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Evaluation of Generational Transfer Strategies Utilizing the Fuzzy Payoff Method

Examiners: D.Sc. Mariia Kozlova & Prof. Mikael Collan

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Jannika

CONCEPTS

Sale	If the transferor sells his shares to the successor in such a way that the purchase price or other consideration exceeds ¾ of the fair value of the shares to be transferred, it is considered a sale.
Gift	It is considered a gift, when the transferor donates his shares without consideration to the company's successors.
Gift-like sale	A sale is gift-like if the purchase price or other consideration does not exceed ¾ of the fair value.
Fair value	Likely transfer price between independent parties
Generational transfer value	A value of the property, assessed in a reduced manner as referred to in section 55§ of the Inheritance and Gift Tax Act (PerVL)
Reference value	A value calculated according to sections 4§ and 5§: of the Act on Valuation of Assets for Taxation (ArvL)
Normal gift tax	A gift tax is imposed on the recipient of the gift before the relief of section 55§ of the Inheritance and Gift Tax Act (PerVL)
Gift tax with relief	Gift tax, which is paid after the relief of section 55§ of the Inheritance and Gift Tax Act (PerVL)
NPV	A net present value of a project is the present value of the future cash inflows minus the present value of the future outflows discounted at the cost of capital (Rist & Pizzica, 2015).

(Varonen & Isotalo 2020)

ABSTRACT
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The majority of Finnish companies are family businesses and have a significant impact on the economy. Yet, they are not recognized by policymakers, making the phenomenon of retiring boomers worrying for the whole society as options for generational transfer are limited.

Studies about the subject are rare and focus on the present time. In contrast to the earlier studies, this study aims to find a preferred generational transfer strategy for the case company's successors in the future. It is accomplished by examining which strategies exist, how companies are valued in them, and how much costs the different strategies cause for successors and on which certainty. There are three strategies for transferring the shares to the next generation while the transferor is alive: gift, gift-like sale, and sale. Mostly, in generational transfers, a company's value is its fair value, but the gift and gift-like sale strategies allow to calculate a company's value somewhat lower if the successor meets the generational transfer relief criteria. Consequently, the gift strategy is found to be the most cost-efficient and certain option having the narrowest fuzzy distribution. It is followed by the gift-like sale and, finally, the sale option. However, the results show that even without generational transfer relief, the gift strategy is usually the best option for a successor, mainly because purchasing the shares is almost without exception more expensive. Therefore, the gift strategy should not only be preferred by the risk-averse family but also commonly by family business successors.

This thesis has important practical implications that should be considered in public policymaking. It is shown that the heavy tax burden associated with the generational transfer may jeopardize the future of the family business or reduce its competitiveness towards other companies, where the generational transfer does not influence the company's ability to invest, grow or employ. For this reason, some Finnish families with significant business assets move or have been forced to move abroad to continue the business in the next generation.

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Suurin osa Suomalaisista yrityksistä on perheyrityksiä. Vaikka perheyrityksillä on suuri taloudellinen merkitys, niitä ei juuri tunnisteta julkisessa päätöksenteossa. Suomen eläköityvä väestö ja sukupolvenvaihdoksen haastavuus voi kuitenkin tuoda haasteita koko yhteiskunnalle.

Tutkimukset aiheesta ovat harvinaisia ja keskittyvät nykyhetkeen. Niistä poiketen, tämän työn tavoitteena oli löytää paras strategia toteuttaa sukupolvenvaihdos kohdeyrityksen jatkajille tulevaisuudessa. Tutkimus selvitti, mitä strategioita sukupolvenvaihdoksen toteuttamiseen on, miten yrityksen arvo määritetään, kuinka paljon eri strategiat kustantavat jatkajille ja kuinka varmaa kulujen toteutuminen on. Tutkimuksessa tunnistettiin kolme strategiaa vaihtaa omistajuus seuraavalle sukupolvelle luopujan eläessä: lahja, lahjanluonteinen kauppa ja kauppa. Yleensä yrityksen arvo määräytyy niissä käyvän arvon mukaan, mutta lahjaan ja lahjaluonteiseen kauppaan liittyy erityispiirteitä, jotka laskevat yrityksen arvoa, jos jatkaja täyttää sukupolvenvaihdoshuojennukseen liittyvät kriteerit. Näin ollen, lahja todettiin strategioista kustannustehokkaimmaksi ja varmimmaksi vaihtoehdoksi pienimmällä Fuzzy-jakaumalla. Seuraavana oli lahjaluonteinen kauppa ja viimeisenä kauppa. Tulokset kuitenkin osoittivat, että vaikka jatkaja ei saisikaan sukupolvenvaihdoshuojennusta, lahja on silti parhain ratkaisu jatkajan kannalta, sillä osakkeiden ostaminen on lähes aina kalliimpaa. Strategia sopii siis sekä kohdeyrityksen riskiä karttavalle perheelle sekä yleisesti perheyritysten jatkajille.

Työllä on tärkeä merkitys julkiseen päätöksen tekoon. Sukupolvenvaihdoksen painava verorasitus voi vaarantaa perheyrityksen tulevaisuuden tai vähentää sen kilpailukykyä muita yrityksiä kohtaan, missä sukupolvenvaihdos ei vaikuta yrityksen kykyyn tehdä investointeja, kasvaa tai työllistää. Tästä syystä osa suomalaisista huomattavaa yritysomaisuutta omistavista perheistä muuttaa tai on pakotettu muuttamaan ulkomaille, jotta yritystä voitaisiin jatkaa seuraavassa sukupolvessa.

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1 INTRODUCTION

Opportunities for family businesses to develop affect the success and well-being of Finland as a whole. About 70 % of all Finnish non-financial employing companies are family businesses. If the self-employed were also included, the figure would converge to 90 %. (The Finnish Family Firms Association & Statistics Finland 2017, 15)

Although family businesses differ in size and sector, among other things, they often face similar problems (EC Expert Group 2009, 5). One of the most critical considerations concerns the future of the family business: who will continue the business? According to the National Entrepreneurship Survey, 24 % of entrepreneurs believe at least one member of their family to follow in their footsteps and to take responsibility for the family business (Varamäki, Joensuu-Salo, Viljamaa, Tall & Katajavirta 2018, 27). However, the possibility to continue the family business may be limited by the Finnish tax policy.

From the point of view of the successor, the most important problem is the financing of the generational transfer costs. The more the value of the company is, the more the successor will have to pay tax and / or the purchase price on the shares. The business to be transferred cannot pay costs of the generational transfer for the successor, but the successor will have to pay them himself. (Kukkonen & Walden 2014, 250; Varonen & Isotalo 2020)

When planning the generational transfer, it is worth getting acquainted with different implementation strategies. There are significant cost differences between them. Mainly, generational transfers can be accomplished by a gift, inheritance, sale or various combinations of these. The costs of the generational transfer are determined based on the company's valuation principle of the implementation strategy, possible generational transfer relief and other specified reductions. (Juusela & Tuominen 2018; Varonen & Isotalo 2020)

Generational transfers are often long-term projects. A planned generational transfer begins long before the change of the ownership. The planning of the generational transfer can take from 3-5 years to decades. A successful generational transfer is usually based on a long planning, correct pricing and creating a clear approach. (Immonen & Lindrgen 2017, 17-19)

However, tax factors are challenging for long-term planning. Finnish tax legislation is changing rapidly, and it is not always unambiguous. There is no comprehensive case law nor clear guidelines on the interpretation of the tax law. However, generational transfer cannot be planned based on assumptions. Consequently, the most reliable picture of tax treatment must be somehow obtained. (Immonen & Lindgren 2017, 31)

The taxation of the generational transfer itself has also been much criticized. Shares in an unlisted company are illiquid assets that cannot be used to pay the gift or inheritance tax caused by the generational transfer. Today, in order to pay generational transfer gift and/or inheritance taxes, successors may have to sell assets or release company assets, which undermines the companies' conditions to employ, invest and grow. In many European countries, there is no tax on generational transfer, or they are paid only if/when the company is sold. In the latter case, the successor can pay taxes with the liquid assets derived from the capital gain. The EU Commission has also commented on the phenomenon in one of its reports: long-term tax revenue losses due to business disruption may outweigh short-term gift or inheritance tax revenue. (Hänninen & Valtti 2018, 2-3; Commission of the European Communities 2006, 8)

So far, in Finland, the generational transfer of a limited company can be implemented in three main ways during the life of the transferor. The shares of the family business can be transferred to the next generation 1) by a gift, where the successor pays gift tax on the value of the shares, 2) by sale, where the successor purchases the shares or 3) by a gift-like sale, in which sale and gift are mixed. (Varonen & Isotalo 2020)

1.1 Research Questions and Objectives

This study investigates the viability of different generational transfer strategies for a family company in Finland. The purpose is to present what strategies exist, how the value of the company is defined in them, and how much costs the different strategies cause for successors and on which certainty. In order to illustrate the strategies in practise, a middle-sized company seeking a generational transfer is selected as a case study.

The goal of the case company is to accomplish a generational transfer during the current Finnish government term, approximately 3 years from now. In order to prepare for the future costs for the successors, planning of the ownership change of the generational transfer is desired to start well in advance. However, the global economic instability caused by the pandemic, the short existence of the company and the positive potential brought by internationalization plans challenge forecasting the future cash flows of the company and defining the value of the company in three years. Thus, valuing the company and costs based on the value are associated with uncertainty which potentially affects the choice of the most preferable strategy.

The aim of the thesis is to find the preferred strategy of generational transfer for the case company in three years. The objective is divided into five different research questions:

1. What generational transfer strategies are there for companies in Finland and is it possible to accomplish it elsewhere?
2. How are companies valuated in different generational transfer strategies?
3. How risk-seeking/risk-averse is the family of the case company?
4. What is the case company's value per share in three years, and what are the total costs of each generational transfer strategy for one successor?
5. How uncertain are each strategy's estimated costs and does uncertainty affect the attractiveness of the strategies?

1.2 Research Methodology and Implementation

The main objective and the research questions are answered by conducting a business, academic and legislative literature review, interviewing the transferor, valuing the company in each generational transfer strategy and utilizing the fuzzy payoff method in calculating generational transfer costs at each strategy and account for uncertainty.

Tables 1 and 2 present the methods used to answer the main objective and the research questions. In addition, the tables disclose what data is to be used for that objective or research question and what results are expected for each.

Table 1 illustrates the main objective of the research. In order to meet the objective, various methods are exploited. First, we review related literature and previous research. Followingly, the transferor of the company is interviewed, and the company is valued based on each generational transfer strategy's rules in minimum, realistic and maximum scenarios in the years 2020-2023. Having the company values, the fuzzy payoff method is utilized to calculate the costs and uncertainty connected to the estimations. The expected result is that due to the valuation rules and the available generational transfer tax relief, a gift will be the most preferred strategy for the case company in three years.

Table 1 The main objective of the research

Objective	Methods	Data	Expected results
Find the most favorable generational transfer strategy for the case company to implement in 3 years.	Business, academic and legislative literature review, interview with the transferor, company valuations, calculation of the costs at each generational transfer strategy utilizing the fuzzy payoff method.	Scientific articles and books, business reports and legislative acts, interview answers, financial statements of the case company from the years 2018 & 2019, financial forecasts for 2020-2023 in minimum, realistic and maximum scenarios	Considering all circumstances, a gift is likely to be the most preferred generational transfer strategy for the case company in 3 years.

Table 2 simplifies the main objective as it divides the objective into five sub questions. Answering these five questions leads us to reach the objective.

Table 2 Research questions

Research questions	Methods	Data	Expected results
1. What generational transfer strategies are there for companies in Finland and is it possible to do elsewhere?	Business, academic and legislative literature review	Scientific articles and books, business reports, and legislative acts	There are three different generational transfer strategies: 1. sale 2. gift-like sale 3. gift (4.) moving to a country that has no gift tax
2. How are companies valuated in different generational transfer strategies?	Business, academic and legislative literature review	Scientific articles and books, business reports and legislative acts	If using 1. sale: company's value is its fair value. Fair value can be either its income value or net worth value. 2. gift-like sale: For the sale part company's value is its fair value, and for the gift part, it is its reference value. 3. gift: The same principles as in strategy 2.
3. How risk-seeking/risk-averse is the family?	Interview with the transferor	Interview answers	Overall, the family is relatively risk-averse and prefers to know the generational transfer requisites and costs well beforehand.
4. What is the value of the case company per share in 3 years, and what are the costs of each generational transfer strategy?	Calculating the company's income value, net worth value, and reference value per share in 3 years in different scenarios and estimating each generational transfer strategy's costs utilizing fuzzy distribution.	Financial statements from the years 2018 & 2019, Financial forecasts for the years 2020-2023 in minimum, realistic and maximum scenarios, interview answers, legislative acts	The case company's value per share in three years is the highest using a sale and lowest using a gift. Consequently, also the costs are the lowest in the gift and highest in the sale. In addition, as the company is also able to use a generational transfer tax relief with the gift strategy, the costs are remarkably lower when using gift.

5. How uncertain are each strategy's estimated costs and does uncertainty affect the attractiveness of the strategies?	Comparing uncertainties acquainted with the costs	Fuzzy distributions and values from the previous section	The costs in the sale strategy are the most uncertain with the broadest fuzzy distribution. In the full gift strategy, they are more certain with narrower distribution. Consequently, a generational transfer with the gift is the most attractive generational transfer strategy for a risk-averse family.

In order to find the favored strategy to proceed with the generational transfer, the strategies are evaluated based on the preferences of the family and their economic viability. The economic viability of the strategies is estimated by examining on costs and uncertainty. All monetary values in this research are in euros.

1.3 Delimitations

The concept of a generational transfer is broad and includes several different themes. In this work, a generational transfer is discussed based on the matters related to the research.

A generational transfer can be implemented while the party transferring the business is still alive or with the help of inheritance or a will. This study discusses the generational transfer of a family business in Finland from the perspective of a change in ownership when the current owner of the business, or the relinquishing party, is alive. For this reason, this study excludes implementing the generational transfer by inheritance or a will. Also, the tax administration's separate tax guidelines for an inherited generational transfer support the delimitation of this study. (Varonen & Isotalo 2020).

The aim of the work is to find the preferable strategy of the generational transfer for the successors. For this reason, the work does not discuss the tax treatment of the relinquishing party. In addition, the study discusses a generational transfer only for individuals, and does not contain, for example, holding company solutions. In principle, it is more desirable to make a generational transfer between individuals, as individuals can use the generational transfer relief obtained on the basis of the criterion of kinship in their taxation.

The work aims to be clear and easily understandable. For this reason, the generational transfer is discussed only for one Finnish limited liability company. Group structures and other company types are not considered. The land limit to Finland is related to Finland's unique tax system and tax legislation. However, in order to provide a perspective on different generational transfer taxation, the background briefly discusses a generational transfer in Swedish and Estonian companies.

The last limiting factor to be considered is the way the research is implemented. Because the empirical section is accomplished as a case company study and the value of the company significantly influences the selection of the generational transfer strategy, the result of the best strategy is very company-specific and cannot be directly generalized. However, many other important issues, such as the principles of the company valuation, utilizing tax reliefs and estimating the costs with the fuzzy payoff method may also help other family businesses.

1.4 Structure of the Thesis

This thesis is presented in a logical narrative format. Thus, it is divided in six different main sections.

Background discusses the generational transfer of family businesses, previous research on the topic and methodological support. The first parts introduce the definition of the generational transfer and family business, explore the role of family businesses in society, explain generational transfer taxation and tax planning methods and present the three generational transfer strategies and their specific features. Then, previous studies and their findings are discussed, and followingly, the methods used in previous studies are examined.

The next section of the thesis, Data & Methodology, introduces background of the case company, data and the research methods. The research methods part represents the interview method and the fuzzy payoff method in depth.

The actual research section occurs under the headline Empirical section, in which the interview answers are reviewed, the company's future values are calculated guided by each generational transfer strategy rule and the generational transfer costs are estimated and analyzed by building an own fuzzy payoff method for each of the three strategies. Results are compared, summarized and discussed at the sections 4 and 5.

The final section Conclusion concludes the study results, summarizes the thesis with respect to the research questions and discusses the results and notes taken during the process as well as the phenomenon of the generational transfer in Finland. Lastly, recommendations for future research are presented at the end of the conclusion. References and appendices can be found on the final pages of the document.

2 BACKGROUND

2.1 Generational Transfers in Family Businesses

Generational transfers in family businesses are situations in which the business is transferred to a family member or family members for the purpose of continuing the business. In a broader sense, the term generational transfer may also include other situations in which the entrepreneur relinquishes doing business and transfers his business to a new successor. In any case, when a company is transferred to the next generation, it is a question of change in ownership. The starting point of the Finnish tax legislation is that transfers of the property are almost always taxable. (Juusela & Tuominen 2018)

In general, the intentions of the generational transfer, from the perspective of the transferor, successor and society are the same: The purpose of the generational transfer is to continue the business and the jobs in question. According to research, family entrepreneurship clearly includes pursuing continuity, which aims to create value across generations. However, the means for families to implement it vary. Every family has its own way of keeping a family business vibrant and transferring it on to the next generation. (Elo-Pärssinen & Heinonen 2019, 209-210; Juusela & Tuominen 2018)

Although the policies of the families in a generational transfer can be very different, it is clear that the key goal in implementing the generational transfer is to minimize costs. Costs arise from, among other things, the planning, implementing, taxation and financing of the arrangements. Costs can be targeted to the transferor, successor, target company or all of these. (Juusela & Tuominen 2018)

The latest important tax change for generational transfers was made in early 2004. It concerned inheritance and gift tax relief. After the reform and the related clarification of tax and case law, it has been possible to use 40 % of the company's reference value instead of the fair value in the valuation of the company at the time of the generational transfer. With the reform, the importance of the generational transfer relief has increased. (Kukkonen & Walden 2014, 248-249)

Family Business

Family businesses vary from size and sector. They can be anything between an individual enterprise or a large international corporation. There is no specific definition for a family business, but most of the descriptions comply that family businesses incorporate three particular elements: the family, the business, and the ownership. (EC Expert Group 2009, 4)

The most apparent distinction between a family business and a non-family business can be made by examining the ownership structure. The Finnish working group on family entrepreneurship in the Ministry of Trade and Industry of Finland has given a widely accepted definition that a firm, of any size, is a family business, if:

> a) the natural person who established the firm, the natural person who acquired the firm's share capital, or that person's spouse, parents, children, or direct heirs of the children hold majority of the decision-making rights. A listed company is a family business if the person(s) defined possesses 25 % of the decision-making rights. Decision-making rights can be direct or indirect.; and
>
> b) at least one of the family/kin is formally involved in the firm's governance.

In addition to the previous definition, executive board of the Finnish Family Firms Association notes that a family business should have an intention to keep the firm's ownership within the family in the future. (EC Expert Group 2009, 4; Perheyritysten liitto a)

More than half of all companies in Europe are family businesses (EC Expert Group 2009, 4). Accordingly, family businesses play a significant role in the economy of the area. In Finland, family businesses make approximately 15,6 % (or 19,7 % including self-employed) of the total gross value-added GDP. Also, they make an important contribution to employment as they seem to be more labour-intensive than other enterprises. The total amount that family businesses employ is 70 % (or 90 % including self-employed) of all Finnish non-financial companies. (The Finnish Family Firms Association and Statistics Finland, 14-17, 2017)

Generally, family businesses face similar challenges as small and middle-size enterprises (SMEs), but some of the difficulties affect family businesses to a greater extent or affect them exclusively. In many cases, the operating environment causes challenges. These challenges typically are derived from the environment's and policymakers' unawareness of the family businesses' economic and social contributions and their specialties compared to other firms. The European commission points out that this kind of unawareness leads to financial issues in family businesses regarding inheritance and gift tax, source of finance without losing the family's control of the firm, and tax treatment of reinvested profits. In addition, these firms may face challenges that are related to the family firms' internal matters and a lack of the family-business-specific education. (EC Expert Group 2009, 5)

Despite the challenging environment, a national ownership change barometer reports that approximately 24 % of 1 742 entrepreneurs who took part in their research believe that their family members will continue the business in the future. 46 % of the entrepreneurs estimated that they would sell the company when stepping out of the main responsibilities. 22 % expected the business would be shut down after their retiring. The rest estimated doing something else. (Varamäki et al. 2018, 27–28).

Additionally, the results state that firms employing over 20 people are equally considering a generational transfer within a family (41 %) or selling the firm (42 %), firms employing 11-20, 5-10 and 2-4 people are more likely to sell the firm, and firms with one person believe in shutting down the business. The results can be seen in Figure 1. (Varamäki et al. 2018, 27–28).

