

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Department of Economics and Finance

Anni Saira

**FAMILIES' SAVING DECISIONS AND BEHAVIOR**

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Supervisor: Artjom Saia, PhD Student

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I hereby declare that I have compiled the paper independently and all works, important standpoints and data by other authors has been properly referenced and the same paper has not been previously presented for grading.

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Anni Saira .....

(signature, date)

Student code: 166407TVTB

Student e-mail address: annielinasaira@gmail.com

Supervisor: Artjom Saia, PhD Student:

The paper conforms to requirements in force

.....

(signature, date)

Chairman of the Defence Committee:

Permitted to the defence

.....

(name, signature, date)

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## **ABSTRACT**

The aim of the research is to find out if there is a significant difference between parents with higher education level, and parents with lower education level, comparing their monthly income and savings. The research also wants to investigate if the education level has an impact on investing. Final aim of the research is to find the reasons behind the saving decisions.

The study includes three research questions:

1. Do parents with higher education level save more money than parents with secondary education level?
2. How does the education level impact on investing?
3. What are the main reasons behind the saving decision?

Mixed research methods will be to get the results, and for statistical analysis, ANOVA and regression analysis will be used. The main results of the study show that although all the participants are raising young children, many of them are still able to have savings. Most of them have a long term goal behind the saving decision. Finally, the main result is that parents with higher education level and parents with secondary education level have a significant difference in terms of saving and income. They also have more financial knowledge because they invest more than parents with secondary education level.

Keywords: families with kids, saving, saving motives, investing, parents' education

## **INTRODUCTION**

For most of the people, saving money does not come naturally. Although most of the people have an income, it can be hard to put money aside. There are always going to be people with financial issues, because having a great income requires a lot of time and building a successful career does not happen instantly. However, having a good job with a great payment does not guarantee financial security (Smith 1986, 366). In addition, having a sufficient and stable personal finance takes time. This is not made easier by the fact that all of this is happening at the same time when generally most of the people start family life. Starting a family affects on the financial situation, which is why there can be big difference in financial situations among people within similar age groups (Lusari, 2001, 1).

Increased number of family members will raise the household's financial expenses. On top of that, children grow fast and their needs change constantly. This means being constantly buying new clothes, toys and medical supplies. For children's own development, it is good to be in kindergarten and to have hobbies. Of course, that requires money but at the same time, it gives the parents ability to work and develop themselves too. Adults usually have different loans, such as mortgage and student loans, which affect their financial situation. Shortly, running the household which includes children requires a lot of money. It is very hard to save money when the expenses are big and the income is very limited. Saving is not a natural habit for most of the people, moreover having children makes it even more difficult. However, it is extremely important to have at least little savings because it is impossible to predict what tomorrow brings. For this reason, it is important to understand why saving money is really crucial and how it can be done successfully. Saving is especially crucial for parents because they are responsible for their children's life also.

This thesis focus will be on families with young children because having and raising young children requires a lot of money. Naturally, life situations are different between different aged parents. Young parents are becoming parents at the same time they are suppose to build a career, which is why they are more likely to have less income than older parents, who have built a career before children were born. Therefore, this thesis seeks to investigate parents with maximum age

of 35 because for them, saving can be even more difficult. Furthermore, this study will find out if it is possible for the families to save money, despite the fact that they have not necessarily been able to build a career. The main aim of this research is to find out if there is a significant difference on saving habits and behavior between parents with secondary education and parents with higher education. This needs to be investigated because generally most of the people think that individuals with higher education are wealthier. It can be explained by the fact that higher education is more valued and it opens doors for more career opportunities. Other significant aim for the research is to find out how many parents are investing money, and what kind of investing method they are using. The investing between two education groups are being compared to see if the education has an impact on investing. The third main aim is to find out the reasons behind saving decision. There are different reasons why people save money so it is interesting to investigate what are the main reasons. The research will help the parents to understand the importance of saving money. It also helps them to understand their own saving decision and behavior. This thesis focuses on exploring how money can be saved successfully, and how the saved amount can grow by investing money.

