Investment proposal for Prep and Bakery Oy

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Laurea University of Applied Sciences **Abstract**

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This thesis was commissioned by a bakery company named Prep and Bakery and its purpose is to suggest an investment proposal for the company. Prep and Bakery Oy is a relatively small company that was established in 2015. The company has been producing pita bread of different sizes, as well as pizza dough for various restaurants. The investment proposal was created in order to help the company find the right machinery, give a better understanding of the capital that needs to be invested and to determine how long it would take for this plan to be profitable. The author of this thesis has been working in Prep and Bakery Oy for 6 years as an assistant to the production manager and has a good understanding of its operations, vision, and long-term goal.

This thesis project is a functional study and was conducted through qualitative research. The author has divided the thesis into two major sections. In the first section, the thesis discusses the theoretical part of the study, consisting of capital budgeting, investment process and factors affecting the investment evaluation. The author has had the opportunity to interview the owners of the company as well as a possible customer in a structured and semi-structured manner. The interviews and discussions conducted during this project were continuous and regular to find the most suitable and affordable machinery that matches the needs of the company and owners. There was not a certain budget set by the owners, however, and since the company is relatively small, the investment proposal had to be realistic and affordable.

The investment proposal was presented to the production manager in 2023 and at the end of the thesis process it was discussed at the board meeting among the owners.

The investment proposal includes recommendations for new machinery that could be purchased by the business. Moreover, there is an explanation as to how the different machines work and the reasoning behind the selected machines. In addition, the author has presented a variety of different products that can be produced with the machinery proposed as well as a payback period estimation and net present value.

Keywords: Bakery industry, new products, Machinery, Investment proposal, capital budgeting, net present value, payback period

Contents

1 Introduction

The purpose of this thesis research is to develop an investment proposal for a small sized bakery company named Prep and Bakery Oy by combining academic knowledge as well as theoretical basis. According to the company's production manager this assignment will be a foundation to current as well as future investment plans. Topics such as possible products will be mentioned but the author has decided to focus only on certain more promising products and suitable to be presented in this assignment. Moreover, it is worth mentioning that the company in question has already produced possible product samples in which the investment proposal will be focusing as well as possible new products.

1.1 Case company

According to the owners of Prep and Bakery Oy the company was established in 2015 for the purpose of producing bakery products mostly for a big restaurant chain company named Fafa's that was in need of high-quality pita bread. As years have passed since then, the company has found other smaller restaurants that have been looking for the same quality of pita. Having said that, the demand has not been high enough to produce great profits and that is the reason why the owners and the production manager of the company have been trying to create new products.

Prep and Bakery is the employer of this thesis. Prep and Bakery Oy is owned by three individuals and according to Finder.fi (2023), its annual revenue for the year of 2022 was close to 500 000 € with 10,4 % profitability. The sales fluctuate depending on the season, the summer period being busier while the winter period being calmer. At the moment the company has 4 employees, and its facilities are located in Helsinki. Prep and Bakery Oy is currently producing three kinds of excellent pita breads (junior pita, regular as well as whole wheat/integral) mostly to FAFA'S brand restaurants as well as other smaller ones around Finland. In addition, the company has started producing pizza dough and currently it is focused on producing pre-baked pizza bases for different restaurants, bars, and festivals. It is important to mention that the company is focused on creating high quality bakery products for selected customers.

1.2 Aim and research of the thesis

The aim of this investment proposal is to consider the company's needs to develop the product portfolio and include new products to expand the operations to new markets through the networks of the owners. Having said that, it is crucial for the company to produce new high-quality products that match the image of the company. Now the production is semi-

automated, which means that while having machinery doing most of the work, there is a need for employees to be around the machinery to check and help when needed. In this investment proposal the author of this thesis, has aimed to respect and follow the instructions and guidance of the production manager and the company's needs. Lastly, the reason why this investment proposal can be important for the company is because it will aim to assist and make production faster, cut costs and open the company's possibility to answer to needs of new customers.

