Czech University of Life Sciences Prague

Faculty of Economics and Management

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Diploma Thesis

Business Plan for a Chosen Business

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Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Bc. Barbora Ptošková

Economics and Management
Economics and Management

Thesis title

Business Plan for a Chosen Business

Objectives of thesis

The aim of the thesis is to develop suitable business plan for Princeston, s.r.o.
Princeston is a company selling water desalination technology. The aim is to analyze current economic, strategic and financial situation of the company and its position and on the market and propose suitable plan for expanding into foreign countries.
Value added by this thesis will not only be theoretical summary of chosen methods, but also how those methods can be used in real company.

Methodology

Theoretical part will consist of possible methods of analyzing current economical, strategic and financial situation of the company and evaluation of the methods.

Practical part will consist of analysing the company and its background and modelling suitable business plan using following methods:

PESTLE analysis, SWOT analysis, Marketing Mix, Porter's 5 forces, Financial analysis (Profitability, liquidity, leverage, activity, growth ratios), DuPont analysis, Financial plan (Balance sheet, cash flow statement, break even point, income statement, investment plan).

The proposed extent of the thesis

60 – 80 pages

Keywords

business plan, company, pestle, swot, financial, water desalination technology

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Prague on 07. 03. 2021

Declaration

I declare that I have worked on my diploma thesis titled "Business Plan for a Chosen Business" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 9th of March 2021 ______________________________

Acknowledgement

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Business Plan for a Chosen Business

Abstract

This diploma thesis summarizes the basic knowledge needed to develop a suitable business plan for expansion of existing enterprise. The main aim of this diploma thesis is to create a business plan for expansion of Princeston, s.r.o. into new markets. Those are developing countries and offshore oil platforms. The company will expand into the new territories with existing water desalination technology EMSF. The theoretical part defines the structure and requirements of the business plan, the second part consists of analysing the company and its background and modelling suitable business plan for expansion of existing enterprise using chosen methods.

The main research question is how to create a successful business plan directly for Princeston expansion in developing countries and possibly in offshore oil platforms with current technology, what are the costs and how much external funding is required. How many potential customers are in developing countries and what are main advantages and disadvantages of the technology and the company. Another research question is what is current economic, strategic and financial situation of Princeston and how it will be influenced by the expansion. To state the current financial situation is also important to find out how many external sources are needed.

Keywords: business plan, company, SWOT, PESTLE, financial, analysis, water, desalination

Podnikatelský plán pro vybraný podnik

Abstrakt

Tato diplomová práce shrnuje základní znalosti potřebné k vypracování vhodného podnikatelského plánu pro existující podnik. Hlavním cílem této práce je určit obchodní strategii pro rozvoj společnosti Princeston, s. r.o. zejména do rozvojových zemí a pobřežních ropných plošin. Společnost bude expandovat se stávající technologií EMSF. V business plánu autor využije vybraných metod ke zhodnocení současné ekonomické, strategické a zejména finanční situace a vnitřních a vnějších faktorů, které mohou ovlivňovat společnost a její rozvoj. Teoretická část definuje strukturu a požadavky podnikatelského plánu, praktická část spočívá v analýze společnosti a modelování vhodného obchodního plánu pro rozšíření stávajícího podniku pomocí vybraných metod.

Hlavními výzkumnými otázkami jsou: jak vytvořit podnikatelský plán pro rozvoj společnosti Princeston do rozvojových zemí a pobřežních ropných plošin se současnou technologií, jaké jsou náklady a kolik je nutno financovat z cizích zdrojů. Dalšími výzkumnými otázkami jsou, kolik je potenciálních zákazníků v rozvojových zemích a jaké jsou výhody a nevýhody technologie a společnosti. Další výzkumnou otázkou je, jaká je současná ekonomická, strategická a zejména finanční situace společnosti a jak situace bude ovlivněna rozvojem společnosti. Zjistit současnou finanční situaci společnosti je nutné zejména proto, aby bylo možné stanovit kolik je potřeba externích zdrojů na financování rozvoje.

Klíčová slova: podnikatelský plán, společnost, SWOT, PESTLE, finanční, analýza, voda, odsolování

Table of content

1 Introduction

Business environment is changing every day and it crucial for companies to remain up to date, innovative and to find solution for everyday problem. In today’s world it is crucial for some firms to focus on environmental technologies.

The process of founding and operation of business activities is grounded in the legislation of the Czech Republic. The definition and determination of the conditions, under which the enterprise may be established and operated, are set in the legislation Act No. 90/2012 Coll. This diploma thesis is not focused on part of building the business, because Princeston, s.r.o. is a company that is running for a several years. It focuses on a business plan to develop strategies to build a successful international company.

The main objective of this diploma thesis is to create a business plan for expansion of Princeston, s.r.o. into new markets. Those are developing countries and offshore oil platforms. The company will expand into the new territories with existing water desalination technology EMSF. In the theoretical part can be found summary of possible methods of creating the business plan and what must be evaluated to find out the company’s current situation. Based on the current situation, it will be proposed to company mainly if it should use own resources for expansion or if it needs external funding. The second part, practical, consists of analysing the company and its background and modelling suitable business plan for expansion of existing enterprise using chosen methods. This proposal is based on the determination of the current position and condition of the company and its thorough analysis. Part of the description of the company is to find out the key factors for its success.

Princeston, s.r.o. is a firm in need of innovative business plan for its international expansion. The author cooperated with the firm for over two years and understands the company’s situation and do not find it very satisfying.

The last part of the thesis presents a proposal for development of business activities of the company. This proposal is based on the results of the overall evaluation of the company. The conclusion of the thesis presents an overall summary of the findings, final evaluation and recommendations for the company.

Objectives and Methodology

1.1 Objectives

The main objective of this diploma thesis is to create a business plan for expansion of Princeston, s.r.o. into new markets. Those are developing countries and offshore oil platforms. The company will expand into the new territories with existing water desalination technology EMSF. In the business plan the author will use chosen methods to evaluate current economic, strategic and mainly its financial situation and internal and external factors influencing the business and its expansion.

The secondary objective is to summarize possible methods for creating a business plan, define the basic terminology.

The main research question is how to create a successful business plan directly for Princeston expansion into developing countries and offshore oil platforms with current technology, what are the costs and how much external funding is required. How many potential customers are in developing countries and what are the main advantages and disadvantages of the technology and the company.

Another research question is what is current economic, strategic and financial situation of Princeston and how it will be influenced by the expansion.

1.2 Methodology

The theoretical part defines the structure and requirements of the business plan, evaluation of possible methods, definitions of methods how to analyse current economic, strategic and financial situation of the company. In the first part theoretical background is presented. It contains all basic concepts, definitions and terms. All data are collected from relevant specialized publications and other mainly written and online sources. Specialized publications are main source of data for this part of the thesis.

The second part, practical, consists of analysing the company and its background and modelling suitable business plan using PESTLE analysis, SWOT analysis, Marketing Mix, Porter's 5 forces, Financial analysis (profitability, liquidity, leverage, activity, growth ratios), DuPont analysis and financial plan.

Examples of used methods and its calculations:

1. SWOT ANALYSIS

Most common and basic analysis used is the SWOT analysis. It is evaluating business position in the market by analysing its strengths, weaknesses, opportunities and threats. Koráb, Peterka, Režňáková states in their book (Koráb, Peterka, Režňáková, 2008) that in SWOT analysis can be found examples of company's advantages over others and examples of disadvantages over others.

2. PESTLE ANALYSIS

A PESTLE analysis describes macro-environment that may affect the business. The analysis consists of six factors. Political, economic, social, technological, legal and environmental factors (Perera, 2017).

3. MARKETING MIX

The marketing mix refers to the set of actions, which a company uses to promote its company or product in the market. A typical marketing mix consists of 4P – price, products, promotion and placement. According to Koráb, Peterka, Režňáková in their book (Koráb, Peterka, Režňáková, 2008) the marketing mix is a strategic plan of a company that shows how the company intends to beat the competition.

4. PORTER'S FIVE FORCES

Porter's five forces is the type of analysis that refers to company's competition. It is analysing the number and power of a company's rivals, potential new market for the company, suppliers and customers and its negotiating power, and substitute products.

Awareness of the five forces can help a company understand the structure of its industry and stake out a position that is more profitable and less vulnerable to attack (Porter, 2008).

5. PROFITABILITY RATIO

Profitability ratios are used to assess a business's ability to generate earnings. The most common profitability ratios include gross and operating margin, return on assets, return on equity, return on investment and return on sales. Financial analysis is based on historical data (Srpová. Svobodová, Skopal, Orlík, 2011). Evaluation of the current financial situation of the company will be used for suggestions if the company should change their prices for expansion and how much external resources are needed.

Gross margin is total sales revenue of the company minus its cost of goods sold. The difference between the sale price and purchase price can be expressed in absolute terms or as a percentage. The formula used for calculation of gross margin (Bloomenthal, 2021):

$$Gross\ margin = \frac{Total\ sales - COGS}{Total\ sales} \tag{1}$$

Operating margin, it may be also referred as EBIT – earnings before interest and taxes or as operating earnings, measures how much profit a company makes on a dollar of sales. It is calculated as revenue minus cost of goods sold and minus general and administrative costs of running the business, but it still comprises interest and taxes. The formula used for calculation:

$$EBIT = \frac{Total\ sales - COGS - operating\ expenses}{Total\ sales} \tag{2}$$

Return on assets (ROA) calculating how profitable a company is relative to its total assets and how efficient a company is at using its assets to generate earnings. It is calculated by dividing net income by total assets. The ROA and ROE ratios can be calculated as followed (Růžičková, Roubíčková, 2012):

$$ROA = \frac{Net\ income}{Total\ assets} \tag{3}$$

Return on equity (ROE) calculates the profitability of a business in relation to the company’s equity. It is calculated by dividing net income by shareholders' equity. Formula used is:

$$ROE = \frac{Net\ income}{Equity} \tag{4}$$

Return on investment (ROI) is used to measure the probability of gaining a return from an investment. ROI is usually used for investment decisions. The basic formula is:

$$ROI = \frac{Net\ profit}{Total\ investments} \tag{5}$$

Return on sales calculates how efficiently a company turns sales into profits. ROS is calculated by dividing operating profit by its net sales.

$$ROS = \frac{Net\ income}{Sales} \tag{6}$$

6. LIQUIDITY RATIO

Liquidity ratio is used to calculate is company's current assets are sufficient to cover the company's obligations. Basically, it says if company is able to pay its own debts.

