes and/or salaries. Long-term liabilities are loans over a period longer than one year. (McHugh & al. 2016, 484-485.)

The owner's equity is the amount of money they invest into the company. The accounting equation can be reformulated to find the value of owner's equity:

Owner's equity = Assets – Liabilities

The owner's equity can be calculated by subtracting the liabilities, which are owes of the business, from the assets, which are owns that belong to the business.

Table 4 demonstrates the components of a balance sheet and how the two sides have to balance out.

Table 4. Balance sheet

Economic resources Owned			Claims to economic resources Owed		
ASSETS		**=**	**LIABILITIES**	**+**	**OWNER'S EQUITY**
Cash	5 000€		Accounts payable	1 500€	Capital 3 000€
Accounts receivables	2 500€		Salary payable	1 900€	
Inventory	500€		Notes payable	1 600€	
Total assets	**8 000€**		**Total liabilities and owner's equity**	**8 000€**	

The amount of each transaction that a company makes affects both sides of the balance sheet, called the double-entry accounting system. Transactions have an impact on the company's assets, liabilities and the owner's equity.

2.4.9 Breakeven point

The breakeven point is when the sales have reached a point where the business is making neither profit nor loss. The breakeven point is the point where the sales revenues cover all the costs and the net income is zero. Its analysis helps the company understand the amount of sales they need in order to cover its operating expenses. The analysis is based on variable costs, fixed costs and the estimated amount of sales. The breakeven point analysis can be computed by using a mathematical approach, graphical approach or both. The analysis can be calculated for a single product or for a combination of different products. (Sahaf 2013, 450-470.)

The breakeven point equation (Plan Projections) for a single product in terms of numbers of units is:

$$Breakeven\ number\ of\ units = \frac{Fixed\ costs}{Contribution\ margin\ per\ unit}$$

The contribution margin per unit is calculated by subtracting the variable costs per unit from the selling price per unit.

$$Sales\ price\ per\ unit - Variable\ costs\ per\ unit\ = Contribution\ margin\ per\ unit$$

When calculating the breakeven point for sales mix, first the weighted average contribution margin (WACM) must be computed (Plan Projections).

To calculate the WACM, it is important to calculate first to find the relative percentage in which the company sells its products.
The following equation can be used:

$$Sales\ mix\ percentage\ for\ product\ A\ (SMP\ A) = \frac{Product\ A}{Total\ units\ for\ all\ products}\ \text{X}\ 100\%$$

$$Sales\ mix\ percentage\ for\ product\ B\ (SMP\ B) = \frac{Product\ B}{Total\ units\ for\ all\ products}\ \text{X}\ 100\%$$

Additional information and calculation are needed. The selling price and variable costs for each product type are necessary to calculate the contribution margin for the products.

$$Sales\ price\ per\ unit\ (product\ A) - Variable\ costs\ per\ unit(product\ A) = Contribution\ margin\ per\ unit\ for\ product\ A$$ (CM A)

Using the same equation, the CM for the following product can be calculated (CM B).

After the contribution margin for each type of product is computed, the following equation can be used to calculate the WACM for sales mix.
The equation for WACM is following:

$$WACM\ per\ unit = (CM\ A\ x\ SMP\ A) + (CM\ B\ x\ SMP\ B)$$

At this point, the amount of fixed costs are needed.
The breakeven point equation for more than one product in terms of numbers of units is:

$$Breakeven\ number\ of\ units = \frac{Fixed\ costs}{WACM\ per\ unit}$$

The breakeven units can be split between the products using the sales mix percentage:

$$Breakeven\ point\ Product\ A = \left(\frac{Breakeven\ point\ for\ sales\ mix}{SMP\ A}\right)$$

In the same way the breakeven point for product B can be calculated.

At the end of all the above calculations, the total contribution margin of both of the products must equal fixed costs. To verify the correctitude of the breakeven point in units, the following equation can be used:

Product	**Unit sales**	**X**	**UCM**	**=**	**Total CM**
A	000 units	X	000€	=	000€
B	000 units	X	000€	=	000€

If the total contribution margin equals fixed costs, then the breakeven point in units have been calculated correctly.

3 Empirical framework - Clothing line

3.1 Description of the business idea

The business idea this thesis topic is based on, is sewing dresses for small girls from the ages of 0 to 6. The idea came about during the process of sewing a jean dress for a close friend and a silk dress for a relative.

Picture 1. Two dresses designed by the author of the thesis

At the beginning, focusing on sewing dresses for small girls will be an easy start for the business. As the business grows, the products can vary, but the niche group will most likely remain in the fashion for children and especially for female consumers.
The clothing line will be secured through a trademark. The trademark will be created by using only a logo and it will be registered at the Finnish Patent and Registration Office. The registration of the clothing line as a trademark, will offer to the owner of the company the right to prohibit other companies from selling similar products. The trademark must be distinctive from other trademarks so that it will not be similar to other companies' trademark.

3.2 SWOT analysis

The acronym SWOT stands for strengths, weaknesses, opportunities and threats. The SWOT analysis method will help the owner of the business determine what are the business's strengths and opportunities. It will also offer a clear view on how to convert the weaknesses into strengths and threats into opportunities.

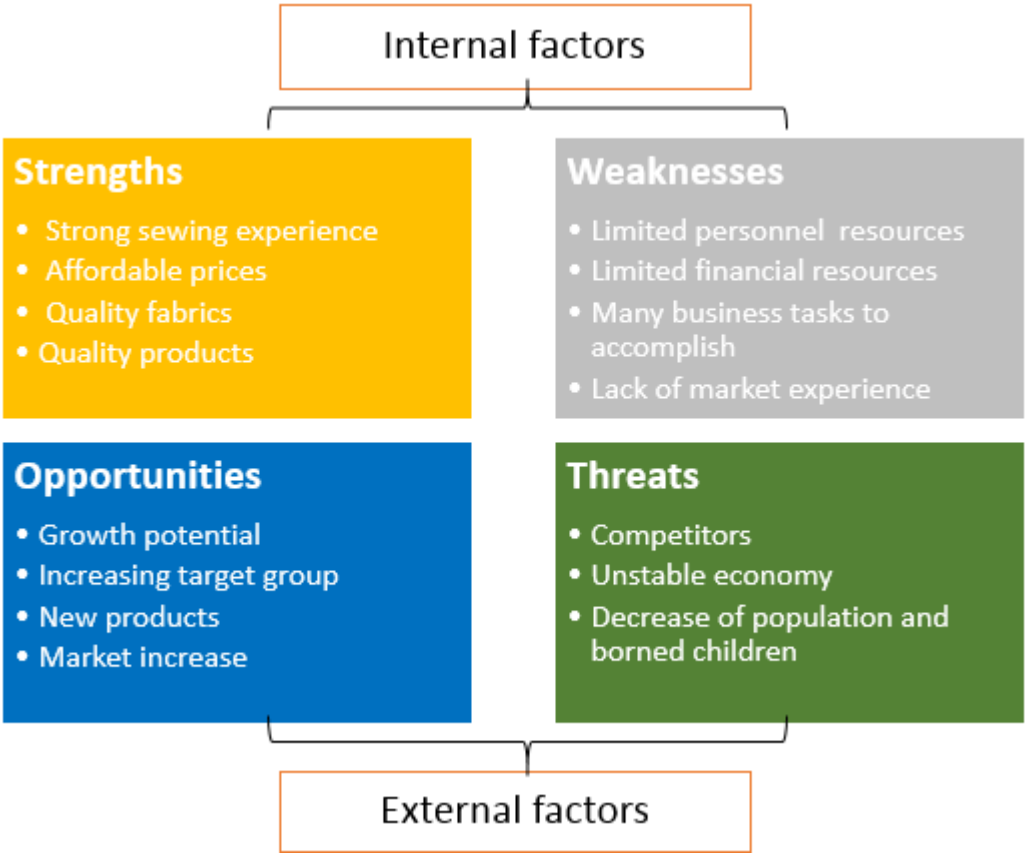


Figure 3. SWOT analysis of the clothing line

3.2.1 Internal factors

Company's strengths

The company has four strengths. One of company's strongest point is the large amount of experience that the owner has in sewing and creating clothes. Experience as a sewing machine operator is essential, not only at the beginning of the business, but also in the future to supervise new employees. The owner of the company is also educated on how to safely operate several types of sewing machines, such as the straight stitch machine, the serger machine, the button machine and the blind hemmer machine.

Customers who buy dresses made out of good quality fabric, will get the feeling of durability, comfort and satisfaction. To avoid manufacturing low quality products, zippers on the dresses must be hidden from sight and the patterns are required to always match on different sections of the clothes. This is to promote continuity and the sensation of flow in the product, as well as to hide aspects of the product consumers might find unattractive to the eye.

Weaknesses

Limited personnel resources is the greatest weakness of the business. Being a start-up business with limited financial resources means that the company cannot afford to hire people immediately after it starts operating. The owner of the company is the sole responsible person and executor of manufacturing the dresses, marketing and selling them, and also in charge of the paper work related to business. The paper work is usually the most time consuming part of a business, thus it reduces the time of being able to manufacture. Benjamin Franklin advices a young tradesman by telling him to remember that: “Time is money” (National Archives 2017). Benjamin’s statement accuracy can be proven in this business. The limitation of the time will result in low quantity production, which will then have an impact on the business’s overall profitability. Weak business profitability will possibly increase the chance of a loan necessity. Even if the owner has made no plans to borrow money or get involved in debts, the investment that is needed to purchase sewing machines is fairly large, due to the expensive prices of quality machines. The limited financial resources can also have a great impact on the quantity of fabrics that are to be purchased. Fabrics of good quality and durability are more expensive than fabrics of lower quality.

The lack of experience in the marketing industry can have a foreseeable negative impact on the business’ performance.

A business needs to market its products considering the competition that the company will likely face, such as against established and well-known competitors. Online marketing is largely popular in today’s business life, but physical reach of traditional marketing methods are still in use.