The main research questions for this study are:

1. Do parents with higher education level save more money than parents with secondary education level?
2. How does the education level impact on investing?
3. What are the main reasons behind the saving decision?

This thesis consists of three parts. The first part of the paper consists of theoretical framework and previous researches on the topic, while the second part is empirical one that includes methodology. The third part includes results and conclusion. The theoretical framework introduces theory about household finance and saving; what saving is, and what are the types. Investing, and its types, will be introduced too. The theoretical framework also includes theory about families' saving behavior. The second part will present the research method, and the preliminary results of empirical research. The data for the research is gathered through anonymous internet survey. The mothers were chosen to participate in the survey. Mothers from under 18 to 35 years old participated. Overall 126 mothers agreed to participate for this survey. The survey was in Finnish, focusing on Finnish families. The survey included different questions in closed form, and in open-ended form. Thereafter, the results are analysed, ANOVA is used to find out if the two education groups are significantly different from each other and regression analysis is used to find out if the income affects the savings. Finally, the results, discussion and conclusion will be given in the third part.

# **1. THEORETICAL FRAMEWORK**

## **1.1. Household finance**

Person's finance is influenced by the individual they share the household with. Although both may have a good income, the couple might face issues if their attitude towards money and its use is totally different. Therefore, it is important to share a similar attitude towards money with the person the one shares household with. Financial decisions for the household should be made together, and if the attitude is not similar, there will be disagreement. (Henriksson, Leinonen 2018, 28) When the couple shares a financial thinking, it is easier to get a stable household. Both can take part in financial decisions, and take care of the household finance.

A part of taking care of the household finance includes saving money. When the decision to save money is made together, saving money is more effortless. The household must share motivation behind saving decision, in order to save money successfully. The household can also decide to invest money. However, financial knowledge is needed for investing, if one wants to decrease the risks and invest wisely. Therefore, if even one adult of the household has a good financial knowledge, the more stable the household will be.

### **1.1.1. Saving**

Our everyday life is affected by money. In the world we are living in, having money is necessary for being able to fulfil the needs that are necessary for surviving. Most of the people have some kind of income. Instead, the amount and the use of money, depends on the person (Kapoor at al. 2013, 111). Every human being is dependent on having money, whether he or she like it or not (Hikipää, Sjögren 2014, 21). Money itself does not make people happier, healthier, or thinner. It does not prevent people from getting hurt or sick. However, with money it is possible to get the best treatment as fast as possible (Hikipää, Sjögren 2014, 22).

Everyone wants to have a stable household without having to stress about money constantly. In case one does not have a big income, it is still possible to get financially stable household. One way to get a stable household is saving money. Saving money is a way to predict unwanted situations that could cause financial crises. However, saving money is really hard if one does not know how to take care of personal finance. Having a balanced personal finance allows one to take better care of itself, the household, and the loved ones (Hikipää, Sjögren 2014, 22). Balanced personal finance does not only give financial security; it also gives peace of mind. Not worrying about the household's finance every day gives more time to focus on other important things, such as raising children, and staying healthy. Instead, if one does not take care of personal finance, it might lead to unbalanced finance. It is a consequence of paying bills late, not staying in the budget, not saving money, getting into debt, borrowing money and making impulse purchases. If one does not focus on managing of finances, the mentioned problems can be long-term. Failing to manage personal finance can cause serious problems, which are hard to fix. For this reason, taking care of personal finance is crucial (Perry, Morris 2005, 299).