Liquidity ratios include current, quick and cash position ratio.

Low liquidity means, that the company is unable to take advantage of the profitable opportunities, which appear in the business or is unable to pay its current liabilities (Růžičková, Roubíčková, 2012). The liquidity ratios can be calculated as follows (Růžičková, Roubíčková, 2012):

The current ratio is expressed as the ratio of total current assets to current liabilities and it is sometimes called the solvency ratio. It is calculated by dividing current assets by current liabilities. The higher is the value, the lower us the risk of insolvency.

$$Current\ liquidity = \frac{Current\ assets}{Current\ liabilities} \tag{7}$$

The quick ratio is expressed as the ratio of current assets without inventory and current liabilities. The formula used is:

$$Quick\ liquidity = \frac{Current\ assets - inventory}{Current\ liabilities} \tag{8}$$

The cash position ratio is calculated as the ratio of financial assets to current liabilities. Financial assets include cash, bank accounts and short-term financial assets as securities that the company plans to keep for a short term.

$$Cash\ position = \frac{Financial\ assets}{Current\ liabilities} \tag{9}$$

7. LEVERAGE RATIO

The leverage ratio measures how much of a company's capital comes in the form of debt – loans. The leverage ratio is calculated as total liabilities, total debt divided by total assets.

$$Leverage\ ratio = \frac{Total\ liabilities}{Total\ assets} \tag{10}$$

8. ACTIVITY RATIO

The activity ratio measures the ability of the company to use its assets. The most commonly used are inventory turnover, creditor's payment period or average collection period. The activity ratios can be calculated as follows (Růžičková, Roubíčková, 2012):

The total assets turnover calculates the efficiency of the use of the company's total assets. Asset turnover indicates how many times the total asset is turned in one year.

$$Total\ asset\ turnover = \frac{Revenues}{Total\ assets} \tag{11}$$

The creditor's payment period indicates the number of days between the issue of the invoice and its payment. We can calculate for 365 days or use a different time period.

$$Creditors\ payment\ period = \frac{Trade\ payables}{Cost\ of\ sales} * 365 \tag{12}$$

Average collection period indicates how many days it takes for receivables to be received from customers.

$$ACP = \frac{Receivables}{(Sales/360)} \tag{13}$$

9. GROWTH RATIO

According to Johansson (1998) the growth ratio is a stock's price-to-earnings ratio. It cannot be used for private company. The most common way how to evaluate a private company is comparable company analysis. In this analysis is needed to search for publicly traded companies that most close to the private company.

10. DU PONT ANALYSIS

DuPont analysis indicates the decomposition of the ROE indicator and it indicates a value of a company’s performance. It is used as complement to profitability indicators. The calculation used in DuPont analysis is (Tamplin, 2020):

$$ROE = \frac{Net\,profit}{Sales} * \frac{Sales}{Assets} * \frac{Assets}{Equity} \tag{14}$$

The main sources of data are specialized publications, companies own documents, conversation with the accountant and the owner of the company and authors own conclusions and choices.

2 Theoretical background for creation of the Business Plan

2.1 Business Plan

A business plan can be defined as a written document in paper or online form, which specifies steps in business and examines what, could affect the business. There are several types of business plans, but they all share the same important core and the content is similar in all cases.

A business plan is a written material prepared by the company, describing all key external and internal factors related to the establishment and operation of the company (Koráb, Peterka, Režňáková, 2008).

The business plan should be realistic and objective. By creating a business plan enterprise express intention of business. It is necessary to clearly identify the business plan to carry out business activities and be successful. The business plan is used to clarify the possibilities of the firm and to specify and determine individual steps and firm's strategy. Evans (Evans, 2011) state in his book Writing a business plan that a business plan must be clear, concise and simple to understand.

A business plan is a document that benefits owners, their managers and external investors (Koráb, Peterka, Režňáková, 2008).

2.1.1 Structure and contents of Business Plan

A business plan can be divided into sections which provide necessary information related to different business fields (Koráb, Peterka, Režňáková, 2008).

Main, necessary and common contents of business plan are:

- Front page
- Table of content
- Executive summary
- Business and product description
- Company's goals and its vision
- Market analysis
- Marketing and sell strategies
- Management plan
- Financial analysis

1. Front page

A front page shortly describes the business in general. It contains the basics as the name of the company, the person responsible for the business and responsible for making a business plan, the title of the business plan, and logo of the company. Company’s contact information including telephone number, email and address, contact to the person that can be reached to discuss the business plan, to where the plan is submitted and the date of submission.

A front page doesn’t fulfil an important function in terms of content; therefore, the emphasis is on formal design.

2. Table of content

A table of content is necessary for a quick overview of all-important chapters that can be found in the business plan. A table of content is ordered according to the standard way of listing the major sections and its subsections.

3. Executive summary

An executive summary serves as an overview of important statement of business plan and it is necessary for first impression of potential investors.

Its purpose is to summarize important goals and business ideas in short, clear and understandable way. The summary includes the name of the founder or manager, product portfolio, market description, strategy, key financial data and needed sources.

Even if executive summary is very a short part of business plan it is very important to take time and be careful what enterprise write in it. It serves as the first impression and in many times, it is the only part of the business plan that is actually read by potential investors or customers. If the summary is not interesting and do not contain important information, it is likely that the reader will not continue to read and interested in the idea itself is reduced.

4. Business and product description

The company is both forming and preparing for its establishment or is already established. It in case of this thesis the company is already established. An established company’s business description will consist of specific data about itself and about its past activities, date and place when and where the company was established, its founders, field and progress to date.

A business description can be divided into two parts. The first part consists of basic information about company as type and sector of the business, legal subjectivity, company's ownership, location and history and the description of information about company's partners.

The second part comprises company's product description. In this section of the business plan is description of products or/and services which will be offered by the company. The success of a service or product depends on the degree of saturation of market needs. The basic question is what problem is being solved and what will it bring to the customers.

This section is about a brief description of a service and/or product, but also contains a description of a problem and its. It should be simple and understandable. Jargon and overly technical terminology should not be used.

5. Company's goals and vision

The company's goals should be SMART. The goals should be specific, measurable, attainable, relevant and time bound.

The company's why is answered in the company's vision. Because people don't buy what you do, they buy why you do it (Synek, 2011). The company's why answer the basic question "Why I do what I do?" It is not only about what exactly is the product or service, the way and style of direction, but also communication about the values, principles and culture of the company to inside and outside world.

6. Market analysis

In order to effectively sell the company must know its market. The market analysis demonstrates knowledge of the environment, industry and the nature of business activity. The analysis shows if the proposed product or service is able to find its own market and is able to stand well against the competition. This part of business plan comprises of SWOT analysis, PETLE analysis and other important parts.

7. Marketing and sell strategies

The marketing plan provides information on how the proposed business will succeed against its competition. The plan identifies who are the customers and what are they willing to buy. This part of business plan contains Marketing mix 4P (Product, Price, Place, and Promotion).

8. Management plan

The management plan answers the question who will manage and lead the business, company's organizational structure, who is part of the top management team and their experiences and qualifications.

9. Financial analysis

The major purpose of the financial plan is to prove economic stability of the company and to show its potential. The financial plan reports the sources of company financing, their allocation and its profitability. This part of business plan might comprise simple charts and graphs.

The financial plan consists of important parts such as products and services cost, profitability ratio, leverage ratio or DuPont analysis.

10. Appendix

The appendix contains all the supporting materials and documents which were not contained but were referred in the main text. These include materials such as financial statements, manufacturing processes, employee resumes and others.

2.2 Possible methods of Business analysis

Business analysis is a crucial for taking the independent view of the whole situation on the market, business needs and solving its problems. There are a great number of possible methods and techniques for business analysis. Most common methods include SWOT analysis, PEST or PESTLE analysis, MOST analysis, Five whys and others.

Business analysis aims to achieve goals such as finding solutions for problems, prevent problems, finding the strengths of the business, provide overview of business's environment and its surroundings or increase efficiency of the business.

2.2.1 **Contents of analysis**

This thesis focuses on following methods used while creating a business plan:

- SWOT
- PESTLE
- Marketing Mix
- Porter's 5 forces
- Financial analysis
- Basic financial plan

2.2.1.1 **SWOT**

A SWOT analysis is most commonly used strategic and planning type of technique. It helps organizations identify its strengths, weaknesses, opportunities, and threats related to business. Often it is not necessary to do the SWOT analysis on the paper, but it is necessary to have an overview what are the strengths, weaknesses, opportunities and threats of the business.

SWOT analysis consists of:

Strengths: Characteristics of the business's advantages over others. Koráb, Peterka, Režňáková states in their book (Koráb, Peterka, Režňáková, 2008) examples of company's advantages over others, it might be company's vision, sales, loyal team, market knowledge, its branding, patents, location, equipment and others.

Weaknesses: Characteristics of the business's disadvantages to others. Koráb, Peterka, Režňáková states in their book (Koráb, Peterka, Režňáková, 2008) examples of company's disadvantages such as outdated machinery, bad contracts, incompetent employees and others.

Opportunities: What in the environment can be transformed into advantage such as a growing market, free resources or lower taxes in the selected area.

Threats: What might be a problem and what should business be aware of or avoid. For example, existence of competitors, unexpected costs or taxes or laws in particular area.