According to the owners of Prep and Bakery the vision and most important goal of the company is to keep the current and any new customer happy by producing high quality products and always be reliable with quality and service. The company being able to keep the same quality by keeping its employees happy and making sure that everything works smoothly is essential. Moreover, according to the CEO of Prep and Bakery, the mission and values of the company are being passed to every employee daily through the daily operations and exactly how specific every step of the production needs to be done. (Janne Rantanen 2022)

1.3 Reasoning for the thesis

The purpose of this thesis was to provide an investment proposal for the company, which would be beneficial for the current situation the firm is in as well as for the future. The author believes that the results found during this project answer the needs of the company and achieve the purpose and objectives set by the author and the thesis.

The objective was to search through the sources available to the author and find possible machinery that suits the needs of the company to expand its production. Moreover, the author aimed to calculate the financials regarding the investment as well as to present reasonings to the CEO and production manager as to why the particular investment should be followed.

1.4 Structure of thesis

The author has separated this thesis into a few topics. Firstly, there will be the theoretical section in which there will be a profound examination of different theories and topics such as capital budgeting, its importance in strategy as well as capital rationing. In addition, there will be a capital budgeting process flow chart and its explanation in steps and stages. Furthermore, there will be an explanation of what is capital budgeting evaluation and all its related topics such as profitability, the relevant cashflows in a project and the necessary investment calculation to show a project is profitable or not. Lastly, the risk in investment and the risk analysis are elaborated before going into the methodology. The research methods and the interviews will be following next and afterwards will be the conclusions and findings of the author. In the findings there will be an explanation of the equipment purchased by the

investment as well as the product introduction. Moreover, there will be step by step investment calculations done in this project as well as thoughts of the author regarding the project and the learnings during its execution. Last but not least, there is feedback and assessment regarding the author and the project conducted for this thesis.

2 Capital Budgeting

According to Dayananda, Irons, Harrison, Herbohn and Rowland (2002,1), capital budgeting decisions have an important impact on the long-term future of the company whether that leads to success or failure. The capital budgeting decisions each company makes affect the growth rate of the company, its success and wealth. Investments made in a company aim to develop its operations as well as its well-being. According to Gitman (2002,1), companies of manufacturing usually make long term investments that are related to fixed assets such as property, plant, and equipment. These assets are also known as earning assets, which are the main reason how a manufacturing company creates value. On this thesis the investment the author will be concentrating on will be budgeting related on equipment and its acquiring.

2.1 Importance of Strategy in Capital Budgeting

Kent H. Baker and Philip English explain (2011,1), the relationship between strategic, financial and investment decisions is often overlooked in corporate finance. Capital budgeting, which focuses on long-term goals, is closely linked to a company's strategy and strategic plan. Moreover, a carefully thought strategy includes a statement of the company's objectives, criteria for decision-making and a view on the internal organization and external factors.

Strategic plans define how a company targets actions to achieve its long-term strategic goals. Capital investments often require substantial commitment of resources which are difficult to convert into liquid assets. Consequently, investments by the company ought to be precise and be evaluated before acting.

2.2 Capital Rationing

According to Baker and English (2011,2), the definition of capital rationing is a limit of funds available for a company to invest in different projects. If the invested projects have a positive net present value (NPV), then the investment projects increase their value for the investor. According to Gowthorpe (2010), the management of a company ought to have clear criteria when approving investments since the resources available in a company are limited. The criteria made by the management in a company are correlated with the goals of the

strategy. The prioritization of the investments regarding projects is crucial since there is a limit of capital and other resources available when investing.

3 Capital budgeting process.

Gitman (2002,2) states that firms make long-term investments by first going through important procedures of analyzing and creating appropriate plans. The managers ought to measure cash flows and utilize suitable decision techniques for the correct and best for the company outcome. The capital budgeting process consists of five definite and interconnected steps.