3.2.2 External factors

Opportunities

The clothing line has growth potential on the market. Clothing businesses can grow internally or externally through a process of acquisition or merging. An internal growth refers to an increase in the market share, development of new products and the expansion into new markets. Indicators of growth, such as the range of products and/or employment, are financial, economic or management-related. An external growth refers to the expansion of the business through mergers and acquisitions, franchising and licensing. (Bruce & al. 2007, 266-277) Since the business will be at the start-up phase, expansion is not yet taken into consideration.

However it is unquestionable that the development of a new product will increase the target group of the business. Instead of manufacturing clothes only for young female consumers, the target group can be extended to males and to older consumers, such as parents or guardians.

Threats

One of the major threats that a business is going to face is the competition. As it was mentioned in the internal factors section, financial resources are one of the company's weaknesses. Therefore, the company does not have the financial capacity to compete with well-known competitors, neither with multi-billion-dollar trademarked companies such as Tommy Hilfiger or Gap.

The unstable economy of the country is another threat for the company. According to the Bank of Finland, the Finnish economy has grown in 2016 due to the private consumption and investment recovery. It is predicted that it will continue to grow in the following two years (Bank of Finland bulletin 2017).

According to Yle News, the European Commission forecasted that the economy throughout the Eurozone's nineteen countries will be 0.1% less in 2017 compared to 2016, and with 0,4% less than in 2015 (Yle News 2017).

Unemployment in Finland will have a negative impact on the business. Due to an increase of unemployment, the consumers will have less money to buy quality products and this then has an impact on the company's sales revenue.

A decrease in Finland's population has been recorded in the last six years. According to Statistics Finland, in 2016 there were 2 658 less children born than in 2015 (Tilastokeskus 2017).

Table 5. Born children in Finland 2010 - 2016

Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Number of live births	60 980	59 961	59 493	58 134	57 232	55 472	52 814

To conclude with the SWOT analysis, the business has shown good strengths and opportunities, but on the other hand it will encounter major weakness and face large threats.

The challenging task in this business will be to transform the weaknesses and threats that the business may be confronted with, into strengths and opportunities.

3.3 Registration of the business

Registering the business will be done through the form of a private trader business as it is considered to be the simplest form that an individual can open. As a private trader, the registration for a tailoring business in Finland is done by filling the form Y3. To avoid high costs at the beginning of launching the business, the owner's choice is to register their business to the Trade Register office through the online application at the cost of 75 euros. The language in which the form will be filled out is Finnish.
Since the business will operate in the clothing manufacturing industry, it does not require any licensing, and therefore the business can start operating immediately after the registration process has been completed.
The owner will receive their business ID a couple of days after registering.

3.4 Financial aspects of the business

The financial aspects of the business are analysed by creating two different scenarios in order to see which scenario is more profitable. The difference between the two scenarios is that in the second scenario the salary of two employees are added, whilst in the first they are not. The employees are hired through a recruitment agency, such as Barona Oy. In this case, the recruitment agency pays for employees' salary and other payments as an employer while the clothing line company only pays the monthly salary to the employees.

3.4.1 Business finance and loans

The most inexpensive and secure way to fund a business is through self-funding. The author of the thesis intends to self-fund their business as long as it will be fully sustainable. Therefore, the main source of capital will be the owner's personal savings. The intent is to invest 15 000 euros in the establishment of the company. For the second scenario the invested amount is doubled from 15 000€ to 30 000€.
For one to be able to self-fund its own business, financial projections are an important step in funding.

3.4.2 Start-up costs

One of the advantages of starting a clothing line is that launching the business does not require high expenses.

In the formation phase of a business, expenses consist of its registration fee, the trademark application fee, and the YEL pension insurance fee. The total amount of money needed to start the business is around 690€ (see Figure 4).

An online application for the registration of a trademark will be submitted instead of a physical one, to avoid paying an unnecessarily higher handling fee. According to PRH, the trademark cannot be changed after submitting the application.

In Finland, a self-employed entrepreneur, aged between 18 and 67, that has a work income of a minimum 7 645.25 € per annum, is obligated to pay pension insurance. The insurance contains the entrepreneur's pension and social security base. The pension secures the self-employed person with a steady income in case of sudden sickness, parental leave or unemployment and also during retirement period. (Etera 2017.)

YEL contribution percentages are changed annually by the Ministry of Social Affairs and Health and the same percentages are used by all of the insurance companies in Finland. For an entrepreneur aged between 18 to 53 and 63 to 67, the YEL insurance contribution percentage is 24.1% of the entrepreneur's work income. For those aged between 53 and 62, the YEL is 25.6% (see Table 6). A discount of 22% is offered during the first year of any business activities for new entrepreneurs who pay YEL for the first time. (Etera 2017.)

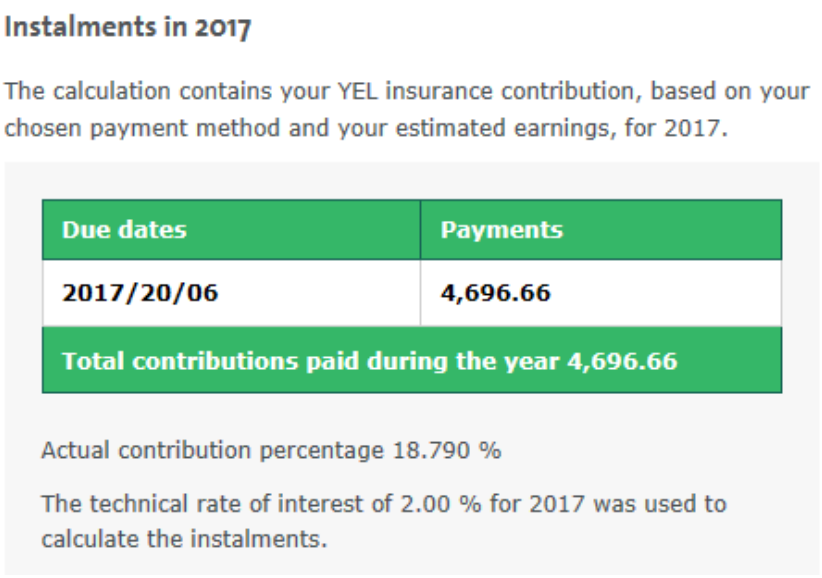
Table 6. YEL contribution percentages

2017	**YEL premium on earnings**
18-52 years	24.10%
53-62 years	25.60%
63-67 years	24.10%
22% reduction for starting entrepreneurs	
Starting entrepreneur 18 – 52 years	18.80%
Starting entrepreneur 53 – 62 years	19.97%
Starting entrepreneur 63 – 67 years	18.80%
Insurance contribution interest rate	2.0%

Beside the YEL insurance, other voluntary insurances can benefit a business. Such insurances can be property insurances, business interruption insurances or legal expenses insurances. (The Enterprise Finland 2017.)

As a self-employed entrepreneur, the author being an age between 18 and 67, they are obligated to pay pension insurance. Because the owner of the clothing line is a starting entrepreneur, a discount of 22% is given during the first year of business operations. Assuming that the business will start its operations on the 1.01.2018 and the estimated earned income will be 25 000€, the amount needed to be paid is around 390€ per month or 4 700€ for the entire first year. (Etera Calculator 2017.) Even though, the amount calcu-

lated with the help of Etera's calculator is 4 696.66€ rounded to 4 700€, the amount used in all the calculations is 4 680€.



Instalments in 2017

The calculation contains your YEL insurance contribution, based on your chosen payment method and your estimated earnings, for 2017.

Due dates	Payments
2017/20/06	4,696.66
Total contributions paid during the year 4,696.66	

Actual contribution percentage 18.790 %

The technical rate of interest of 2.00 % for 2017 was used to calculate the instalments.

Figure 4. Calculation of YEL contribution

At the beginning of each year, the YEL earned income is automatically adjusted by the wage coefficient. The YEL earned income can be changed if necessary. The YEL contribution amount will be deducted from owner's taxes to be paid.

The expenses are divided into fixed and variable expenses. Fixed expenses do not change for a given period even if production volume changes. Fixed expenses can be insurances, rent, etc. Manufacturing costs are expenses arising from activities which convert fabrics into a product. These costs are variable expenses that change regardless of changes in volume. (Kieso & al. 2012, 1012-1016.) If the production rate of dresses increases from 10 to 20 dresses, the amount of fabrics and thread required has to increase proportionally with the change in production, therefore the variable expenses increase.

The costs for the first year are calculated based on the rate of occurrence. A one-time cost is recorded with the same amount. A monthly cost is multiplied by 12 months resulting in a calendar year cost, while when needed costs are multiplied with 2, 4 or 6 based on the estimated needs.

Scenario 1

In the table below (Table 7) the launching expenses of the clothing line is shown. The estimated amount needed to start the business is 7 810€, which consists of the payments that will occur during the first month. For the first year, the estimated amount that will be spent is 28 620€.

The start-up costs amount to 690€, which consist of the formation costs from registering, and from the continuation phase another 7 120€ in operating expenses, supplies expenses for production plus machineries and furniture expenses.

Costs that are classified as assets consist of machineries that are used to manufacture the products. For product manufacturing, two sewing machines are required: a straight stich machine and a serger machine. The total pricing of the two machines amounts to 2 000 euros. A button machine and a blind hemmer machine are not necessary at the beginning of production, as the work can be done manually or by the straight stich machine.

In addition to the machines, a quality industrial ironing and vacuum table is necessary to give to the products a clean and pressed look. The vacuum table comes with an iron, a foot kick plate, which operates the vacuum in order to free the hands for ironing. A lower garment tray is also included to protect the garment from touching the floor. Vacuum table pricings start at 500 euros, depending on how much additional equipment is wanted. Therefore, the estimated total amount for the machineries is 3 000€ (see Table 7).