2.2.1.2 **PESTLE**

A PESTLE analysis describes macro-environment that may affect the business. The analysis consists of six factors (Perera, 2017):

Political: Analyses if and how government intervenes the economy, including labour law, tax policies, restrictions and tariffs and stability of the country.

Economic: analyses the inflation rate, exchange and interest rates.

Social: Describes cultural factors, age of the population or population growth rate.

Technological: Analyses automation the country and its research and development activities.

Legal: Include health and safety law, consumer law, employment law and others that might affect the business.

Environmental: Take into consideration weather, climate and climate change.

2.2.1.3 **Marketing Mix**

The marketing mix is an important set of actions, which a company uses to promote itself or its product in the market. Koráb, Peterka, Režňáková states in their book (Koráb, Peterka, Režňáková, 2008) that the marketing mix is a strategic plan of a company that shows how the company intends to beat the competition.

Marketing Mix consists of:

Price: Price of the product and overall pricing policy of the company.

Product: Describe the product and its properties; it answers the question what exactly is going to be produced. Name of the brand or line, what the quality is going to be like, how is it going to be designed, products look, colour, what are the services and others.

Promotion: Methods of product promotion. How the company is going to draw attention to the product or service.

Placement: The methods of distribution of the product from its manufacturer to the final customer.

2.2.1.4 **Porter's 5 forces**

Porter's five forces or 5F analysis refers to company's competition. It is analysing the number and power of a company's rivals, potential new competitors for the company, suppliers and customers and its negotiating power, and substitute products (Porter, 2008).

It is dealing with forecasting of the development of the competitors, their situation on the market and if the competition can possibly threaten the company.

Porter's 5 forces analyse:

Existing competitors and company's rivals: Their ability to influence the price of the product, its quality and services provided to the customers.

Potential competitors, which may occur in the market: The possibility that they will enter the market and influence the price, quality and the services.

Suppliers: Negotiating power of suppliers, their ability to influence the price and the amount of inputs needed.

Customers: Negotiating power of customers and their ability to influence the price and demand.

Substitutes: The price and quality of the product that might substitute of a company's product or services.

2.2.1.5 **Financial analysis**

Financial analysis consists of various possible methods. Financial analysis is based on historical data (Srpová. Svobodová, Skopal, Orlík, 2011).

The aim of financial analysis is to identify and evaluate the financial situation of the whole company. The evaluation will be used to state if the company is profitable and able to pay its debt and manly if it needs external resources for its expansion. The basic sources needed for financial analysis are balance sheet, cash flow statement, profit and loss statement, and notes to financial statements and data from managerial accounting.

The balance sheet is a basic statement that indicates the company's assets, equity and liabilities and sources of the assets funding at a particular point in time (Růžičková, Roubíčková, 2012). The company should be able to maintain stability between a company's assets and liabilities.

Cash flow statement: company’s cash flow is the difference between cash inflows and cash outflows for some period of time. It shows the actual cash flows. Cash flow is divided into categories according its use to cash flow from operating activities, cash flow from investing activities and cash flow from financing activities. It is calculated by direct or indirect method.

Cash flow statement answers the question how much of the finances the company generated and for what purposes they were used (Růžičková, Roubíčková, 2012).

Profit and loss statement is a statement that state company’s revenue over a period of time and the cost required to generate it (Růžičková, Roubíčková, 2012). Unlike cash flow statement the profit and loss statement show only accounting balance, not actual cash flows in some period of time.

Notes to financial statements provide additional information to a company's operations and financial position.

Data from managerial accounting, for example analysis how the cash influence the business decisions, detailed products costing, budgeting and others.

One of the commonly used methods of analysis are profitability, activity, leverage, liquidity and growth ratios.

1. PROFITABITILY RATIO

Profitability ratios are used to assess a business's ability to generate earnings. The profitability ratios include gross and operating margin, return on assets, return on equity, and return on investment and return on sales.

The advantage of profitability ratios is simplicity of calculations. The disadvantage is ignoring the time value of money and the calculations might differ according to the selected type of accounting (Fotr, Souček, 2011).

Gross margin is total sales revenue of the company minus its cost of goods sold. The difference between the sale price and purchase price can be expressed in absolute terms or as a percentage. The formula used for calculation of gross margin (Bloomenthal, 2021):

$$Gross\ margin = \frac{Total\ sales - COGS}{Total\ sales} \tag{1}$$

Operating margin, it may be also referred as EBIT – earnings before interest and taxes or as operating earnings, measures how much profit a company makes on a dollar of sales. It is calculated as revenue minus cost of goods sold and minus general and administrative costs of running the business, but it still comprises interest and taxes. The formula used for calculation:

$$EBIT = \frac{Total\ sales - COGS - operating\ expenses}{Total\ sales} \tag{2}$$

Gross and operating margin are the main and basic type of metrics. The difference between them is that gross profit margin only figures in the direct costs of the production, while the operating profit margin includes operating as well.

Operating expenses include rent, equipment, inventory costs, office supplies, marketing, insurance, payroll, and funds allocated for research and development.

Return on assets (ROA) calculating how profitable a company is relative to its total assets and how efficient a company is using its assets to generate earnings. It evaluates how much after-tax profit a company generates for one dollar of its asset. It is calculated by dividing net income by total assets. The ROA and ROE can be calculated as (Růžičková, Roubíčková, 2012):

$$ROA = \frac{Net\ income}{Total\ assets} \tag{3}$$

Return on equity (ROE) calculates the profitability of a business in relation to the company’s equity. The ROE ratio is one that is often watched by potential investors. High ROE is preferred, because it shows that company can generate cash and its less likely to be dependent on debt financing. It is calculated by dividing net income by shareholders' equity (Fotr, Souček, 2011). Formula used is:

$$ROE = \frac{Net\ income}{Equity} \tag{4}$$

Return on investment (ROI) is used to measure the probability of gaining a return from an investment. ROI is usually used for investment decisions. The higher the ratio, the greater is the earning. Using an ROI formula, an investor can separate low-performing investments from high-performing and make the best decisions. The main negative of ROI is that it is not taking into consideration time. The basic formula is:

$$ROI = \frac{Net\ profit}{Total\ investments} \tag{5}$$

Return on sales calculates how efficiently company can turn sales into its profits. It calculates how much of net profit is generated by one dollar of sales. ROS should be higher than 10% in most cases. ROS is calculated by dividing operating profit by its net sales.

$$ROS = \frac{Net\ income}{Sales} \tag{6}$$

2. LIQUIDITY RATIO

Liquidity ratio is used to calculate if the company's current assets are sufficient to cover for the company's obligations. It says if the company is able to pay its own debts.

Liquidity ratios include current, quick and cash position ratio.

The current ratio is expressed as the ratio of total current assets to current liabilities and it is sometimes called the solvency ratio. It measures if company if able to pay its short-term debts due within one year. A good ratio should be between 1,2 and 2. If the ratio is 2 it means a business has twice as much current assets and it is able to cover its liabilities.

It is calculated by dividing current assets by current liabilities. The higher is the value, the lower us the risk of insolvency. The liquidity ratios can be calculated as followed (Růžičková, Roubíčková, 2012):

$$Current\ liquidity = \frac{Current\ assets}{Current\ liabilities} \tag{7}$$

The quick ratio is expressed as the ratio of current assets without inventory and current liabilities. The ratio should be always more than 1. The company with ratio less than 1 is unable to pay its current liabilities. The formula used is:

$$Quick\ liquidity = \frac{Current\ assets - inventory}{Current\ liabilities} \tag{8}$$

The cash position ratio is calculated as the ratio of financial assets to current liabilities. Financial assets include cash, bank accounts and short-term financial assets as securities that the company plans to keep for a short term. The ratio should be always greater than 1, for the company to able to cover for their liabilities.

$$Cash\ position = \frac{Financial\ assets}{Current\ liabilities} \tag{9}$$

3. LEVERAGE RATIO

The leverage ratio measures how much of a company's capital comes in the form of debt – loans. It should be less than 0.5. The lower number the better, because it means that the company is less dependent on loans and external funding. The leverage ratio is calculated as total liabilities, total debt divided by total assets.

$$Leverage\ ratio = \frac{Total\ liabilities}{Total\ assets} \tag{10}$$

4. ACTIVITY RATIO

The activity ratio measures the ability of the company to use its assets. The most commonly used are inventory turnover, creditor's payment period or average collection period.

Total assets turnover calculates the efficiency of the use of the company's total assets. The higher is the ratio the better, because higher ratio means that the company if able to use its assets efficiently to generate more sales. Asset turnover indicates how many times the total asset is turned in one year. The activity ratios can be calculated as (Růžičková, Roubíčková, 2012):

$$Total\ asset\ turnover = \frac{Revenues}{Total\ assets} \tag{11}$$

The creditor's payment period indicates the number of days between the issue of the invoice and its payment. It calculates how much time it takes a company to pay its debts to its suppliers. We can calculate for 365 days or use a different time period.

$$Creditors\ payment\ period = \frac{Trade\ payables}{Cost\ of\ sales} * 365 \tag{12}$$

The average collection period indicates how many days it takes for receivables to be received from customers. The sooner the company receives the cash the better.

$$ACP = \frac{Receivables}{(Sales/360)} \tag{13}$$

The company should not pay their liabilities to their suppliers too soon, but they should collect their receivables as soon as possible.

5. GROWTH RATIO

The growth ratio is a stock's price-to-earnings ratio (Johansson, 1998). It cannot be used for private company. The most common way how to evaluate a private company is comparable company analysis. In this analysis is needed to search for publicly traded companies that most close to the private company. If the value is 1 it represents the balance.

6. DuPont analysis

DuPont analysis indicates the decomposition of the ROE indicator and it indicates a value of a company's performance. It is used as complement to profitability indicators. The calculation used in DuPont analysis is (Tamplin, 2020):

$$ROE = \frac{Net\ profit}{Sales} * \frac{Sales}{Assets} * \frac{Assets}{Equity} \tag{14}$$

2.2.2 Financial plan

The financial plan is a picture of company's current finances. It can contain current finances, describes financial goals and also the strategies how to achieve them. The main source of financial plan is a cash flow statement as well as profit and loss statement.