Figure 1 Entrepreneurs' estimation on their company's future. (Varamäki et al. 2018, 27–28)

However, Figure 1. gives a very small picture of Finnish companies. In Finland, company sizes are classified as small, medium and large depending on their number of the employees or financial situation. In Finland, small and medium-sized companies are collectively referred to as ”SME”. These are companies with less than 250 employees, an annual turnover is at most 50 million or a balance sheet total is at most 43 million, and which are independent of large companies. Large companies are companies that exceed the above criteria. However, if the definition of small and medium-sized companies is to be separated, a small company is defined as a company with less than 50 employees, an annual turnover not exceeding 10 million euros or a balance sheet total not exceeding 10 million euros and is independent of large companies. Independence in this context means that 25 % or more of the company’s capital or voting shares are not owned by one or more large companies. (Statistics Finland)

According to the Finnish Family Firms Association and Statistics Finland, if we look at a statistics of family businesses against the first and subsequent generations, we may see that many family businesses start as small but if the time proceeds and generations of owners change, the company tends to grow medium-sized or larger. Figure 2 illustrates this statistic. It shows that 90 % of small-sized businesses are first-generation family businesses. Only 55 % of medium-sized family businesses and 35 % of large-sized family businesses are in first generation. (Finnish Family Firms Association & Statistics Finland 2017, 17)

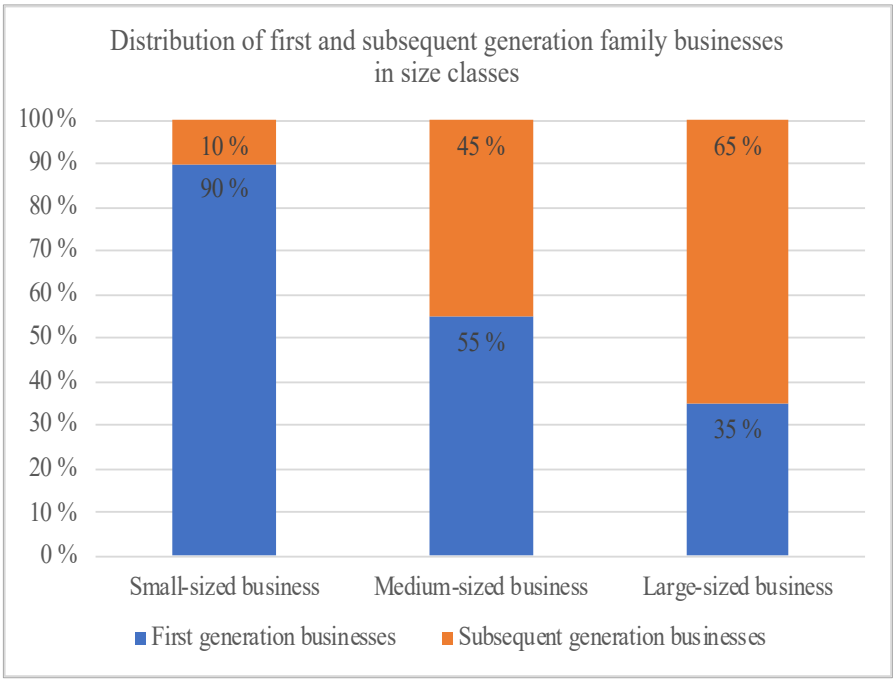


Figure 2 Distribution of first and subsequent generation family businesses in size classes. (Finnish Family Firms Association & Statistics Finland 2017, 17)

These family businesses operate in every industry. In Finland, the main industry where family businesses clearly dominate is the accommodation and food services. In that sector, 85 % of the small-sized, 70 % of the medium-sized and 67 % of the large-sized are family businesses. Large-sized family businesses also create 39 % of the wholesale and retail companies and 31 % of manufacturing. Medium-sized family businesses are the most diversified around all industries. However, the lowest family business attendance in every size is in the real estate field. Figure 3 shows the share of the family businesses by sector within size class. (Finnish Family Firms Association & Statistics Finland 2017, 17)

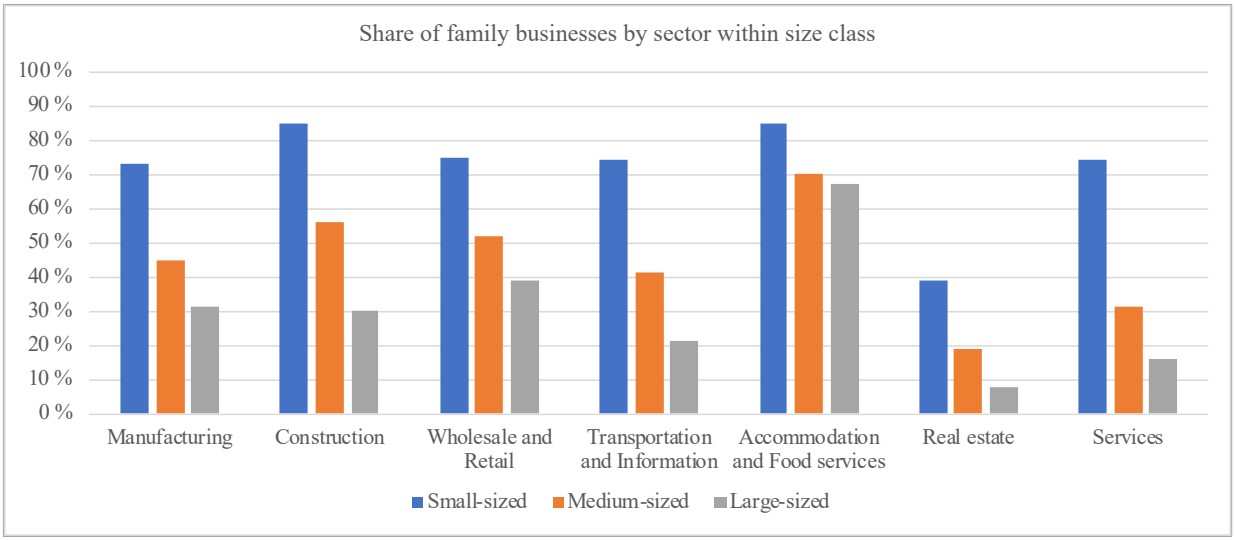


Figure 3 Share of family businesses by sector within size class. (Finnish Family Firms Association & Statistics Finland 2017, 17)

Family businesses can also be compared to traditional companies by looking at their financial performance. Interestingly, family businesses tend to be financially more profitable than same size non-family owned businesses (Finnish Family Firms Association & Statistics Finland 2017, 27-29). Also, international researches have proven that there is a positive relationship between family involvement and positive financial performance. Especially higher return on assets ROA, earnings before interest EBIT, and earnings before interests, taxes, depreciation, and amortization EBITDA are often associated with family businesses. (Gonzales, Idrobo & Taborda 2019)

To some extent, that is also the tendency in Finland, but it is not always so. It can be noticed by investigating net profit and return on investment by ownership structure and size. Large-sized family businesses are better at creating net profit and return on investment than non-family owned companies. Small and medium-sized companies, contrarily, generate less net profit than non-family businesses, but the return on investment in these size family businesses is much higher than in non-family businesses. The histograms below in Figure 4 and 5 illustrate the financial performance of Finnish family businesses and non-family businesses within three different size classes. (Finnish Family Firms Association & Statistics Finland 2017, 27-29)

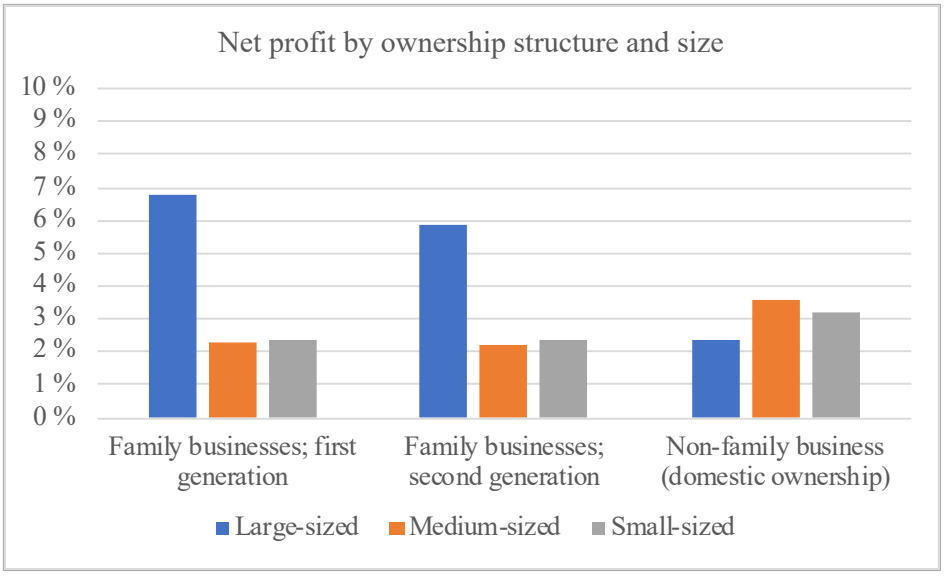


Figure 4 Net profit by ownership structure and size. (The Finnish Family Firms Association & Statistics Finland 2017, 27)

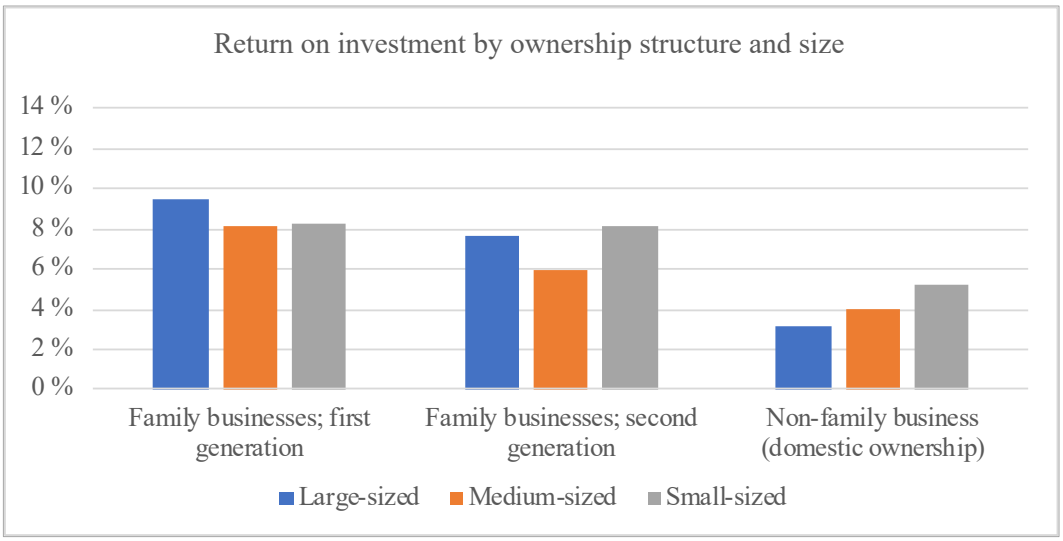


Figure 5 Return on investment by ownership structure and size (Finnish Family Firms Association & Statistics Finland 2017, 27)

Family businesses represent very different types of companies, but as discussed, they have an essential role in the economy. They bring long term stability, show commitment to local communities, work as responsible owners and create long-lasting values. Due to their importance, it is crucial to provide more information on family businesses to policymakers and address the challenges with which these firms operate. The European Commission's Expert Group identifies that changing taxation of reinvested profits and taxation of inheritance/gift are few of the top issues that have been proven to support family businesses successfully. (EC Expert Group 2009, 21-22, 25)

Tax Planning in Generational Transfer

According to Kukkonen and Walden (2014, 14), the most challenging part in a generational transfer is to choose the most tax-friendly form to implement it. The larger the firm is, the more critical it is to plan the generational transfer well in advance. Consequently, from the financial point of view, tax planning is one of the most crucial matters to start outlining early.

The definition of tax planning is broad and often misunderstood. Tax planning refers to the act of projecting and systematically reducing the amount of the tax to be paid. It is entirely legal, justifiable, and sometimes even expected by the legislator. Tax avoidance, on the other hand, is very much on the grey area even though their intentions are arguably the same: taxpayers aim to minimize their taxation. The distinction between these similar concepts arises from the means to reach the goal. If the means are tax legally acceptable, the act refers to tax planning. If the means are unacceptable by tax legislation or they are questionable but, however, do not violate the criminal law, the act is considered as tax avoidance. If also the criminal law is broken, it is a case of tax evasion. (Knuutinen 2013, 177-178)

In a company, tax planning is a long run project that stretches over multiple accounting periods, and its effects are primarily seen in the future. A prominent part of tax planning is to carefully follow the legislation and its upcoming changes and exploit the chances that they offer. However, when conducting tax planning, one must be careful not to go to the side of tax avoidance. Tax avoidance is considered when the company takes actions that would not be otherwise taken when considering the item's nature or meaning of the actions than just for the reason to avoid taxation. For example, if the company prepares intercompany sales, in which the actual ownership does not change nor can the sales be justified by reasons other than

taxation motives, the process might be considered as tax avoidance. (Myrsky & Malmgrén 2014, 76-77; Immonen 2018, 107)

Tax planning in a generational transfer is a complex and challenging project. One must consider several tax sources. In most cases, mainly, income, inheritance, gift, and transfer tax are considered. Finnish tax law is also ambiguous, and the legislation changes often. One cannot find sufficient interpretation support from guidelines or earlier court orders because comprehensive legal praxis about generational transfer does not exist. Therefore, in most cases, one should apply for a case-specific preliminary ruling from the Finnish Tax Administration or the Central Tax Board to be certain about the tax effects of the planned ownership change. Once the generational transfer is implemented and parties become subject to tax, one can refer to the preliminary decision as it binds both the tax authority and the applicant. Preliminary rulings are valid for predetermined time and depending on the case, the procedures should be implemented within 1,5-2 years or less. (Immonen & Lindgren 2017, 32-33)

When transferring a family business from one generation to the next, the amount of tax is based on the company's value (Immonen & Lindgren 2017, 19). Public companies' value can be determined using their market values from actively traded stock quotes, but, when talking about private business valuation, where such active markets do not occur, generally one talks about fair value. Fair value is the cash or other equivalent that a potential buyer of the company is willing to pay, and the seller willing to accept in circumstances that both of them have or could have all relevant information concerning the sale, and neither of the parties is under obligation to make the transaction. Typically, the fair value is depended on an appraisal of the company's tangible and intangible assets, making it also more subjective. (DePamphilis 2020, 263-291)

Usually, when making business transactions within a family, the family members do not pay the full fair value of the stocks of the company. Yet, that is still one of the generational transfer strategies. In generational transfers, the main strategies to transfer ownership to the next generation include selling the company's stocks with fair value, giving them fully as a gift, or combining these by selling part of the company's stocks with the fair value and giving the rest as a gift. If the generational transfer is implemented as a combination of these, the tax authority assesses the combinations as a unity. (Immonen & Lindgren 2017, 19-20; Juusela & Tuominen)

2.2 Generational Transfer Strategies and Taxation

A generational transfer can be implemented during the lifetime of the entrepreneur in many different ways. The chosen strategy for implementation can have a significant impact on the tax consequences resulting from the generational transfer. (Juusela & Tuominen 2018)

In case a generational transfer is implemented as a sale, the main tax burden falls on the seller, whereas in a gift, the incidence will be faced by the successor. In the combination strategy, usually, both the transferor and the successor will become subject to tax. However, there are few ways to reduce the amount of taxes in each strategy. For example, entitlements to dividend and generational transfer tax relieves reduce the amount of tax to be paid. (Immonen & Lindgren 2017, 19-20)

This section reviews the three implementation strategies for a generational transfer, their different company valuation rules and means to reduce the amount of tax to be paid. The flow chart in Figure 6 in section 2.5. figuratively illustrates the generational transfer strategies to recap the theory.

2.3 Sale Strategy

In the sale strategy, the party giving up the business sells the shares of the limited company it owns to the successor of the business so that the purchase price is more than 75 % of the fair value of the shares. In this case, the share trading made to the buyer, i.e., to the successor, does not cause direct income tax consequences. For the seller, however, this is capital gain. (Varonen & Isotalo 2020)

A sale-based generational transfer is the simplest of the generational transfer strategies. The successor buys the company's shares from the transferor at fair value or at least close to the fair value price and becomes the new owner of the company or the shares. The consideration paid for the shares is typically the purchase price paid in money. (Varonen & Isotalo 2020)

2.3.1 Company Valuation in Sale Strategy

The Finnish tax authority guides that in generational transfer situations if the value of the comparable companies cannot determine the company's fair value, the company's fair value is either its net worth value or income-based value. If the income-based value is higher than the net worth value, the fair value is the mean of the income-based value and net worth value. But, if the net worth value is higher or as high as the income-based value, the fair value is the net worth value. (Heikura & Kinnunen 2019)

According to the Finnish tax authority, the company's net worth value can be calculated simply by subtracting the company's liabilities from its assets using the latest confirmed financial statement. The calculation must be done with current prices. If liabilities are greater than assets, the company's net worth value is zero. (Heikura & Kinnunen 2019)

The company's income value, on the other hand, is calculated by taking a mean value of the company's earnings from three previous income statements and dividing that with a 15 % capital interest rate. Usually, the company's income value would be calculated by using future estimations, but as the law requires the tax authority to use verified values, the company's income-based value is, in this case, calculated using historical data. If the income value is negative, the company's income value is 0. (Heikura & Kinnunen 2019)

However, if neither the net worth nor income value notice the operating environment, or other company-specific features, the tax authority also accepts other valuating methods as the discounted cash flow method (Heikura & Kinnunen 2019). Discounted cash flow methods deploy expected future returns to establish the company value. These methods are said to be more precise for computing a value in mergers and acquisitions than the market or asset-orientated methods that require historical data. The initial idea with the discounted cash flow-based methods is that they consider the key determinants of the value: the buyer invests now to get future net cash flows, but as they are uncertain, they carry risks. Risks are considered by introducing an appropriate discount rate for the expected future cash flows. Mellen and Evans suggest that analysts should always make the primary conclusion based on the value computed with the discounted cash flow approach. (Mellen & Evans 2018, 119-120)

The discounted cash flow approach assumes that the company value is the sum of the cash flows it can generate in the future. The logic is that the value of the business for a buyer is at least the amount that he can recover within a tolerable horizon. (Fazzini 2018, 77-122) Consequently, the company value can be computed with the following formula:

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \cdots \frac{CF_n}{(1+r)^n}$$

where *DCF* illustrates the discounted cash flows, CF the cash flow at the time n, *r* the discount rate, and *n* is the number of years (Matthiessen 2019).

Other methods, as the discounted cash flow method, can be used only if their use is reasonable, calculations are valid, and any assumptions explained. Yet, according to the tax authority, the minimum value is always the company's net worth value. (Ossa 2018, 65-66)

2.3.2 Tax Planning in Sale Strategy

Tax planning possibility found in this strategy is related to the amount that is not paid. As this strategy requires at least 75 % of the fair value to be paid, one could, for example, get 24,5 % of the rest for free. It should be noted, however, that a generational transfer implemented with a sale, requires a significant investment from the successor (Kukkonen & Walden 2014, 250).

2.4 Gift-like Sale and Gift Strategies

In case that less than 75 % of the fair value of the stocks are paid, the process includes a gift (Immonen & Lindgren 2017, 19-20). It is considered as a pure gift when the transferor donates his or her shares to the company's successors without consideration. A gift-like sale, on the other hand, is considered when the transferor sells his or her shares to the successor so that the purchase price is less than 75 % of the shares' fair value. As the name of the term implies, this type of generational transfer means that both a sale and gift are utilized. (Varonen & Isotalo 2020)

When talking about gifts and generational transfers, it must be clarified that in this concept, regardless of the name, also preheritance is a gift and it is taxed as a gift (Immonen & Lindrgen 2017, 107). Therefore, preheritance is not an additional strategy to transfer the ownership of the business.

If a generational transfer is implemented as a gift or partly as a gift, the gratuitous part belongs to the gift tax realm. The value of the gift is the fair value of the stocks that was received gratuitously or the difference between the buying price and the fair value. Gift tax is calculated based on the tax bracket of the gift recipient and the taxable value of the gift. (Varonen & Isotalo 2020) Tables 3 and 4 illustrate gift tax brackets in Finland.