Table 7. Start-up costs
Scenario 1

Start-up costs	Descriptions of expenses	Amount	Period	First year
Formation phase				
	Registration fee	75€	One time	75€
	Trademark fee	225€	One time	225€
	YEL pension insurance	390€	Monthly	4 680€
	Subtotal	**690€**		**4 980€**
Continuation phase				
	Space for renting	800€	Monthly	9 600€
	Rent security deposit	800€	One time	800€
	Machineries	3 000€	One time	3 000€
	Sewing supplies	250€	When needed	1 000€
	Fabrics	1 000€	Regular	6 000€
	Marketing	40€	Monthly	480€
	Internet and telephone	30€	Monthly	360€
	Office supplies	100€	When needed	200€
	Furniture	1 000€	One time	1 000€
	Other expenses	100€	Monthly	1 200€
	Subtotal	**7 120€**		**23 640€**
Total start-up costs	**First month**	**7 810€**	**First year**	**28 620€**

Other manufacturing expenses includes the purchasing of fabrics and other basic sewing supplies, such as scissors, buttons, quality threads, etc. The estimated amount of expenses for supplies can amount to 250 euros per month or to a total of 1 000 euros a

year, while fabric expenses are estimated to be 1 000 euros per month with a total of 6 000 euros for the first year. 40 euros are allocated for marketing purposes and 30 euros a month for a stable internet connection in order to advertise the products online.
Thus the total of expenses for the business at launching stage is an estimated amount of 7 810 euros.

Scenario 2

To calculate the start-up costs of the second scenario, the salary of two employees are added to the continuation phase costs. Assuming that for one employee the company pays an amount of 1 900€, which covers the monthly salary plus any extra fees to the recruitment company, thus the total amount that is added to the start-up monthly costs is 3 800€.
The total expenses for the first year in the second scenario have increased by 64 390€. With the salaries of the two employees, there's an addition of 45 600€ in costs for one year. Fabric and other sewing supplies costs also have increased from 7 000€ in the first scenario to 23 049€ in the second scenario, as have electricity costs from 1 200€ to 3 941€. This making the total costs for one year amount to 93 010€ instead of 28 620€ as was presented in the first scenario (see Table 8).

Table 8. Start-up costs

Scenario 2

Start-up costs	Descriptions of expenses	Amount	Period	First year
Formation phase				
	Registration fee	75€	One time	75€
	Trademark fee	225€	One time	225€
	YEL pension insurance	390€	Monthly	4 680€
	Subtotal	**690€**		**4 980€**
Continuation phase				
	Space for renting	800€	Monthly	9 600€
	Rent security deposit	800€	One time	800€
	Machineries	3 000€	One time	3 000€
	Sewing supplies	838€	When needed	3 353€
	Fabrics	4 924€	Regular	19 696€
	Marketing	40€	Monthly	480€
	Internet and telephone	30€	Monthly	360€
	Salaries	3 800€	Monthly	45 600€
	Office supplies	100€	When needed	200€
	Furniture	1 000€	One time	1 000€
	Other expenses	328€	Monthly	3 941€
	Subtotal	**15 661€**		**88 030€**
Total start-up costs	**First month**	**16 351€**	**First year**	**93 010€**

3.4.3 Sales forecast

Sales projection are done from a period of one to three years and the products are divided into two categories: summer dresses (summer) and party dresses (party).
Summer dresses are made from thin fabrics and light colours to reflect light and keep the body cool. Party dresses are made from different fabrics that fluctuate with the seasons. In the winter time, thicker fabrics and various colours can be used, including fabrics of dark colours. For summer dresses, the fabrics are usually cheaper and the design is kept simple. This means that the manufacturing of summer dressed do not require much manufacturing time. It is estimated that to manufacture a summer dress, 40% of variable costs are used. Therefore, the selling price for a summer dress would start at 25€ in the first year, and go up to 28€ in the second and third year. For a party dress, sewing can require more complex techniques and the fabric can be more expensive. To manufacture a party dress, 60% of variable costs are used. These percentages of 40% and 60% of variable costs for both types of dresses are used later on to calculate the cost of goods sold for the second scenario in order for the calculation to be more accurate. Thus the finished product will be sold at a higher price of 28€ during the first year, and at 30€ during the following two years (see Table 9).

Table 9. Price per product type

CLOTHING LINE			
Product	**Price per unit**		
	Year 1	**Year 2**	**Year 3**
Summer dress	25€	28€	28€
Party dress	28€	30€	30€

Scenario 1

Summer dress – In the first quarter of the year and the last quarter, it is assumed that there will be no sales for the summer dresses as they are out of season in cold weather. In the second quarter of the year it is estimated that 100 units of the product will be sold, while in third quarter the units sold will be doubled. The total amount of units is 300 summer dresses, and the total sales being 7 500€. For the following two years, the expected amount of sales in units is estimated to increase by 25% of units sold during the second year and by 30% units sold in the third year. Thus sales revenue will increase from 7 500€ in the first year to 10 500€ in the second year and 13 650€ in the third year. The price of the dresses will increase only during the second year by 3€ and will remain the same in the third year.

Scenario 1

CLOTHING LINE								TOTALS
Sales Budget 20YY								
Product type	Quarter							
Summer dress	**1**	**2**	**3**	**4**	**Year 1**	**Year 2**	**Year 3**	
Expected unit sales	0	100	200	0	300	375	488	1163
Unit selling price	25€	25€	25€	25€	25€	28€	28€	
Total sales	0€	2 500€	5 000€	0€	7 500€	10 500€	13 650€	31 650€
Party dress								
Expected unit sales	60	80	130	100	370	463	601	1434
Unit selling price	28€	28€	28€	28€	28€	30€	30€	
Total sales	1 680€	2 240€	3 640€	2 800€	10 360€	13 875€	18 038€	42 273€
								2596
Totals sales	**1 680€**	**4 740€**	**8 640€**	**2 800€**	**17 860€**	**24 375€**	**31 688€**	**73 923€**

Figure 5. Sales budget - Scenario 1

Party dress – sales are estimated to happen during the whole year with a total of 370 units sold and a sales value of 10 360€ in the first year. For the following two years, the expected amount of sales in units is estimated to increase by 25% of units sold during the second year and by 30% units sold in the third year. Thus, sales revenue will increase from 10 360€ in the first year to 13 875€ in the second year and 18 038€ in the third year. The price of the dresses will increase only during the second year by 2€ and will remain the same in the third year.

The total sales done during the first year are estimated to be 670 units of dresses sold and with a total sales of 17 860 euros. In the second year it is estimated that the company will sell 838 units, that being an increase of 25% from the first year, with a revenue of 24 375€. In the third year the units will increase by 30% from the second year with a total revenue of 31 688€ (see Figure 5). The forecasted sales for the three whole years are estimated to be 73 923€ in total, 2 596 units being sold.

Scenario 2

Considering that there are two employees working for the company, the sales are estimated to increase with 5 890 units.

Summer dress – In the first quarter of the year and the last quarter it is assumed that there will be no sales for the summer dresses as they are out of season in cold weather. In second quarter of the year, an estimated amount of 320 units of product will be sold, while in the third quarter, sales of the product will reach 620 units. The total amount of units sold in the first year is 940 summer dresses with a total of 23 500€ in sales. For the following years the estimated sales in units' is expected to follow the same pattern as from

the first scenario: an increase of 25% of the units sold during the second year and 30% units sold in the third year. Thus, sales revenue will increase from 23 500€ in the first year to 32 900€ in the second year and 42 770€ in the third year. The price will similarly increase only during the second year by 2€ and will remain the same in following year.

Scenario 2

CLOTHING LINE								TOTALS
Sales Budget 20YY								
Product type	Quarter							
Summer dress	**1**	**2**	**3**	**4**	**Year 1**	**Year 2**	**Year 3**	
Expected unit sales	0	320	620	0	940	1175	1528	3643
Unit selling price	25€	25€	25€	25€	25€	28€	28€	
Total sales	0€	8 000€	15 500€	0€	23 500€	32 900€	42 770€	99 170€
Party dress								
Expected unit sales	200	260	450	340	1250	1563	2031	4844
Unit selling price	28€	28€	28€	28€	28€	30€	30€	
Total sales	5 600€	7 280€	12 600€	9 520€	35 000€	46 875€	60 938€	142 813€
								8486
Totals sales	**5 600€**	**15 280€**	**28 100€**	**9 520€**	**58 500€**	**79 775€**	**103 708€**	**241 983€**

Figure 6. Sales budget – Scenario 2

Party dress – during the first year, the sales are estimated to amount to a total of 1 250 units sold, bringing in a total value of 35 000€. As was mentioned above, the same percentages of increase (25% and 30%) are added to the following years to estimate the amount in sales (see Figure 6).The total sales for the party dresses during the first three years are estimated to be 142 813€, with 4844 units sold.

The total forecasted mixed sales for the three years are estimated to be 241 983€, and with 8 486 units sold.

3.4.4 Cost of goods sold

Cost of goods sold (COGS), includes all of the following: the materials used, labour and allocated overhead costs that are associated with the manufacturing of the products. Materials costs consist of raw materials and supplies. Raw materials are different types of fabrics and supplies are zippers, threads and buttons.

Even though labour costs are usually divided into two categories: direct labour and indirect labour, for the clothing line business, there is only direct labour for manufacturing the dresses because the employees work directly on the products from beginning until the finished product is completed.

Manufacturing overhead costs are all the other costs that are not direct material or direct labour. Usually, these costs cannot be traced to the cost object in a feasible way. An ex-

ample of these costs include supplies, depreciation of furniture and machineries, and other costs such as electricity.

Scenario 1

In scenario one, COGS consists of direct materials 6 000€, supplies 1 000€, depreciation of furniture and machineries 310€, and other expenses of 1 200€. Direct labour is not included in scenario one because only the owner of the business will manufacture the dresses. Beginning inventory or working in process inventory is not recorded in these calculations. For the first year, COGS totals of 8 510€, whereas in the second year is 10 560€ and in the third year is 13 635€ (see Figure 7).