Financial plan describes all company's activities and its resources of funding.

Resources of funding can be own, generated by the company, or foreign, which are funded from outside of the company (Růžičková, Roubíčková, 2012).

A financial plan can be established for a short-term period up to 12-month, a mid-term period from 2 to 5 years and a long-term period over 5 years, usually for 10 years.

According to Business Development Bank of Canada (2020) to create a successful financial plan the company has to answer following questions:

- Do I need to expand?
- Do I need more equipment?
- Do I need more staff?
- Do I need more resources?
- How will my plan affect my cash flow?

2.2.3 **Economic, strategic and financial background**

To indicate economic, strategic and financial background of the company is necessary to examine company’s current documents and created business plan. Main sources needed for the relevant result can be found in created business plan mainly in the part of financial analysis. Other relevant parts are PESTLE analysis or Porter’s 5 forces.

Economics background refers to the state of the economy in the country where the company operates and influence of the local, national and world economy.

Company’s economics background and factors that influence company from outside is examined in PESTLE analysis.

Strategic background examines where the company plans to head, and it is based mainly on Porter’s 5 forces and SWOT analysis. Company forms its strategy based on knowledge of both internal and external factors and its advantages and disadvantages.

Company’s financial background is analysed based on financial analysis.

Financial analysis is a very important tool of financial management of a company, which makes possible to assess the financial situation of the company and provides feedback between the expected effect of management decisions and facts (Kotaba, 2009).

By examining the external and internal factors influencing the company and its financial position, the author will be able to present an overview of the company’s economic, strategic and financial background.

3 Practical part – the Business Plan

3.1 Front page

Figure 1. Company's logo 1

Source: Princeston, 2020

Name of the company: Princeston, s.r.o.

Year of establishment: 2009

Form of the company: Limited liability company

Owner and CEO: Vladimír Sirotek

Company's equity: 200 000 CZK.

Number of employees: 7

Scope of business: EMSF – Environmental Multi-Stage Flash. This technology produces drinkable water using vacuum distillation.

Its registered office is located in Prague 4, Trnavská 2618/2, 141 00. Its main office is located in Prague 1, Na Florenci 1413/33, 110 00. Its main factory is located in Hradec Králové, Gebarinova 1112/41a, 500 03.

All data used for creating the business plan are provided by the owner of the company Vladimír Sirotek and Martina Werichová, the main accountant of the firm.

3.2 Table of content

- Front page
- Table of content
- Business and product description
- Company's strategy and its vision
- Market analysis: SWOT analysis, PESTLE analysis, Porter's 5 forces
- Market analysis: Marketing Mix
- Financial analysis
- Basic financial plan
- Economic, strategic and financial position of the company

3.3 Executive summary

The business plan of the company is focused on the possibility of the business expansion with a water distillation technology called EMSF- Environmental Multi-Stage Flash newly into developing countries, located mainly in Africa, and to offshore oil platforms.

The reason for this decision is growing demand for drinkable water and increasing demand for environmentally friendly technologies.

The company will focus on to providing baby suitable and safe drinking water at the lowest price possible to make developing countries able to buy those technologies.

The main advantage is lower price compared to the competition, while maintaining same or better quality of drinkable water.

Competition in the sector is relatively high and is expected to increase due to increasing demand for drinking and clean water; however, there is no similar technology in the market right now.

The total expected costs are 9 254 166 CZK, the expected costs include salaries for current and future employees, utilities, additional services, loan repayments and cost associated with building the units for show and for sell. The total costs are expected to be covered both by external funding and funded by the owner. 1 440 000 CZK will be funded by the owner of the company, there will be loan of 620 000 CZK, the rest of the cost is expected to be covered by future revenues. The company will take loan 620 000 CZK at MONETA Money Bank in program called "Loan for sole proprietors and small businesses." and the company will repay the loan by 47 instalments for 3 years and 11 months, the interest rate is 5.9%. Monthly payment will be 15 106 CZK, and expected sales are 8 100 000 CZK.

The company is expected to make a profit of 905 834 CZK in the first year. In future year the profit should increase, because it won't be necessary to build devices for show to a potential customer or need of external advisors or webpage.

The company's goal is to expand into developing countries and offshore oil platforms, and it is expected to succeed in two years.

The company would employ eight permanent employees and in charge of the company will be Vladimír Sirotek, who has over 30 years' experience in environmental technologies. He will take care of human resources, preparation and approval of all the moves of the company and oversees material resources.

3.4 Business and product description

3.4.1 Business description

The firm focuses on environmental technologies. It has created the technology that does not contribute to the creation of greenhouse gases and global warming.

The company sells technology for production of clean, drinkable water. The company uses their own technology, the invention called EMSF – Environmental Multi-Stage Flash. This technology produces drinkable water using vacuum distillation.

Since 2009 the company has taken part in various projects, for example, in Egypt, Russia or Oman.

Since today company has not been able to find a stable position in the market and needs a business plan.

3.4.2 Description of the technology

The company uses their own technology. EMSF – Environmental Multi-Stage Flash. This technology produces drinkable water using vacuum distillation.

The technology is delivered as the distillation units with brine recirculation. Model series of the unit modular system ranging from 1 to 200m^3 of fresh water/day (Princeston 2020).

EMSF can be powered not only by traditional conventional sources of energy, but all alternative energy sources as solar, hydrothermal or wind. It can be also powered by the waste heat.

Figure 2. EMSF and power sources

Source: Princeton, 2020

Individual units of the technology can be set up and arranged as needed. Therefore, the technology is suitable both for small platforms and bigger cities.

The simplicity of the technology, very easy operation and maintenance enable the maximal operating time of 350 days / year (Princeton 2020). There is no need for highly educated and skilled staff; therefore, the technology can be used in developing countries and small villages.

Figure 3. Example of small unit

Source: Princeston s.r.o.

3.5 Company's set goals and its vision

3.5.1 Company's set goals

The Princeston's goal was to create a technology which does not contribute to the creation of greenhouse gases and global warming and which is able to compete with traditional water desalination technology called reverse osmosis.

The company's goal is to expand into developing countries and offshore oil platforms. To have a clear strategy it is necessary to set SMART goals.

S – The company wants to expand into developing countries located mainly in Africa and to offshore oil platform located mainly in Norway. The goal is important to fulfil company's vision to provide safe drinking water for everyone.

M – The goal is accomplished when the company expands into minimum three developing countries and two offshore oil platforms.

A – It will be accomplished by putting the suggestions from business plan into action. The company might need external resources to accomplish this goal.

R – The goal is relevant, because more and more countries suffer from water shortages. Also, the population tends to be more sustainable and drinking water provided in offshore oil platform is packaged in plastic, because the water created by their technology is not clean enough and do not smell good.

T - It should be accomplished within two years' time latest.

3.5.2 Company's vision

Its vision is to enable access to safe drinking water for everyone who suffers from a shortage and to be able to provide access to water for farmers in developing countries.

Although, the company is running for more 10 years, it is still unable to make a significant impact and find its relevant place on the market.

3.6 The market analysis

The market analysis of the company is based on SWOT analysis, PESTLE analysis and Porter's 5 forces to evaluate the company's internal and external market factors influencing its expansion.

3.6.1 SWOT

SWOT analysis of Princeston, s.r.o.:

Strengths: The main strength of the firm is its innovative technology for production of drinkable water using vacuum distillation. In the competitive reverse osmosis, there is necessary to change filters in two years. There are no additional costs associated with the need of osmotic membranes, which are usually around 175 000 CZK per one year, which make the technology suitable for developing countries and its villages, which are unable to beat high additional costs for external filters. Because there is no need of filters the technology can be used in offshore platform, where are no additional cost for delivery and change of the filters.

Also, there is a much lower maintenance cost per year, while using EMSF technology, it is approximately 50 000 CZK per one year, but while using reverse osmosis it is approximately 1 000 000 CZK per one year. Because it is relatively easy to maintain the technology it can be used in developing countries, because it is not necessary to have skilled employers.

The second main strength is the possibility of using different power sources. It is possible to use conventional sources of energy, but also all alternative energy sources as solar, hydrothermal or wind. The technology can be used for example in ships or offshore oil platforms, because it can be powered by waste heat from motors as well.

Weaknesses: The company's main weakness can be its relatively bad location. Its main factory is in Hradec Králové. Hradec Králové does not have its own international airport and even if it is located quite close to Airport Pardubice, there no international flights from developing countries, such as Mozambique, or other countries important to business.

Also, there are still not many functional stations for customers to see around the World. There is a functional station in the Czech Republic, Egypt and several stations are owned by private owners abroad.

Opportunities: There is a big opportunity for expanding in developing countries, which suffer from water shortages. While expanding into developing countries, there is also possibility of use of several funding and programs, available from the side of developing countries or from the side of the Czech Republic or from international organizations.

Because the technology is not dependent on traditional power sources, but it can be powered by waste heat it can be used in ships or offshore oil platforms. On the ships in can be powered by waste heat created by boat engine.

Threats: The technology is mainly threaded by its bigger competitor the reverse osmosis, because the technology is widely used and functional for many years, a lot of different customers believe it, because it has stood the test of time.

There are also threads related to taxation in different countries or the uncertain economic environment in developing countries.

3.6.2 PESTLE

The PESTLE analysis describes macro-environment that may affect the business, because the company plans to expand mainly in developing countries, it is affected not only by the situation in the Czech Republic, but in those countries as well.

The analysis of Princeston, s.r.o.:

Political: In the Czech Republic there is a relative political stability, it has its own functional health care system, the pension system and all employees are protected by labour law. It is participating in free trade agreements. The current legislation of the Czech Republic enables business development.