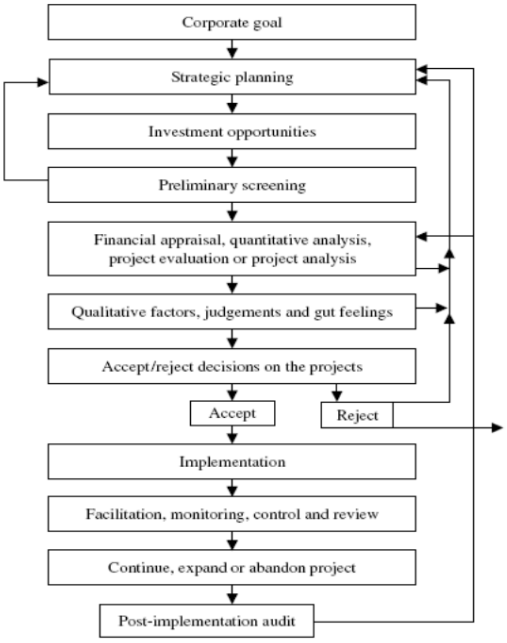

Figure 1: Flow chart of Capital budgeting process (Don Dayananda et al. 2002)

3.1 Strategic planning and capital budgeting steps.

In the capital budgeting process, there are several steps that need to be thoughtfully taken into consideration and followed step by step. According to Dayananda. D, et al (2002,2), capital budgeting process needs to be built up according to a strategic planning. A strategic plan aims to translate the company's intention and provide a clear explanation of what the goals are for the future. Setting priorities and specifying the areas where the company wants to be developed as well as guiding the firm to aim at realistic objectives. Through the different stages of the capital budgeting process, feedback is given forward to strategic

planning at the project evaluation and decision stages which is crucial. Moreover, through feedback the company may perhaps need to make changes to the strategic plan, so it can lead to a different route regarding the future of the company.

The budgeting process according to Schönbohm Avo and Zahn Anastasia (2012,1), starts with the Identification of investment opportunities as well as their filtering. This stage is regarded as the most crucial one since through the decisions made during the very first stage the company will be focusing on. Dayananda. D, et al (2002,3) states, that investments can be mandatory, for example when the company must deal with different regulations or health and safety measurements which are essential for the company's operations. Other investments are optional, and these are created through the competition, the market opportunities as well as the cost reduction opportunities et cetera. Dayananda. D, et al continues (2002,4), these discretionary investments depict the strategic plan of the company and the route the company is taking as its direction. For the outcome to be a profitable investment proposal, the firm ought to make sure that the management has thoroughly searched and pinpointed the best investment opportunities and proposals at their disposal. The reason for that is that the rest of the capital budgeting process can find the best options of the proposed investment proposals, which will be evaluated and tested afterwards.

Following Dayananda. D, et al state (2002,5), the second stage is the review and analysis of the proposals the firm has picked. During this stage the proposals are reviewed and analyzed in order to understand if they are suitable enough for the company's goals as well as their economic viability. A summary report is then submitted with conclusions to the decisions makers. Schönbohm. A & Zahn. A, elaborate (2012,2) that the proposals remaining from the first stage are examined through a rigorous process of projection of cash flows, risk, demand, cost of capital, personnel needed for the project et cetera. The proposals with the best outcomes are then selected and sent forward for approval. The most commonly used algorithms for evaluation are net present value, internal rate of return, payback period and weighted average cost of capital.

Schönbohm. A & Zahn. A, (2012,3) state that the third stage is the authorization in which the firm takes into account the internal and external sources of capital supply such as earnings, loans, depreciation and so on and decides which projects can be produced. Furthermore, after deciding the projects' feasibility on the financial side, the different projects are ranked by strategic importance, return and risk. By producing a sensitivity analysis, the firm is able to understand each project's impact and probability and rank them, which then is able to produce a risk management system for each risk. Last but not least, having answered the financing, prioritization as well as the first implementation plan issues, the company is able to decide which projects are the best and authorize them for realization.

The next stage of the capital budgeting process is the implementation phase. Schönbohm. A, & Zahn. A, state (2012, 4), that a project management committee is in charge of the planning of the project as well as its implementation and reporting. During this phase the committee creates an implementation plan with detailed instructions as to how each task needs to be followed. A work breakdown structure is created, which shows the project's tasks in sections and individual activities that each person in the company has to do as well as their designated timetable and budget. Lastly, the management has to agree on certain milestones, which are meetings and deadlines for different goals that need to be carried out.

The fifth and final stage according to Gitman (2002,3) is the follow-up. During this stage the company keeps under surveillance the results from the project and the management compares the expected results with the actual ones. Depending on the outcome, action may need to be taken or a change of plans to reach the desired results.