In gift-like sales, if the share of the purchase price remains as a debt for the transferee and no interest has been agreed on the purchase price debt, the benefit arising from the interest-free debt is not considered a taxable gift. Neither the benefit derived from the low interest of the purchase price debt is considered as a gift. However, if the debt is annulled, the transferee being the debtor, it is deemed to have received a gift equal to the amount of the debt. (Juusela & Tuominen 2018)

In addition, it should be noted that if a consideration has been agreed in the transfer of the shares due to the formal obligation, but it is already clear at the time of the transfer that the purchase price is not actually intended to be paid, the transfer of the shares is treated as a full gift. The tax authorities assess the probability of the payment of the purchase price by assessing, for instance, the payment terms agreed in the deed of the sale and the buyer's financial capacity to make the instalments. (Juusela & Tuominen 2018)

Table 3 describes the gift tax bracket I. The first tax bracket includes the spouse of the gift giver, the heir directly in ascending or descending line, and the heir in the direct descending line of the spouse. (Juusela & Tuominen 2018)

Table 3 Gift tax rates in the first bracket in 2020 (Veronmaksajat 2019)

A value of the taxable gift, €	Standard tax item at the lower limit of the share, €	Tax on the excess over the lower limit, %
5 000 – 25 000	100	8
25 000 – 55 000	1 700	10
55 000 – 200 000	4 700	12
200 000 – 1 000 000	22 100	15
1 000 000 –	142 100	17

Table 4 describes the gift tax bracket II. The second tax bracket contains other relatives and strangers (PerVL 11§). If the recipient of the gift is, for instance, a limited company, the gift received by it is taxed according to the second tax bracket, regardless of whether there is a close relationship between the owners of the company and the gift giver. (KHO:2011:44).

Table 4 Gift tax rates in the second bracket in 2020 (Veronmaksajat 2019)

A value of the taxable share, €	Standard tax item at the lower limit of the share, €	Tax on the excess over the lower limit, %
5 000 – 25 000	100	19
25 000 – 55 000	3 900	25
55 000 – 200 000	11 400	29
200 000 – 1 000 000	53 450	31
1 000 000 –	301 450	33

2.4.1 Company Valuation in Gift-like Sale and Gift Strategies

Also, in gift and gift-like sale strategies the company's value is calculated as fair value. However, if the transferee is allowed to have a partial generational transfer tax relief, the amount of gift is calculated using 40 % of the reference value. In short, the partial relief means that instead of the fair value normally used, a reference value is used, of which only 40 % is considered. The value after this is called the generational transfer value, according to which the gift tax is determined. (Juusela & Tuominen 2018)

A reference value is used to calculate the generational transfer value of the limited company's shares to determine the gift's value in the case of a gift and gift-like sale if a partial tax relief is allowed. (Varonen & Isotalo 2020). The reference value of the unlisted company's share is calculated by dividing the company's net assets by the number of the company's outstanding shares (ArvL 5§). When calculating the reference value, net assets include assets and liabilities of all sources of income of the company, which are valued at non-depreciable values or reference values in income taxes. Also, the net assets are adjusted by deducting the dividend decided to be distributed from the current financial year. When calculating the reference value, the changes in the company's financial position mentioned in the 5§ of the ArvL must also be considered. However, in practice, the reference value can be easily found in the company's last year's tax decision. (Juusela & Tuominen 2018)

A reference value of the share is limited by a so-called cutter-rule, according to which the reference value of the tax year may not be more than 50 % higher than the reference value of the previous year. However, when applying the cutter rule, new capital investments in the company, for example, are considered as adjustment items. Also, if there have been other significant changes in the company's assets since the last financial year ended, the reference value should be adjusted to reflect the asset situation at the time the tax liability began. (Juusela & Tuominen 2018)

2.4.2 Tax Planning in Gift-like Sale and Gift Strategies

The function of the gift tax is to prevent wealth from centralizing and redistribute previously centralized income and wealth with progressive tax. Gift tax is set to narrow the wealth inequality within a country, although their actual effect in narrowing the wealth gap has been seen poor. Moreover, there are controversial opinions about whether it is right to impose a tax on wealth that has been taxed already before, for example, by a progressive income tax or earlier gift or inheritance tax. (Puronen 2015, 9-11; Henttula 2005, 172-178)

A gift tax can be considered as a completion of the inheritance tax, and it is justified by having a vital role in preventing avoidance of the inheritance tax. If there was no gift tax, inheritance tax could be easily avoided by handing over the inheritance during the lifetime of the person. However, in Finland, a gift tax is also considered in other situations that have nothing to do with inheritance but fill other features of a substantial gift. (Puronen 2015, 9-11)

Gift tax liability begins immediately when the ownership is received (Ossa 2020, 3rd chapter). The first payment must be paid within three months after receiving the tax decision from the tax authority. However, for gifts worth over 500 euros, there are two due dates. The second due date is within two months from the first due date. But, if the receiver continues farm or business, he can apply for an extended payment period. The maximum length for the extended payment period is ten years. During this time, each annual instalment must exceed 850 euros. No interest is entitled to be paid for the extended payment period. (Vero 2019A)

Also, if the successor comes from the same family or kin, and the gift is a farm, business, or a part of those, and the receiver continues the business operations, he can apply for generational transfer relief. (Immonen & Lindgren 2017, 19-20) Generational transfer relief can be applied fully or partly depending on how much of the shares were received gratuitously. Full tax relief can be applied for the gift if the successor has paid over 50 % of the fair value of the shares. For instance, if the gift is 49 % of the company's shares and 51 % of the company's shares are paid with fair value, the successor does not have to pay anything for 49 %, which was a gift. If the successor pays less than 50 % or nothing of the shares, tax relief can be applied only partly. To use the partial tax relief, the gift tax must be over 850 euros. (Varonen & Isotalo 2020)

In order to receive any tax relief, the successor must therefore continue to do business with the shares he has received as a gift. Continuation of the company's business means the transferee's personal participation in the management of the company's business and the exercise of the ownership on the basis of the shareholding received. The transferee is considered to continue the business if, after the transfer, he works as a member of the company's Board of Directors or CEO and uses at least 10 % of the voting rights in the company on the basis of the shares received as a gift. Business must be continued immediately after the transfer. (Juusela & Tuominen 2018)

According to the decision of the Supreme Administrative Court KHO:2011:1, continuation of the business activities is personal and cannot be exercised, for example, through the activities of a trustee. In gift taxation, the application of section 55§ of the Inheritance and Gift Tax Act, which also includes the regulation of the relief, requires that the successor who has received business funds as a gift is of legal age and personally continues the business at the latest when the gift taxation decision is made. (Juusela & Tuominen 2018)

However, a generational transfer can also be implemented without any tax relief. In this case, it is a matter of a normal sale and/or gift. These are also considered if generational transfer relieves are lost. (Juusela & Tuominen 2018) The relief of the generational transfer can be lost if the successor does not obey the rule to continue the business for several years (Comission of the European Communities 2006, 8).

Section 55§ of the Inheritance and Gift Tax Act regulates the loss of relief and sanction. According to the section, the relief regarding the tax amount can be lost if the taxable person transfers the majority of the farm or business or part of it, of which the generational transfer relief has been granted before five years have passed from the date of the transmission of the inheritance or gift tax. In such a situation, the tax not paid, increased by 20 %, is imposed on the taxpayer. In accordance with the section 31.2§ of the Inheritance and Gift Tax Act, the date of the transmission of the taxation means the day on which the Tax Administration has processed the matter. According to Juusela and Tuominen, the majority part means that the transfer of less than half or even half of the ownership does not result to the loss of relief and consequences for taxation. (Juusela & Tuominen 2018)

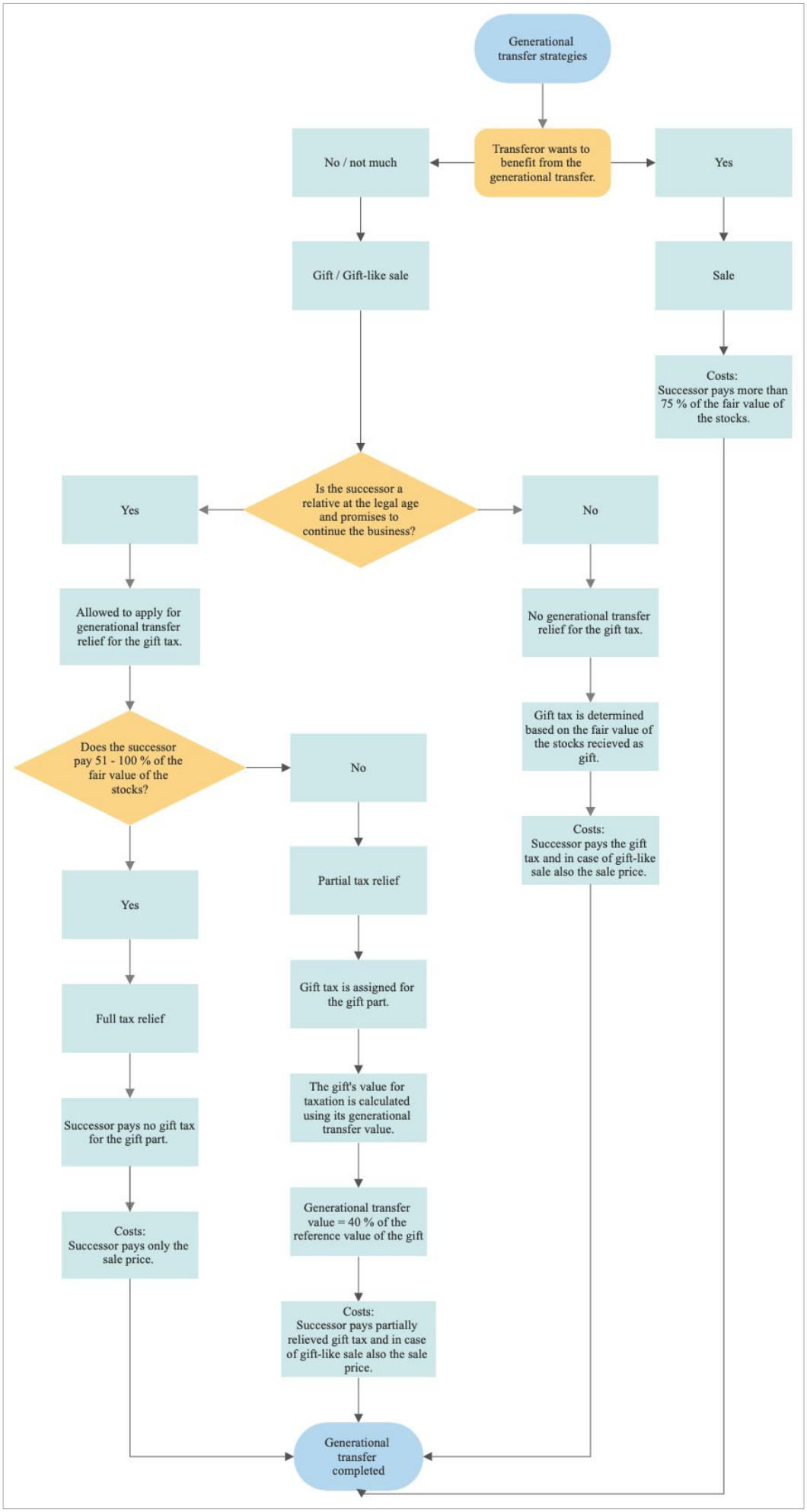
Another additional way to reduce the gift tax is to withhold a dividend entitlement. Typically, in generational transfers, the transferor wants to hold a dividend right to himself. (Isotalo & Varonen 2020) The entitlement to a dividend decreases the value of the gift, and the gift tax will be calculated from the value of the gift deducted by the dividend right. If the entitlement is lifelong, its value is calculated by multiplying the annual income with the person's age multiplier. If the person holding the entitlement is under 44, the bigger the multiplier is and hence the tax reduction. (Ossa 2020; 4th chapter & 7th chapter, Määttä & Arhonen 2019)

The right to a dividend should be clearly stated. If one would misunderstand there is a right to possess the company, the right to the generational relief and payment extension provisions of the Inheritance and Gift Tax Act is usually lost. This is based on the fact that the business is not considered to be continued by the successor. (Lindholm 2007, 72,75)

2.5 Summary of the Strategies

Figure 6 briefly reviews what has already been said about generational transfer strategies. It begins with the initial question whether the transferor wants to benefit from the generational transfer. Based on the answer in the flowchart box, the strategies are divided into Gift / Gift-like sale and Sale. The sale strategy and the rules regarding it are presented on the right. Gift / Gift-like sale strategies, on the other hand, are divided once again based on the answer in the flowchart box, asking whether the successor is a relative at a legal age and promises to continue the business. If the successor does not fill these criteria and the answer is no, the successor is not able to apply for a generational transfer relief, which means that the gift tax is determined based on the fair value of the gift. If the successor is, however, able to apply for the generational transfer relief, a question arises whether the successor is ready to pay over 50 % of the fair value of the stocks if the rest comes as a gift. If she/he pays 51 % - 100 % of the fair value of the stocks to be transferred, a full generational transfer relief can be applied. If the successor pays less or nothing of the fair value of the stocks to be transferred, a partial generational transfer relief may be applied. In that case, the gift's value in taxation is based on its generational transfer value. After this process, the generational transfer is completed.

Figure 6 Figurative recap of the generational transfer strategies



2.6 Generational Transfer in Other Countries

There is much public debate about the differences in taxation between Finland and Sweden and especially between Finland and Estonia. The process of the generational transfer is also very different between these countries and internationally. Many countries, such as Sweden and Estonia, do not have a gift or inheritance tax at all. (Perheyritysten liitto b, 9; Juusela & Tuominen 2018) This section shortly discusses a generational transfer in local companies.

In Sweden, the children of the business owner do not pay any gift tax on the company shares they receive as gifts. Thus, the successors do not have to worry about financing the gift tax and there is no compelling need for the company to pay a dividend for its new owners to finance the gift tax. A company can use its assets in the way it sees best, for instance for business growth, investment and employment. However, there is a special point about the shares received as a gift at a later stage: If the new owners, i.e. the successors of the company, sell the shares of the company, they also pay capital gains tax on the increase in the value of the previous owner's ownership. However, the payment of the capital gains tax is unlikely to be problematic for Swedish business owners, as the tax will only be realized from the time the company is sold. Then the owners have the purchase price obtained from the sale of the company at their disposal to pay the tax. (Perheyritysten liitto b, 9)

In Estonia, too, the children of the business owner do not pay gift tax on the shares they receive as gifts. Thus, the children do not have to seek financing for the shares of their family business and the business does not need to pay a dividend to pay gift tax. There is no need to deduct funds from the business for the payment of the generational transfer taxes, but the company can use its funds to develop the business. (Perheyritysten liitto b, 9)

More favourable taxation abroad can also be utilized in the generational transfer of a Finnish company. Emigration before the donation can enable even significant tax savings. However, in the situation of emigration, the extensive tax law of Finnish domestic legislation must be considered. Finland has the right to tax on the generational transfer if the transferee or the transferor lives in Finland. For this reason, an effective gift tax planning essentially requires the relocation of both the transferor and the transferee to a country where a gift is not taxable. However, the gift tax from receiving Finnish real estate or real estate company's shares cannot be escaped through emigration. (Juusela & Tuominen 2018)

2.7 State-of-the-art Literature Review

Generational transfers have been a viral topic since the 1980s when the number of these studies and articles suddenly flourished. Statistically, the number of generational transfer literature increased by 250 % between the years 1970-1990. (Kesner & Sebora 1994, 272) Since then, the topic has only become more popular. The interest in this topic can be seen, for example, in the increased number of studies with key words "generational transfer" per year from Scopus. The closer to present, the more studies are published annually with these key words. Perhaps the increase in generational transfer topics can be explained by the retiring baby boomer generation whose retirement cause serious threats to companies' survival (Malinen 2001).

The research on the topic is very versatile, which expresses how broad the concept of the generational transfer is. The literature divides issues of the generational transfers into "soft" and "hard" issues. (Malinen 2001, Marttinen 2012, Kaukola 2013, Honkanen 2015, Hiltunen 2016) Most studies focus on generational transfers' soft points and discuss themes such as planning the generational transfer regarding the transferor's feelings and the successor, family conflicts, and handing over the management role. (Malinen 2001, Behan, Kirschner & Snyder 2009) However, there are also important works that investigate the hard viewpoints. These studies cover financial, legal and accounting matters. (Sahlman-Mäkelä 2005, Kaukola 2013, Laine 2013, Hakala 2014, Hiltunen 2016, Myllykangas 2018). A minority, but some of the studies, have also successfully combined both soft and hard points after recognizing that a generational transfer is indeed a process in which events from both aspects happen simultaneously. (Malinen 2004, Marttinen 2012)

Most of the studies are qualitative and employ interviews because of the nature of the topic. (Malinen 2001, Malinen 2004, Behan et al. 2009, Hiltunen 2016) Often, studies on this topic are also juridical reviews examining how to interpret the tax law. (Kaukola 2013, Honkanen 2015, Myllykangas 2018) Yet, a handful of mixed methods studies integrate qualitative and quantitative methods to find a way to implement generational transfer cost-efficiently and how the company, transferor, and transferee should prepare for it. (Sahlman-Mäkelä 2005, Marttinen 2012, Laine 2013, Hakala 2014) Interestingly, none of the previous studies are solely quantitative, potentially, because generational transfers always require information about the company, transferee, successors and their plans, which is information that cannot be easily turned into values.

Behan (2009) and Hiltunen (2016) recognize that a generational transfer is an important event in company's life. Moreover, the previous work has shown that generational transfers should always be planned well ahead. (Malinen 2001, Behan 2009, Hiltunen 2016) Successors and the transferors should get acquainted with both soft and hard matters as they are experienced simultaneously in reality (Malinen 2001, Malinen 2004, Ip & Jacobs 2006).

According to Ip and Jacobs, 30 % of the European companies end up bankrupt due to unsuccessful generational transfers. The most critical challenges are connected to family's and the company's internal problems, such as the successor and the transferor's different opinions about the company's future and the weak transfer of the silent information or that employees have a hard time accepting new management. After that, hard problems arise, such as legal challenges on transferring ownership to the successor, the company's valuation and taxation. Next problems are miscellaneous but mostly related to the successor's hardships on finding their role and getting into the company smoothly. (Malinen 2004; Ip & Jacobs 2006)

Behan and companions (2009) studied the best practices of CEO succession. Although the study is not about succession in family businesses, interestingly, it has many interfaces with the publications concerning family business succession. Studies of Kesner & Sebora (1994), Malinen (2001) and Behan et al. (2009) suggest that succession planning must be started early, and one should never forget to inform or have a dialogue with the company's most important stakeholders about the upcoming change of management. However, literature also admits that internal candidates, such as family members, do not always have enough experience to take over the business, even if they are wished to do so. (Malinen 2001, Behan et al. 2009)

Although some publications of the generational transfers in Finland exist, they are very rare when scaling it to the number of family businesses we have here (Malinen 2001). As discussed in the introduction, family businesses make up 70 % of the Finnish non-financial employing companies (The Finnish Family Firms Association & Statistics Finland 2017, 15). There is especially a need for research on the area of the "hard" perspectives. Currently, the majority of the "hard" perspective studies are master theses.

Noticeably, thesis workers often choose to write on this topic, perhaps because of personal involvement. (Sahlman-Mäkelä 2005, Marttinen 2012, Kaukola 2013, Laine 2013, Hiltunen 2016, Myllykangas 2018) Possibly, due to the personal grounds, a significant issue that links these studies can also be explained. Each of the studies expresses criticism towards the heavy tax burden on generational transfers and reason their choice of topic by trying to find the best alternative under the unfavorable circumstances. Perhaps the master theses workers have a noticeable-sized company in their family, and as successors, they may experience the tax burden too heavy for themselves. Conveniently to this discussion, Malinen (2001) notifies that the bigger the family business is, the more interested the potential successors are, which could possibly explain the interest in the topic of the master thesis workers and their judgment on the costs.

However, it is not only the successors who criticize the taxation. Nearly all publications concerning generational transfer mention taxation as a concern. If taxation is not seen as the most difficult problem, it is one of the most difficult problems followed by generational transfer financing. (Malinen 2001, Honkanen 2015)

Strangely, although taxation is seen as such a challenging matter in generational transfers, there are only a few works that study the implementation of the tax laws and guidelines in practice. Those studies are master theses from Sahlman-Mäkelä (2005), Marttinen (2012), Laine (2013), Kaukola (2013), Hakala (2014), Honkanen (2015), Hiltunen (2016) and Myllykangas (2018). Especially, Honkanen (2015), Hiltunen (2016) and Myllykangas (2018) emphasize the need for more legal praxis and studies about the implementation of the tax rules with generational transfers. Rules, especially with small details, are challenging to understand without prior case material, and many businesses have shut down after an unsuccessful generational transfer (Hiltunen 2016). For example, Myllykangas (2018) finds the situations difficult, in which one should assess whether the successor continues the business or farm actively enough in order to get the generational transfer relief.

For the complexity of the generational transfer's hard perspectives, many of the studies advise using professional help to avoid pitfalls. (Malinen 2001, Sahlman-Mäkelä 2005, Marttinen 2012, Laine 2013, Honkanen 2015, Hiltunen 2016). Moreover, companies are always recommended to apply a preliminary ruling to avoid the tax authority's unpleasant surprises. (Sahlman-Mäkelä 2005, Kaukola 2013, Laine 2013, Hakala 2014, Hiltunen 2016, Myllykangas 2018)

As said, the difficulty of hard perspectives has not, however, stopped the eager students from researching them. In order to assess the actual costs of the generational transfers coming from different strategies, some studies have actually compared the costs of the different generational transfer strategies. (Sahlman-Mäkelä 2005, Marttinen 2012, Laine 2013, Hakala 2014). By comparing the strategies, these studies have shown how remarkable difference it makes if one is able to use the gift strategy and especially the gift strategy with a partial generational relief as it significantly lowers the generational transfer's costs.