After all, each person is different so also his or her consumption can be very different. The lifestyle, education and profession can be counted as key factors when it comes to consumption. Most of the people, regardless of the education level, rely on family and friends to get an advice about saving and investment (Lusardi 2001, 7). This means that person's background and raising are influencing their consumption and saving habits. The way parents are using money, becomes the child's norm. Individuals learn from the family their financial behavior (Lusardi, 2001, 1). This increases the importance for parents to make financially right decision. Besides the fact that the decisions impact on child's life, they also teach the child how to use money. When the household has a good finance, and the child is taught how to use money right, it prevents the child to make bad financial decisions in the future. However, this cannot happen if the parents do not know how to use money.

Many people spend more money than they earn (Hikipää, Sjögren 2014, 38). They find saving really complicated, in some cases impossible. A lot of people think that saving money requires a lot of work, and they cannot afford to put any money aside (Myllyoja, Kullas 2014, 78). When the income per month is limited and expenses are substantial, saving money is difficult. Common thought is that "I will start saving money when I have leftovers". However, few people actually have that kind of situation (Hikipää Sjögren 2014, 27). If there are any leftovers, people tend to spend it without even realising it. If the person spends less than they earn, it is possible to save money (Myllyoja, Kullas 2014, 46).



People save money for different reasons. Some people want to have savings for unpleasant and unforeseen events, some want to save for their children, and some for their retirement (van Raaij 2016, 33). However, it is important to have a goal for saving, instead of just saving for fun. (Romer 2001, 333) Having savings is a massive relief during financial crisis that can happen to anyone. Savings give more time to make important decisions during financial crisis (Majasalmi 2012, 47). Financial crisis can happen to anyone, and having savings give more time to think before doing any decisions. In addition, if the plan is to purchase a house, savings are necessary for that as well. Any big decisions are really hard to fulfil without any savings.

When the decision to save money is made, financial planning is needed. According to Garman and Forgue, “Identifying your financial values and goals sets the stage for financial success. Values and goals help you keep a balance between spending and saving and make you stay committed to your financial plans.” (Garman, Forgue 2014, 66) Most common tool for financial planning is budgeting, which helps to reduce spending. Because the income is limited, individuals and families who want to be financially as satisfied as possible, should be budgeting. When the budgeting is done successfully, there should be leftovers to put aside. Budgeting means setting limits for the monthly spending and for making sure one does not exceed the set limits. Budgeting helps to control the expenditures, prevent impulse buying, reduce conflicts and keep track of spending (Smith 1986, 367). In order to follow the budget, it is good to have a goal. The goal motivates to follow the budget, and it helps to visualize the current financial situation, and how much is needed for reaching the goal (Garman, Forgue 2014, 68). Because most of the people struggle with having leftovers, most effective way to save money is to pay yourself first (Kapoor et al. 2013, 351). The amount can be very little; the importance is to get the habit of saving. The more person is used to saving, the more natural the habit of saving is. Even saving a small amount every month, over time one will actually have substantial savings.

Usually children learn about saving money with piggy bank where they can save extra coins. As children grow up, the way they save change also. For some people, the easiest way to save money is to hold it on bank account where they can easily take it to use when needed. Besides holding money on regular bank account, it is also possible to hold savings on savings account where growth interest accumulates on the daily balance. If one wants the money to grow, one can decide to start investing.

### **1.1.2. Investing**

One beneficial way to save money is investing. The money is invested so that one will earn additional income with it (Smith 1986, 401). According to Garman and Forgue, “Investing is taking some of the money you are saving and putting it to work so that it makes you even more money.” (Garman, Forgue 2014, 382) The expectation is that person is achieving profit from the invested money. There are different securities and ways that one can use for investing. These include stocks, bonds, and real estate (Garman, Forgue 2014, 382). To become an investor, one does not have to invest often. Those, who invest in at least one opportunity during a year, are called active investors (Feeney et al. 1999, 130). Some investors are more aggressive and willing to take a bigger risk, some want to be more careful. Aggressive investors often have a goal to become rich when neutral investors usually save for a specific goal. However, there is no rule how much or how often one must invest. All of this depends on the investor and the goal.