4 Capital investment evaluation.

According to Sandeep Goel (2015,1), it is crucial for a business to understand the importance of capital budgeting decisions. The reasoning for that is that the capital power available in a company is limited, it can either be through debt or equity. Many companies often tend to restrict their capital rationing leading to less profitable results. Picking investment proposals that are less effective can be due to the resource restrictions and budget allocation the firm has decided to follow. In order to avoid situations as such, the management ought to carefully make decisions regarding particular projects whether their outcome will reach the expected results within a specific period of time as well as with the limited resources available. If a company decides to go on board with more than one project, the management has to recognize the most suitable combination projects for investment that will help the company grow in value as well as its profitability.

4.1 Profitability

According to Gitman (2002,4), the management of the company as well as its stockholders are concerned with all aspects of the company's financial stability and its ability to be profitable and healthy. The management can monitor the performance of the company through ratios from time to time. Goel, S. (2015,2) informs, that the most important criterions in the evaluation of investments are the expected cash inflows and outflows. Through those evaluations the management can understand the significance and the of investing in a certain project. Gitman (2002,5) elaborates, for a company to evaluate capital expenditure alternatives, the company must be able to determine and find out the relevant cash flows. Moreover Baker, H. K. and English, P. (2011,3) mention, an investment is expected to produce

cashflows that cover at minimum the costs of the particular investment as well as bring about additional cash inflows. The success of an investment is marked out by the additional cash inflows, which are also the compensation for the risk of the investment. Investment value can be measured by comparing two economic forces, the reward and benefits against the risks and cost of the investment.

4.1.1 Relevant cashflows

Ross, S., Westerfield, R. and Jordan B. mention (2008,1), that a relevant cash flow regarding a project is a change in the company's future cashflow as a direct consequence of the project's decision. These cashflows are called incremental cash flows and are defined as changes in or increments to the company's existing cash flow. Existing cash flows, regardless of whether a project is undertaken, are not relevant. Moreover, Goel, S. elaborates (2015,3), when evaluating an investment decision, the cash flows used should and must always be relevant cash flows. Additionally, Ross et al (2008,2), further elaborates that when calculating future total cash flows for a large company is challenging. The stand-alone principle suggests focusing on the incremental cash flows from a project. This approach views the project as a mini business with its own revenues, costs, assets, and cash flows. The focus is on comparing these cash flows to the acquisition cost, evaluating the project purely on its own possibilities and strength.

Gitman (2002,6) mentions that the conventional way of a project cash flows consists of three main components: the initial investment, the operating cash inflows, and outflows as well as the terminal cash flow. The initial investment covers all the related cash outflows that happen from the moment an investment is completed all the way to its initialization. The expected incremental cash flows are the cash inflows and outflows that are expected to be generated from the investment. Lastly, the terminal cash flow or the residual value is related to the value of the assets at the end of the period.

4.1.2 Investment calculations

According to Ross, S., Westerfield, R. and Jordan B. (2008,3), capital budgeting is a process that aims to determine if a proposed investment or project will be worth more than it costs by the time it is realized. Calculating the net present value (NPV) of an investment, a firm can understand how much value is created or added today by undertaking an investment. In short, the aim of creating value for the shareholders is to find investments with positive net present values.

In this thesis, the author has prepared an investment proposal by using the three most popular capital budgeting techniques payback period, net present value as well as internal

rate of return. According to Gitman (2002,7), the moment a firm can develop relevant cash flows, it is possible to analyze them to understand if a project or investment is acceptable.

Gitman (2002, 8) states, that payback period is the time needed for a firm to recover its initial investment in the project, which are calculated in cash inflows. Annually the payback period is calculated by dividing the initial investment by the annual cash inflow. Although the payback period is a popular capital budgeting technique for mixed cash inflows, it lacks time value consideration, so it is not the most reliable of the techniques. Moreover, Ross, S. et al states (2008,4), the main problem is determining the right cutoff period. It does not consider risk differences and it is calculated the same way for both risk and safe projects. Discounted payback periods, which discount cash flows are often preferred to avoid this issue but fail to consider future cash flows after the payback period.

$$Payback\ period = \frac{\text{Initial cost of investment}}{\text{Annual cash flows}}$$

Figure 2: Payback period formula (Ross et al. 2008)

The payback period method has a disadvantage, which is it does not consider the time value of money. In order to get pass this issue according to Baker, H. K. and English, P. (2011,4), cash flows can be discounted at the required rate of return and a discounted payback period can be calculated. Doing so, the management is able to set a shorter payback requirement than the company's normal benchmark. Moreover, the payback period can be used as a control tool when combined with other profitability measures such as net present value (NPV) or internal rate of return (IRR). In addition, it can be used by established firms with a variety of different projects in plan to lower risk, especially in uncertain economic periods.