Scenario 1

CLOTHING LINE					
Cost of goods sold					
Direct materials:	**Year 1**		**Year 2**		**Year 3**
Beginning inventory, January 1, 20YY	0€		0€		0€
Purchase of direct materials	6 000€		7 500€		9 750€
Cost of direct materials available for use	6 000€		7 500€		9 750€
Minus ending inventory, December 31, 20YY	0€		0€		0€
Direct materials used		**6 000€**		**7 500€**	**9 750€**
Direct manufacturing labor		**0€**		**0€**	**0€**
Manufacturing overhead costs:					
Indirect manufacturing labour	0€		0€		0€
Supplies	1 000€		1 250€		1 625€
Depreciation of furniture/plant/equipment	310€		310€		310€
Other expenses	1 200€		1 500€		1 950€
Total manufacturing costs		**2 510€**		**3 060€**	**3 885€**
Manufacture costs during the year		**8 510€**		**10 560€**	**13 635€**
Beginning work in process inventory, January 1, 20YY		0€		0€	0€
Total manufacturing costs to account for		**8 510€**		**10 560€**	**13 635€**
Minus ending work in process inventory, December 31, 20YY		0€		0€	0€
Cost of goods sold (to Income statement)		**8 510€**		**10 560€**	**13 635€**

Figure 7. Cost of goods sold

Scenario 2

For the second scenario, direct labour is added to the COGS. The COGS in the second scenario consists of 19 696€ direct materials used, 45 600€ direct labour of two employees, 3 353€ costs of supplies, depreciation of furniture and machineries of 310€ and other expenses of 3 941€. The total of COGS for the first year is 72 900€. Having the same components of COGS as in the first year, the total amount of COGS in the second year is 79 647€ whereas in the third, it is 89 768€ (see Figure 8).

Scenario 2

CLOTHING LINE					
Cost of goods sold					
Direct materials:	**Year 1**		**Year 2**		**Year 3**
Beginning inventory, January 1, 20YY	0€		0€		0€
Purchase of direct materials	19 696€		24 620€		32 005€
Cost of direct materials available for use	19 696€		24 620€		32 005€
Minus ending inventory, December 31, 20YY	0€		0€		0€
Direct materials used		**19 696€**		**24 620€**	**32 005€**
Direct manufacturing labor		**45 600€**		**45 600€**	**45 600€**
Manufacturing overhead costs:					
Indirect manufacturing labour	0€		0€		0€
Supplies	3 353€		4 191€		5 449€
Depreciation of furniture/plant/equipment	310€		310€		310€
Other expenses	3 941€		4 926€		6 404€
Total manufacturing costs		**7 604€**		**9 428€**	**12 163€**
Manufacture costs during the year		**72 900€**		**79 647€**	**89 768€**
Beginning work in process inventory, January 1, 20YY		0€		0€	0€
Total manufacturing costs to account for		**72 900€**		**79 647€**	**89 768€**
Minus ending work in process inventory, December 31, 20YY		0€		0€	0€
Cost of goods sold (to Income statement)		**72 900€**		**79 647€**	**89 768€**

Figure 8. Cost of goods sold

3.4.5 Analysis of transactions

The figures below analyse the detailed record of all the transactions that have occurred during the first three years in a particular asset or owner's equity. (Figure 10 to Figure 15).

Each business transaction that has occurred has dual effects. For example, the transaction marked with the letter j. from figure 10 has dual effects: first the amount of Cash is credited with 3 000€ for purchasing the machineries while, at the same time, the Machineries account has been debited with the same value. The minus sign on Assets shows that the account was credited, while the minus sign from Owner's equity shows a debit transaction. The value in red, with a minus sign before the number in the opening cash balance of the following year, represents a negative value. This means that the company could not pay all the expenses during the fiscal year.

Depreciation of assets is calculated by using the straight line depreciation. The costs of the assets are spread evenly over their useful life period. The same amount of depreciation, in this case 250€ for the machineries and 60€ for the furniture, is taken each year until the depreciable amount, 3 000€ and respectively 1 000€, are reduced to zero. At the end of their useful life, machineries are estimated to be sold for 500€. The resale value of the machineries is called salvage value. For this asset, the salvage value of 500€ is subtracted from the cost of machineries being 3 000€. The remaining amount of 2 500€ is used to find the depreciation amount that will be recorded annually in the analysis of the transactions, income statements and balance sheet (see Figure 9).

Straight line depreciation				
Machineries			**Furniture**	
Purchase cost	3 000€		Purchase cost	1 000€
Salvage value	500€		Salvage value	100€
Useful life	10	years	Useful life	15 years
Calculation:			Calculation:	
	2 500€	=purchase cost - salvage value		900€ =purchase cost - salvage value
	10%	= 1 / Useful life period		7% = 1 / Useful life period
Depreciation	250€	/year	Depreciation	60€ /year
	21€	/month		5€ /month

Figure 9. Straight line depreciation

Using the same method as for the machineries, the furniture's salvage value is 100€ and the remaining amount of 900€ is used to calculate the depreciation amount for each year.

Scenario 1

All the transactions that have occurred during the first year are expressed in figure 8. The transactions recorded with a minus sign in front are expenses, while the transactions without a minus sign are the owner's investment of 15 000€ and sales revenue of 17 860€.

The owner has invested 15 000€ for the first year. The amount is recorded in the cash account on the debit side and in the owner's equity account on the credit side. The investment plus the sales revenue bring a total of 32 860€ in cash.

A rent security deposit of 800€ has been paid at the beginning of the year. The amount in the cash account has been decreased by recording it on the credit side. The other assets account has been increased with the same amount because the amount paid as rent security will be returned when the renting contract ends.

Once the entries for the year have been made, each account is totalled.

The total costs for the first year are 28 620€ (see Table 7). At the end of the first year, the remaining cash is 4 240€, as it was calculated in figure 8. The assets account has a value of 8 930€. The owner equity at the end of the first year is calculated to remain with 8 930€ in order to balance out with the assets (Figure 10).

Scenario 1

	Analysis of transactions for Year 1									
	Assets							Liabilities	Owner's equity	
	Cash	*Office supplies*	*Other assets*	*Supplies*	*Machineries*	*Furniture*			*Equity*	
a.	15 000€								15 000€	a. Invested 15 000€
b.	-200€	200€								b. Office supplies 200€
c.	-9 600€								-9 600€	c. Rent expense 9 600€
d.	-800€		800€							d. Rent deposit 800€
e.	-4 680€								-4 680€	e. YEL -insurance 4 680€
f.	-7 000€			7 000€						f. Supplies 7 000€
g.	-480€								-480€	g. Marketing 480€
h.	-360€								-360€	h. Internet and phone 360€
i.	-300€							=	-300€	i. Starting expenses 300€
j.	-3 000€				3 000€					j. Machineries 3 000€
k.	-1 000€					1 000€				k. Furniture 1 000€
l.	17 860€								17 860€	l. Sales revenue 17 860€
m.					-250€	-60€			-310€	m. Depreciation 310€
n.				-7 000€					-7 000€	n. Supplies used 7 000€
o.	-1 200€								-1 200€	o. Other expenses 1 200€
Total	*4 240€*	*200€*	*800€*	*0€*	*2 750€*	*940€*		*0€*	*8 930€*	
	Total assets		**8 930€**					**Total owner's equity**	**8 930€**	

Figure 10. Analysis of transactions year 1– Scenario 1

During the second year, the opening cash balance is the ending cash during the first year. The owner's equity opening balance is the amount taken from the first year. In the second year, some of the expenses have increased and the cash opening balance of 4 240€ is smaller in comparison with the owner's investment from the first year.
The fixed assets have been depreciated at the end of the first year, and the remaining value of fixed assets at the beginning of the second year is 2 750€ for the machineries and 940€ for the furniture.

The YEL earned income is changed annually by the Ministry of Social Affairs and Health by the wage coefficient at the beginning of each year. Therefore, for the second year the YEL-insurance expense is increased by 2%. In other words, from 4 680€ to 4 774€, that being an increase of 94€.

In the second year, the sales revenue was 24 375€. To this amount, the beginning cash balance of 4 240€ is added. The total cash during the second year was 28 615€, while the total expenses were 25 726€ (see Table 10). At the end of the second year the cash account has a value of 3 199€ in the balance. The owner's equity closing balance is 7 579€. (Figure 11).

Scenario 1

Analysis of transactions for Year 2										
	Assets							Liabilities	Owner's equity	
	Cash	Office supplies	Other assets	Supplies	Machineries	Furniture		Acc. Payable	Equity	
a.	4 240€	200€	800€		2 750€	940€			8 930€	a. Opening balances
b.	-9 600€								-9 600€	b. Rent expense 9 600€
c.	-4 774€								-4 774€	c. YEL -insurance 4 774€
d.	-8 750€			8 750€						d. Supplies 8 750€
e.	-432€								-432€	e. Marketing 432€
f.	-360€						=		-360€	f. Internet and phone 360€
g.	24 375€								24 375€	g. Sales revenue 24 375€
h.						-250€	-60€		-310€	h. Depreciation 310€
i.				-8 750€					-8 750€	i. Supplies used 8 750€
j.	-1 500€								-1 500€	j. Other expenses 1 500€
Total	3 199€	200€	800€	0€	2 500€	880€		0€	7 579€	
	Total assets		7 579€					Total owner's equity	7 579€	

Figure 11. Analysis of transactions year 2– Scenario 1

In the third year, the sales revenue were 31 688€. To this amount, the beginning cash balance of 3 199€ is added. The total cash during the third year was 34 887€, while the total expenses were 29 813€ (see Table 10).

The YEL-insurance expenses have also increased at the beginning of the last year by 2%, from 4 774€ to 4 869€, that being an increase of 95€.
The supplies expenses however, are increased in the third year by 25%, due to the fact that amount of sales are 25% more.

The analysis indicates that the company's financial situation at the end of the third year gradually improves. The total assets are valued at 9 454€, which balances with owner's equity, making the ending balance of cash positive with a value of 5 384€ (see Figure 12).

Scenario 1

Analysis of transactions for Year 3										
	Assets							Liabilities	Owner's equity	
	Cash	Office supplies	Other assets	Supplies	Machineries	Furniture			Equity	
a.	3 199€	200€	800€		2 500€	880€			7 579€	a. Opening balances
b.	-10 560€								-10 560€	b. Rent expense 10 560€
c.	-4 869€								-4 869€	c. YEL -insurance 4 869€
d.	-11 375€			11 375€						d. Supplies 11 375€
e.	-389€								-389€	e. Marketing 389€
f.	-360€						=		-360€	f. Internet and phone 360€
g.	31 688€								31 688€	g. Sales revenue 31 688€
h.						-250€	-60€		-310€	h. Depreciation 310€
i.				-11 375€					-11 375€	i. Supplies used 11 375€
j.	-1 950€								-1 950€	j. Other expenses 1 950€
Total	5 384€	200€	800€	0€	2 250€	820€		0€	9 454€	
	Total assets		9 454€					Total owner's equit	9 454€	

Figure 12. Analysis of transactions year 3– Scenario 1

The inventories are not recorded in the analysis of the transactions, neither are they in the balance sheet because it is presumed that all of the supplies, that are used to manufacture the dresses, and all the dresses are to be sold by the end of each year.