On the other hand, in developing countries the political situation is unstable or stable to some point. There is a high level or corruption and usually governments are dealing with problems from the past.

In Norway, there is stable political situation and functional systems; these include a high level of education, the pension system and high working productivity. Norway has one of the strongest economies in the world.

Economic: According to World Bank (2020) there was annual GDP growth by 3% in 2018 and 2.3% in 2019, there is expected fall in growth in 2020 caused by COVID-19 pandemic, but the economic situation is still seen as stable.

In developing countries, there is potential of GDP growth in future years related to its development. Usually the countries rely on agriculture as the primary industry and suffer from water shortages.

In Norway, there economic situation is one of the best in the World, however, there are small indicators for future oil crisis, which might affect the economy in the future.

Social: In the Czech Republic and Norway, the social culture is stable and there is a multicultural environment in bigger cities. There is no significant impact of religions.

In developing countries, the majority of the population is not educated. There is a lower median age in compared to developed countries, but the young people are expected to create a big potential market. The cultures can be closed, and the impact of religions can be significant.

Technological: Automation in the Czech Republic is high, there are a lot of companies automating its processes and access to new technology is much better than in developing countries. There is relatively high level of experts and scientists.

In developing countries, there is a shortage of people familiar with recent technology in developing countries. It can be hard to find employees that are able to run difficult technologies. Technological expansion is slow.

Norway relies on innovations and is very open to new technologies. Knowledge and education of Norwegians is very high, and they are highly skilled in technology industries.

Legal: Health, safety and consumer law in the Czech Republic and Norway are in the high level. There is fair competition on the market. The government follows set policies.

In developing countries, there is a variety of different legislation, high level of corruption and different licences and approvals are needed to perform in the country.

Environmental: In December 2019, the European Union, including the Czech Republic, made a commitment that Europe would achieve climate neutrality by 2050, called Green Deal.

Developing countries are focused on the conservation and preservation of the environment and its natural resources. They usually suffer from water shortages.

Norway has experience from its large renewable energy sector, which has mainly been built on hydro power. Norway strives to protect its environment.

3.6.3 Porter’s 5 forces

Porter’s 5 forces analyse of Princeston, s.r.o:

Existing competitors and company’s rivals: The main rival of the EMSF technology and Princeston, s.r.o. are companies providing different water desalination technologies, mainly reverse osmosis. In the Czech Republic there is no big rival, which can offer the same or relevant products for target customers. There are several firms offering small reverse osmosis devices for mainly farmers such as GDECO Trade Olomouc, s.r.o, but the water produced through these types of technology offered is relatively small and the price is very high compared to EMSF.

One of the main worldwide rivals is Norwater AS, located in Norway, that offers reverse osmosis-based devices for both offshore platforms and onshore. It is a well-established company, which runs for over 25 years.

Potential competitors, who may occur in the market: Since the demand for clean and drinkable water is very high and it is expected to increase in future years, there is expected to be a lot of newer firms trying to enter markets with their own technologies. Main potential rivals can be found in universities, where they are trying to invent new technologies for water desalination.

Suppliers: Negotiation power of main supplier of the components Kovo-Hepnar s.r.o is very high, because the company did not start to negotiate or trying to find new suppliers yet. The negotiation power of Kovo-Hepnar s.r.o is increasing also the fact, that the factory is located in the same building and those two companies are sharing the space. The solution for this problem could be to find a new suppliers and test if they are able to produce the same quality of goods ordered and potentially move the factory to a new location.

Customers: Since the customers have a relatively big selection of firms offering water desalination technologies their negotiating power is relatively high, however the other technologies are not yet able to provide water in the same quality. If for example a hotel wants to order a technology different to reverse osmosis, because the water is not that clean and might smell like ocean sometimes, their negotiating power is significantly lowered, because there aren’t many alternatives available.

The potential customers in developing countries are Mozambique, Tanzania, Rwanda and Ethiopia, because those are the fastest growing countries in Africa, who cooperate with external companies.

There are a lot of potential smaller customers in developing countries as well, for example the owners of resorts and hotels in Tanzania and Zanzibar.

Substitutes: The price of substitutes varies based on the size of the reverse osmosis device, but the main difference can be found in additional cost related to the operation of the equipment. The average maintenance costs of EMSF are 2100 EUR for one year, but the average maintenance costs of reverse osmosis device are 42 000 EUR for one year. It is mainly due to a fact that the rival devices need to change its parts and filters after a given period.

3.7 The marketing strategies

3.7.1 Marketing Mix

Marketing Mix of Princeston, s.r.o.:

Price: The company tries to be always a cheaper and better alternative to reverse osmosis. The price of the final product is greatly influenced by the size of the device, because its size ranges from 1 to 200 m^3 of fresh water/day. Therefore, the average price per product was established from the past project in Mozambique. The average price for the device was 2 700 000 CZK for medium size device for households.

Table 1. Average price for device

Small size device, up to 50 m^3 / day	1 800 000 CZK
Small size device, up to 150 m^3 / day	2 700 000 CZK
Small size device, up to 200 m^3 / day	3 500 000 CZK

Source: Own creation based on past projects

The price estimation for additional costs is listed in the table. Therefore, the average estimated price is 2 700 000 CZK and additional cost from the table, such as treatments, maintenance costs, UV filters and rehardering filters.

Figure 4. Price estimation for additional costs of EMSF compared to RO

	EMSF - PRINCESTON 050	RO - OSMOTROL® 50m3/day
Capacity of fresh water (FW) per day	50 m³ / day	50 m³ / day
Heat consumption	1430 kW	0 kW
Power consumption	34 kW	44 kW
Power consumption per 1 m³ FW	1,4 kW	2,2 kW
Rinsing water per year	60 m³ / year	1 100 m³ / year
Sea water flow	102 m³ / day	144 m³ / day
Costs of sea water pre-treatment per year	1,260 € / year	2,160 € / year
Costs of sea water pre-treatment per 1 m³ FW	0.07 € / 1 m³ FW	0.12 € / 1 m³ FW
Costs osmotic membrane per per year	0,00 €	6 x 7pcs x 1000 €
Costs of osmotic membrane per 1 m³ FW	0 € / 1 m³ FW	2.33 € / 1 m³ FW
Maintenance cost per year	**2,100 € / year**	**42,000 € / year**
Maintenance costs per 1 m³ FW per year	0.12 € / 1 m³ FW	2.34 € / 1 m³ FW
Filter element per year	0,00 €	12 x 40 €
Activated carbon per year	0,00 €	12 x 200 €
Costs of filter element and activated carbon 1 m³ FW	0 € / 1 m³ FW	0.16 € / 1 m³ FW
Costs of fresh water per 1 m³ FW per year	**3.40 € / 1 m³ FW / year**	**16.15 € / 1 m³ FW / year**
Costs of fresh water per 1 m³ FW per 10 year	**0.34 € / 1 m³ FW / year**	**1.62 € / 1 m³ FW / year**
Quality of FW	**1 - 3 ppm**	**300 - 400 ppm**
Additional equipment:		
UV filter	*2,000€*	*2,000€*
Rehardering filter	*3,320€*	*3,320€*

Source: Own creation for Princeston, 2019

Product: Princeston, s.r.o. will continue to produce technology for production of clean, drinkable water called EMSF. The product makes possible to produce a baby-grade water and purifies it to a measurable value of less than 1 ppm.

The size of the product will vary by how many units should be installed and the amount of water needed. The product is in blue colour representing the colour of water and the company's colours blue and white.

Promotion: The company tries to expand mainly to developing countries and other countries that might suffer from water shortages. The company plans to promote itself by Instagram @pr1nceston for private customers, which can buy products for their houses, hotels and by international agencies for state customers, which can buy the product for villages or cities. It plans to cooperate with the Czech Aid Agency, as in the past.

Also, the company plans to address foreign governments and potential private customers itself with newly created offers. All offers will contain company's logo, name of the firm and will be done in company colours which are blue and white.

One of the main forms of promotion will be webpage of the company www.princeston.eu. There will be a new simple form for customers for the demand of a certain type of product, where the customers can briefly specify their inquiry and fill in their information, where the company is able to contact them. The estimated price for the new website is 30 000 CZK.

Placement: The device will be distributed with partner Kovo-Hepnar s.r.o. and directly Princeston, s.r.o. and delivered to its customers. Mainly email communication will be used for the communication with clients and customers. All types of promotion will have a single logo and the name of the company.

3.8 Financial analysis

Its aim is to assess the current financial and economic condition of the company and helps to identify weaknesses and strengths of the company and to state and evaluate if the prices for the devices are correctly set and if the company needs external funding for its expansion.

Methods of financial analysis for Princeston, s.r.o. are profitability, activity, leverage, liquidity and growth ratios. They are calculated based on a company's balance sheet, cash flow statement, profit and loss statement, notes to financial statements, data from managerial accounting and answers and data provided by Vladimír Sirotek and Martina Werichová by email, telephone or via personal consultations.

All data are for the year 2018. In the period of collecting data for this thesis, data for the year 2019 were not yet available due to delays caused by the current situation in the company. Data from the year 2018 are still relevant to this thesis, because the financial situation of the company hasn't significantly changed. All data are in thousands CZK.

After evaluation of the current situation, there will be a comparison of the current state and the expected situation in one year.

3.8.1 **Profitability Ratio**

3.8.1.1 **Calculation of current profitability**

The profitability ratios are used to assess a business's ability to generate its earnings. The profitability ratios include gross and operating margin, return on assets, return on equity, and return on investment and return on sales.

To state the profitability of Princeston, s.r.o. and suggest how the company can become profitable or more profitable in this diploma thesis are used gross and operating margin, return on assets and return on equity. After each calculation author suggests why the situation of the company happened and suggests as well possible ways how to solve the problem and make the ratios higher and how it will impact the expansion.