A manager or a company should not count on only the payback period method for evaluating investment risk, but it should be used in conjunction with other methods to get the best possible answer.

Gitman states (2002,9), that internal rate of return also know as IRR is a capital budgeting technique that calculates the compound annual rate of return of an investment opportunity. This would be the present value of cash inflows with the initial investment. It is more challenging to calculate IRR than the net present value. It represent the actual interest rate earned on an investment over its economic life. The IRR is the maxim cost of capital that will not cause any harm or have negative impact to the shareholders. IRR can be calculated by solving a formula for the initial cost of an investment and the cash flows generated by the investment in year 1 to n. The higher the IRR calculated in the investment opportunity compared to the company's interest rate, the more profitable the investment is.

Dayananda. D, et al state (2002,6), Internal rate of return is considered to be straightforward and easy to understand. It recognizes the time value of money as well as it uses cash flows. However, the internal rate of return found through the calculations can be unrealistic. Also, it can sometimes be misleading if there is no large initial cash outflow.

$$Y = \frac{C}{(1+X)^1} + \frac{C}{(1+X)^2} + \frac{C}{(1+X)^3} + \frac{C}{(1+X)^4} + \cdots$$

Figure 3 Internal rate of return formula Dayananda. D, et al (2002)

Continuing, Gitman, J. L. states (2002,10), Net present value (NPV) is a sophisticated capital budgeting technique that considers the time value of money. It is calculated by subtracting a project's initial investment (CF0) from the present value of its cash inflows (CFt) discounted at a rate equal to the firm's cost of capital (k). Projects with positive NPV values are acceptable, while projects with negative NPV values are unacceptable. NPV is crucial in capital budgeting to analyze the profitability of investments or projects, considering future cash flow reliability and inflation. It can take into account inflation and the returns as it compares the current value as well as the future value of the currency.

$$NVP = \sum_{t=1}^{n} \frac{CFt}{(1+k)^2} - CF_0$$

Figure 4 Net present value formula Gitman, J. L. (2002)

Moreover, NPV is considered superior to other methods as well as it does not ignore cash flows or any period in the time of the project. Moreover, it takes into consideration the time value of money as well as it is easier to apply NPV than IRR. Lastly, comparing it to other methods, NPV prefers early cash flows. Having said that, NPV calculations, unlike internal rate of return (IRR) expect the manager to know the true cost of capital.

4.2 Financing

Baker, K. H. and English, P. mention (2011,5), that companies ought to coordinate their investment strategies with their financing policies to achieve modern corporate risk management. Corporate liquidity has strategic value, and investment decisions must consider a project's potential for generating cash flows in the states where it is most needed. Moreover, even if a company is not financially constrained at that moment, it may be preferable to invest in projects that generate cash flows when they are likely to be financially constrained. The financing mix between debt and equity may also have direct consequences

for investment decisions. Moderate levels of debt can lead to superior sales growth, while excessive debt can lead to underperformance.

Ross, S. et al mention (2008,5), the need for external financing is directly related to the rate of growth in sales or assets. Elaborating that the higher the growth rate is, the greater the need for external financing. A rapid growth in sales requires financing and the companies that fail to plan for financing growth can fail in other aspects such as marketing or production.

Gitman elaborates (2002,11), that the financial requirements of a firm are directly linked to its growth and acquisition of assets. It must assess profitability and risk to determine its ability to raise capital externally. A growing firm relies heavily on internal financing through retained earnings, while on the other hand big established companies can pay large sums of their earnings.