The opening balance for the fourth year in the first scenario will be:

Cash account	Owner's equity
5 384€	9 454€

Scenario 2

The second scenario does not differ much from the first one. The main idea of having two scenarios, is to analyse both of them during the three years in order to decide which scenario is more profitable when the business is to be launched.

For the second scenario, the owner has invested 30 000€ at the start of the business. The salaries expenses of two employees, being 45 600€ per year, has been added to the expenses list. Taking into consideration that the workforce is greater in this scenario, some of the expenses have also increased at the same time. Those expenses are supplies expenses of 23 049€ and the other expenses of 3 941€ in which the costs of electricity is included (see Figure 13). Furthermore, all of the other expense accounts remain within the same value as in Scenario 1.

Scenario 2

Analysis of transactions for Year 1											
	Assets							Liabilities	Owner's equity		
	Cash	*Office supplies*	*Other assets*	*Supplies*	*Machineries*	*Furniture*			*Equity*		
a.	30 000€								30 000€	a. Invested	30 000€
b.	-200€	200€								b. Office supplies	200€
c.	-9 600€								-9 600€	c. Rent expense	9 600€
d.	-800€		800€							d. Rent deposit	800€
e.	-4 680€								-4 680€	e. YEL -insurance	4 680€
f.	-23 049€			23 049€						f. Supplies	23 049€
g.	-480€								-480€	g. Marketing	480€
h.	-360€								-360€	h. Internet and phone	360€
i.	-300€						=		-300€	i. Starting expenses	300€
j.	-3 000€				3 000€					j. Machineries	3 000€
k.	-1 000€					1 000€				k. Furniture	1 000€
l.	58 500€								58 500€	l. Sales revenue	58 500€
m.					-250€	-60€			-310€	m. Depreciation	310€
n.	-45 600€								-45 600€	n. Salaries	45 600€
o.				-23 049€					-23 049€	o. Supplies used	23 049€
p.	-3 941€								-3 941€	p. Other expenses	3 941€
Total	*-4 510€*	*200€*	*800€*	*0€*	*2 750€*	*940€*		*0€*	*180€*		
	Total assets		**180€**					**Total owner's equity**	**180€**		

Figure 13. Analysis of transactions year 1 – Scenario 2

The owner's investment of 30 000€, being twice more than in Scenario 1, plus the sales revenue of 58 500€, are not enough to cover all the expenses that the Clothing Line company will have during the first year. Therefore, the closing balance of assets for the first year is a negative balance of 4 510€. This means that the company has higher expenses than what revenue brought in. The owner's equity closes the balance at the end of the year with 180€, same as in the total assets account.

The losses from assets are generally recorded as liabilities and carried forward until future cancellation plans in the following year. In this case, the owner wishes to not be liable of any unpaid invoices and to record the losses as negative value in the cash account. Even though the company has recorded a loss, the company will maintain operations until further decisions made.

During the second year, the financial situation of the company did not improve. In contrast, the ending balance of cash has increased in negative value since the previous year. The opening balance of the cash account in the second year is marked in red with a minus sign, in order to differentiate the amount of negative 4 510€ from the rest of expenses.

The total ending balance of the cash account in the current year is -19 237€, which will be the opening balance of the cash account for the next year. For the second year, the mixed sales are forecasted to increase by 25% from last year, therefore the supplies increase with the same percentage.

Even with all things considered, the sales revenue during the second year being 79 775€ were not enough to cover all the operating expenses of the company (see Figure 14).

Scenario 2

Analysis of transactions for Year 2											
	Assets							Liabilities	Owner's equity		
	Cash	*Office supplies*	*Other assets*	*Supplies*	*Machineries*	*Furniture*			*Equity*		
a.	-4 510€	200€	800€		2 750€	940€			180€	a. Opening balances	
b.	-9 600€								-9 600€	b. Rent expense	9 600€
c.	-4 774€								-4 774€	c. YEL-insurance	4 774€
d.	-28 811€			28 811€						d. Supplies	28 811€
e.	-432€								-432€	e. Marketing	432€
f.	-360€						=		-360€	f. Internet and phone	360€
g.	79 775€								79 775€	g. Sales revenue	79 775€
h.					-250€	-60€			-310€	h. Depreciation	310€
i.	-45 600€								-45 600€	i. Salaries	45 600€
j.				-28 811€					-28 811€	j. Supplies used	28 811€
k.	-4 926€								-4 926€	k. Other expenses	4 926€
Total	*-19 237€*	*200€*	*800€*	*0€*	*2 500€*	*880€*		*0€*	*-14 857€*		
	Total assets		-14 857€					Total owner's equity	-14 857€		

Figure 14. Analysis of transactions year 2 – Scenario 2

During the third year, the mixed sales and supplies have increased by 30% from the second year. The sales revenue account has a value of 91 488€ and the supplies were 37 454€. Ending balance of the cash account is negative 21 166€.
The YEL-insurance expenses have also increased at the beginning of the last year by 2%, from 4 774€ to 4 869€, that being an increase of 95€. The rent expenses have increased by 10%, value of 10 560€, whereas marketing expenses decreased by 10% to a value of 389€ (see Figure 15).

The marketing has decreased because mouth to mouth marketing is considered the most inexpensive and the most important on social media (Vered, 2007.3-11).

Scenario 2

Analysis of transactions for Year 3										
	Assets							Liabilities	Owner's equity	
	Cash	*Office supplies*	*Other assets*	*Supplies*	*Machineries*	*Furniture*			*Equity*	
a.	-19 237€	200€	800€		2 500€	880€			-14 857€	a. Opening balances
b.	-10 560€								-10 560€	b. Rent expense 10 560€
c.	-4 869€								-4 869€	c. YEL-insurance 4 869€
d.	-37 454€			37 454€						d. Supplies 37 454€
e.	-389€								-389€	e. Marketing 389€
f.	-360€								-360€	f. Internet and phone 360€
g.	103 708€						=		103 708€	g. Sales revenue 103 708€
h.						-250€		-60€	-310€	h. Depreciation 310€
i.	-45 600€								-45 600€	i. Salaries 45 600€
j.				-37 454€					-37 454€	j. Supplies used 37 454€
k.	-6 404€								-6 404€	k. Other expenses 6 404€
Total	*-21 166€*	*200€*	*800€*	*0€*	*2 250€*	*820€*		*0€*	*-17 096€*	
	Total assets		-17 096€					Total owner's equit	-17 096€	

Figure 15. Analysis of transactions year 3 – Scenario 2

At the end of the third year, the total assets are at negative 17 096€, which equals with the total of the owner's equity.

The opening balance for the fourth year in the second scenario will be:

Cash account	Owner's equity
-21 166€	-17 096€

3.4.6 Income statement

The income statement format used in this thesis is the multiple-step format. The three commonly used subtotals are calculated to express the total sales, gross profit and total expenses. The operating expenses are deducted from the gross profit to obtain the net income.

The profit and loss statement, also called the income statement, is created after all the scenarios for the three years have been completed. The company's sales, cost of goods sold and operating expenses are presented in the income statement during the accounting year. The overall result of the company's profitability can be observed as being better from the income statement than from the analysis of transactions. In other words, the income statement presents a summary of the business's revenues and expenses over the course of three years.

Sales revenue are recorded directly from the sales budget (see Figure 5 and Figure 6) while COGS are added directly from the COGS calculations (see Figure 7 to 8).

Scenario 1

In the first scenario, for the first two years, the company has recorded net losses (see Table 10). The net income/loss is added to the statement of the owner's equity (see Table 13).

During the first year, the gross profit of the company is 7 560€, whereas the total expenses are 15 420€. The total expenses exceed total revenues, therefore a net loss of negative 6 070€ is reported at the end of the first year.

Table 10. Income statement - Scenario 1

Scenario 1

CLOTHING LINE			
Income statement 1.1 - 31.12.20YY			
	Year 1	**Year 2**	**Year 3**
Sales			
Summer dress	7 500€	10 500€	13 650€
Party dress	10 360€	13 875€	18 038€
Total sales	17 860€	24 375€	31 688€
Less COGS	8 510€	10 560€	13 635€
Gross profit	7 560€	12 475€	17 348€
Operating expenses			
Rent	9 600€	9 600€	10 560€
YEL-insurance	4 680€	4 774€	4 869€
Marketing	480€	432€	389€
Internet and telephone	360€	360€	360€
Starting expenses	300€	0€	0€
Total operating expenses	15 420€	15 166€	16 178€
Income before taxes	-6 070€	-1 351€	1 875€
Taxes	0€	0€	0€
Net income/loss	**-6 070€**	**-1 351€**	**1 875€**

Even though, during the second year the gross profit has increased from 7 560€ to 12 475€, an increase of 65%, it was not enough to cover all of the operating expenses of 15 166€ that occurred in that year. A net loss of negative 1 351€ was reported at the end of the second year.

During the third year, the sales revenues have increased by 30%, which resulted in an increase of gross profit from last year by 30.67%. At the end of the third year, the company has a reported net income of 1 875€ (see Table 10). Because the net income at the end of year three is only 1 875€, neither the owner nor the company are obligated to register for VAT.

The net income informs the owner when the business starts being profitable. The situation may change during the years if the sales decrease, but based on the calculations till now, the business should be profitable in the third year.

Scenario 2

In the second scenario, the company encountered the same situation. In the first and second year, the company has recorded a net loss. In the third year, the company has recorded another net loss, but the amount is smaller compared to the last two years. More precisely, in the first year, the company reported a net loss of 29 820€.

In the second year the loss has decreased to 15 038€, whereas in the last year, the loss has been recorded to a negative value of 2 238€. The cost of goods sold, rent and the YEL-insurance expenses have increased every year and additionally, the salaries of two employees have been added to the operating expenses.