Formula used for calculation of gross margin:

$$Gross\ margin = \frac{Total\ sales - COGS}{Total\ sales} \tag{1}$$

Calculation of gross margin:

$$Gross\ margin = \frac{843 - 672}{846} = 0{,}20$$

The gross margin of the company is 20%. Gross margin of 20% is considered high or good. It can be further increased by increase the prices, which are relatively low now, because it is a new technology and the owner of the company wants to expand first, even if it means having a lower margin. The company should review all their prices and its costs and try to lower them. Also, the company should not offer big discounts on their products.

Those measures should further increase the gross margin in the future and they should make company more profitable, because the calculation is made in thousands of crowns the company might see profitable while calculating the gross margin, however, if we take into consideration the total sales, the company did not sell many devices at all, they are profitable, but not many of them were sold. They will need to increase their sales in the future by taking steps from different part of the business plan such as marketing mix or SWOT analysis.

While expanding into developing countries, the company can use their current set prices, but it needs to significantly higher the amount of sold products.

Operating margin or operating earnings or EBIT, measures how much profit a company makes on a dollar of sales.

$$EBIT = \frac{Total\ sales - COGS - operating\ expenses}{Total\ sales} \tag{2}$$

Calculation of gross margin:

$$EBIT = \frac{843 - 672 - 125}{843} = 0{,}0546$$

Gross profit margin only figures in the direct costs of the production, while the operating profit margin includes operating as well. If we take into consideration the operating expenses the EBIT is calculated at 5.46%. Whenever the number is high or low can depend on to which other company, we compare it to. If we compare Princeston, s.r.o. to determined main rival Norwater AS, the Norwater AS has EBIT of 10%, which is almost twice as high.

What can Princeston, s.r.o. do to increase its EBIT is to review is COGS and operating expenses such as for example wages, marketing costs and facility costs.

Return on assets (ROA) calculating how profitable a company is relative to its total assets and how efficient a company is at using its assets to generate earnings.

$$ROA = \frac{Net\ income}{Total\ assets} \tag{3}$$

$$ROA = \frac{44}{1769} = 0{,}025$$

Company's return on assets was calculated at 2.5%. The percentage of 2.5% is considered low. A sufficient ROA starts at 5%. The firm can increase its ROA mainly by increasing its sales, then net income will increase accordingly, and ROA will increase. As it has been calculated and stated before the company needs to increase its sales to remain in business and become more profitable.

Other ways how to increase the ROA is to decrease COGS and therefore increase the net income or the firm can lower its operating costs.

The firm can also decrease its assets to increase its ROA, but in this case the author would suggest focusing on increasing the net income, rather than decreasing company's assets.

Return on equity (ROE) calculates the profitability of a business in relation to the company's equity.

$$ROE = \frac{Net\ income}{Equity} \tag{4}$$

$$ROE = \frac{44}{-264} = -0{,}167$$

Company's equity is in negative numbers. Since the equity is measuring the financial health of the company the negative equity is sign of the problems inside the firm. It is caused by accumulated losses over time from previous years.

The company can increase its ROE by increase of its profit or finance itself.

The summary of outcome is that the company is not profitable. Its gross profit margin is considered good and relatively high, but the sales are not high enough to make all the other ratios high or good.

Company's low profitability was the main reason to create the diploma thesis and make deep analyse and study of the company and what can be done differently.

The EBIT of the Princeston, s.r.o. is low in comparison to its rivals and ROA is low as well. While calculating its ROE, it was found out that the company's equity is negative due to its accumulated losses from previous years. The company acquired a small profit in 2018 it was still not enough to cover losses in previous years.

The company needs to increase its profitability by finding new customers and increase the number of sales. The main potential markets are developing countries and offshore oil platforms. To increase potential sales can be done by acting on suggested marketing mix and take into consideration SWOT and PESTLE analysis.

3.8.1.2 **Expected profitability after investment**

Expected profitability of sales after one year is:

$$\frac{906}{8\ 100} * 100 = 11{,}18$$

Expected profitability of sales in first year is 11.18%. The company is expected to lower its gross margin but increase its sales. The lower profitability in the first year is due to higher investments into new webpage, the hire of the new temporary experts and advisors or other temporary investments. In the next year the profit margin and the amount of sales is expected to increase.

After the company will increase its sales it will be able to cover the losses from previous years and increase its equity. It will no longer be in negative numbers. It will be due to increase in company sales, therefore, its assets and in the accounting year when the revenue account is closed, the revenues will increase firm's equity.

Comparison of profitability before and after investment (rounded to thousands of CZK):

Table 2. Comparison of profitability before and after investment

	Before	After	Change
Total costs	799	7 194	6 395
Total revenues	843	8 100	7 257
Gross profit	44	906	862
Profit after CIT	36	734	698

Source: Own creation

Company's ROA and ROE will increase after the investments. Company's equity will no longer be in a negative number, because initial investment can cover for losses from previous years. After the investment company will have greater ROE than ROA. If the company would have still lower ROE than ROA as in previous year according to Ibendahl (2018) it means that the firm is earning less on its debt capital than its cost of borrowing that capital. After the investment both ROA and ROE will be sufficient to let company growth more and focus on the new markets.

Such a high ROE is a sign that the company will need to increase its equity in the future to balance the ROE. The high ROE also indicates that the company used debt to expand. In this case the high ROE is mainly due to high debt of the company.

$$ROA = \frac{906}{2409} = 0{,}376$$

$$ROE = \frac{906}{1176} = 0{,}770$$

3.8.2 **Liquidity Ratio**

3.8.2.1 **Calculation of current liquidity**

The liquidity ratio is used to calculate is company's current assets are sufficient to cover for the company's obligations, to pay its own debts.

Liquidity ratios include current, quick and cash position ratio.

To state liquidity ratio of Princeston, s.r.o. and suggest how the company can increase its liquidity are current and cash position ratios. The quick liquidity is not calculated, because company's inventory is very low, and the calculation will not give us significantly different result to current ratio.

As the company is already stated to not profitable it is expected that the liquidity ratios will be low. In case the ratios are high it is considered that the production is stagnating, because there are no current unpaid invoices, short time debt or other current liabilities.

The current ratio is expressed as the ratio of total current assets to current liabilities and the higher is the value, the lower us the risk of insolvency.

$$Current\ liquidity = \frac{Current\ assets}{Current\ liabilities} \tag{7}$$

$$Current\ liquidity = \frac{1769}{8} = 221{,}125$$

The current liabilities of the company are low. Almost all its liabilities are long term. The company has no short time debt in the bank or other types of liabilities. The company is able to easily meet its short-term debts.

The company needs to consider taking the short time or long-time loans to be able to expand. It is unable to cover the costs if it will highly increase.

Also, in this case, since the company doesn't have any current unpaid invoices it shows us its production is stagnating, rather than that the company is financially healthy, and it is able to pay its liabilities right away.

The cash position ratio is calculated as the ratio of financial assets such as cash, bank accounts and short time financial assets to current liabilities.

$$Cash\ position = \frac{Financial\ assets}{Current\ liabilities} \tag{9}$$

$$Cash\ position = \frac{670}{8} = 83{,}75$$

The cash position of the firm is good due to its low current liabilities. It also means the company holds too much cash. It is a sign that the cash is not invested well to make the company grow. The company should consider investing in expanding the business and new projects.

The summary of outcome is that the company can pay its short-term debts. However, in this case, the outcome is not considered good, because the company is not using its cash efficiently and it is expected that the production is stagnating due to no unpaid invoices and low short time debt.

The company needs to use its cash to expand to new territories and to build its business. They might invest in advertisement, making the technology better, hire more experts or use other ways to expand its business. If the cash is not enough, the company can consider take a debt, because its current liquidity is very high, and company hold on to a lot of current assets.

3.8.2.2 **Expected liquidity after investment**

The current liquidity will remain greater than one, which means it will still be possible for the company to cover its current liabilities, mainly for its supplier for building the units, month salary for employees and parts of social and health insurance and tax prepayments. This outcome is considered better than the extremely high current liquidity ratio before the investment, before the company was able to easily meet its debt, but it was stagnating. After the investment company’s liquidity is still considered high and it is possible to consider taking another debt in future year to expand even more.

The cash position lowered, which is a good sign, because the company started to invest in its growth. The ratio is still over one, which is preferred and shows that the company can pay for its debt, but it is not extremely high anymore.

Even if both ratios greatly lowered it is not considered bad in this case. Both ratios are still enough and considered very good, but the company has started to invest in its growth and used the debt to hire more people, advertise, building new website and another.

$$Current\ liquidity = \frac{9869}{3550} = 2{,}28$$

$$Cash\ position = \frac{8700}{3550} = 2{,}47$$

3.8.3 Leverage Ratio

3.8.3.1 Calculation of current leverage ratio

The leverage ratio measures how much of a company's capital comes in the form of debt.

To calculate Princeton's leverage ratio, it is necessary to compare its total liabilities to its total assets.

$$Leverage\ ratio = \frac{Total\ liabilities}{Total\ assets} \tag{10}$$

$$Leverage\ ratio = \frac{2033}{1769} = 0{,}00056$$

The company's leverage ratio is under 0.5%, which is considered good. The firm has majority of long-term debts and very low short time debts.

The debt is not a bad thing in case it helps company to expand and is used for investments, which leads to future profits. In this case the company does not use its debt or potential debts in a good way. It is missing the potential opportunities.

3.8.3.2 **Expected leverage ratio after investment**

The company's total liabilities are expected to increase. The accounts payable, money owed to suppliers, there will be a new loan in liabilities and the company's equity will increase as well.

Total assets will increase in long term asset, which is one of the small units to show, the company will need to start depreciating the unit.

Assets will also increase in account receivable, money owed by the buyers for units or bank account after they will pay.