As a conclusion for this chapter, it can be said that previous studies have exclusively focused on discussing generational transfers that are to be carried out immediately. However, in reality, and as the theory suggests, a generational transfer should be a well-thought process for numerous soft and hard reasons. One of the many reasons is that mostly the successor needs to put a lot of money aside to be prepared for the costs, if one can even ever finance them.

Therefore, there is a critical issue in the previous literature. To our knowledge, no prior studies have estimated nor discussed how the generational transfer costs are determined for the future and how certain it is that those will occur once the generational transfer is finally executed. After all, the uncertainty that surrounds such estimations (depending on the company and how far in the future the generational transfer will happen) is very significant. This research intends to fill this literature gap.

2.8 Methodological Support

This section reviews methods that had been used by fairly similar previous studies and validates the methods that are used in this research. As this research also uses the fuzzy payoff method, some studies that have used that method earlier are reviewed here as well.

The master's theses by Sahlman-Mäkelä (2005), Laine (2013), Hakala (2014) and Marttinen (2018) are the most similar to our study. With their own words, they are qualitative case studies, however, they are conducted for case companies using their financial statements from the latest years and interviews from the retiring transferor and the successor. Data from the financial statements are collected to examine the financial stability, calculate the company's fair value and the costs that the transferor and the successor would face.

The interviews in those studies were conducted as half-structuralized interviews, in which the interview questions were composed beforehand. The interview questions of these studies mostly consider preparing for the generational transfer, prior knowledge about taxation and generational transfer strategies, the company's future, stepping away from/into the company, feelings of both parties, and other soft perspectives.

Regarding the cost computing part, Sahlman-Mäkelä (2005), Laine (2013), Hakala (2014), Hiltunen (2016) and Marttinen (2018) report that when choosing the generational transfer strategy, income statements and balance sheets are needed to collect information on the company's profits/losses, assets and liabilities from the recent years to calculate the company's income value, net worth value and reference value. However, only the income value needs three latest financial statements and other values only the latest if the reference value of earlier years is disclosed to use the cutter rule. After calculating all three company values, one can calculate the generational transfer costs from each strategy with the number of desired shares.

The fuzzy payoff method, on the other hand, is typically applied in quantitative studies. The fuzzy payoff method is mostly used on real option valuation. In fact, it is a real option’s thinking-based profitability analysis method that can be used in cases in which input information considers cash flows that do not necessarily have a high accuracy (Collan 2011a, 21-37). Real options are different possibilities included in real investments, which allow managers to capture the potential of the investment. These possibilities can be called managerial flexibility because one can use the potential of the investment but does not have an obligation to do so. (Collan 2011b, 5)

The fuzzy payoff method was successfully used in a study that valuated industrial giga-investments in theory and practice. In the operation stage, the giga investment resembles a bond. It has a fixed costs cash flow, an operational cost cash flow and an operational revenue cash flow during its operating life until it stops operating. After the investment's economic life, there might also be a salvage value as in the payback of the bond capital. Operational cost and operational revenue are variables that follow world market prices of the raw materials and market sales prices for the output product. Therefore, all the cash flows include estimation inaccuracy when it comes to timing and size. Here, the entire investment, including the building and operation stages, is seen as a real option. The study suggests that the value of the investment is calculated using three scenarios: best guess, maximum possible and minimum possible estimated by experts. When discounting the cash flows, they used the discount rate of 13,5 % for the cash flow of revenues and the discount rate of 5 % for the cost cash flows. The cash flows in and out are governed by markets and the investing company. Later, using the three scenarios' net present values, they constructed a triangular NPV distribution by assigning the best guess scenario full membership and treating the maximum and minimum as upper and lower bounds. By using the fuzzy payoff method, they got one single number representing the giga investment's profitability. In this study, the real option value and other decision support coming from the payoff seemed promising and easy to generate and interpret. (Collan 2011a, 21-37)

Similarly, Turek and Sojda released an article in 2013 in which they justify the usage of the fuzzy payoff method in company valuation because it incorporates risks into the valuation. According to the text, in the period of the stable economic growth, forecasts for the future are rather trustworthy and, therefore, could be presented as one value. But, if the economy is endangered with a crisis, it is necessary to use such a method that allows risk inclusion easily. The text says that by using the NPV together with fuzzy numbers, one can obtain a value that includes the aspect of risk in investment projects. Calculating such a value in which risk is considered requires at least three scenarios. The article shows two examples of how to calculate company value by using the fuzzy payoff method. As in Collan's study, they use good, base and bad scenarios of cash flows. The first example is relatively simple, but in the second example, they use a real-world mining company. The base scenario was the value of the cash flows determined by the company and good and bad scenarios' cash flows were determined by experts. Experts assume that the good scenario would be 5 % higher than the base scenario and the bad scenario would be 20 % less than the base scenario. WACC (Weighted cost of capital)

was 12 %, and the residual value was zero. Consequently, both examples received a value that incorporated the risk aspect in the valuation.

Consistently, a book called The Payoff Method: Re-Inventing Investment Analysis – With numerical application examples from different industries, authored by Mikael Collan, discusses how to calculate a company value with the fuzzy payoff method. According to the book, the company's standalone value can be calculated as a real option value. The resulting value gives information about the firm's value if it is run as the present owner runs it now. In other words, it is the value of the firm to its present owners. Typically, the standalone value is a key component in corporate acquisition analysis, but it can be used for other purposes as well. (Collan 2012, 79)

Like in the two other fuzzy payoff method applications, standalone value consists of the company's expected future cash flows. These cash flows include the know-how, resources, and flexibility the company has. When calculating the net cash flows, one needs to consider deducting the maximum fixed costs from the minimum revenue, the minimum fixed costs from the maximum revenue, and the realistic fixed costs from the realistic revenue. This allows the valuation to capture all possible scenarios. (Collan 2012, 80) Afterwards, these values can be input into the fuzzy payoff method to obtain the firm's value.

This study incorporates the fuzzy payoff method in the field of generational transfers. This is entirely a new application area for the method. However, considering the uncertainty surrounding such valuations, the fuzzy payoff method seems like a valuable analysis tool.

3 DATA & METHODOLOGY

This section reviews data sampling techniques and research methods of the thesis. First, some theory about research data and methods is provided, then the case company is introduced, data and data collection methods presented, and, finally, the fuzzy payoff method is reviewed.

The research questions defined in the section "Introduction" include descriptive and exploratory questions. According to Saunders, Lewis & Thornhill, descriptive questions typically begin with "What" and require straightforward answers. Exploratory questions, on the other hand, are more likely to begin with "How" or "What" and seek more insight into the answers. (Saunders et al. 2016, 43)

The research is carried out as a case study by using mostly quantitative data. However, to assess the most suitable generational transfer strategy, qualitative data will also be used. A research that mixes qualitative and quantitative design is defined as mixed methods research. It focuses on collecting and analyzing qualitative and quantitative data. The reason for using both methods in the research is that their combination provides better analysis and results to the research problem than either of them alone. Qualitative and quantitative data will be mixed using a single-phase research design, which allows results from both sets to be interpreted together. Usually, when using this design, qualitative and quantitative data are collected and analyzed first separately. (Creswell & Clark 2017, 2-3, 13, Saunders et al. 170)

Both qualitative and quantitative data will be obtained from the case company. The case company provides information about its current situation regarding the family and wished ownership structure, as well as allows access to their latest financial statements and financial statement forecasts for the years 2020-2023. Qualitative parts of the data are gathered from an interview with the case company's owner. Due to various data sources, it can be said that the data is collected by using a multi-method data collection technique (Saunders et al. 2016, 168).

Furthermore, the research aims to gain a comprehensive understanding of the subject. This usually characterizes the goal of the case study. Later, in order to make research results valid in a broader context, an inductive approach will be incorporated into the discussion. An inductive approach generalizes the specific to the general. (Koppa 2010; Saunders et al. 2016, 144, 166)

3.1 Background of the Case Company

The case company is a Finnish medium-sized private limited company that sells welfare-related goods and services in the domestic market. The company manufactures all its products itself and sells them in its own brick-and-mortar stores. The goods and services for sale are "high-end" commodities. Sales of the goods are clearly greater than the sales of the services.

The case company has been operating for two years as such. Its first financial statement is from the year 2018 and its fiscal year corresponds with the calendar year. To this date, only one person owns the total share capital of the company. However, the founder-owner seeks to retire within the upcoming years. His two children have shown interest in continuing the business but financing the generational transfer costs may be a challenge if the family stays in Finland. However, due to personal reasons, the family is staying in Finland, even though the substantial tax savings abroad are recognized.

Before exploring ways to finance the costs, the amount of costs needs to be estimated first. But, having financial statements only for two full years and an unstable economic environment makes it challenging to forecast future generational transfer costs. Another fact that makes the forecasts challenging is that the company also has a positive potential, possibly coming into reality quite soon. The positive potential stems from the increasing sales via their online shop. In fact, after recognizing the increased online sales this year, the company has started developing a better online shop to make it function internationally. If the amount of online sales increases, there is also a chance to cut fixed costs and create more profit. However, when considering the generational transfer, it is bad if the company makes more revenue, as the increased company valuation leads to higher generational transfer costs.

However, the time to forecast is only three years, making the future forecasts more straightforward than forecasting costs for a generational transfer that is due in many years. The reason for making a generational transfer within the next three years is that the family is afraid that Finland's next government would unfavorably change the taxation of the generational transfers and dividends.

3.2 Data and Data Collection Methods

All the data used in this research is received from the case company or the case company's transferor. The qualitative data is gathered from the interview with the transferor, and the quantitative data comes from the financial statements from the years 2018 and 2019 and income and balance sheet forecasts for 2020-2023 in three different scenarios.

As for the interview, we can classify the data as primary as it is collected only for this research. However, when considering the quantitative data, we must divide it into primary and secondary data. The financial forecasts in minimum, realistic and maximum scenarios were made for this research by the company's experts, which makes it primary data. The financial statements from 2018 and 2019, on the other hand, are secondary data because they were not primarily collected to be used in this research (Glen 2018). The financial statements were collected to fill the company's legal requirements.

Following the guidance of the methodological support, the interview with the transferor is conducted as a semi-structured interview. In the semi-structured interview, the researcher has defined themes and key questions to be discussed in the interview. The order of questions changes depending on the flow of the conversation. This type of interview might also contain some additional comments and open discussion. As a free interview style, a semi-structured interview requires that the data collection is ensured by audio-recoding or note-taking. In this research, we took written notes. (Saunders et all 2016, 391)

Moreover, before the interview, the participant was provided with a list of interview themes and questions. According to Saunders et al. (2016, 402), giving information about the upcoming themes provides the interviewee an opportunity to better prepare oneself and make the data's reliability and validity better. The questions provided can be found in the appendices.

Regarding the financial values, we focused on liabilities, assets and earnings from the previous three years and forecasts until the year 2023. Examining these parts is justified by the methodological support gathered from prior studies. The values for years 2018 and 2019 are historical, already occurred values. The values for years 2020, 2021, 2022 and 2023 are estimates drawn for the minimum, realistic and maximum scenarios.

The company conducted the cash flow forecasts, but they explained the main principles on how those were done. The company calculated values for the minimum scenario by assuming that sales would decrease by 20 %. The realistic scenario estimates were calculated by forecasting how each item of the income statement and balance sheet would realistically develop. For instance, they used the assumption that sales would grow 1.8 euros million per year. The maximum scenario was drafted by assuming that sales would increase by 20 % each year.

Based on the company's prior financial statements and future forecasts, two key tables were created. Tables 5 and 6 consist of the values to be used as the data in the empirical section. The values for each year come from the previous year's financial statement because the costs of the generational transfer are based on historical information. Therefore, the values under the given year represent the values that should be used in calculations accomplished that year. For example, net assets and earnings in the year 2020 are retained from the 2019 financial statements because if the generational transfer was done in 2020, one is required to use the financial information from the previous year. Thus, values in 2020 are the same regardless of the scenario because the values come from the previous year's 2019 income and balance sheet.

Table 5 presents the development of the net assets of the company. As can be seen, the company expects its net assets to grow in each scenario. The growth of the net assets in minimum scenario is explained by the previous year's cumulated earnings.

Table 5 Development of the Net Assets of the Company

NET ASSETS	(2019) **2020**	(2020) **2021**	(2021) **2022**	(2022) **2023**
maximum	6 253 703	10 487 656	16 223 964	23 792 330
realistic	6 253 703	9 850 755	14 148 279	19 142 359
minimum	6 253 703	7 806 810	8 632 369	8 911 486

Table 6 lists the earlier and expected earnings of the company. The earnings are expected to grow in maximum and realistic scenarios, but in minimum scenario, in which sales decline by 20 %, the earnings drop year by year.

Table 6 Development of the Earnings of the Company

EARNINGS	(2019) **2020**	(2020) **2021**	(2021) **2022**	(2022) **2023**
maximum	3 083 806	4 231 452	5 733 809	7 565 866
realistic	3 083 806	3 594 551	4 295 024	4 991 580
minimum	3 083 806	1 550 607	823 059	276 617

3.3 The Fuzzy Payoff Method

As mentioned, a generational transfer is a long-term process that usually requires at least 3-5 years of planning. Sometimes the planning phase might take decades. The longer the planning phase of the generational transfer is, the further in the future it takes place. Yet, uncertainty is always present in the future-oriented analysis (Collan, Haahtela & Kyläheiko 2016, 3).

Company's value and followingly the generational transfer costs become more uncertain the further in the future it is tried to be forecasted. Fortunately, some valuation methods are developed to work under uncertainty. One of the most useful methods with uncertain information is the fuzzy payoff method. The fuzzy payoff method allows making estimations on values even with highly imprecise information regarding the future. (Collan et al. 2016, 3, 16)

The data put into the payoff method can be based on a "gut feeling" or detailed historical data-based information. Consequently, the method can be used under parametric and structural uncertainty. In standalone valuation, one typically works under parametric uncertainty. Parametrical uncertainty is uncertainty about intermediate future operations (Collan 2020, 36). Structural uncertainty is considered when something is happening in the distant future and predictability is low, like with strategic patents. The reason why the payoff method works under these uncertainties is that the method has been designed initially to be used as a rough method in situations with limited information. (Collan et al. 2016, 15)

The first reason for using the payoff method for choosing the generational transfer strategy by estimating the generational transfer costs and uncertainty along them is that the unknown future brings uncertainty. Due to the COVID-19 pandemic, global economic stability is threatened and if getting worse, it could lead to decreased sales. However, the payoff method is also justified for the reason that the company has positive potential as well. In both cases, changed sales lead to changed company valuation and changed costs. Using the payoff method, we can retain the expected present value of the costs even though we are not sure about the sales yet.

Another reason for using the payoff method in this research is that the method provides information about how surely these costs will occur after three years have passed. The wider the payoff triangle is, the more risk is involved in the strategy. (Collan 2012, 97). In order to know how much uncertainty affects the family's decision of which generational transfer strategy to choose, we will inquire about the family's risk awareness.

3.4 Fuzzy Numbers

The fuzzy payoff method can be understood as a fuzzy number NPV (Collan et al. 2016, 14). In human communication, numeric information is often summarized. For example, we could say “around 300, 15-20 %, about 10 Celsius” et cetera. This kind of information is not precise or crisp in classical mathematics, but it is essential in communication and reasoning. These are examples of what is known as fuzzy numbers. (Sengupta & Kumar Pal 2009, 6)

Fuzzy numbers are growing popularity in financial valuation (Yao, J.-S., Chen, M.-S. & Lin, H.-W. 2005, 210). They are initially developed to represent uncertain or flexible information in parameters of estimations. When using fuzzy numbers, experts give their opinion for possible ranges of parameter values, and the ranges are applied to the estimation. These ranges usually represent the most plausible values, and therefore, the estimates with fuzzy numbers give more accurate results than using methods that need strict parameter assumptions. (Bednyagin & Gnansounou 2011,17; Collan et al. 2016, 9-13).

For their flexibility, the fuzzy numbers can be applied to a wide range of estimates in different fields such as engineer design, product management, financial analysis, scheduling, and real option valuation. (Bednyagin & Gnansounou 2011,17; Collan et al. 2016, 9-13).

3.5 The Fuzzy Payoff Method Explained

The fuzzy payoff method is a model that uses managerially estimated cash flow scenarios when projecting payoff distribution for a project. It can be understood as an extension to the net present value profitability analysis method often used in valuating investments. However, the normal NPV method uses only one cash flow scenario approach, whereas the fuzzy payoff method uses multiple scenarios to capture also the extreme ones. (Collan 2012, 8-9, 11-12)

As there are typically only two extreme scenarios beside the most realistic one, mostly three NPV scenarios are sufficient enough to build the payoff distribution. Extreme scenarios should illustrate the most pessimistic ("the minimum") and the most optimistic ("the maximum") estimations and the realistic scenario the most rational one. (Collan 2012, 11-12)

So, the way the fuzzy payoff method works is that first, an expert estimates minimum, realistic and maximum cash flow scenarios for an investment. Next, the cash flows are discounted at the cost of capital, making them net present values. In case of company stand-alone valuation, which is similar to this process, only one discount rate is used for the cash flows. It is for the reason that a company is an investment as a whole, not as a single investment project. (Collan 2012, 8-9, 78-79)

When having all the three scenarios of discounted cash flows, building a net present value distribution can be started. The payoff distribution using three different scenarios is assumed to be triangular: the realistic scenario is most likely to happen and thus, its membership degree equals 1, meaning a full weight. The extreme cases, on the other hand, represent the distribution boundaries. Values higher than the maximum and lower than the minimum are assumed not to happen, and, followingly, both minimum and the maximum have a membership degree of 0. However, everything between those three scenarios is possible. Therefore, we are talking about a fuzzy payoff distribution, meaning we are treating the payoff distribution as a fuzzy number. Figure 7 illustrates an example of a triangular fuzzy payoff distribution, where the membership degree is illustrated with height. (Collan 2012, 16-20)

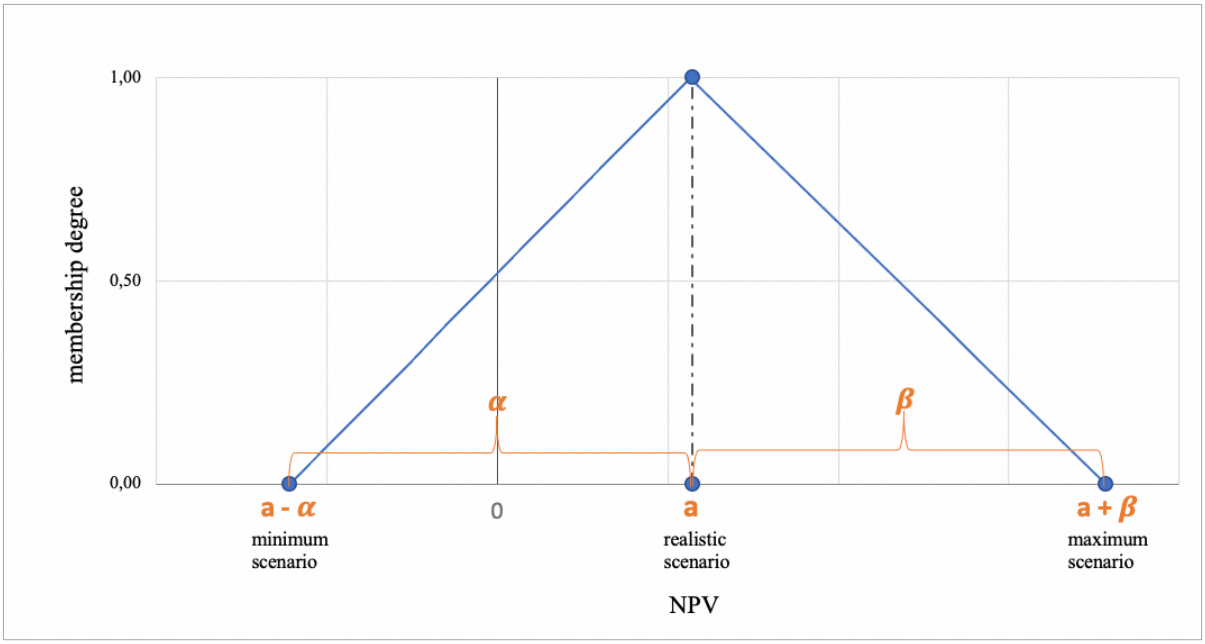


Figure 7 Graphical presentation of a triangular fuzzy payoff distribution (Collan 2012, 20)

Basically, the net present values are used to map a fuzzy payoff distribution, which demonstrates the degree to which an NPV value within the set belongs in the set of possible NPVs (Collan et al. 2016, 10, 14). The fuzzy payoff distribution can be defined as a triangular fuzzy number by assigning the minimum, realistic and the maximum net present values of the distribution to (a – α), (a) and (a + β). The distance between the minimum and the realistic net present value is denoted as α, and the distance between the realistic net present value and maximum net present value is denoted as β. (Collan 2012, 19) Table 7 clarifies the description.