As an end result, the sales revenue of 103 708€ in the third year was insufficient to cover the operating expenses of 16 178€ plus the COGS of 89 768€, which make a total of 105 946€ (see Table 11).

Table 11. Income statement - Scenario 2

Scenario 2

CLOTHING LINE			
Income statement 1.1 - 31.12.20YY			
	Year 1	**Year 2**	**Year 3**
Sales			
Summer dress	23 500€	32 900€	42 770€
Party dress	35 000€	46 875€	60 938€
Total sales	58 500€	79 775€	103 708€
Less COGS	72 900€	79 647€	89 768€
Gross profit	-14 400€	128€	13 939€
Operating expenses			
Rent	9 600€	9 600€	10 560€
YEL-insurance	4 680€	4 774€	4 869€
Marketing	480€	432€	389€
Internet and telephone	360€	360€	360€
Starting expenses	300€	0€	0€
Total operating expenses	15 420€	15 166€	16 178€
Income before taxes	-29 820€	-15 038€	-2 238€
Taxes	0€	0€	0€
Net income/loss	**-29 820€**	**-15 038€**	**-2 238€**

Registration for VAT is mandatory if the turnover for the accounting period of 12 months is more than 10 000€. However, if the turnover during the accounting period is less than 30 000€, the VAT taxable operation is considered to be of a small-scale and the company

may be eligible to apply for VAT relief. (Vero, 2017.) Since the company had losses during all three years, registering for VAT will not be necessary.

3.4.7 Balance sheet

The balance sheet is a snapshot of company's situation at the end of each year. The company's assets and owner's equity are listed in the balance sheet.

Scenario 1

The current assets consist of the ending balance at the end of each accounting year and cash and office supplies accounts. The machineries and furniture are recorded as long term assets or noncurrent assets because the assets will not be turned into cash or consumed within one accounting year.

Table 12. Balance sheet - Scenario 1

Scenario 1

CLOTHING LINE			
Balance sheet			
December 31, 20YY			
	Year 1	**Year 2**	**Year 3**
Assets			
Current assets			
Cash	4 240€	3 199€	5 384€
Office supplies	200€	200€	200€
Total current assets	4 440€	3 399€	5 584€
Long term assets			
Rent security deposit	800 €	800 €	800€
Machineries	3 000 €	3 000 €	3 000€
Furniture	1 000 €	1 000 €	1 000€
	4 800€	**4 800€**	**4 800€**
Less: Accumulated depreciation-machineries	250€	500€	750€
Less: Accumulated depreciation-furniture	60€	120€	180€
Total depreciation	**310€**	**620€**	**930€**
Total long term assets	4 490€	4 180€	3 870€
Total assets	**8 930€**	**7 579€**	**9 454€**
Liabilities			
Current liabilities	0,00€	0,00€	0,00€
Total liabilities	0,00€	0,00€	0,00€
Owner's equity			
Equity	8 930€	7 579€	9 454€
Total owner's equity	8 930€	7 579€	9 454€
Total liabilities and owner's equity	**8 930€**	**7 579€**	**9 454€**

As it was mentioned in the analysis of transactions subchapter, the inventory has not been recorded in the analysis of transactions neither in the balance sheet. The reason for this is that the business sells all of its production and consumes all of its supplies in each period.

The rent security deposit of 800€ was recorded as long term assets due to the fact that the deposit will be retained as long as the rent contract is valid. It can also be recorded as a current asset with the condition that the amount will be returned into the company's cash account during the accounting year.

Depreciation for the machineries of 3 000€ and furniture of 1 000€ was calculated by using the straight line method (see Figure 9). The value of the machineries and furniture are recorded with the same value in each accounting year, while the depreciation is accumulated after each accounting period. The amount of the owner's equity from the balance sheet is added directly from the statement of the owner's equity (see Table 13 and 15), whereas the owner's investment is added directly from the analysis of transactions (see Figure 10).

Table 13. Statement of owner's equity – Scenario 1

Scenario 1

CLOTHING LINE			
Statement of owner's equity			
for year ending 31 December 20YY			
	Year 1	**Year 2**	**Year 3**
Opening balance	0,00€	8 930€	7 579€
Owner's investment	15 000€	0,00€	0,00€
Net income/loss	-6 070€	-1 351€	1 875€
Total owner's equity	**8 930€**	**7 579€**	**9 454€**
Owner's withdraws	0,00€	0,00€	0,00€
Closing balance	**8 930€**	**7 579€**	**9 454€**

For the balance sheet to balance itself out, the total assets must equal with the total liabilities plus the owner's equity. To double verify the correctitude of the calculations, the total assets and owner's equity should be equal with the assets and the owner's equity from the analysis of transactions that was done for the same accounting period (see Figure 10 to 15).

Scenario 2

In second scenario, the balance sheet and statement of the owner's equity does not look promising in terms of the assets and owner's equity. The situation in the second scenario looks worse because of the salaries that are paid for the two employees. Even though the salaries are not recorded in the balance sheet, they have a direct impact on the balance

sheet. The salaries are recorded in the income statement and they are part of the operating expenses. The amount of 45 600€ paid for the salaries has an impact on the cash account, therefore on the balance sheet as whole.

Only during the first year do the assets and owner's equity balance out with a positive value of 180€.

The opening balance of cash in the balance sheet is the ending balance of cash from the previous year, which is added directly from the analysis of transactions.

Table 14. Balance sheet – Scenario 2

Scenario 2

CLOTHING LINE			
Balance sheet as of 31.12 of each year			
December 31, 20YY			
	Year 1	**Year 2**	**Year 3**
Assets			
Current assets			
Cash	-4 510€	-19 237€	-21 166€
Office supplies	200€	200€	200€
Total current assets	-4 310€	-19 037€	-20 966€
Long term assets			
Rent security deposit	800 €	800 €	800€
Machineries	3 000 €	3 000 €	3 000€
Furniture	1 000 €	1 000 €	1 000€
	4 800€	**4 800€**	**4 800€**
Less: Accumulated depreciation-machineries	250€	500€	750€
Less: Accumulated depreciation-furniture	60€	120€	180€
Total depreciation	**310€**	**620€**	**930€**
Total long term assets	4 490€	4 180€	3 870€
Total assets	**180€**	**-14 857€**	**-17 096€**
Liabilities			
Current liabilities	0,00€	0,00€	0,00€
Total liabilities	0,00€	0,00€	0,00€
Owner's equity			
Equity	180€	-14 857€	-17 096€
Total owner's equity	180€	-14 857€	-17 096€
Total liabilities and owner's equity	**180€**	**-14 857€**	**-17 096€**

In the statement of the owner's equity, the owner's investment of 30 000€ is recorded into the business. This is added directly from the analysis of transactions (see Figure 13). The net income/loss is added directly from the income statement (see Table 11). The closing

balance of each year is the opening balance of the next year. Thus the fourth year will have an opening balance equal to the owner's equity; negative 17 096€ (see Table 15).

Table 15. Statement of owner's equity – Scenario 2

Scenario 2

CLOTHING LINE			
Statement of owner's equity			
for year ending 31 December 20YY			
	Year 1	**Year 2**	**Year 3**
Opening balance	0,00€	180€	-14 857€
Owner's investment	30 000€	0,00€	0,00€
Net income/loss	-29 820€	-15 038€	-2 238€
Total owner's equity	**180€**	**-14 857€**	**-17 096€**
Owner's withdraws	0,00€	0,00€	0,00€
Closing balance	**180€**	**-14 857€**	**-17 096€**

3.4.8 Breakeven point

The breakeven point is calculated to determine the sales volume that is necessary to cover the costs. The breakeven point is where the business's total revenue for an accounting period corresponds with the total expenses and at that point, the business's net profit is zero.

The breakeven point is calculated by using the mixed sales, that being the summer dresses and party dresses sold by the company. Each summer dress is sold at a different price than the party dress. Therefore, the contribution margin (CM) per unit is calculated as a weighted average contribution margin per unit, which is expressed as WACM in the calculations.

Scenario 1

In the first scenario for the first year, the mixed sales are estimated to be 670 units sold.
The fixed costs (FC) are 15 420€ and the variable costs (VC) is 13€ for a dress.
The selling price for a summer dress is 25€ whereas for the party dress 28€.
The mixed sales for the summer dresses are 45% out of 670 units sold and for the party dresses 55% out of the 670 units sold.

$Sales\ mix\ percentage = \frac{300\ units}{670\ units}$ X 100%=45% summer dress

$Sales\ mix\ percentage = \frac{370\ units}{670\ units}$ X 100%=55% party dress

Total variable costs for sales mix is 8 510€. The total variable costs for the products are not estimated separately for each product type. To find out how much are the variable costs for summer dresses and party dresses, the following unit sales percentage is used: UVC summer = TVC x USM%. The answer is then divided by the number of units for that specific product.

8 510€ x 45% = 3 810€ ÷ 300 units = 13€ VC per one summer dress
8 510€ x 55% = 4 700€ ÷ 370 units = 13€ VC per one party dress

Scenario 1 Year 1

CLOTHING LINE					
Breakeven point					
Sales of summer dress	300 units	7 500€	Variable costs summer	3 810€	
Sales of party dresses	370 units	10 360€	Variable costs party	4 700€	
Total sales	670 units	17 860€	Total variable costs	8 510€	
Fixed costs	15 420€		**Breakeven point calculation**		
VC-summer dress	13€ /unit			**Summer**	**Party**
VC-party dress	13€ /unit				
Selling price of summer dress	25€		Selling price	25€	28€
Selling price of party dress	28€		Less variable cost	13€	13€
			Contribution margin/unit	12€	15€
Unit sales mix summer dress	45%		Unit sales mix	45%	55%
Unit sales mix party dress	55%		WACM	5,51€	8,45€
	100%		Total WACM for product mix	14€	
			Breakeven units	1105 units	

Analysis of breakeven point by product

Breakeven units	1105 units
Summer	495 units
Party	610 units

Contribution margin income statement

	Summer	**Party**	**Total**
Sales units	495	610	1 105
Revenue	12 369€	17 086€	29 455€
Less cost of sales	6 284€	7 750€	14 035€
Contribution margin	6 085€	9 335€	15 420€
Operating expenses			15 420€
Net income			**0€**

Figure 16. Breakeven point year 1

To calculate the breakeven point for the mixed sales, first the weighted average contribution margin (WACM) must be computed.