It is considered good if no more than half of the company is financed by external debt. A higher leverage ratio than last year shows that the company has decided to finance its growth with debt. For better understanding of the data it is good to compare with companies operating in the same industry (Hayes, 2020).

$$Leverage\ ratio = \frac{5610}{10469} = 0{,}356$$

The author will compare the company to Biwater. Another company operating in the same industry, providing water desalination technologies. According Biwater consolidated financial statements its total liabilities are £42,7 million and its total assets are £57 million. Its leverage ratio is twice as high as Princeston. Biwater has a higher debt than Princeston.

3.8.4 **Activity Ratio**

3.8.4.1 **Calculation of current activity ratio**

The activity ratio measures the ability of the company to use its assets. The most commonly used are inventory turnover, creditor's payment period or average collection period. To calculate activity ratio of Princeston, s.r.o. will be used total asset turnover and average collection period.

Asset turnover indicates how many times the total asset is turned in one year and how efficiently the firm uses its total assets.

$$Total\ asset\ turnover = \frac{Revenues}{Total\ assets} \tag{11}$$

$$Total\ asset\ turnover = \frac{655}{1769} = 0{,}37$$

The firm has a relatively small revenue and hold on many assets. All assets are current access, it is very surprising the company doesn't own any long term assets, it means it doesn't own any buildings, lands, software or doesn't own any long term financial assets, but since all assets are current it means the company doesn't hold to it for long and turn over the assets quickly.

This total asset turnover ratio implies that the firm earns good revenue on one CZK of its assets. It can be further improved by increase the revenues and use assets more efficiently.

Average collection period indicates how many days it takes for receivables to be received from customers.

$$ACP = \frac{Receivables}{(Sales/360)} \tag{13}$$

$$ACP = \frac{1099}{(\frac{843}{360})} = 469{,}324$$

A good average collection period is around 30 days; the calculation shows that the average collection period is very high. It was expected because all receivables of the company are long term receivables.

To improve average collection period the firm can offer discounts for early payments or set a credit policy, where it will state fines for late payments.

As the summary of activity ratios, the company is suggested mainly to focus on their average collection period, which is too long. The firm will set new credit policy with set fines for late payments, it will collect deposit payments and it will offer discounts for early payments in full.

3.8.4.2 **Expected activity ratio after investment**

$$Total\ asset\ turnover = \frac{8100}{10464} = 0{,}774$$

The company’s assets will also increase in account receivable, money owed by the buyers for units or bank account after they will pay. The main change is that the company will own long term assets in the form of new units. The company should increase its long-term assets in the future by investing in its own factory.

The total assets turnover ratio before implied that the firm will earn a good revenue on one CZK of its assets. It was further improved by increase the revenues and use assets more efficiently.

3.8.5 **Growth Ratio**

The growth ratio is a stock's price-to-earnings ratio, which cannot be used for private company.

3.8.6 **DuPont Analysis**

DuPont analysis indicates the decomposition of the ROE indicator and it indicates a value of company's performance. It is used as complement to profitability indicators.

As it was found out while calculating the profitability ratio, the company is not profitable.

$$ROE = \frac{Net\ profit}{Sales} * \frac{Sales}{Assets} * \frac{Assets}{Equity} \tag{14}$$

$$ROE = \frac{44}{843} * \frac{843}{1769} * \frac{1769}{-264} = -0{,}167$$

The larger these components, the more productive the business is (CFI, 2020). The main problem is again company's equity, which is in negative numbers due to accumulated losses from previous years.

DuPont analysis and deeper calculation of company's ROE confirm that the company is not profitable and is in need to find new ways how to create more sales and more revenue. The company can increase its ROE by increase its sales and therefore its profit and revenues or finance itself by more debts, which will be further used for expansion.

DuPont analysis can be further used to find out tax impacts on the company, volume, leverage or capital structure or margin impact.

For Princeston, s.r.o. was used the basic DuPont model equation to confirm findings from previous calculations.

3.9 Financial plan for investment

The financial plan is a picture of company's current finances and how they will be used for expansion. To evaluate the company's current situation short-term plan for the period up to 12 months was created. All stated questions from theoretical part were answered to find out the correct overview of Princeton's needs.

According to Business Development Bank of Canada (2020) to create successful financial plan the company must answer following questions:

Do I need to expand: Yes, the company holds on too much cash, which can be used for expansion, it doesn't have enough profit and revenues and it needs better strategy in sales. The company will expand to developing countries and offshore oil platforms.

For the expansion company needs to prepare all relevant documents, the advertisement and its offers. The expected costs for three new employees are 150 000 CZK for one month, for creation of the new webpage 30 000 CZK once, for cleaning 15 000 for one month and for use of external advisor 40 000 CZK once. The other expected costs are 35 000 CZK for utilities. The expected cost is based on expectation from the owner of the company. In total for one year it is 2 470 000 CZK.

The expansion will be partially funded by the owner of the company by increasing company's equity. In total the owner of the company will invest 1 440 000 CZK. The remaining 1 437 530 CZK is expected to be covered by future revenues.

Table 3. Expected costs for expansion for one year in CZK

Salaries for new employees (3 full time employees)	1 800 000
Utilities	420 000
New webpage	30 000
Other services (Cleaning)	180 000
Other services (External advisors)	40 000

Source: Own creation

Do I need more equipment: The company is in need of more functional stations to show to potential customers. Construction of more equipment will be done in cooperation with Kovo-Hepnar s.r.o. and will be funded externally. The costs of the construction will be split between Princeston, s.r.o. and Kovo-Hepnar s.r.o, the cost to create new small device was estimated to be 600 000 CZK and the company need one to be located in Prague and the second one in one of the developing countries, preferable Mozambique. There is additional cost for delivering the machine to Mozambique. According to World Bank, the value of air cargo typically exceeds 4 USD per kilogram, the author will calculate the price of 120 CZK per one kilogram, the average weight of small device is 150 KG, therefore there is additional cost of 18 000 CZK to deliver the unit to Mozambique.

In total the company need external funding for more equipment 618 000 CZK.

The company will take loan 620 000 CZK at MONETA Money Bank in program called "Loan for sole proprietors and small businesses." and the company will repay the loan by 47 instalments for 3 years and 11 months, the interest rate is 5.9%. Monthly payment will be 15 106 CZK.

Table 4. Estimated price for new equipment in CZK

Small device (2x)	1 200 000
Air cargo	18 000

Source: Own creation

Do I need more staff: Princeston, s.r.o. is in need of external staff. It needs to hire experts in fields the current stuff in not expert in. The company has an engineer, sales people, accountant and experts who can present and do the calculations, but it doesn't have any expert on advertising, social media and financial advisors, that can help the company with outside funding.

The company will hire a marketing expert to help them with their sales, the estimated salary of the external marketing expert will be 40 000 CZK and they were already calculated in costs for expansion.

Do I need more resources: The company will need some sort of external funding for its expansion. The owner will fund the expansion with 1 440 000 CZK for new employees' salary, utilities and others, but is unable to cover for building the new units as well.

Princeton, s.r.o. will consider short-time bank loans for small investments and long-term bank loans for bigger investments, such as building its own factory in the future.

For short-time period, it was calculated that bank loan will be 620 000 CZK to cover for more equipment.

How will my plan affect my cash flow: There will be a lot more movement in the cash flow statement. There will be more operating expenses spends on external staff and building the equipment. Cash flow will be affected by purchasing of the material to build the equipment, sale of goods and services, payments from customers and payment to bank after taking the loan.

Expected sales: There is expected in the first year to make three sales of medium size devices in developing countries, to establish the company in developing countries. It is not expected in the first year to make any sales in Norwegian offshore oil platforms, because there are more resources needed for that and company decided to invest in expansion in developing countries first. Expected sales were estimated based on external and internal analysis of the company and sales are expected from countries: Mozambique, Tanzania and Ethiopia.

Expected cost: Expected costs in the first year are for utilities, staff salary, other services and creation of the new webpage. Other important costs are for building the units, both for sale and to show potential customers.

There is expected eleven loan repayment in the year, and one is expected to be 15 106 CZK.

Table 5. Expected costs for one year in CZK

Salaries for eight employees for one year	4 800 000
Utilities for one year	420 000
New webpage	30 000
Other services (Cleaning) for one year	180 000
Other services (External advisors) used once a year	40 000
Building of the equipment for sale, three units equipment	3 000 000
Loan repayment (11x)	166 166
Small device for show (1x), the other device is financed by Kovo-Hepnar s.r.o.	600 000
Air cargo	18 000

Source: Own creation

The total expected costs are 9 254 166 CZK, from which 1 440 000 CZK will be funded by the owner of the company, there will be loan of 620 000 CZK, the company will take loan 620 000 CZK at MONETA Money Bank in program called "Loan for sole proprietors and small businesses." and the company will repay the loan by 47 instalments during 3 years and 11 months, the interest rate is 5.9%. Monthly payment will be 15 106 CZK, and expected sales are 8 100 000 CZK.

The company is expected to make a profit of 905 834 CZK in the first year. In future year the profit should increase, because it won't be necessary to build devices for show or need of external advisors or webpage.

3.9.1 Break-even point for medium size devices

Fixed cost for salaries, utilities, cleaning and loan repayment are in total it is 5 566 166 CZK.

Variable costs for building one medium size equipment are in total 1 000 000 CZK.

The price for one medium size equipment, as stated in Marketing plan, is 2 700 000 CZK.

The break-even point is 3 medium size devices.

$$\frac{5\ 566\ 166}{(2\ 700\ 000 - 1\ 000\ 000)} = 3{,}2$$

3.10 Economic, strategic and financial background and summary evaluation of analyzes

Economics background refers to the state of economy in the country where the company operates and the influence of local, national and world economy.

Princeston, s.r.o. is in the Czech Republic, where the economy is stable. Its economics background and factors that influence company from outside was examined in the PESTLE analysis.

It was found out that the annual GDP in the Czech Republic is growing each year and makes the Czech Republic a stable country, where to locate the company. The country has a functional health care system, pension system and a relatively stable political situation and functional laws. There is no direct threat to the company if it remains located in the Czech Republic.