4.3 Risk in investment

Gitman states (2002,12), that risk is the possibility of a financial loss. There are several major risk types, such as business, financial, interest rate, liquidity, market, event, exchange rate, purchasing power, and tax risks. These risks come in different sizes and need to be taken thoughtfully into consideration according to their size and potential consequences. Risks are typically presented in a table and require evaluation to mitigate their impact.

TABLE 5.1 Popular Sources of Risk Affecting Financial Managers and Shareholders

Source of risk	Description
Firm-Specific Risks	
Business risk	The chance that the firm will be unable to cover its operating costs. Level is driven by the firm's revenue stability and the structure of its operating costs (fixed vs. variable).
Financial risk	The chance that the firm will be unable to cover its financial obligations. Level is driven by the predictability of the firm's operating cash flows and its fixed-cost financial obligations.
Shareholder-Specific Risks	
Interest rate risk	The chance that changes in interest rates will adversely affect the value of an investment. Most investments lose value when the interest rate rises and increase in value when it falls.
Liquidity risk	The chance that an investment cannot be easily liquidated at a reasonable price. Liquidity is significantly affected by the size and depth of the market in which an investment is customarily traded.
Market risk	The chance that the value of an investment will decline because of market factors that are independent of the investment (such as economic, political, and social events). In general, the more a given investment's value responds to the market, the greater its risk; and the less it responds, the smaller its risk.
Firm and Shareholder Risks	
Event risk	The chance that a totally unexpected event will have a significant effect on the value of the firm or a specific investment. These infrequent events, such as government-mandated withdrawal of a popular prescription drug, typically affect only a small group of firms or investments.
Exchange rate risk	The exposure of future expected cash flows to fluctuations in the currency exchange rate. The greater the chance of undesirable exchange rate fluctuations, the greater the risk of the cash flows and therefore the lower the value of the firm or investment.
Purchasing-power risk	The chance that changing price levels caused by inflation or deflation in the economy will adversely affect the firm's or investment's cash flows and value. Typically, firms or investments with cash flows that move with general price levels have a low purchasing-power risk, and those with cash flows that do not move with general price levels have high purchasing-power risk.
Tax risk	The chance that unfavorable changes in tax laws will occur. Firms and investments with values that are sensitive to tax law changes are more risky.

Figure 5 Type of risks (Gitman, J. L. 2002)

Risk analysis

Baker, K. H. and English, P. mention (2011,6), a firm should analyse any potential risks during a project's life, assessing their probability and severity. These risks arise during the construction phase or during the operating phase. Risks are classified into pre-completion, post completion and both pre-and post-completion phases. The pre-completion risks include poor activity planning, technology risk and construction risk. Post completion risks have to do with input supply, plant performance and product or service sale. Risks found in both phases include financial, regulatory, political, and legal risks.

Baker, K. H. and English, P. elaborate (2011,7), that the capital budgeting process involves various techniques to incorporate risk. Small projects require good judgement to adjust for risk, while major projects require more time and effort from the managers. Stand-alone or single-project risk can be evaluated using sensitivity and scenario analysis. However, these methods will not provide guidelines for accepting or rejecting a project. More sophisticated techniques for assessing single-project risk include simulation and decision-tree analysis. The capital asset pricing model (CAPM) can be used to overcome the shortcomings of accept/reject guidelines, finding the probability of success in a project through that.

5 Research methods and execution of research

The methodology of the research done in this thesis can be divided into two parts. Firstly, the author has decided to include the findings of the research through qualitative research. According to Monique Hennink, Inge Hutter and Ajay Bailey (2020), the objective of qualitative research is to gain contextualized understanding of behaviors, beliefs, and motivation as well as to understand the reasoning behind decisions. Through semi-structured and unstructured interviews, the author will be able to gain important information from employees, the owners of the company as well as the possible customers to match the result of the research to their needs. Secondly, the author has conducted calculations regarding the investment, the different methods to find out if the investment should be accepted as well as to how long it will take for this project to be profitable. In addition, another goal is to find the right equipment for the investment as well as to explain the purpose of the equipment, where to find it and how to use it. Moreover, any necessary changes to the final result will be made while the research and the interviews are conducted.