The equation for WACM is following:

$$WACM\ per\ unit = (CM\ A\ x\ SM\%\ A) + (CM\ B\ x\ SM\%\ B)$$

$$WACM\ per\ unit = (12\ x\ 45\%) + (15\ x\ 55\%) = 14€$$

The WACM per one unit of sales mix is rounded to 14€.

To calculated the breakeven point, fixed costs of 15 420€ are added to the calculations.

The breakeven point equation for more than one product in terms of numbers of units is:

$$Breakeven\ number\ of\ units = \frac{Fixed\ costs}{WACM\ per\ unit}$$

$Breakeven\ number\ of\ units = \frac{15\ 420€}{13€\ per\ unit} = 1\ 105\ units$ (rounded)

To breakeven, the business has to sell 1 105 units.

The breakeven units can be split between the products using the sales mix percentage that can be found by using the following equation:

$$Product\ A\ \% = \left(\frac{Product\ A\ units}{Total\ sales\ mix}\right) x100$$

$$Summer\ dress\ \% = \left(\frac{300\ units}{670\ units}\right) x100 = 45\%$$

$$Party\ dress\ \% = \left(\frac{370\ units}{670\ units}\right) x100 = 55\%$$

Breakeven units sales mix = 1 105 units
Unit sales mix: 45% summer dress 55% party dress
Units of product summer dress = 1 105 units * 45% = 495 units
Units of product party dress = 1 105 units * 55% = 610 units

To verify the correctitude of the calculations, the contribution margin income statement presents the necessary calculations:

Product	**Unit sales**	**X**	**UCM**	**=**	**Total CM**
Summer	495 units	X	12€	=	6 085€
Party	610 units	X	15€	=	9 335€
9 335€ + 6 085€ = 15 420€					

If the total contribution margin income statement equals fixed costs, then the breakeven point in units is calculated correctly.

Scenario 2

The second scenario cannot be calculated because the total variable costs exceeded the sales revenue due to the fact that the salaries of two employees were added to the variable costs.

As a conclusion, in the first two years of running the business, it is not possible to compare the breakeven point of the scenario one to scenario two. The results for the breakeven calculation for the first scenario during the second year are as following: to breakeven, it is required to sell 412 units of summer dresses and 508 units of party dresses. In total, the mixed sales should reach 919 units. The CM income statement is equal with the total fixed costs of 15 166€ (see Appendix 1). The breakeven point for the second scenario in year two could not be calculated because the variable costs of one dress was higher than the selling price of the dress.

The results of the breakeven calculation for the third year, in scenario one are as following: to breakeven, it is necessary to sell 437 units of summer dresses and 539 units of party dresses. In total, the mixed sales should reach 976 units (see Appendix 2).

For scenario two in the third year, it is possible to find out the breakeven point. Therefore, the results for the breakeven calculation for the third year, in scenario two are as following: to breakeven, it is necessary to sell 1 773 units of summer dresses and 2 357 units of party dresses. In total, the mixed sales should reach 4 130 units (see Figure 19). Still the contribution margin per unit in scenario two is very small in comparison to scenario one (see Appendix 3).

All in all, a comparison of both scenarios can be shown in the third year of running the business. The results are summarized in the table below.

Table 16. Breakeven point analysis year 3

Scenario 1, year 3 (Appendix 2)	Scenario 2, year 3 (Appendix 3)
Analysis of breakeven point by product Breakeven units 976 units Summer 437 units Party 539 units **Contribution margin income statement** Summer / Party / Total Units 437 / 539 / 976 Revenue 12 233€ / 16 164€ / 28 397€ Less cost of sales 5 471€ / 6 748€ / 12 219€ Contribution margin 6 761€ / 9 417€ / 16 178€ Operating expenses 16 178€ **Net income 0€**	**Analysis of breakeven point by product** Breakeven units 4130 units Summer 1773 units Party 2357 units **Contribution margin income statement** Summer / Party / Total Units 1 773 / 2 357 / 4 130 Revenue 49 638€ / 70 723€ / 120 361€ Less cost of sales 44 718€ / 59 466€ / 104 184€ Contribution margin 4 920€ / 11 258€ / 16 178€ Operating expenses 16 178€ **Net income 0€**

From the table, it is visible that the breakeven point for the first scenario is significantly lower than for the second scenario in all of the product types. According to the analysis, the first scenario is more favourable for setting up the business as the costs are much lower and are less than 50 % of the revenue in all product types. In the second scenario, the costs are almost at the same level as the generated revenue and would require higher production of dresses and long term planning to make the business profitable.

4 Summary

4.1 Conclusion and results

The objective of the thesis was to create forecasted financial statements with projections of costs and revenues, to benefit the writer of this thesis in the future at the launch of the business. With the financial statements that were created, the owner could perceive a clear image about company's future. All of financial statements, created with the help of Excel, can be used as a valuable guidance tool in the future at the start of business operations. All the cells and sheets are linked with each other in such a way, that if any changes are made in one place, the rest of the sheets will be simultaneously updated. To give an example: if the sales decrease, the owner has to add the value of the sales for the summer dresses and the party dresses separately. All the other sheets from the analysis of transactions till the statement of the owner's equity will be updated automatically. Therefore, after the changes are made, the balance sheet will be balanced.

The form of a business that an entrepreneur chooses in its early stage, is a vital decision when starting up a business. While the private trader is considered to be one of the easiest form to start a business, it is advisable to first analyse the suitable form of business based on the nature of the operations, the need for capital, taxation and responsibility issues. The profit gained as a self-employed person is subject to taxation. The taxation rate depends on the owner's personal income that was declared to the VERO. A self-employed person does not pay themselves a salary, instead the owner withdraws an amount of money from the profit that the business has gained after the taxes were paid.

As per **I.Q. 1**, by implementing the SWOT analysis on the business, we can break down and analyse its characteristics and all of the factors that affect the business's success and productivity potential. The business has several beneficial factors, internal and external, such as strengths in sewing and handling the different processes and materials in the manufacturing of the product. Additionally, the company is also open to various opportunities, such as in the growth of the company, and alternative products targeted to new consumer groups. However, as the SWOT analysis covers the good and the bad sides, the company also faces large threats, such as competitors that are far more advanced, the possibility of an unstable economy and a decrease in targeted consumers. Besides the threats, the company also has internal weaknesses, which include the limited personnel and financial resources and the fact that the company has a lack of experience in marketing.

As it was noticed from the calculations done in the thesis, the correct answer to the **I.Q. 2** is that the first scenario is the profitable scenario for the business during a three year period. In the first two years, the company has recorded a loss, but at the end of the third year, the business started to become profitable. In the second scenario, the business does not earn any net income in all three years. Even though the income statement reports a loss every year, the loss lessens each year. It can be possible that the business will start earning net profit during the fourth year, but from the calculations, it would be advisable to avoid the second scenario due to the fact that the investment at the beginning is doubled than in the first scenario. The owner will thus have to take a loan from the bank and with that the expenses would increase. The probability of not being profitable increases with the loan, however, the stability of the business depends on the sales.

In the **I.Q. 3**, the focus was to investigate expenses in each of the scenarios. In the first scenario, the only employee will be the owner of the business while in the second scenario, two more employees together with the owner will be working for the company. The expenses are less in the first scenario because the salaries are booked only in scenario two. Since the variable costs exceeded the sales revenue, for the first and the second year, the breakeven point for the second scenario was not possible to be calculated. The owner of the company will not withdraw any cash from the company's owner's equity during the three years. In the first year, the owner has the right to receive start-up grant, which at the moment of writing the thesis, amounts to 32.40€ a day. The owner can receive start-up grants for a period of maximum one year (TE-palvelut 2017.)

In the **I.Q. 4**, the two scenarios were analysed by calculating the breakeven point. During the first two years it was not possible to calculate the breakeven point for scenario two. Therefore, results were not possible to compare with scenario one. However, analysis for the third year showed that a significantly smaller amount of products are required to be sold in scenario one than in scenario two in order to break even due to the high costs of scenario two.

The first scenario can be modified to take a different path. The business does not have to be registered as a private trader if the annual profit will be less than 10 000€. In this case, the start-up costs in the formation phase can be reduced to zero. Registration fee, trademark fee and YEL-pension insurances are not necessary to be paid, which means only a total of 4 980€ expenses are required in the first year. For the continuation phase, all the expenses can be cut, except the fabric supplies and sewing supplies. There is no need to buy the serger machine and the straight line machine since the writer of the thesis already owns these machines. The total amount of the expenses that are cut is 16 640€. In this

case the owner will earn more profit and the stress would be reduced because the production can be done at the owner's pace.

All in all, for a better understanding of the financial needs and the profitability of a start-up (in this case a clothing line), the two scenarios were created. Both scenarios were created with the scope of analysing two different situations and to see the end result of each scenario. The end result of the thesis was to answer to the research question: Which of the two scenarios is the most reasonable in terms of profitability of the business? A conclusion can be drawn that in the described situation and by analysing all of the investigative questions, scenario one is a more favourable choice of setting up the clothing line in Finland.

However, a further analysis would be beneficial in order to get an understanding of the long term profitability of each of the scenarios. In real life, the demand for different product types can be volatile and different factors can influence revenue projections. It would be interesting to further investigate both of the scenarios over the next 5 years and conduct a sensitivity analysis in order to understand how one or the other business scenario behaves. It would also be recommended to conduct a separate thorough market research as one of the fundamental requirements for a well-established and successful business.

4.2 Assessment

After the completion of the thesis the future decisions are easy to be made and I, as the writer of the thesis, am satisfied with the end result. This thesis offers me the answer that I was looking for and I can say that I have already benefited from its end result. The thesis can be also used as a reference for other students in Finland and also by start-up individuals with less experience in finance.

The thesis writing process had ups and downs during the entire period. I was not sure about the thesis' structure and the content, but the good part was that I was not in hurry to write it. Therefore, I had time to carefully ponder, do the research and to modify the contents until it had the structure that offered me the information that I was looking for.