Before investing, it is extremely important to understand where to invest, or otherwise it is a big possibility that one will lose money. Although many people learn through bad experiences, it is not ideal to learn that way (Hoch, Ha 1986, in Perry, Morris 2005, 301). Investing is a long process. The longer time one is investing, the more likely the investor will achieve profit (Myllyoja, Kullas 2014, 112). When the decision to invest is made, it is time to make an investment plan. This means finding out what is the goal, how much to invest, where to invest, for how long one wants to invest, and what kind of risk one is willing to take. Market risk and individual risk can lead to a loss of entire investment of even the most successful and experienced investors, which is why it is crucial to know what kind of risk one is willing to take, in order to avoid financial crisis. Thus, it is important to make an investment plan that one follows.

Carefully drafted investment plan reduces the risks of failing. Successful investor regularly studies the economy and market trends, and follows what is going on in the larger world. This helps to make the decision when to buy or sell investment (Garman, Forgue 2014, 387). Because key factor for successful investing is timing, one should be constantly aware of what is happening in global and local financial markets. If the investor has no knowledge or information about investing, the bigger risk there will be (Saario 2016, 164).

Eventually at some point of life, most of the people start thinking of getting an own apartment. The big question is: to rent or to own? The decision depends on the life situation. Often families with children prefer buying an apartment or a house, because the plan is to live in the same place

for a long time. After all, generally owning an apartment and shortening the mortgage is cheaper than paying rent for someone else. Therefore, most of the Finns prefer owning an apartment or a house, instead of renting. According to Myllyoja and Kullas, “70% of Finnish people own an apartment or a house. For the majority of Finns, owning an apartment or a house is a significant part of having wealth, for some even the only part. For a lot of people, it is the biggest investment of their lives.” (Myllyoja, Kullas 2015, 270) However, owning a property does not actually mean that one is wealthy. Instead, it can be used as source of wealth.

While many people own a property, few people use it as a source of income. One way to invest money is to rent the owned property for someone else, which means rental income for the owner. The rental income is gained every month, and the amount stays the same or can be increased. Like in any investment, the investor must have understanding for investing in properties. One must follow actively the rent levels, interest rate levels, and the prices of apartments (Myllyoja, Kullas 2010, 384). When thinking about real estate investment, there are several factors to be considered. If the condition of the apartment is poor, the renovation requires money. It is also important to take a look at the condition of the real estate because if the whole real estate needs a renovation at some point, it decreases the rental income. In addition, it is not smart to buy an apartment with a bad location. The location defines the value of the apartment and the demand for it (Myllyoja, Kullas 2010, 386). Financially, it is smart to invest in apartment that offers its residents what they need. The need depends on the person but usually apartment in the city center is more desired than an apartment in suburbs. An investor must buy an apartment in the place where people want to rent it. For studio apartments, the demand is usually highest closer to schools. However, real estate investing is not risk free. Bad tenants and constantly changing tenants cost for the owner. Choosing the right tenant is even financially important because at worst after the tenant terminates the contract one must renovate the entire apartment. If the tenants are constantly changing and the apartment stays empty, the investor loses money. Therefore, the process of choosing the tenant should be done carefully, and with time. One should also be aware of the changes in the prices. In the market, sometimes the prices increase, sometimes they decrease. Also, interest rates can change, which affects the capital flows (Hikipää, Sjögren 2014, 82-95).

One can invest money with buying stock, equity indexes and funds. According to Garman and Fogue, “Stocks are shares of ownership in the assets and earnings of a business corporation.” (Garman, Fogue 2014, 412) Thus, one can invest money in a company by buying its stocks. Investing in stocks is one of the most popular ways to invest money (Smith 1986, 404). Stocks can

be bought with low costs, and they can be sold easily and quickly. After selling stocks, the money returns to investor after two days. When investor owns shares of a company, he/she gets a fraction of the company's profit distribution as dividends or in terms of the stock's price appreciation. If the plan is to get wealthier, choosing the right company is really important. Before investing, the recommendation is to get to know the company's background and how its future will look like. Investing is always a risk so having more knowledge is an easy way to prevent it (Hikipää, Sjögren 2015, 69). If one wants to be even safer, one can diversify investments and as a result the risk decreases. Recommendation is to buy multiple stocks, rather over ten.