Table 7 Defining the payoff distribution as a triangular fuzzy number: value terrains and the corresponding denotation (Collan 2012, 19)

Value terrain	**Fuzzy number**
Maximum scenario NPV	a + β
Realistic scenario NPV	a
Minimum scenario NPV	a - α
Distance between realistic scenario NPV and maximum scenario NPV	β
Distance between realistic scenario NPV and minimum scenario NPV	α

3.6 Decision Support from The Fuzzy Payoff Method

As the earlier section referred, the fuzzy payoff distribution is an extension of modeling different cash flow scenarios. It offers further insight to assess the profitability of an investment or a project under investigation. It works by inputting NPVs of different cash flow scenarios and, based on those, defines a payoff distribution for the investment or an asset valued. (Collan 2012, 16-17)

Intuitively, the fuzzy payoff distribution shows the riskiness of the investment or the valuation. The wider the distribution is, the riskier or uncertain the project is. Moreover, the fuzzy payoff distribution allows a visual assessment of the payoff distribution area. (Collan 2012, 17-18)

Furthermore, the payoff method provides other analytical values that bring deeper insight into an investment assessment. With the payoff method, it is, for example, easy to calculate the expected net present value that tells the possibilistic mean of the net present cash flows. At its core, it is a single value that considers the shape of the distribution by taking the whole area of the payoff distribution into account. As it considers the whole area, it is not the same as the realistic scenario NPV. For example, by comparing the realistic scenario NPV and the expected NPV, one can see that if the distribution is not symmetric in relation to the realistic scenario, the expected NPV is significantly different from the realistic scenario NPV. However, if the NPVs are rather symmetrically distributed around the realistic scenario, the expected NPV is near the realistic scenario NPV. (Collan 2012, 22-24)

Also, the width of the distribution is rather advising in this research because it describes the risk involved in the strategy. The width of the fuzzy payoff distribution can be solved by using the possibilistic standard deviation. If we also want to know the standard deviation percentage of the expected NPV, we can simply divide the standard deviation with the expected NPV denoted as E(A). The resulting value informs about how widely the size of the mean of the payoff distribution is distributed in percentage. (Collan 2012, 116-117)

The calculation methods of the expected NPV and standard deviation values vary depending on the distribution position with respect to zero. (Collan 2012, 22-24, 32-33) However, as in this research, we examine costs, the whole distribution is on the positive side because costs cannot be negative. As the whole distribution is beyond zero (in the positive area), the expected NPV of the whole distribution is calculated followingly:

$$E(A) = E(A+) = a + \frac{\beta - \alpha}{6}$$

$$A+ = A = \frac{(\alpha + \beta) * 1}{2}$$

In these formulas, $E(A)$ stands for the expected NPV of the whole distribution, $E(A+)$ for the expected NPV of the positive area of the distribution and a, α and β are the same as presented in Table 7. A+ is the positive area of the triangle, A is the whole area of the triangle, $(\alpha + \beta)$ make the triangle's width, and 1 is the triangle height. (Collan 2012 21, 24, 32-33)

After calculating the expected NPV, the standard deviation and the standard deviation percentage of the expected NPV can be retained, and graphs built.

$$Standard\ deviation = \sqrt{\frac{(\alpha + \beta)^2}{24}}$$

$$Standard\ deviation\ as\ a\ \% = \frac{\sqrt{\frac{(\alpha + \beta)^2}{24}}}{E(A)}$$

(Collan 2012, 22, 116-117)

When using the triangular payoff distribution, it must be noted that it is making simplified assumptions of reality. However, if one has imprecise information and does not know about reality, the result from the payoff method is the best one can get and sufficient enough. (Collan 2012, 20) Therefore, anything computed with fuzzy numbers should not be thought of as the exact right value but rather as a direction giving estimation.

4 EMPIRICAL SECTION

The empirical section of the research consists of five phases. First, the interview with the transferor is reviewed. Next, the three generational transfer strategies are all discussed separately regarding the cost estimation. Followingly, their economic viability is evaluated and compared.

4.1 Interview with the Transferor

Based on the interview with the transferor, we gathered not only valuable information about generational transfers in Finland but also multiple details that affect the costs of a generational transfer. These details affect the eligibility for generational transfer reliefs, company valuation and which strategy is considered as the most desirable. The interview answers are discussed by subjects listed from 1. to 12.

1. Reason for a Generational Transfer

The transferor's motive to start preparing for the generational transfer is that he intends to retire in the following 5-10 years. Luckily, his two children who are in their early twenties are eager to continue the business beside and after him. However, the transferor is worried whether the generational transfer can be conducted at all, as his young children may not be able to bear the costs.

2. Timing

As it was justified earlier, the family is afraid that the taxation of the generational transfers and private companies' dividends would change when the new government of Finland, chosen latest in the 2023 late spring, will form new legislative acts. "The fact that Finland does not have a tax plan that exceeds the governmental term, worries us. If we will get another leftist government, no one knows what is going to happen. I am a member of Social, Tax and Finance Committee for Entrepreneurs at Confederation of Finnish industries EK and whenever I have opened the discussion about generational transfers, the politicians have no idea what I am talking about, not even in the National Coalition Party", says the transferor and heats up the conversation. Consequently, at least changes for better are not expected and the family wants to carry out the generational transfer at least before the new government decides about the new Government Program.

3. Ownership Structure

As a founder owner, the transferor owns all the company's stocks. The overall share of the stocks that would be given to the next generation is 45 % leaving the transferor the majority of the ownership and voting rights. This way the control remains in the hands of the transferor. The 45 % should be divided by two, giving an equal size ownership for both children of the transferor. Consequently, both children would have 22,5 % of the shares after the generational transfer. 22,5 % of the company's 2500 stocks means that the rounded quantity of stocks is 563 per children.

4. & 5. Successors

Both successors have or are in education that prepares them for the family business and have collected working experience outside the company. The children have also expressed their will to continue the business at least on some level for the next five years. Currently, the children belong to the company's board and are pleased by the chance to express their opinions regarding the matters of the company. But they are worried about the costs of the generational transfer, as they tell a little about their financial status.

The transferor, on the other hand, considers his own economic and financial status to be sufficient enough, which means that he does not need to nor want to benefit from the generational transfer. He truly just wants his children to continue the business.

6. Generational Transfer Strategies

The family does not start the planning from zero. They have read and heard about generational transfer strategies already before. According to the interview, the transferor himself, forecasts that a generational transfer with a full gift is the most cost efficient and the most certain strategy for the future owners of the company. The reason why he believes so, is that he suspects the company has such a high fair value that neither sale nor gift-like sale would be manageable for the successors.

7. Riskiness of the Family

"As an entrepreneur family, I guess we are somewhat risk-seeking people, but with a generational transfer, the risk might suddenly turn up to cost millions, so we prefer to be risk-averse with this one", he describes. Therefore, at least the size range of the forthcoming costs is important to know already now.

8. Forecasts of the Company's Value

Due to the current global instable economic situation, many companies are getting distressed about their future and so is the case company. As the future forecasts show, in the minimum scenario their sales would decrease by – 20 %. But as the company has also positive potential deriving mainly from the unexploited eCommerce side, the company's sales might even go up, especially, as the plan is to implement eCommerce internationally. At maximum the sales would go up by + 20 %. However, in reality, the transferor says that for the next three years, he expects lighter growth. The realistic scenario is computed somewhat differently by forecasting how each item in the income and balance sheet would realistically develop. The company's value is very depended on the sales as it is not expecting expensive investments within the next three years.

9. Moving Abroad

The family recognizes the substantial generational transfer tax advantages abroad. However, due to personal and every day work reasons they are staying in Finland. "Maybe at a later stage, when giving more ownership to the successors, we might consider that. At least for now the plan is to stay here with our relatives, friends and employees", the transferor says.

10. Peer Experiences

When asking about other companies' generational transfers, the transferor seems rather familiar with many different cases. He mentions that he knows numerous cases, in which middle sized companies have had the obligation to sell the company outside the family, as a generational transfer could not be conducted due to very high value of the firm. "Typically, the buyers of these firms have come from abroad, which affects the decrease of the Finnish ownership base".

However, mostly, generational transfers are classified, and they are not wished to come into publicity. Therefore, the transferor can only mention companies that have already been in public regarding the matter. For instance, Onninen-Onvest and Ensto are good examples of Finnish firms whose generational transfer has been discussed publicly.

Onninen family moved to Portugal in 2014 to carry out a generational transfer as tax free. The transferor Maarit Toivanen-Koivisto justified moving as it was the only way they could make the generational transfer. The process in Finland would have been such that the successors were given the stocks, but they would have had to sell them in order to pay the gift taxes resulting from the gift and thus lose the family ownership. In that case the reason to sell the stocks was that the company could not pay that much dividends and no bank gave a loan for paying gift or inheritance taxes even if the family business stocks were put up as collateral. According to a Finnish newspaper Helsingin Sanomat, the Onninen family considered also other countries such as Sweden and Estonia but Portugal was chosen for its climate and culture. (Iivonen 2014)

Ensto, in contrast, is an example of a successful generational transfer in Finland, although they had to do it in many steps and to plan it throughout years. In early 2000's Ensio Miettinen gave his stocks to his four children. In order to pay the resulting taxes, they had to take substantial dividends from the company, but they managed to retain the ownership in the family. Also, again in 2018 they managed to carry out a subsequent generational transfer to the third generation. However, in both transfers they used holding companies. (Kankare 2003; Ensto)

11. Discount Rate

Finally, in order to define a proper discount rate for the later phase, in which the generational transfer costs are turned into today's values, we inquired information about the company's cost of the capital. As the company finances its growth by using returns from previous years, the cost of the capital could not be determined. Also, the company does not have loans. Consequently, in order to draw a somewhat realistic discount rate, the transferor mentions that if the company borrowed funds without a collateral, the interest rate of the loan would most likely be 3 %.

Summary of the Details Gathered

Table 8 illustrates the details gathered from the interview, which affect the evaluation process of generational transfer strategies. The column on the right presents what each detail means when considering the generational transfer strategies in practice.

Table 8 Summary table of the generational transfer information from the transferor

List of details affecting the evaluation of strategies	**Meaning in practice**
22,5 % for both children	563 stocks per child
No financial benefit for the transferor	The successors do not need to pay for the stocks, allowing that stocks could be given as gift.
Children are over 18 and willing to continue the business for more than five years	Generational transfer reliefs are allowed.
Risk-averse family	The most certain strategy wins over others.
Potential interest rate for a loan of the company is 3 % without a collateral.	We will use this as a discount rate.

4.2 Cost Calculating Process of the Generational Transfer Strategies

The next part reviews the cost calculating process of each strategy. The purpose of this section is to provide a detailed report on how to evaluate the most suitable generational transfer strategy based on costs for the successor in the future and uncertainty regarding them.

The first step of the process is to calculate the company's value in minimum, realistic and maximum scenarios by using the rules of the given strategy. One could calculate the values directly to the desired year, for example, 2023, but here the company values are computed from 2020 until the year 2023 to see how the value and costs develop throughout the years.

Next, based on the company values, the second step is to further calculate minimum, realistic and maximum costs of the given strategy in the desired year 2023. Once again, to illustrate how the costs develop in symbiosis with the company's value, the costs are also determined for the years 2020, 2021, 2022. After that, the costs are discounted for present values with the company-specific discount rate.

Followingly, the minimum, realistic and maximum present values of the costs in 2023 are converted into fuzzy numbers. Here, only the desired year's costs are used since we want to know the costs if the generational transfer was conducted in the year 2023. With the fuzzy numbers, we are able to define the expected present cost of the strategy and the distribution to which the actual cost most likely settles as well as the uncertainty connected to the cost.

After conducting these steps to all three strategies, we compare the expected present values of the costs and the distributions' widths and determine the strategies' economic viability. Finally, we evaluate the most suitable strategy.

4.3 Company's Generational Transfer Using the Sale Strategy

A sale strategy is used when a successor buys shares from a transferor so that the purchase price is more than 75 % of the fair value of the shares. Here we assume that 75,5 % of the fair value of the shares exceeds the limit enough.

The first step is to compute the company's minimum, realistic and maximum values based on the sale strategy's rules by using the case company's financial information. The rule is that in the sale strategy, one uses the fair value of the company. Fair value is either the company's net worth value, or income-based value. If the income-based value is higher than the net worth value, the fair value is the mean of the income-based value and the net worth value. But, if the net worth value is higher or as high as the income-based value, the fair value is the net worth value. (Heikura & Kinnunen 2019)

The company's net worth value is calculated by subtracting the company's liabilities from its assets based on the latest confirmed financial statement. If liabilities are greater than assets, the company's net worth value accounts for zero. The company's income value, on the other hand, is calculated by taking a mean value of the company's earnings from three previous income statements and dividing that with a 15 % capital interest rate. If the income value is negative, the company's income-based value is 0. (Heikura & Kinnunen 2019)

Tables 9 and 10 show the company's net worth and income value development in maximum, realistic and minimum scenarios. In the maximum, realistic and minimum scenarios of 2020, 2021 and 2022, the fair value is the mean of the income-based value and net worth value. It is the same in the maximum and realistic scenarios of the year 2023, but in the minimum scenario, however, the fair value is the net worth value because, in this scenario, the net worth value is bigger than the income-based value. When analyzing these values in Tables 9 and 10, it must be noted that these values are values in the given year. They are based on the previous year's financial statements. For example, the company's value in 2023 is based on its performance in the financial year 2022.

Table 9 Net Worth Value

NET WORTH VALUE OF THE COMPANY	2020	2021	2022	2023
maximum	6 253 703	10 487 656	16 223 964	23 792 330
realistic	6 253 703	9 850 755	14 148 279	19 142 359
minimum	6 253 703	7 806 810	8 632 369	8 911 486

Table 10 Income Value

INCOME VALUE OF THE COMPANY	2020	2021	2022	2023
maximum	15 826 973	19 954 543	28 997 926	38 958 059
realistic	15 826 973	18 539 207	24 385 291	28 624 789
minimum	15 826 973	13 997 109	12 127 715	5 889 517

By dividing the resulting fair value by 2500, which is the total amount of the shares, we get the fair value per share (Table 11). According to the calculations, the fair value per share in 2023 is 12 550 in the maximum scenario, 9 553 in the realistic scenario and 3 565 in the minimum scenario.

Table 11 Fair Value of a Share

FAIR VALUE OF A SHARE	2020	2021	2022	2023
maximum	4 416	6 088	9 044	12 550
realistic	4 416	5 678	7 707	9 553
minimum	4 416	4 361	4 152	3 565

By multiplying the stock's fair value in each scenario with 563 stocks and keeping in mind that 75,5 % is the share paid of the stocks when using the sale strategy at its cheapest, we could calculate the costs as seen in Table 12. As one can see, the more the company's value grows, the more expensive the generational transfer gets.

Table 12 Cost Scenarios in the Sale Strategy

COST SCENARIOS	2020	2021	2022	2023
maximum	1 877 145	2 587 983	3 844 449	5 334 599
realistic	1 877 145	2 413 516	3 275 854	4 060 829
minimum	1 877 145	1 853 617	1 764 877	1 515 184

In order to know what the actual costs would be in today's money they were discounted by the discount rate of 3 %. As seen in Table 13, the cost to buy 563 shares, even if paying only 75,5 % of their value, is 4 881 914 euros, 3 716 233 euros and 1 386 608 euros in the maximum, realistic and minimum scenarios in 2023. Figure 8 illustrates the costs figuratively.

Table 13 Present Value of the Cost Scenarios in the Sale Strategy

PRESENT VALUE OF THE COSTS	2020	2021	2022	2023
maximum	1 877 145	2 512 604	3 623 761	4 881 914
realistic	1 877 145	2 343 219	3 087 807	3 716 233
minimum	1 877 145	1 799 628	1 663 566	1 386 608

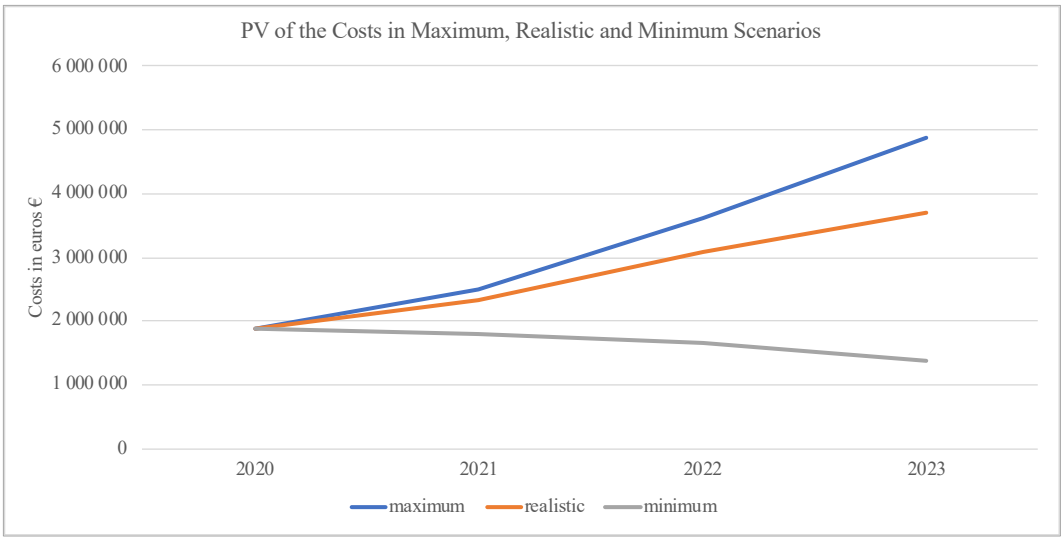


Figure 8 PV of the Costs in Maximum, Realistic and Minimum Scenarios of the Sale Strategy

After turning the values into today's worth, the 2023 minimum, realistic and maximum costs are converted into triangular fuzzy numbers. Table 14 shows how fuzzy numbers were assigned for the scenarios. The distance between the realistic scenario's present value and the maximum scenario's present value is calculated simply by subtracting the realistic scenario from the maximum scenario. The same principle is applied to the distance between the realistic scenario's present value and the minimum scenario's present value.

Table 14 Fuzzy Numbers Indicating Distances in the Fuzzy Payoff Triangle

Value terrain	**Fuzzy number**	**Fuzzy number sign**
Maximum scenario PV	4 881 914	a + β
Realistic scenario PV	3 716 233	a
Minimum scenario PV	1 386 608	a - α
Distance between realistic scenario PV and maximum scenario PV	1 165 680	β
Distance between realistic scenario PV and minimum scenario PV	2 329 625	α

Using the information from Table 14, we may recognize of what points the fuzzy triangle consists. As we look at the costs, even the minimum scenario is positive, meaning that the whole triangle is above zero. As section 3.6 states: if the whole distribution is in the positive area, the expected NPV of the whole distribution is calculated followingly:

$$E(A) = E(A+) = a + \frac{\beta - \alpha}{6}$$

$$A+ = A = \frac{(\alpha + \beta) * 1}{2}$$

By using the presented formula, we could calculate the area of the whole triangle first. Then, the expected present value, which describes the expected present value of the costs, is calculated. The area of the triangle and expected present value are presented in Table 15. The expected present value of the costs is 3 522 243, which is the most possibilistic cost for a successor using the sale strategy. Moreover, the whole payoff distribution area of 1 747 653 tells that the area of the triangle is rather large, and the uncertainty of the costs is accordingly fairly high.

Table 15 Area of the Triangle and Expected PV

Value terrain:	**Value**	**Formula**
Area	1 747 653	A(whole)=1/2*1*(α + β)
Expected PV	3 522 243	E(A)=a+(β-α)/6

To be more exact about the uncertainty involved with the costs, one may analyze the width of the payoff distribution. The wider the payoff distribution is, the larger the risk. The payoff distribution's width is solved by using standard deviation because it is a measure of dispersion. (Collan 2012, 116) Table 16 shows that the standard deviation of the expected present value is 713 476 and the standard deviation percentage is 20 %.

Table 16 Standard Deviation of the Expected PV

Value terrain:	**Value**	**Formula**
Standard deviation	713 476	√((α+β)^2/24)
Standard deviation as a %	20 %	√((α+β)^2/24)/E(A)

In order to recognize these values in a fuzzy triangle, Figure 9 illustrates the area of the fuzzy triangle presented horizontally. The corners represent the minimum, realistic and maximum scenarios of the costs. Having the most rational chance to occur, the realistic scenario has the biggest membership degree. However, the expected present value (displayed as an orange line) is somewhat less than the realistic scenario’s present value.