5.1 Interviews and reasoning for investment

The author of this thesis has had the opportunity to interview and work closely with the owners, the CEO and the production manager of the company and searched for critical points and reasoning for investing in the company for new machinery. The owners of the company

have found a growing restaurant chain company as a client named Crusty Pizza, which is in need of pizza dough. Prep and Bakery Oy has been producing for the client the dough mostly through manual labor. The production manager together with the owners have understood that in order to be able to respond to the demand for the growing client as well as for future clients, the company will need to invest in this business opportunity that has occurred. The investment proposal the author has prepared is to answer the reasons why the company ought to invest now as well as to show the benefits behind it. The author has worked together with the production manager weekly to understand and search exactly the right machinery needed to have a successful conclusion.

6 Conclusion and findings

The thesis was produced in close collaboration with the employer and the results showcase the investment proposal steps and issues that need to be taken into consideration. Moreover, there were almost weekly discussions with the production manager as well as the owners of the company regarding the thesis and their advice was greatly appreciated. Moreover, there was support and guidance during the creation of this thesis by the instructor from the University of Applied Sciences.

6.1 Machinery and product introduction

The author has searched throughout the market for available machinery suiting the needs of Prep and Bakery Oy. Machinio.com (2023), has notably a variety of different equipment related to pastry and baking industry to pick from, and the author has decided to search and find investable machinery from that specific site. Prep and Bakery Oy having previous experience of machinio.com’s service the author has considered the site’s trustworthiness.

Upon interviewing the product manager Michail Rogdakis (2023) regarding different equipment and needs, the product manager mentioned having experience of over 35 years on machinery from Werner & Pfleriderer machinery, which made clear its reliability.

Through consecutive search, Werner & Pfleiderer selecta v60 /Muc-5 machinery line was found, which is a divider rounder machine that weights and molds dough of selected weight into small round balls. This is suitable for small, weighted dough balls that customers have been asking for as well as making it possible to acquire new clients for that market area. Having the ability to create 6000 pieces per hour maximum helps the company cut costs enormously, saving time for other operations.

Moreover, this machinery line opens the possibilities with the stamping station to make a semi-automated line that aids current operations on current products as well as new products that may come ahead in the future.

6.2 Calculations regarding the investment proposal

There are a variety of different aspects that need to be taken into consideration when a manager proceeds into planning an investment proposal as well as the firm actualizing it. Throughout this process the author has moved forward on this topic following the methods and techniques found in the sources available in books and the internet. Moreover, the author carefully listened to the needs of the production manager and the company the investment proposal was prepared. The machinery was picked together with the production manager and an example budget was possible to be prepared. The author was able to create in an excel document a capital budgeting of a certain product in this instance the pizza base product calculating firstly the possible amount of production in a day as seen in table 1.

Table: 1 Costs and sales volume

Year	1	2	3	4	5	6
Sales volume	60000	65000	65000	70000	75000	75000
Variable cost of one pizza	3,2					
Price of one pizza	5,5					
Fixed cost	60000					
Machinery cost	83390					
Machinery price after x years						
Working capital	20 %					
Income tax	20 %					
return on this investment	15 %					

Finding the cost of one pizza base as well as its pricing, the fixed cost, machinery cost as well as the working capital, income tax and return on this investment. Afterwards, the author found out the sales volume for the first six years and then proceeded to calculate the sales, variable costs, contribution, fixed costs as well as working capital and profit, which is found in table 2.

Table 2 Sales, variable costs, contribution, fixed costs, working capital and profit

Sales	330000	357500	357500	385000	412500	412500
variable costs	192000	208000	208000	224000	240000	240000
contribution	138000	149500	149500	161000	172500	172500
fixed costs	60000	60000	60000	60000	60000	60000
working capital	66000	71500	71500	77000	82500	82500
profit	12000	18000	18000	24000	30000	30000

In addition to that, the goal of the author was to find how long it would take for the company to pack back the investment as well as to how profitable this investment would be. The author calculated the cashflow as well as the cumulative cash flow for the next six years after investing in machinery. Afterwards, through the methods of NPV, IRR, PI as well as Payback period the author was able to conclude that since the NPV is positive, the profitability index is higher than 1 as well as the IRR is higher than the required return the project is acceptable as seen in the table 3.