When investing in bonds, investor becomes a creditor of the business (Garman, Forgue 2014, 413). Investing in bonds means lending money to the issuer. Bondholder can invest in either corporate bonds, government bonds or municipal bonds. Bondholder gains majorly profit from the bond's interest rate, also known as the coupon rate. The amount of interest rate depends on the general level of interest rates and bond's maturity date. Bondholder will receive the invested amount back at the bond's maturity. Usually, the smallest amount to invest is at least 1000 euros but typically investment in corporate bonds is at least 100 000 euros. In general, government and corporate bonds are considered being safer investment than stocks. During economic crisis, having investments in bonds decreases the risk of losing money if the default rate stays the same. Investing in bonds is also a good option if the plan is to diversify the investments portfolio. For small or new investors, the recommendation is to invest in bond funds because bond funds offer diversification and professional management and the entry amounts are smaller (Kapoor et al. 2013, 363).

Investors like to invest in bonds because of the interest income, the possibility to increase in value, and because of the investment amount is paid back in maturity date. The maturity date tells the bondholder when the invested amount will be paid back and for how long one will receive interest income. Generally, the bonds are categorised into short-term bonds, medium-term bonds, and long-term bonds. The category depends on the maturity date. In addition, the guaranteed rate of return must be paid to the bondholder, even though the bond issuer does not make profit.

## **1.2. Families' financial behavior**

Responsible financial behavior is vitally important for everyone. It contains planning, budgeting, saving, and controlling spending (Perry, Morris 2005, 300). In fact, smart financial decisions are necessary in order to generate income, manage finances and taxation to make a family's economic stability stronger (Yulianti et al. 2013, in Purwidiyanti 2018, 406). Especially, when comes to time for families to get children, the importance of responsible financial behavior increases. Having responsibility for another human means that one must be financially responsible too. As soon as the parents decide to start a family, it is important to start financial planning (Myllyoja, Kullas 2010, 33). Households' savings help the families during unexpected expenses that can be caused by childbirth, school fees, home repairs, life-cycle celebrations, divorce, or at worst by death. In addition, savings prevent financial crisis in case of job loss, or incidents. In addition, if the child becomes ill, savings are important for getting good medical treatment (Vonderlack, Schreiner 2002, 603).

It is not a secret that raising the children requires a lot of money. The needs of different aged children are distinct and the needs change when the children grow. Little children also need to be taken care of, which decreases the parents' possibility to work and earn money for the household. Most of the mothers stay at home for the first three years of the child's life. However, if the family has more than one child, the mother might stay at home for longer than three years. Financially, it impacts the whole household. After returning to work life, it is not going to be the same than what it was before having children. Children always need their parents. They get sick, which means non-attendance for a parent (Myllyoja, Kullas 2014, 23). At its worst, it can mean lower payment, or weaker career development (Myllyoja, Kullas 2014, 24). Therefore, it is crucial to make financially smart decisions. When the income is limited and there are children involved, the importance of having savings grows. Financially stable household gives more security for children and it also gives the children an opportunity for a better future.

Parents must be aware that their financial behavior will have an impact on how their children will think about money. Family does have a key role on developing the child's financial behavior (Bowen 2002, in Kagotho et al. 2007, 134). If the child has grown up in a luxury lifestyle, it is harder to settle for less. On the contrary, if the parents are strict about their use of money, the child understands what the value of money is. It is important to teach the child how to use money and

why it is essential to have savings. According to Purwidiанти, “Positive childhood experiences about managing finances, the social environment, and the attitudes towards savings play the role of financial management in the future family behavior.” (Purwidiанти 2018, 406) However, that is hard to achieve if the parents do not know how to use money wisely.