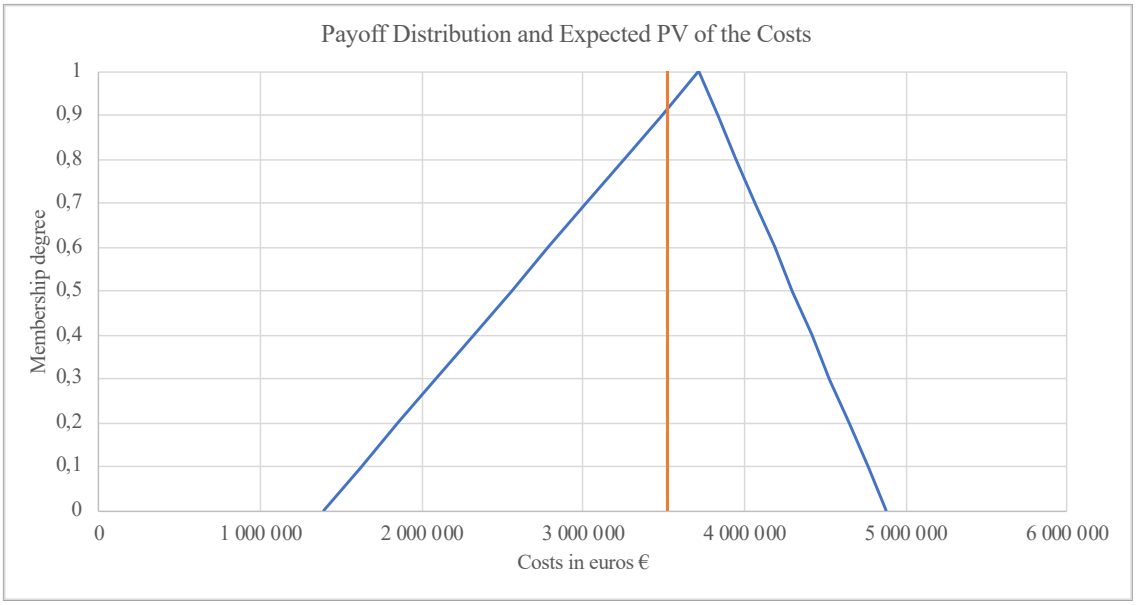


Figure 9 Graphical Presentation of the Cost Distribution and Expected PV of the Sale Strategy

After seeing the cost distribution, its expected present value of the costs and the tables presented before, it may be concluded that the sale strategy requires a relatively high financial investment from the successor to implement the generational transfer of 563 stocks. Also, the uncertainty with the 20 % standard deviation of the expected present value is huge.

4.4 Company's Generational Transfer Using the Gift Strategy

It is considered a gift when the transferor donates his shares without consideration to the company's successors. Normally, a gift also requires the company's value to be calculated as a fair value. However, if the transferee is allowed to have a partial generational transfer tax relief, as it is with the case company's successors, the value of the gift is calculated by using 40 % of the reference value. The resulting value is called the generational transfer value and the taxes will be determined according to that. (Juusela & Tuominen 2018) Essentially, if the company's fair value is high, one should always try to get the partial generational relief.

A reference value is fundamentally the value of the company's net assets. However, as stated in theory, there is an interesting rule with the reference value that is called "the cutter rule". According to the rule, the reference value of the year may not grow more than 50 % from the previous year's reference value, but it can be less than that. (Juusela & Tuominen 2018) The cutter rule is beneficial for companies whose assets grow year by year.

Table 17 shows the development of the company's reference value. Values were calculated with the following principles: if the company's net assets were larger than 1,5 times the previous year's net assets, the reference value for the current year was the reference value of the previous year multiplied by 1,5. If the company's net assets were less than 1,5 times the previous year's reference value, the reference value was the same value as the current year's net assets.

Table 17 shows that in the maximum and realistic scenarios, the reference value is always just 50 % more than the previous one because the cutter rule was applied. However, in the minimum scenario after the year 2021, the company's net assets' growth does not exceed the 1,5 growth from the previous year, which consequently leads to a situation in which the reference value is the same as the net assets of the firm.

Table 17 Reference Value of the Company

REFERENCE VALUE OF THE COMPANY	2020	2021	2022	2023
maximum	4 754 847	7 132 270	10 698 405	16 047 607
realistic	4 754 847	7 132 270	10 698 405	16 047 607
minimum	4 754 847	7 132 270	8 632 369	8 911 486

Next, we use the reference value to calculate the so-called generational transfer value per share (Table 18). The generational transfer value per share is calculated by dividing the reference value by the number of the shares and multiplying that by 40 %. A generational transfer value of the shares is the value from which tax is calculated. For example, in the minimum scenario 2023, the value of the stocks gotten gratuitously per successor is 1426*563 = 802 747 and the tax is calculated based on that.

Table 1 Generational Transfer Value of a Share

GENERATIONAL TRANSFER VALUE OF A SHARE	2020	2021	2022	2023
maximum	761	1 141	1 712	2 568
realistic	761	1 141	1 712	2 568
minimum	761	1 141	1 381	1 426

For the cost scenarios, we need to observe Table 3 again, which illustrates the first gift tax bracket. If the value of the taxable gift is between 200 000 and 1 000 000, the standard tax item at the lower limit is 22 100. The rest that exceeds the lower limit (x - 200 000) is taxed by 15 %. If the value of the taxable gift is more than 1 000 000, the standard tax item at the lower limit is 142 100. The rest that exceeds the lower limit (x - 1 000 000) is taxed by 17 %. What made the calculation of the costs somewhat trickier, but perhaps better for the successors, is that the tax authority rounds the values down to the closest hundred before ensuring into which bracket it belongs to. (Vero 2019B) The cost scenarios in Table 19 illustrate the amount of the tax to be paid if the successor gets 563 stocks gratuitously from the transferor.

Table 19 Cost Scenarios in the Gift Strategy

COST SCENARIOS	2020	2021	2022	2023
maximum	56 345	88 460	136 655	217 835
realistic	56 345	88 460	136 655	217 835
minimum	56 345	88 460	108 740	112 505

Next, costs are discounted into today's worth with a 3 % discount rate. The present values of the costs are shown in Table 20. The cost to get 563 shares as a gift is 199 350 euros, 199 350 euros and 102 958 euros in maximum, realistic and minimum scenarios in 2023.

Table 20 Present Value of the Costs in the Gift Strategy

PRESENT VALUE OF THE COSTS	2020	2021	2022	2023
maximum	56 345	85 883	128 810	199 350
realistic	56 345	85 883	128 810	199 350
minimum	56 345	85 883	102 498	102 958

Figure 10 represents the development of the costs in present values. Because the cutter rule was applied, the present value of the costs is the same in maximum and realistic scenarios. In Table 20, it is not that obvious, but here in Figure 10, the realistic scenario's line covers the maximum line as it is directly under it.

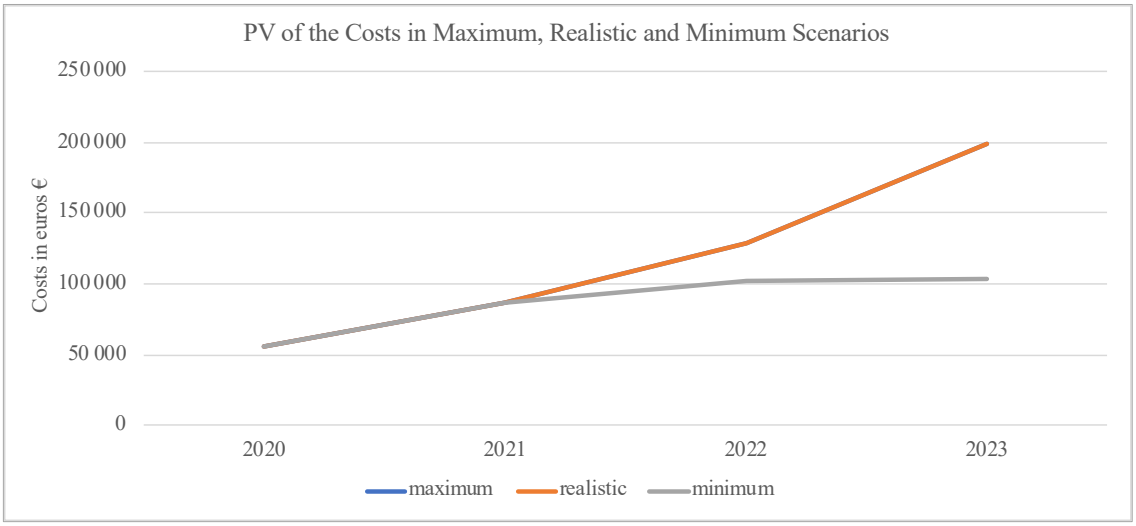


Figure 10 PV of the Costs in Maximum, Realistic and Minimum Scenarios of the Gift Strategy

After having the present values, we could assign the maximum, realistic and minimum values of 2023 into triangular fuzzy numbers. Table 21 shows how fuzzy numbers are assigned for the scenarios. The distance between the realistic scenario present value and the maximum scenario present value is calculated simply by subtracting the realistic scenario from the maximum scenario. The same principle is applied to the distance between the realistic scenario present value and the minimum scenario present value.

Table 21 Fuzzy Numbers Indicating Distances in the Fuzzy Payoff Triangle

Value terrain	Fuzzy number	Fuzzy number sign
Maximum scenario PV	199 350	a + β
Realistic scenario PV	199 350	a
Minimum scenario PV	102 958	a - α
Distance between realistic scenario PV and maximum scenario PV	0	β
Distance between realistic scenario PV and minimum scenario PV	96 392	α

Due to the reference value's cutter rule, the maximum and the realistic scenario present values are the same because the distance between those is 0. Moreover, because we are talking about costs, the whole area of the triangle is positive again, and its area could be calculated with the same formula presented in the sale strategy.

Table 22 presents the area of the triangle and the expected present value. The area for the whole pay of distribution 48 196 for the fuzzy payoff triangle is quite small. The expected present value 183 285 describes the most possibilistic cost in the gift strategy. The successor may apply a 10- year interest rate free paying time from the tax authority on the grounds of a partial generational transfer relief. The annual cost for the successor would therefore be 18 328 if the costs were as the expected present value suggests.

Table 22 Area of the Triangle and Expected PV

Value terrain:	Value	Formula
Area	48 196	A(whole)=1/2*1*(α + β)
Expected PV	183 285	E(A)=a+(β-α)/6

To find out more about the uncertainty included in the gift strategy, the standard deviation of the expected present value of costs is calculated next. The standard deviation of the expected present value is 19 676 (11 %). Consequently, having this small distribution width, a generational transfer with a gift strategy is rather safe as the uncertainty is limited. The results are seen in Table 23.

Table 23 Standard Deviation of the Expected PV

Value terrain:	Value	Formula
Standard deviation	19 676	√((α+β)^2/24)
Standard deviation as a %	11 %	√((α+β)^2/24)/E(A)

Figure 11 illustrates the cost distribution in the gift strategy. Due to the cut reference value, the triangle area, also considered the uncertainty, is limited and, therefore, rather small. The costs are most likely closer to 200 000 than 100 000 euros, but they cannot be more than that. The expected present value of the cost is shown as an orange line.

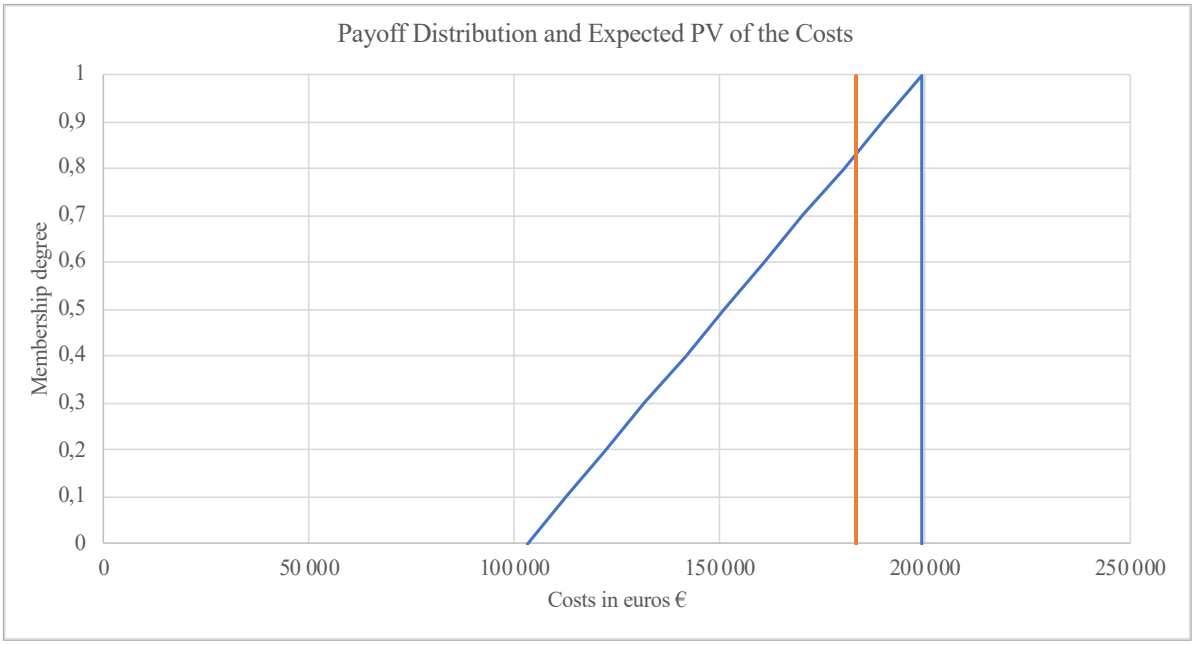


Figure 11 Graphical Presentation of the Cost Distribution and Expected PV of the Gift Strategy

As can be seen, the gift strategy with a partial generational transfer relief is a relatively cost-efficient strategy when talking about a company with fair value over tens of millions. Moreover, the risk involved in this strategy is limited.

4.4.1 A Gift Strategy Without Partial Generational Transfer Relief

One could assume that the partial generational transfer relief made the gift strategy cost-efficient. Yet, interestingly, a gift would still be the best strategy, even if the successors were not eligible for any generational transfer relief. If they were not eligible for the partial tax relief, the value of the gift would be determined by using the fair value of the stocks received as a gift to determine its tax. If the generational transfer was done with a gift without a generational transfer relief, for example, for an underaged child, the costs would be different but still not that significant. This is because the maximum tax rate is 17 %. Table 24 and Figure 12 demonstrate the gift tax without partial tax relief in present values.

Table 24 Demonstration of the Present Value of the Costs Without the Partial Tax Relief in Gift Strategy

PRESENT VALUE OF THE COSTS	2020	2021	2022	2023
maximum	394 754	538 650	789 634	1 073 692
realistic	394 754	500 523	668 957	811 223
minimum	394 754	378 123	348 266	286 674

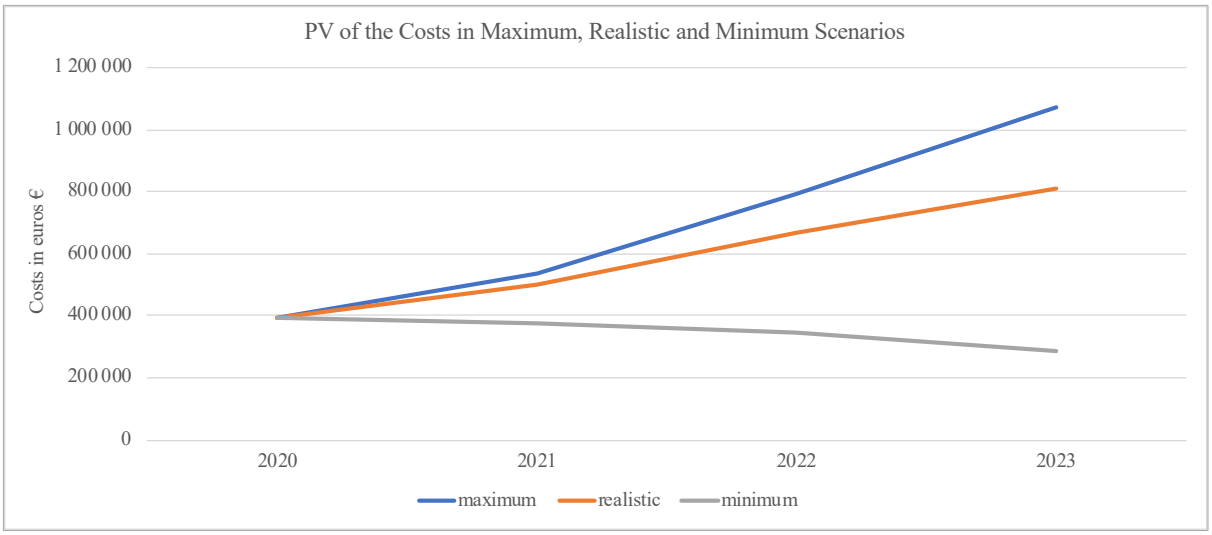


Figure 12 PV of the Costs in Maximum, Realistic and Minimum Scenarios of the Gift Strategy Without Relief

Moreover, the expected present value of the costs without the partial tax relief would be only 767 543, having a standard deviation of 160 649 (Table 25). However, the gift strategy without a partial generational relief has the same standard deviation rate as the sale strategy because the deviation depends on the company's valuation, which is also fair value in the sale strategy.

Table 25 Demonstration of the expected PV, Standard Deviation and Standard Deviation Rate for the Values Without the Partial Tax Relief in Gift Strategy

Value terrain:	**Value**	**Formula**
Expected PV	767 543	E(A)=a+(β-α)/6
Standard deviation	160 649	√((α+β)^2/24)
Standard deviation as a %	20 %	√((α+β)^2/24)/E(A)

In order to illustrate the costs of the gift option, also without a partial generational transfer relief, its payoff distribution was plotted. From Figure 13, we may see that the distribution in the gift strategy without relief is wider, but the costs are still relatively low when compared, for example, to the previous strategy, sale.

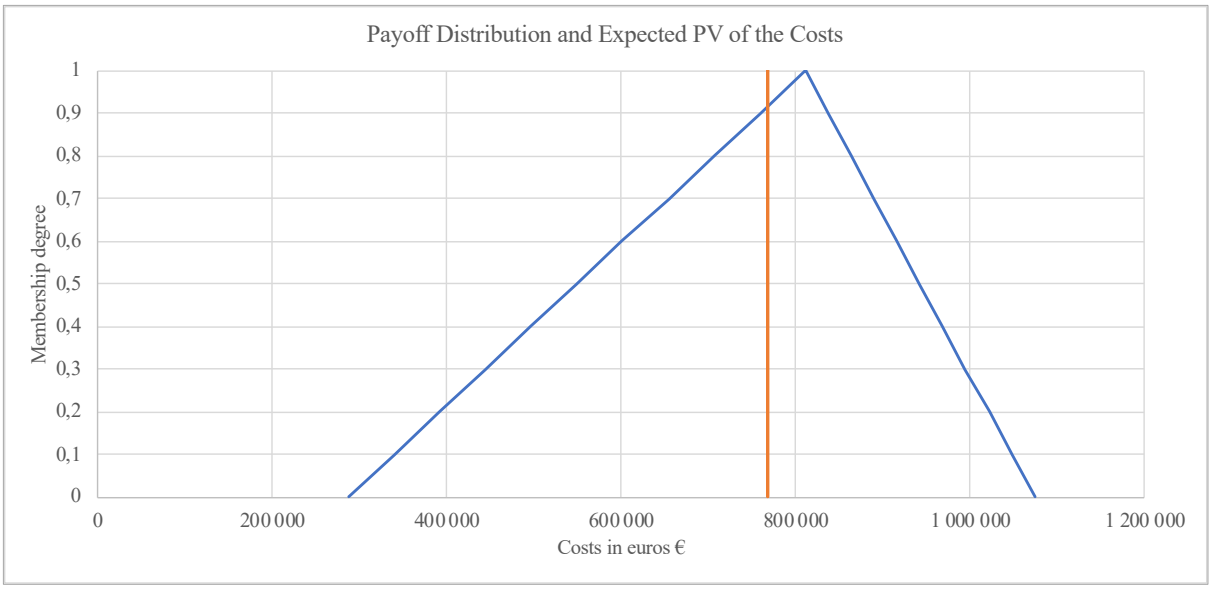


Figure 13 Payoff Distribution and Expected PV of the Costs of the Gift Strategy Without Relief

In this research, successors were, however, able to use the partial generational transfer relief, making the generational transfer more affordable. Yet, if they were not eligible for the generational transfer relief, for example, not wanting to continue the business for the next five years or being still underaged, the gift's value would be calculated based on its fair value as in this example. Even if the gift without relief used the fair value, the costs would not be even nearly as high as in the sale option where one would buy the stocks with the fair value.