Table 3 Capital budgeting techniques and cashflows

Pizza base							
Year	0	1	2	3	4	5	6
Cash flow	-83390	12000	18000	18000	24000	30000	30000
Cummulative cash flow		-71390	-53390	-35390	-11390	18610	48610
Required return	0,15						
Present Value	-83390	13200	21780	23958	35138,4	48315,3	53146,83
NPV	112148,53						
NPV	27 398,42 €						
IRR	24 %						
PI	1,32855765						
Payback Period	6,633889377						

6.3 Further development

During the thesis process there were many open discussions and interviews that gave different aspects and possibilities for a variety of topics to investigate. Having said so, it was important to work on a project that would help the company find information regarding business expansion and more specifically an investment proposal.

The investment proposal that was prepared can be taken as an example for future investment plans, and generally to get an understanding regarding the process and the calculations behind it. Moreover, in future investment plans the people in charge could create a few investment proposal options. Doing so, by using the capital budgeting methods presented in this thesis the shareholders would be able to get different outcomes through comparing the options available.

6.4 Personal learning

During this research the author of this thesis was able to use learnings and theories from studies conducted at Laurea University of Applied Sciences. Having from past courses knowledge and information together with personal experience of the company, the author was very familiar with the topic. However, having said so, the thesis gave new insights and additional information regarding investment proposals and how they should be conducted. In addition, working on this type of massive project was new to the author and widened the know-how for executing research.

Having previous experience in Prep and Bakery Oy for about 6 years, the author had the opportunity to deepen the knowledge regarding the operations of the company and acquire a different understanding as to how small companies operate. The topic was amazingly interesting and gave the opportunity for the author to work together with important members of the company. Furthermore, through this project the author gained valuable experience and understanding about the company's operations and got the opportunity to hear a variety of perspectives and knowledge from professionals.

During this thesis project and the work experience gained in Prep and Bakery the author believes to have acquired valuable knowledge that can and will be used in the future either in this company or even in future ones.

The feedback and assessment are the last part of this thesis project received from the employer which is presented below as well as the process assessed by the author. Prep and Bakery Oy has been extremely cooperative and understanding and the author wants to express gratitude towards the employees of the company as well as the owners and the production manager.

7 Feedback and assessment

The investment proposal presented by the author of this project will be taken into consideration by the board members of Prep and Bakery Oy. The investment proposal shows the reasons as to why invest in new machinery and how it can be beneficial by being more efficient and profitable.

According to the feedback given by the CEO as well as the production manager of the company, the author was consistent and hardworking. Being prepared, with questions and research done daily for the topic, the author was able to understand and listen to the production manager's needs and grasp the idea of the topic through the results presented to the board members.

Assessment

The process of providing this thesis for Prep and Bakery advanced consistently with guidance and aid from the CEO and the production manager as well as the instructor from the University of Applied Sciences. The author strongly believes that the project was well thought of with a logical structure and simple steps. In addition, this thesis is built in a way that the reader is able to get an understanding of the topic through the information provided as well as the results, reasonings and conclusions with perspectives from the interviewees and the author.

The author decided that a qualitative method would be more efficient and beneficial for this thesis project due to quantitative method being more time consuming and less effective to examine this subject. Qualitative interviews were more beneficial to the author since they were able to produce better and more reliable answers to the questions produced by the author. In addition, different resources were used to produce the theoretical framework for this thesis which were diversified as well as reliable. The sources used for this thesis were found patiently, with caution and critically to support the reasonings and the topics elaborated.

The author's main objective was to present a thesis that reflects the needs of the company as well as the motivation behind the author's hardworking ethic. All in all, having challenges and difficulties during this thesis project was a daily occurrence, however the author had to adapt and believes that the process as a whole was successful, and the set goals and outcome have been achieved.

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Tables

Appendices

Appendix 1: Questions for the interviews

Could you tell me the vision and mission as well as goals the company has?

What values are important for Prep and Bakery Oy?

Why do you believe an investment should be important at this stage of the company?

Do you believe you are able to answer the demands of the customers?

Are you willing to produce new products and if so what type of products do you have in mind?

What type of machinery would you like to see in this investment proposal?

Is the machinery machinio.com offering good enough for the purpose of this assignment?

Could you tell me about what type of budgeting you have in mind?