It is also greatly accepted by potential customers if they hear that the company is located in the European Union.

If the company would be located in euro zone it might get more advantages related to no exchange rate losses. To participate in this advantage, even if not fully, and remain located in the Czech Republic the company decided to have both accounts in euro and Czech crowns.

Because the company plans to expand to developing countries it takes into consideration the situation there as well.

The political situation is unstable or stable to some point. There is a high level or corruption and usually governments are dealing with problems from the past. Usually the company needs to find other than conventional way how to expand to those countries; it might be with help of some agency, for example the Czech Aid Agency.

In developing countries, there is potential of GDP growth in future years related to its development. Usually the countries rely on agriculture as the primary industry.

It is necessary to have enough non saltwater to remain functional agriculture in the country; this might be a big advantage for Princeston, s.r.o. as well.

Since the developing countries and small companies in them or small farmers do not have the financial capacity to afford big reverse osmosis technologies, the EMSF might be an alternative.

Strategic background examines where the company plans to head, and it is based mainly on Porter's 5 forces and SWOT analysis. Company forms its strategy based on its advantages and disadvantages. The main advantage is that the company own an innovative technology, which has been patented, for production of drinkable water using vacuum distillation.

In the competitive reverse osmosis, there is necessary to change filters and it is the main factor that saves the customers thousands a year. There are no additional costs associated with the need of osmotic membranes

Also, there is a much lower maintenance cost per year, which makes the company good potential seller for developing countries, where nonskilled staff can run the devices. In the small African village, the non-skilled person is able to run the device with a short introduction.

The second main strength is the possibility of using different power sources. It is possible to use conventional sources of energy, but also all alternative energy sources as solar, hydrothermal or wind.

Based on those advantages the company should and will focus on developing countries and countries that suffer with water shortages, mainly if they are missing skilled personal to run more complicated type of technologies.

The company's financial background was analysed in financial analysis. In the financial analysis was examined the financial position of the firm. While calculating company's ROE, it was found out that the company's equity is negative due to its accumulated losses from previous years making the firm non profitable.

While calculating the gross margin the result of the calculation was quite satisfying, however, after deeper examination the total sales were very low, the company did not sell many devices. The selling of the device was profitable, but there were not enough sales.

Current liabilities of the company are very low. The majority of its liabilities are long term. The company has no short time debt in the bank or other types of short time liabilities. The company can meet its short-term debts, but it is stagnating and not expanding.

Even if the leverage ratio is satisfying the resources are not used efficiently.

Also, the calculation shows that the average collection period is very high and that the company is accumulating too much cash, which is not effective.

Even if some indicators show us the good financial health of the company the author remains sceptical. The financial background is not good.

There resources are not allocated efficiently, and the sales and revenues are too low, a company does not take any debts to expand and move forward, does not own any long-term assets and waits too long to collect its invoices.

3.11 **Proposal for the development of business activities**

There are possibilities for expansion in developing countries and oil offshore platforms.

The company should focus on expanding in developing countries first to become more profitable and stable. After the company is established in developing countries and has several functional stations to show to customers in other types of markets, especially offshore oil platforms.

The expansion to offshore oil platform, especially in Norway, needs more financial resources. In current company's situation it is not sure if the company would be able to cover for greater debts.

The expansion to developing countries is possible, because those countries suffer from water shortages and lack of skilled personnel, which makes the EMSF devices a good fit.

Offshore and onshore oil platform are possible and the company can also expand and offer smaller types of the technology on private boat or yachts or bigger types on cruise ships, but the company would need more external funding for expansion on those types of markets and that could make company not profitable in future years and the owner of the company is not willing to risk that. Also, the current financial situation in the company is not stable enough to make a big investment and expand into several territories at the same time. There is not enough personal for that as well.

The author considers marketing strategy to be a key area, where the company needs experts to help the firm with marketing activities. Those activities should be focused on increasing promotion of the company and expanding customer awareness about the company.

The company might also consider hire experienced CFO, who can help the owner of the company decide, where to allocate the resources.

3.12 Proposal for expansion of business activities

It is crucial for the company to diversify its portfolio to make the company stable in uncertain times, when the demand for its main product is lower due to the current economic situation. As the company's main product is desalination technology for agricultural purposes or for the purpose to provide drinkable water for people, it can consider expansion of business activities.

3.12.1 Desalination technology for boat, ships and cruises

Since the company already has its own working technology, it can consider an idea to make the units even smaller to fit fishing boats or cruise ships.

The power source needed to run the devices on the sea would be solar energy or possible waste heat from boat engine.

The considered market is relatively big and could bring the company bigger profits. Among the top ten fishing nations worldwide are China, Indonesia, Peru, India, Russia or Japan (Shahbandeh, 2020), which would significantly broaden the market, where the company can operate.

Expected cost associated with possible expansion into the fishery market would include research if it is possible to make the device even smaller, creation of the small device, include raw material and salaries, marketing and advertising cost and possible travel expenses for one person to a selected country.

There would be no additional cost with need of new webpage, utilities or cleaning services, because the existing capacity after expansion would be enough. The additional cost would be extra 630 000 CZK.

Table 6. Estimated additional cost for expansion of business activities in CZK

Research	120 000
Smallest device	400 000
Marketing, advertising	40 000
Salaries	50 000
Travel expenses	20 000

Source: Own creation

The total cost of the company would increase accordingly. It is expected to focus on research and development of the new device and advertising in the first year and first sales are expected in second year, therefore the profit won’t increase in the first year.

Table 7. Total cost of expansion before and after expansion of business activitis in CZK

	Before	After
Total costs	9 254 166	9 884 166
External resources needed	2 060 000	2 060 000
Expected sales	8 100 000	8 100 000
Expected profit	905 834	275 834

Source: Own creation

Expected profitability of sales after one year is:

$$\frac{276}{8\ 100} * 100 = 3{,}40$$

Expected profitability of sales if the company consider broadening its portfolio in the first year is 3.40%. The lower profitability in the first year is due additional investments into research and the creation of the smallest device for boats and ships. In the next year the profit margin and the amount of sales is expected to increase both in current market and new territories. Even with the additional investments into new device, the company will be able to cover the losses from previous years and increase its equity. It will no longer be in negative numbers. It will be due to increase in company sales from main devices.

4 Conclusion

Development of the business activities and firm's competitiveness is a key factor for being able to compete with other firms in the industry in today's dynamically evolving environment. If the firm is holding itself back and do not invest in advertising, do not hire an expert in the industry or is afraid to take a debt for expansion, while it is not generating enough revenue to cover for the expansion itself, it is not able to compete with its rivals.

Also, it was found out that creating a business plan is a key factor for business development, without the business plan the company does not have a clear idea where it is heading and where to allocate its resources, both human and financial, effectively.

The water desalination business environment is growing rapidly and there is a big need of clean water to drink and to use in agriculture.

Chosen company Princeston, s.r.o. focuses on the environmental technologies. The company sells a technology for production of clean, drinkable water. It uses their own technology, the invention called EMSF – Environmental Multi-Stage Flash. This technology produces drinkable water using vacuum distillation.

Princeston, s.r.o. is suffering with lack of business plan and a clear understanding of external and internal factor influencing the company. After implementing the proposed business plan, the firm should be able to expand into developing countries, where are located highly potential customers, mainly in fast growing countries in Africa such as Tanzania, Mozambique, Rwanda or Ethiopia, despite a large amount of initial investments.

The expected cost is based on expectation from the owner of the company. In total for one year it is 2 470 000 CZK.

The expansion will be partially funded by the owner of the company by increasing company's equity and partially funded by bank loan. The owner of the company will invest 1 440 000 CZK and the bank loan will be 620 000 CZK. The remaining costs are expected to be financed by future revenues.

The company will be able to generate a profit after it will sell at least 3 medium size units. The company's profit is expected to be 905 834 CZK and its profitability ratio 11.18% after the investment, which is a significant difference compared to previous profit of 44 000 CZK. The profit after corporate income tax will be 698 000 CZK instead of 36 000 CZK.

Both company's ROA and ROE will increase after the investment and it will be possible for the company to grow even further. It is important to state that the company's equity after investment will no longer be in negative numbers, which was caused by loses in previous years.

The company is suggested to also consider expansion of its business activities to diversify its portfolio

According the proposed business plan, the company will not expand into developing countries and offshore oil platforms in the same time, because its situation is not stable enough to balance the risks associated with big investments for expansion into countries such as Norway. The firm will use its own and external resources to first expand into selected developing countries.

As an alternative the firm can consider proposed expansion of business activities and create smallest device intended for boats and ships, mainly fishing boats, but also for private yachts. The expansion of business activities would broaden the company's market significantly and it would be possible to find new customers mainly in Asia, where the majority of big fishing countries are located.

The additional cost would be extra 630 000 CZK, therefore in total the expected costs would be 3 100 000 CZK.

After the additional investment into new units, the company's expected profit in the first year would lower to 275 834 CZK, from expected 905 834 CZK, and its expected profitability ratio would lower to 3.40%, from expected 11.18%, which means the company would still be able to generate small profit. To lower profit after the investment would be due to the reason that the first year is decided to research and development of the new device and there are not expected any sales of the new device in the first year. In the next years the profit margin and the amount of sales is expected to increase both in current market and new territories, which would make the company more profitable and stable with a more diversified portfolio. Even with the additional investments into a new device, the company will be able to cover the losses from previous years and increase its equity.

The profit in future year is expected to increase both from the main source of income and from additional smaller devices intended for boats.

The firm is expected to increase its revenues and stabilise its situation and the company will become more trustworthy. It is expected that the company will not be able to expand without the promotional campaign and hiring expert, who will help the company with the campaign.

Also, the company will offer lower prices and no additional cost unlike its competitors, which will make it more suitable for countries with a lack of skilled personnel or ability to get to the unit quickly.

The project will be beneficial according to calculated financial ratios. Therefore, it can be stated that the business plan created above could be effectively implemented in the company.

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