4.5 Company's Generational Transfer Using a Gift-like Sale Strategy

A sale is gift-like if the purchase price or other consideration does not exceed ¾ of the fair value. Even though the successors are eligible for the full generational transfer relief, meaning that if a successor pays 50 % of the fair value to the transferor, the rest can be received as tax-free, it does not make sense to pay that much if the goal is to find the most cost-efficient strategy for the successor. As we can see from the earlier sale strategy, purchasing stocks with fair value makes the costs high. Consequently, the less we use sale, the more cost-efficient the generational transfer is. Thus, as one can choose themselves the relation between the sale and the gift, we assume that the final strategy would be a gift-like sale by using 10 % of the sale and 90 % of the gift.

For the gift part, successors are eligible for the partial generational transfer relief as in the full gift strategy. It means that for (90 % of 563) 507 stocks, the costs are determined by using their generational transfer value. The rest (10 % of 563) 56 stocks are paid with fair value for the transferor.

As we have already determined the generational transfer values and the fair values for the stocks in the gift and the sale strategy, we can use the values of Tables 11 and 18 once again in Tables 26 and 27 and determine that the costs come from a mix of these.

Table 26 Fair Value of a Share

FAIR VALUE OF A SHARE	2020	2021	2022	2023
maximum	4 416	6 088	9 044	12 550
best guess	4 416	5 678	7 707	9 553
minimum	4 416	4 361	4 152	3 565

Table 27 Generational Transfer Value of a Share

GENERATIONAL TRANSFER VALUE OF A SHARE	2020	2021	2022	2023
maximum	761	1 141	1 712	2 568
best guess	761	1 141	1 712	2 568
minimum	761	1 141	1 381	1 426

When using this kind of mix, the cost scenarios are simply calculated by summing up the value from 90 % of the stocks with generational transfer values and the value from 10 % of the stocks with fair value. Table 28 shows the cost scenarios from this kind of gift-like sale.

Table 2 Cost Scenarios in Gift-like Sale Strategy

COST SCENARIOS	2020	2021	2022	2023
maximum	634 113	921 007	1 376 540	2 007 581
realistic	634 113	897 898	1 301 229	1 838 870
minimum	634 113	823 740	933 602	923 159

Followingly, the present values of the costs are calculated by using the same principles as in the sale and the gift strategy. The discount rate is 3 %. The costs for using the gift-like sale are 1 837 221, 1 682 826 and 844 821 in maximum, realistic and minimum scenarios in 2023, as seen in Table 29. Also, Figure 14 represents the present values of the costs in a figurative form.

Table 29 Present Value of the Costs in a Gift-like Sale Strategy

PRESENT VALUE OF THE COSTS	2020	2021	2022	2023
maximum	634 113	894 181	1 297 521	1 837 221
realistic	634 113	871 746	1 226 533	1 682 826
minimum	634 113	799 747	880 009	844 821

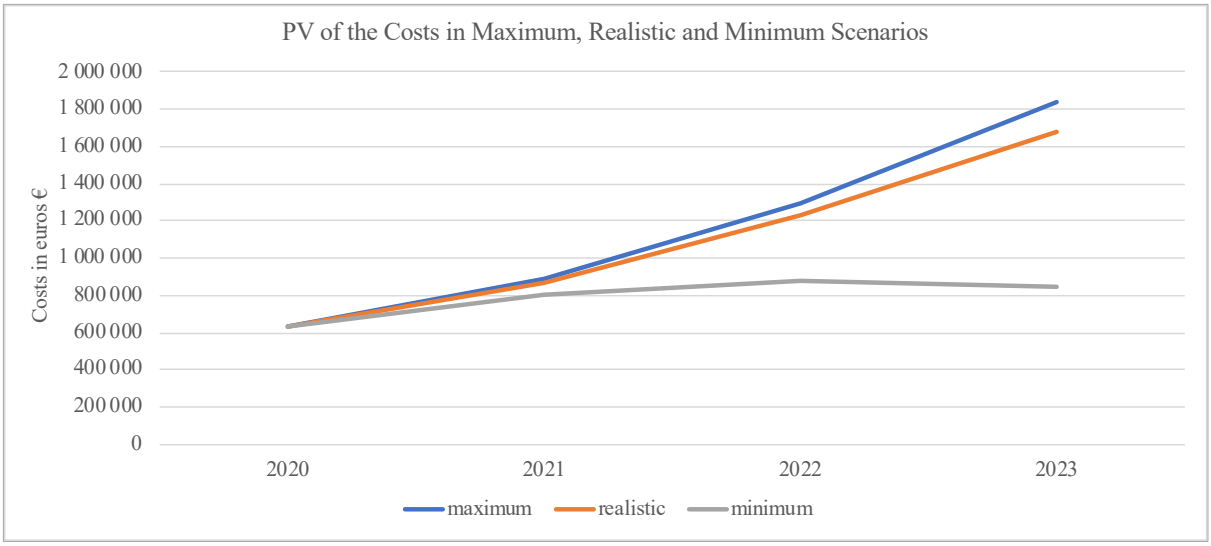


Figure 14 PV of the Costs in Maximum, Realistic and Minimum Scenarios

Next, the values indicating the maximum, realistic and minimum scenarios of the year 2023 are again put into fuzzy numbers. As Table 30 shows, the maximum and realistic scenarios are different but close to each other due to the 90 % gift part. In the gift part, the reference value is cut by the cutter rule. Moreover, due to the small share of the fair value, the distances between the scenarios are not as radical as in the sale strategy.

Table 30 Fuzzy Numbers Indicating Distances in the Fuzzy Payoff Triangle

Value terrain	**Fuzzy number**	**Fuzzy number sign**
Maximum scenario PV	1 837 221	a + β
Realistic scenario PV	1 682 826	a
Minimum scenario PV	844 821	a - α
Distance between realistic scenario PV and maximum scenario PV	154 395	β
Distance between realistic scenario PV and minimum scenario PV	838 005	α

According to the calculations made with the fuzzy numbers, the area of the triangle is 496 200 and the expected present value of the costs to pay in this strategy is 1 568 891. (Table 31) The costs consist of the purchase price to the transferor and the gift taxes to the tax authority.

Table 31 Area of the Triangle and Expected PV

Value terrain:	**Value**	**Formula**
Area	496 200	A(whole)=1/2*1*(α + β)
Expected PV	1 568 891	E(A)=a+(β-α)/6

The standard deviation of the expected present value is seen in Table 32. The standard deviation from the expected present value 1 568 891 is 202 573, indicating that costs can vary + or – 13 % of the expected present value. Since the standard deviation indicates the width of the distribution, it also tells the uncertainty regarding this strategy's costs. Here, the risk is comparatively high but not nearly as high as in the sale strategy.

Table 3 Standard Deviation of the Expected PV

Value terrain:	**Value**	**Formula**
Standard deviation	202 573	√((α+β)^2/24)
Standard deviation as a %	13 %	√((α+β)^2/24)/E(A)

Figure 15 gives a graphical presentation of the cost distribution and the expected present value. As one can see, the risk in this relatively large distribution triangle is much more significant than in the gift strategy, even though a gift makes up to 90 % of this strategy. The effect of the 10 % sale is remarkable.

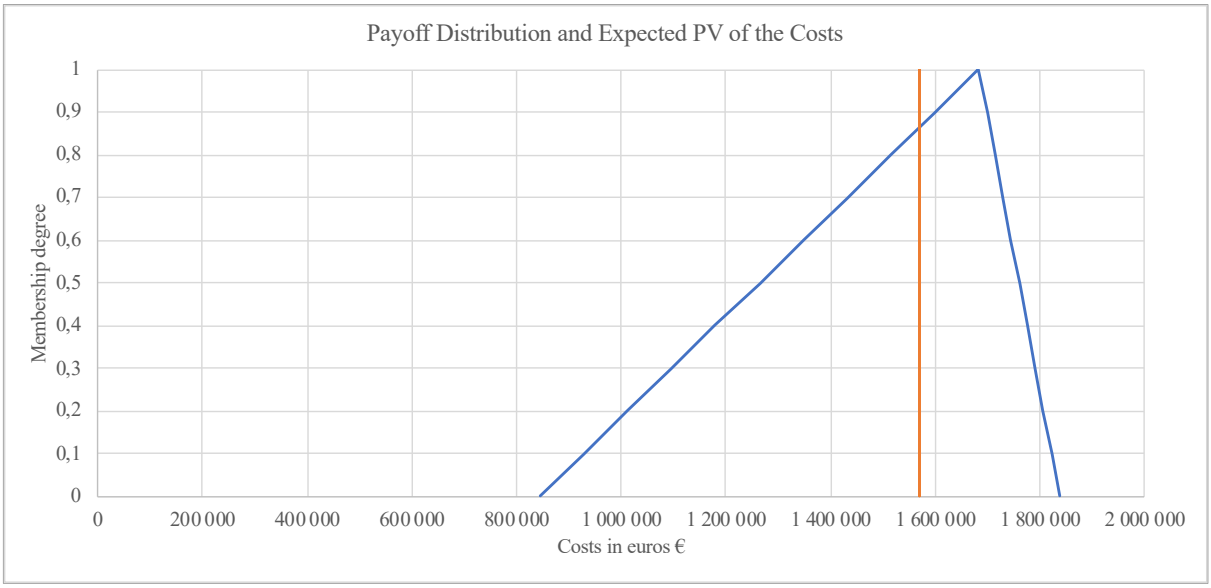


Figure 15 Graphical Presentation of the Cost Distribution and Expected PV of the Gift-like Sale Strategy

4.6 Comparison of the Different Strategies

By examining each strategy's economic viability, we could evaluate the best generational transfer strategy for the family. The less the costs and uncertainty of the strategy are, the better it is for the successors and, thus, more preferable for the family.

As seen in Table 33, costs and uncertainty are illustrated by the expected present value and the standard deviation. According to Table 33, the gift strategy is by far the best generational transfer strategy with the expected present value of costs of 183 285 and a standard deviation of 19 676 (11 %). After that, the best would be a gift without the partial relief with the expected present value of 767 543 and 160 649 or 20 % standard deviation. In fourth place there is the gift-like sale with the expected present value of 1 568 891 and a standard deviation of 202 573 (13 %). Finally, as expected, the least viable strategy is the sale with 3 522 243 euros of the expected present value and a standard deviation of 713 476 (20 %).

Table 33 Comparison of the Generational Transfer Strategies

Expected PV and Standard Deviation of the Strategies	Expected PV	Standard Deviation
Sale	3 522 243	713 476 (20 %)
Gift	183 285	19 676 (11 %)
(Gift without partial relief)	767 543	160 649 (20 %)
Gift-like sale	1 568 891	202 573 (13 %)

However, the gift without partial relief is not directly comparable to the gift-like sale because, in this case, the gift-like sale includes 90 % gift with the generational transfer relief. Not having the partial generational transfer relief in the gift part of the gift-like sale, it would be much more expensive and uncertain. The reason for showing the gift without partial relief in the comparison Table 33 is that a gift is the best option even without the relief.

A gift strategy with or without the relief is the best strategy even when comparing its maximum scenario to the minimum gift-like sale and sale scenarios. Comparing the gift without a partial relief to the gift-like sale including the partial relief on the gift part is not possible, but when observing a maximum scenario of the gift without relief in Table 24 (1 073 692) and a minimum scenario of the gift-like sale in Table 29 (844 821) with common sense, we can presume that without the partial relief in the gift-like sale, its minimum present value would be much higher than the maximum present value of the costs in the gift without relief.

Figure 16 shows the radical differences between the strategies. As can be seen, the gift is the most cost-efficient and the most certain strategy carrying the least or, in case of a gift with a partial relief, as in the case company, almost even a nonexistent risk of the unexpected costs. It is due to the cutter rule regarding the company's reference value. The gift-like sale and, especially, the sale strategies are not by any means reasonable for the young successors.

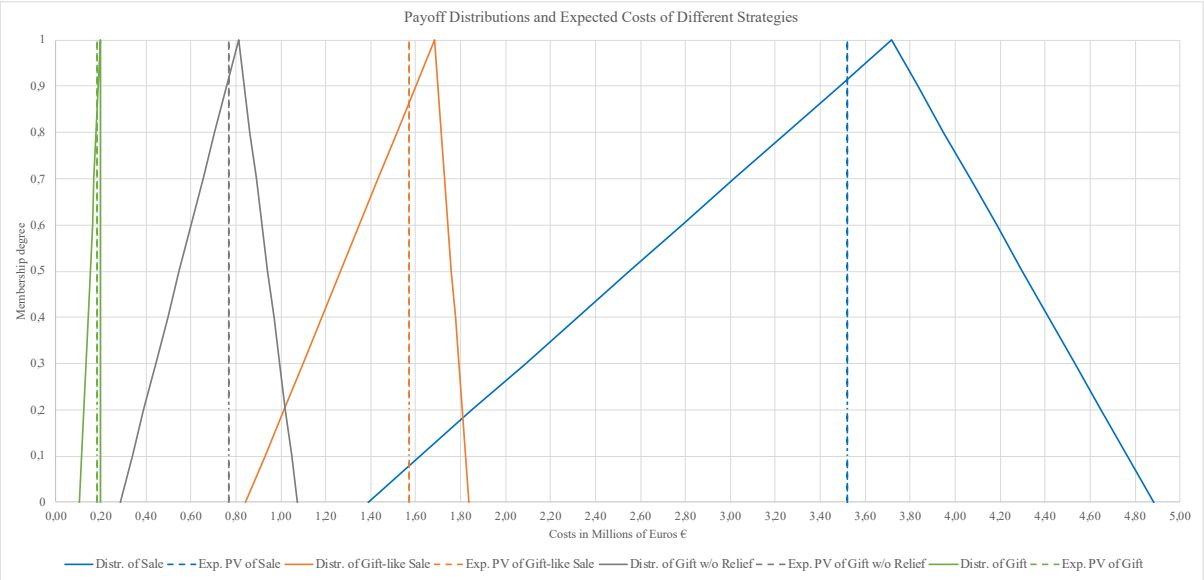


Figure 16 Payoff distributions of the expected costs of different generational transfer strategies

The sale strategy is the most expensive option to conduct the generational transfer mainly due to the fact that the successor should purchase the shares with fair value and for the reason that generational transfer reliefs cannot be applied when using the sale strategy. Moreover, with such a wide payoff distribution, it is too uncertain to know where the actual costs set when the generational transfer is put into practice. Also, the gift-like sale strategy is not preferable for the risk and high costs involved. This suggests that the gift strategy seems superior to the successors in light of the sale and the gift-like sale.

Moreover, with respect to the successors' wealth and considering the company's value, the gift strategy is highly profitable. The company's value can be calculated in multiple different ways in addition to the ones used in the strategies. For example, the company's value can be calculated with the discounted cash flow formula presented in section 2.3.1.

Figure 17 shows the company's discounted cash flow value throughout the years by using historical data and forecasts in the realistic scenario. As seen in the figure, in 2023, the company's value reaches 92,3 million euros making the stocks for one successor worth 20,7 million. When considering that the successor would get 20,7 million worth of assets by paying only 183 285 euros by using the gift strategy, it is quite a good investment. However, the stocks are illiquid assets that the successor cannot use for anything.

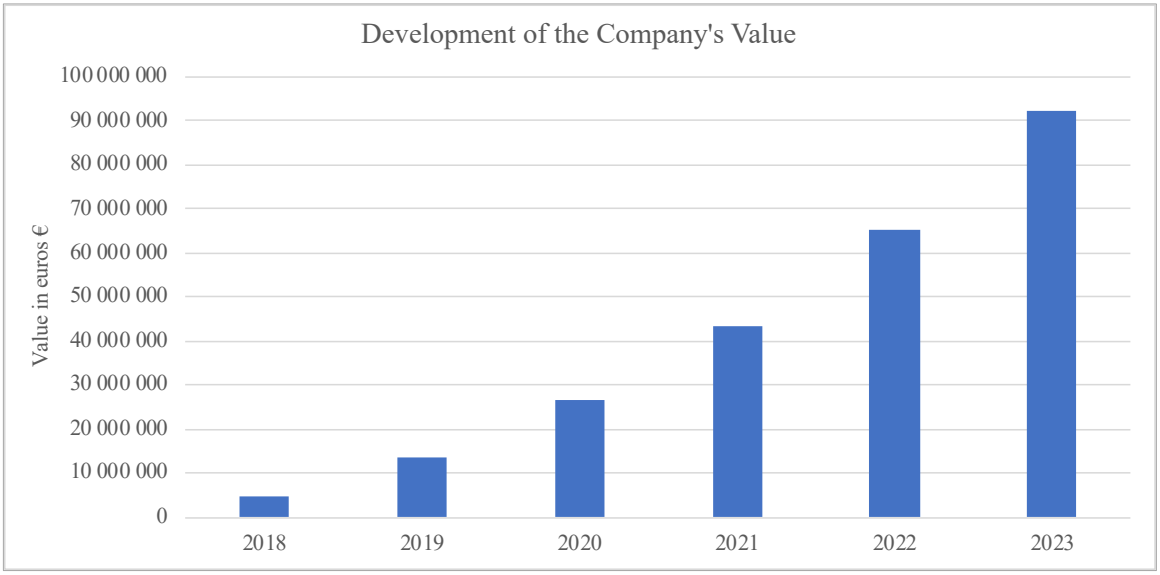


Figure 17 Development of the Company's Value Computed with the Discounted Cash Flow Method

5 SUMMARY OF THE RESULTS

This research investigated generational transfer strategies in depth in order to evaluate the best generational transfer strategy for the case company. Even though the research was done in perspective of the case company, the results imply that the gift strategy seems to be often the best strategy for a successor. Present findings are supported by the previous literature, thus making them also more reliable.

Previous literature recognizes that a generational transfer is an important event in the company's life. Literature about the topic is wide but largely focusing on the soft perspectives of the generational transfers. Especially in Finland where family businesses make a notable share of all companies and taxation has its own challenges, studies in hard perspectives are very welcome. After all, both hard and soft perspectives are always included in the process. Previous literature suggest that the most critical problems are connected to the family's and company's internal problems but, also taxes and financing are seen as a few of the most difficult issues in generational transfers.

However, if considering only taxation and financing, the question is which one of them comes first, the taxes or financing the generational transfer. Depending on the strategy, one could need financing for the taxes. The costs of the generational transfer strategies are determined on the rules of the strategy. With the sale strategy, main costs arise from the purchase price, with the gift strategy, costs arise from the gift tax and in the gift-like sale the costs include both the purchase price and the gift tax.

Previous master theses have researched the cost effects of different generational transfers. For example, Marttinen (2012), Hakala (2014), Laine (2013) and Sahlman-Mäkelä (2005) focus on finding the best alternative for their case companies, similarly like this research but only with the attention to the present time. The conclusion in all these studies is that a gift, and especially a gift to which a partial generational relief was incorporated, is the most suitable strategy for the case companies. The gift-like sale is a following strategy.

Somewhat knowingly about the strategies to conduct the generational transfer, the transferor also forecasted that the best strategy to meet the family's wishes would be the gift. In the interview he suspected that a gift is the most cost efficient and certain strategy for the successors. Moreover, the family is rather risk averse regarding the generational transfer.

Based on the interview and data from the company concerning its previous financial statements and forecasts for the future, actual calculation to evaluate the best strategy was conducted. The calculations were made with the assumptions that 563 stocks are given for each of the two successors without a requirement to pay anything for the transferor, successors are close relatives at legal age and are currently involved in the family business and at least for the next five years. In addition, the discount rate used to retain present values was 3 %.

The strategy evaluation process showed that the present value of the cost for 563 stocks was 4,9 million at maximum, 3,7 million at realistic scenario and 1,4 million at minimum in the sale strategy. The most possibilistic cost or, in other words, the possibilistic purchase price in this strategy would be 3,5 million with high uncertainty. The standard deviation from that is 20 %, meaning that the cost could deviate by 713 476 into smaller or larger direction.

Dramatically inconsistent results were found when the gift strategy, in which the costs are the gift tax, was examined. The findings show that the cost scenarios with the gift strategy, in which a partial generational transfer relief is incorporated, are 199 350 in maximum and realistic scenarios and 102 958 in the minimum scenario. The reason for having the same costs in maximum and realistic scenarios are due to the use of the cutter rule in company valuation. The expected present value, describing the most possibilistic value of the costs, is 183 285 with the standard deviation of 11 % or 19 676. Followingly, having such small cost scenarios and standard deviation, the gift strategy seemed very promising already before examining the gift-like sale strategy.