I found the writing of the thesis interesting, but at the same time challenging. It was challenging because there were parts of the thesis that I could not recall on how to do them and I had to refresh my knowledge about them. I consider that writing the thesis is like a continuation learning process of what I have studied at school and what I have learned from researching materials.

The thesis can be described as a successful one, since the objectives that were set at the beginning were met and the end results are clear and detailed. I can use the thesis as a user guide when the time will come to design and created the products and to manage the business.

References

Accounting simplified 2017. URL: http://accounting-simplified.com/financial/fixed-assets/depreciation-methods/straight-line.html. Accessed: 18.7.2017

Bank of Finland bulletin 2017. URL: http://www.bofbulletin.fi/en/2016/5/forecast-finland-has-left-recession-behind/. Accessed: 14.6.2017

Becoming an Entrepreneur in Finland. 2014. Suomen Uusiyrityskeskukset ry

Bruce, Mitchell, Bruce, Emanuel, Co, M J, Groenewald, Jurie, Nayager, Tres, Train Wendy, Visser, Kobus & Zyl, Johan van. 2007. Fresh Perspective: Entrepreneurship. Prentice Hall. South Africa.

Burns, Paul. 2011. Entrepreneurship and small business. Palgrave Macmillan Ltd. China.

Burns, Paul. 2014. New Venture creation. Palgrave Macmillan Ltd. New York.

Business Dictionary. URL: http://www.businessdictionary.com/definition/startup.html. Accessed 6.6.2017.

Business Dictionary. URL: http://www.businessdictionary.com/definition/forecasting.html. Accessed 6.6.2017.

Business Dictionary. URL: http://www.businessdictionary.com/definition/key-ratios.html. Accessed 6.6.2017.

Business Dictionary. URL: http://www.businessdictionary.com/definition/entrepreneur.html. Accessed: 6.6.2017.

Dictionary.com. URL: http://www.dictionary.com/browse/break-even-point?s=t. Accessed 6.6.2017

Dictionary.com. URL: http://www.dictionary.com/browse/balance-sheet?s=t. Accessed 6.6.2017

Dictionary.com. URL: http://www.dictionary.com/browse/income-statement?s=t. Accessed 6.6.2017

English Oxford Living Dictionaries. URL: https://en.oxforddictionaries.com/definition/entrepreneur. Accessed: 6.6.2017

Etera. Calculator. URL: http://www.etera.fi/en/pension-insurance/yel-self-employed/what-does-yel-insurance-cost. Accessed: 14.6.2017

Etera. Calculator. URL: http://www.etera.fi/en/pension-insurance/yel-self-employed/yel-calculator. Accessed: 14.6.2017

European Free Trade Association. URL: http://www.efta.int/eea/eea-agreement. Accessed: 6.6.2017

Finnish Patent and Registration Office 2017. Start-up notifications. URL: https://www.ytj.fi/en/index/notifications/start-upnotifications/privatetrader.html. Accessed: 6.6.2017

Finnish Patent and Registration Office. URL: https://www.prh.fi/en/kaupparekisteri/tilastot/lkm.html. Accessed: 6.6.2017

Finnish Patent and Registration Office. URL: https://www.ytj.fi/en/index/notifications/start-upnotifications/privatetrader.html. Accessed 7.6.2017

Finnish Patent and Registration Office. URL: https://www.ytj.fi/en/index/notifications/start-upnotifications/limitedliabilitycompanies.html. Accessed 7.6.2017

Finnish Patent and Registration Office. URL: https://www.prh.fi/en/kaupparekisteri/yrityksen_perustaminen/avoinyhtiojaky.html. Accessed 7.6.2017

Finnvera. URL: https://www.finnvera.fi/eng/products/loans. Accessed: 14.6.2017

Harrison Jr, Walter, Horngren, Charles, & Oliver, Suzanne. 2012. Accounting. 9th ed. Prentice Hall.

Holopainen, Tuulikki. 2009. Establishing and doing business in Finland. Edita Publishing. Helsinki.

Investopedia. URL: http://www.investopedia.com/ask/answers/08/origin-of-entrepreneur.asp. Accessed: 6.6.2017

Investopedia. URL: http://www.investopedia.com/terms/d/depreciation.asp. Accessed: 6.6.2017

Investopedia. URL: http://www.investopedia.com/financial-edge/1112/small-business-financing-debt-or-equity.aspx. Accessed 14.6.2017

Kieso, Donald, Kimmel, Paul & Weygandt, Jerry. 2012. Accounting principles. 10th ed. John Wiley & Sons, Inc. USA.

Kumar, Arun, Sahrma, Rachana. Managerials economics. 1998. Atlantic publishers and distributors. India

Linkedin. URL: https://www.linkedin.com/in/chrisgrosser. Accessed: 14.6.2017

McHugh, James M., McHugh, Susan M., & Nickels, William G. 2016. Understanding business. 11th ed. McGraw-Hill. New York.

National Archives. URL: https://founders.archives.gov/documents/Franklin/01-03-02-0130. Accessed: 14.6.2017

Planprojections. URL: http://www.planprojections.com/projections/break-even-analysis-for-multiple-products/. Accessed: 21.7.2017

Sahaf, M. A., 2013. Management accounting: Principles and practice. 3rd ed. Vikas Publishing House PVT LTD. India

Thomsett, Michael C., 2004. Builder's guide to accounting. Craftsman book Company. USA

TE-palvelut 2017. URL: http://www.te-palvelut.fi/te/en/employers/for_entrepreneurs/services_new_entrepreneurs/startup_grant/index.html. Accessed: 18.7.2017

The Business Information System. URL: https://www.ytj.fi/en/index/notifications/startupnotifications.html. Accessed: 6.6.2017

Vashisht, Kujnish. 2006. A practical approach to sales management. Atlantic. India

Vered, Arnon. 2007. Tell a friend. Word of mouth marketing: How small businesses can achieve big results. USA.

Yle News. URL: http://yle.fi/uutiset/osasto/news/eu_commission_finnish_economy_to_trail_eurozone_in_2017/9457365. Accessed: 14.6.2017

Note to the calculations

All the calculations are done in Microsoft Excel. Therefore, if the calculations are verified with a calculator, the answer can differ from what is written in the thesis. For example, the thesis contains the following calculation on the page 53: 495 units times 12€ is 6 085€, while the answer is 5 940€ when done on a calculator, which is a difference of 145€.
For a better understanding of how the calculations were done, see figure 16.

Appendices

Appendix 1 Breakeven point year 2, scenario 1

Scenario 1 Year 2

CLOTHING LINE					
		Breakeven point			
Sales of summer dress	375 units	10 500€	Variable costs summer	4728	
Sales of party dresses	463 units	13 875€	Variable costs party	5832	
Total sales	838 units	24 375€	Total variable costs	10560	
Fixed costs	15 166€		**Breakeven point calculation**		
VC-summer dress	13€ /unit			**Summer**	**Party**
VC-party dress	13€ /unit				
Selling price of summer dress	28€		Selling price	28€	30€
Selling price of party dress	30€		Less variable cost	13€	13€
			Contribution margin/unit	15€	17€
Unit sales mix summer dress	45%		Unit sales mix	45%	55%
Unit sales mix party dress	55%		WACM	6,89€	9,60€
	100%		Total WACM for product mix	16,50€	
			Breakeven units	919 units	

Analysis of breakeven point by product

Breakeven units	919 units
Summer	412 units
Party	508 units

Contribution margin income statement

	Summer	**Party**	**Total**
Sales units	412	508	919
Revenue	11 527€	15 231€	26 758€
Less cost of sales	5 191€	6 402€	11 592€
Contribution margin	6 336€	8 830€	15 166€
Operating expenses			15 166€
Net income			**0€**

Appendix 2 Breakeven point year 3, scenario 1

Scenario 1 Year 3

CLOTHING LINE

Breakeven point

Sales of summer dress	488	units	13 650€	Variable costs summer	6105
Sales of party dresses	601	units	18 038€	Variable costs party	7530
Total sales	1089	units	31 688€	Total variable costs	13635

Fixed costs	16 178€	
VC-summer dress	13€	/unit
VC-party dress	13€	/unit
Selling price of summer dress	28€	
Selling price of party dress	30€	
Unit sales mix summer dress	45%	
Unit sales mix party dress	55%	
	100%	

Breakeven point calculation

	Summer	Party
Selling price	28€	30€
Less variable cost	13€	13€
Contribution margin/unit	15€	17€
Unit sales mix	45%	55%
WACM	6,93€	9,65€
Total WACM for product n	16,58€	
Breakeven units	976	units

Analysis of breakeven point by product

Breakeven units	976	units
Summer	437	units
Party	539	units

Contribution margin income statement

	Summer	Party	Total
Units	437	539	976
Revenue	12 233€	16 164€	28 397€
Less cost of sales	5 471€	6 748€	12 219€
Contribution margin	6 761€	9 417€	16 178€
Operating expenses			16 178€
Net income			**0€**

Appendix 3 Breakeven point year 3, scenario 2

Scenario 2 Year 3

CLOTHING LINE

Breakeven point

Sales of summer dress	1528	units	42 770€	Variable costs summer	38531	
Sales of party dresses	2031	units	60 938€	Variable costs party	51238	
Total sales	3559	units	103 708€	Total variable costs	89768	

Fixed costs	16 178€	
VC-summer dress	25€	/unit
VC-party dress	25€	/unit
Selling price of summer dress	28€	
Selling price of party dress	30€	
Unit sales mix summer dress	43%	
Unit sales mix party dress	57%	
	100%	

Breakeven point calculation

	Summer	Party
Selling price	28€	30€
Less variable cost	25€	25€
Contribution margin/unit	3€	5€
Unit sales mix	43%	57%
WACM	1,19€	2,73€
Total WACM for product m	3,92€	
Breakeven units	4130	units

Analysis of breakeven point by product

Breakeven units	4130	units
Summer	1773	units
Party	2357	units

Contribution margin income statement

	Summer	Party	Total
Units	1 773	2 357	4 130
Revenue	49 638€	70 723€	120 361€
Less cost of sales	44 718€	59 466€	104 184€
Contribution margin	4 920€	11 258€	16 178€
Operating expenses			16 178€
Net income			**0€**