After having the results from the gift strategy, the gift-like sale did not seem promising. As we realized the purchasing costs are high and as the purpose is to find the most cost-efficient strategy, we decided to put only 10 % weight for the sale and 90 % weight for the gift. The costs of having this mix were 1,8 million at maximum, 1,7 at realistic and 844 821 at minimum scenarios with the most probable costs of 1,6 million. The standard deviation was 13 % meaning a 202 573 deviation, which is rather small. The deviation is small due to the cutter rule that is applied in gifts with the partial generational transfer. Yet, it does not make sense to consider this strategy.

To compare the strategies' economic viability to the successors more, their expected present costs and uncertainty were further examined. The results indicated that the gift strategy is economically the most viable. As seen in Table 33, the gift-like sale and the sale had a big

difference in their fuzzy distribution's size compared to the gift and to each other. When considering the effect of the partial generational relief to the results, it is worth noting that a gift is the best strategy even without the relief. The strategy is more expensive without it but not so remarkably that it would make other strategies that include purchasing any of the 563 stocks more desirable. However, the uncertainty in the gift strategy without the partial tax relief is higher because without the relief, the gift's value is calculated as fair value and forecasting the fair value is more uncertain. Observing that a gift is always the best choice for the successor makes the results of the gift being the best strategy more generalizable.

The results lead to similar findings that prior studies had. A gift with a partial generational relief is the most cost-efficient strategy to conduct the generational transfer in the family company at any time in the future. As Tables 13, 20, and 29 indicate, the results demonstrate that gift's costs are always the least regardless of the scenario. Moreover, it is the most certain strategy for a risk averse family. Followingly, the results appeared as expected.

Yet, the time when the gift is implemented affects the costs. By looking at Table 20 we may notice that the sooner the generational transfer is conducted, the better. This is because the faster the generational transfer is made, the less costly it is. But it applies only if the company's value increases. If the sales of the company increase as expected, the company's reference value increases as well with the cutter rule. If the generational transfer was conducted in 2020, the costs would most likely be 56 345 euros. If one waited until 2023, the costs would be nearly 200 000 euros. By speeding up the generational transfer, for example, to next year 2021 where the costs are about 86 000 euros, one could save more than 100 000 euros.

At any rate, the costs of the gift strategy are rather affordable. The costs may even appear low when considering the actual value of 22,5 % shares of the company. That can be better calculated with the discounted cash flow formula presented in the section 2.3.1. By measuring with the discounted cash flow approach, the shares' value in 2023 is 20,7 million euros. However, the shares of the private company are illiquid assets that cannot be used to pay the generational transfer costs.

The successor must pay on average 183 285 euros tax after the generational transfer. The costs are based on the expected present value of the tax costs in the gift strategy. However, one may apply for a 10 years interest free payment time by making the annual costs 18 328 euros of tax. To pay those, for example, dividends from the company can be used.

6 CONCLUSION

This thesis aimed to find the most suitable strategy of a generational transfer for the case company. The main objective was divided into five research questions that searched answers to what generational transfer strategies occur in Finland and whether it is possible to do it elsewhere, how companies are valuated in the different strategies, what is the case company's value per share in 3 years and what are the costs of each generational transfer strategies and the uncertainty involved in them. Also, to determine the best strategy for the family, their tendency to risk aversion was discovered. Based on the results of the research questions, the preferable strategy to proceed with the generational transfer was found.

Present findings confirm most of the expected results, and the findings are supported by prior similar publications, even though they have a different time perspective. This paper concludes that the gift is the best strategy to proceed with the case company's generational transfer process.

Additionally, against the transferor's expectations, the generational transfer is possible to be carried out relatively cost-efficiently when it comes to the situation of the case company. The case company's successors can easily finance the costs with the company's dividends if it is decided to be paid, taking, for example, the tax burdens of the dividends into account.

If the dividend is not paid, the successors need to find some other source of finance for the annual 18 328 euros of gift taxes for the next ten years. However, as learned from the Onninen-Onvest case, banks do not lend money to finance generational transfers, which leaves only a few choices left.

The conclusion summarizes the founded results considering the main objective and the research questions. After that, the results and the subject are discussed more openly in such a way that arguments and speculation are presented. Followingly, the reliability of the research is considered from different perspectives. Finally, some ideas and recommendations for future research are suggested.

6.1 Summary of the Thesis

The thesis aimed to find the most favorable generational transfer strategy for the case company to implement in three years. In conclusion, this thesis provided a background of family businesses and their importance in society, discussed generational transfer and the strategies to conduct it. Most importantly, we solved how the preferable strategy to proceed with the generational transfer can be planned and selected years before the implementation by estimating the strategies' future costs and uncertainty with fuzzy payoff methods. This section reviews the research questions that helped to reach the objective of the thesis.

What generational transfer strategies are there for companies in Finland and is it possible to do it elsewhere?

In Finland, the generational transfer of a limited company can be implemented in three main ways during the transferor's life, as expected. The shares of the family business can be transferred to the next generation by 1) a gift, where the successor pays gift tax on the value of the shares, 2) a sale, where the successor purchases the shares from the transferor or 3) a gift-like sale, in which sale and gift are mixed. In addition, there is also a way to conduct the generational transfer tax-free if moving to another country that has no gift or inheritance tax like Sweden or Estonia and many other countries, for example, in Europe.

How are companies valuated in different generational transfer strategies?

Company valuation rules are mainly different between the sale and the gift because, in the gift-like sale, one uses both sale's and gift's rules to value the company's shares. When it came to company valuation, it occurred that our expectation of the valuation rules was too straightforward, and some of the earlier expectations were needed to be proved wrong.

In the sale strategy, the company's fair value is either the net worth value, or the mean of the income value and the net worth value, and not net worth value or income value, as it was anticipated in the beginning. Similarly, the expectation of the company valuation in the gift-like sale and in the gift was too simple. The company's value in gift and gift-like sale is usually the fair value. However, assuming that one can use the partial generational transfer relief, the gift's value is 40 % of the company's reference value, typically called the generational transfer value of the gift. Generational transfer reliefs can be used if the successor fills specific criteria that mainly handle continuing the family business for at least five years in legal age.

How risk-seeking/risk-averse is the family?

As expected, the transferor's interview revealed that the family is somewhat risk-averse when it comes to the generational transfer. However, as an entrepreneur family, they consider themself also risk-seeking in some matters. The risk in the generational transfer is just too significant for the successors because they are the ones to pay for the surprises personally. Consequently, the family wants to be well aware of the costs that the successors will face in a few years.

What is the value of the case company per share in 3 years? What are the costs of each generational transfer strategy, how uncertain are each strategy's estimated costs and does uncertainty affect the attractiveness of the strategies?

The actual calculation process was made based on the interview answers and data the company provided. Main assumptions in calculations were that the transferred ownership for each successor is 22,5 %, which, in turn, is 563 shares of the total 2500 shares, children are eligible for generational transfer reliefs, and that the transferor does not necessarily want to benefit from the generational transfer himself. Each of the generational transfer strategies are summarized separately.

First, the sale strategy was examined. The sale strategy principle is that the successor purchases the predetermined number of shares by using their fair value. Fair value depends on which one is bigger: the net worth value, or the mean of the income value and the net worth value. In most scenarios, it was the mean of the income value and the net worth value, but in 2023 in the minimum scenario, it was the net worth value. When dividing the company's value by 2500 shares, we got the fair value per share, which was 12 550, 9 553, and 3 565 euros, depending on the scenario. However, as we searched for the most cost-efficient way to conduct the generational transfer, we could use the easement that the successor pays only 75,5% of the fair value of the 563 shares. Still, the present value of the sale strategy's costs in 2023 was at minimum 1,4 million, realistic 3,7 million, and maximum 4,9 million. The expected present value was 3,5 million euros, with high uncertainty having a standard deviation of 20% or 713 476 euros.

The gift was a much more cost-efficient strategy. The generational transfer value for a share in the gift strategy was 2 568, 2 568, and 1 426 euros in maximum, realistic, and minimum scenarios in 2023. The cutter rule of the reference value limits the reference value's growth, of

which 40 % is the generational transfer value. When calculating the gift tax for 563 shares, the present cost scenarios were 199 350, 199 350, and 102 958 euros, with the expected present value of 183 285 euros. As the value growth is limited, so is the uncertainty in the gift strategy. Therefore, the standard deviation that tells the distribution's width was only 11 % or 19 676 euros.

The gift-like sale was also more affordable compared to the sale but not even close to the gift strategy. Here we assumed that the gift-like sale is a mix of 90 % gift and 10 % sale. The partial generational transfer relief was again applied to the gift part, and the share values calculated already in the sale and the gift strategies were used again. The present values of the costs in the gift-like sale in 2023 were 1,8 million, 1,7 million, and 844 821 euros, depending on the scenario. The expected present value was 1,6 million euros, and the standard deviation was 13 % or 202 573 euros. However, using the gift-like sale with the purpose where one needs to find the most cost-efficient way to make the generational transfer does not make sense because the gift strategy is almost always more affordable.

The results showed that the gift strategy is the best strategy for the risk-averse family's successors at any time during the forecasted period, not only in 2023. The results indicate that least gift costs occur in each scenario at all times. Besides, if being able to use the partial generational transfer relief, the company's value is always limited, making it the safest strategy to forecast. According to these findings, a sale is by far the worst strategy with the highest uncertainty and expected present value. Purchasing shares is often expensive for the successors and the uncertainty of the fair value affects also the uncertainty of the costs. Therefore, a gift-like sale with a big portion of gift was the second cost-efficient and certain strategy, and a sale is the least.

Also, without the partial generational transfer relief, the gift strategy is the cheapest way to carry out a generational transfer for a successor. Even though the gift's value is determined by the shares' fair value without a partial generational transfer relief, the resulting gift tax is still much less than the costs of purchasing any of the stocks. Therefore, it can be generalized that a gift is almost always the cheapest way to proceed with the generational transfer to the successor. Consequently, also using the full generational transfer relief, where one buys more than 50 % of the shares in order to get the rest as a tax-free gift, does not make sense unless the transferor wants to benefit from the transfer himself.

6.2 Discussion

This part of the conclusion considers the research results and observations during the research process. Additionally, the implications of the phenomenon of an expensive generational transfer in Finland are speculated on, and its future is shortly hypothesized.

When considering the findings of this research, it must be remembered that the gift was made possible only by the transferor. First of all, the transferor himself must find his children potential enough to continue the business and must consider his own financial stability strong enough to exclude the strategy of selling the company outside the family. Besides, he does not want to have any consideration from the generational transfer to himself. This, in turn, made it possible to consider gift or gift-like sale strategies. Otherwise, the sale strategy would have been the only choice.

Having the possibility to conduct the generational transfer by using a gift or a gift-like sale does not, however, change the fact that a generational transfer is still expensive for the young successors. Regardless of the purchase price or tax, the generational transfer costs have to be paid by the successor personally. In a way, it might be socially understandable to avoid economic inequality, but this may lead to the successor's personal financial problems. The company's illiquid stocks cannot be used to pay the costs, nor can the company pay the costs instead of the successors. Moreover, as we learned, one cannot get a bank loan to pay the generational transfer costs.

Interestingly, even though the topic is of such a significant societal issue, for example, for the reason that family businesses are the most employing companies in Finland, the topic is still very rare in the literature. A large portion of the prior research focuses on soft insights such as the feelings of the transferor and the successor and shifting the management for the next generation. Hard perspectives that consider legal, financial, and taxation matters are more unusual. However, the studies about hard perspectives are very needed, especially in Finland, where those matters are extremely complicated and exceptionally time-consuming. The prior studies on hard matters are exclusively master theses. Perhaps the only motivation to conduct studies on these hard matters is personal interest.

Nevertheless, all the few studies published about the hard perspectives have an important issue: they exclusively examine generational transfers that are to happen immediately. This conflicts with many sources that state that generational transfers are always long-term projects that

require years of planning and savings from the successors' side. Therefore, this research intended to fill the literature gap and to incorporate forecasts and possibilistic estimations about the costs in the future and their uncertainty.

In order to do that, the fuzzy payoff method was used. Consequently, one of this thesis's novelties is applying the fuzzy payoff method because the uncertainty surrounding these estimations is very significant. The method is more commonly utilized in real option valuation and investment analysis, but it worked well also with the costs. Moreover, studies in different industries justified that the fuzzy payoff method can be incorporated into any fields where information is needed based on cash flows that do not necessarily have high accuracy. Even though having the term "payoff" with costs does not necessarily sound rational, using the fuzzy payoff method in this context, we got simple values that provided valuable support in the evaluation of the strategies' economic viability.

The research found that a gift is the best strategy to conduct the generational transfer in Finland from the successor's perspective. However, especially when the transferor does not want to benefit from the transfer, it would be worth considering moving abroad where the gift could be given tax-free. However, it would mean stepping out of the operative management and leaving Finland behind. So far, the family of the case company did not want to consider it, but maybe in the future, when the rest of the shares are given to the next or subsequent generation, developed global communication means and easy traveling allows that one would not think of moving abroad as such a massive step. However, by that time, Finland should have recognized how families and companies suffer from the effects of generational transfer costs. If not, many Finnish firms may get bankrupt or sold, which in hand, demolishes the Finnish ownership, even in those firms that operate in Finland.

As family businesses are the most employing companies in Finland, their effect on society should be well recognized. If businesses fail due to generational transfers' difficulties, there are many working places in danger. The fact that 24 % of entrepreneurs are considering generational transfer in the next years makes the discussion of generational transfers even a more significant theme that has a great impact on society and the welfare status of Finland. As said in the report of the Commission of the European Communities, long-term tax advantages of creating a better environment for family businesses, for example, in the form of reducing costs for generational transfers and/or allowing easier divided tax, are considerably higher than the short-term tax advantages.

It seems that Finland is limiting its competitiveness against other countries with this tax policy. First of all, in the light of generational transfers, it is favorable that family businesses do not generate profit because profit increases the company's value and makes the generational transfer more expensive. Secondly, the company must pay dividends to the successors to pay the generational transfer costs, which leads to less financially healthy companies and fewer investment capabilities. Moreover, when the successors receive the dividends to pay the costs, the dividends are first taxed. Therefore, the amount of the dividend paid from the company must be so great that it is enough to pay the generational transfer costs after the dividend tax.

At any rate, it is discouraging to start building a family company in Finland because the same wealth is always taxed repeatedly. For example, a person who starts a company invests her/his money that he/she has gotten as salary, from which the income tax has already been paid. Then, as soon as the company starts to make profit, the corporate tax must be paid. If the owner takes out dividends from the earned profit, taxes are needed to be paid again. Likewise, after working hard in the company for years and wanting to retire, transferring the stocks to the next family member, who, in most cases, has already been involved in the family business, generates taxes again, and the same happens in every subsequent generation. Each time the generation transfers, it causes the family or the company some financial problems. Perhaps, for this reason, tax planning is so common in Finland.

Tax planning, on the other hand, requires a lot of careful planning, money, and effort. Besides, it takes focus away from the actual business. In Sweden, Estonia and many other countries, family businesses do not have direct generational transfer costs, which, according to the European Communities Commission (2006, 8), in the long-term leads to more successful family companies and more tax revenue for the society. Would not that be better also in Finland, or is the so-called "neighbor jealousy" so strong that it is worth slowing down the Finnish economy? If the welfare state, whose population ages and constantly takes more government debt, does not finance itself, who does?

6.3 Reliability of the Research

This section shortly reviews the reliability of the research. Reliability is discussed from different perspectives. First, the case study's generalizability is discussed. Next, we consider the interpretation of the generational transfer theory and guidelines of the tax authority, the use of the fuzzy payoff methods, and finally, the personal interest in the subject.

The design of the research was a case study that affects the generalizability of the results. The reasons and qualitative and quantitative data used to choose the best strategy to proceed with the generational transfer are company specific. However, one can use the same methods with every company. Moreover, the research findings showed that a gift is always the most cost-efficient strategy for the successor as he/she will not have to pay consideration for the shares. The maximum percentage of the gift tax is 17%, and the purchase price is always more than that.

A matter that affects the whole work's reliability is interpreting the challenging theory about generational transfers and the strategies' precise rules. As stated in the state-of-the-art-literature review, generational transfers are complicated processes where professional legal help is recommended. Nevertheless, by comparing the theory to the prior studies mentioned in the state-of-the-art-literature and methodological support, the interpretation became much more coherent. Seven closely similar studies cannot all have wrong interpretations. However, as all of them are master theses and not professional literature, there might be misinterpretations.

Additionally, the research's delimitations assist with interpreting the guidelines and theory of the generational transfers because the research does not try to consider various specific rules. Keeping in mind that the research was limited with a narrow focus on the generational transfers while the transferor is alive, the company arrangements were disregarded, and only the successor's point of view was used. Thus, the number of interpretable rules stayed manageable.

Moreover, official sources were applied to support specific research matters and results. For example, the amount of the gift tax in gift and gift-like sales strategies was verified from the Finnish tax authority’s gift tax calculator. In addition to that, related articles with examples were studied to make sure the researcher had a full understanding of the topic.

Having a forward-looking perspective on the subject and being unable to rely on earlier studies that have combined generational transfers and the fuzzy payoff method, there was no actual methodological support to gain help from, which could, on the other hand, lessen the reliability of the results. Nevertheless, formerly mentioned research types were studied separately. The idea of making possibilistic estimations of the costs and evaluating the uncertainty of the strategies was tested here for the first time. The fuzzy payoff method is usually connected to real option valuation. However, as it is designed to be used with inaccurate information and applied in many different fields, there should be no reason why it could not be applied in estimating the costs and uncertainty of the generational transfer strategies.

The future numerical estimates of the case company's value are imprecise, and therefore, the resulting transfer cost estimates are imprecise too. However, the fuzzy payoff method allows working with these imprecise estimates by involving fuzzy numbers. The resulting cost estimate is represented as a possibility distribution, or a triangular fuzzy number, that accounts for the imprecision of inputs and uncertainty of the future.

Finally, an unavoidable detail must be disclosed. The thesis has a criticizing tone of voice regarding costs and taxation of the generational transfer, which is due to the challenging family business environment in Finland and personal interest. Even though objectivity was emphasized, this can be recognized in the places of open discussion. However, that does not affect the research results since the research has been kept unbiased.

6.4 Recommendations for Future Research

Generational transfers are an entirely own specification field. An overall recommendation for future researchers is to get acquainted with the subject and ensure the interest is substantial enough to explore it thoroughly.

Regarding recommendations for future research subjects, one idea is above all. An interesting research direction would be to estimate how much the Finnish economy loses with the strict generational transfer rules and tax policy. The research could also assess how much gain the economy would potentially receive if the rules were eased.

Also, subjects that were limited from this research are highly recommended for future research. For example, future researchers could consider how to incorporate company arrangements, such as holding companies, into the process, and how much a dividend right to another person reduces the value of the gift. Similarly, another interesting topic to explore is which countries are the best places to carry out a Finnish company's generational transfer and what exactly means moving abroad. Regarding the last topic, it would also be interesting to see articles about Finnish family company owners who have gone abroad and conducted the generational transfer there.

In addition, more country-wide statistical studies on this topic should be accomplished, discussing the issues of the generational transfer in detail. Topics to be studied could be, for example, how many companies in Finland have been closed down as a result of a failed generational transfer, how much of the generational transfer is financed by company dividends or the successor's own savings, how many family businesses plan to move abroad for tax reasons and how many companies have not made a generational transfer, either due to the difficulty of the issue or the financing. Data received from the statistical research can be published for the media and seen by the decision-makers. Thus, it can be convinced that this is a societal problem, which sooner or later will affect the well-being of Finland as a whole.

Every now and then, one may see a discussion about generational transfers in papers. It is occasionally a rising theme, which usually arises when a Finnish business leader moves abroad with his family, fleeing taxes. However, there should be a constant discussion on the subject so that the environment for entrepreneurs in Finland would improve and as a result of this and other efforts, Finland would become a competitive country again. Much has already been done, but as they say, there is always room for improvement.

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APPENDICES

Appendix 1. Interview Themes

1. Reason for generational transfer

2. Timing

3. Ownership structure

4. Successors and their carrier

5. Financial status of the transferor and successors

6. Generational transfer strategies

7. Risk averseness of the family

8. Forecast of the company's value

9. Moving abroad

10. Peer experiences

11. Other: Discount rate

Appendix 2. Interview Questions

1. Why does your company plan a generational transfer?

2. When would the generational transfer be implemented and why exactly then?

3. Who will be the successor(s) of the company?

4. How many shares will be transferred to the successors?

5. Do you, as a transferor, also want to benefit financially from the generational transfer?

6. What do you think is the best generational transfer strategy for your company and why?

7. How risk averse is the family? Do you always prefer to choose the safe strategy?

8. How do you see your company's cash in and outflows evolving from year to year until the expected generational transfer?

9. Have you considered moving abroad due to the generational transfer?

10. Do you know other companies that have made a generational transfer? Tell about them.

11. What is the cost of capital for the company? Or which discount rate have you used before / find reasonable in futuristic estimations?