Parents’ education has an impact on their financial behavior. Good education helps to build a successful career because it gives more opportunities. Actually, higher education leads to better career opportunities. It opens doors for better positions that are not possible to get with no or lower education. On the other hand, one can still get a successful carer without having a high education but it is easier to get with a good education. Yet, higher education level does not directly mean that one is wealthier. However, usually better education means better payment. It is easier to be financially satisfied when the income is bigger. Saving money can be effortless if the income is great. Nonetheless, if one does not know how to use money, even a big income can be spent easily.

Besides education, the household must have financial knowledge to be able to have a good financial behavior. Having financial knowledge has a significant influence on financial behavior (Arifin 2017, in Purwidiанти 2018, 406). According to Hilgert et al., “Lack of knowledge about principles of financial management and financial matters could explain why some families do not follow recommended financial practices.” (Hilgert et al. 2003, 311) Having financial knowledge includes knowing how to save, how to budget, and how to invest. If the parents do not have financial knowledge, most probably the income is going to be spent, there will not be any money to save, and the household will have bigger risk when investing.

### **1.3. Previous researches**

For household wealth, planning is important. Households that use planning are more likely to be wealthier than households with no planning. The research shows that households that plan are twice as wealthy as households that do not plan. The cause for this can be explained by the fact that households that do not plan lack financial knowledge. This means that investing in high-return assets is less likely for households with lack of planning. Instead, households with financial knowledge are more likely to invest in stocks (van Rooij et al. 2007, in Lusardi 2008, 7-17). Often, lack of saving is a result of lack of planning. The households that do not use planning are generally concentrated among households with low education and low income. Instead, households with high wealth wants to do planning properly because it gives them bigger benefit. Therefore,

households with planning are less likely to spend for consumption all of their income (Hurts 2006, in Lusardi 2008, 7-10). The impact of education and income is also shown in mortgages and savings. Households with low education and low income have generally low knowledge about mortgages. They also tend to have little savings until they are old because the decision to start saving is made very late (Lusardi 2008, 13-19).

Child's financial behavior, attitude and awareness is strongly influenced by their parents (Jorgensen 2007, in Aleksam et al. 2018, 313). In addition, also parents' education level is influencing the financial literacy (Mandell 2008, in Aleksam et al. 2018, 314). Therefore, parents should know their vital role in the financial life of their children's spending habit and teach the value of financial education. Actually, if the parents are suggesting their children to save money, their willingness to start saving increases by 16% (Buccioli, Veronesi 2014, in Aleksam et al. 2018, 314). Due to this, it is significantly important to investigate parents' financial behavior because its impact on children's financial behavior is enormous.

The investigation of young adults and their financial behavior is important. Lack of financial knowledge is becoming a problem for young generations (Alekam et al. 2018, 309). Financial knowledge is important for being able to do financial planning, continue wealth accumulation and to make better financial decision. However, lack of awareness and personal problems causes financial problems because those make person financially illiterate. "These situations caused inadequate knowledge among young generations about financial dealings and leave them with inappropriate choices." (Alekam et al. 2018, 310) In addition, young generations are also more reckless with spending than older generations. They have grown up in more materialistic world which is why they value money less (Alekam et al. 2018, 310). Because young generations tend to have lack of financial knowledge, it is important to investigate young parents rather than older parents because young parents are more likely to have financial issues than older parents.

Concerning men and women's social and financial situations both within and outside the household, they have different saving habits. Women's bargaining power is more likely affect household saving, if the saving habits differ between men and women (Seguino, Floro 2003, 148). According to Seguino, Floro, "Women are likely to outlive men, a factor that propels them to save at higher rates." (Seguino, Floro 2003, 150) Moreover, women's ability to influence on the household's saving habits has improved since their income has increased (Seguino, Floro 2003, 152). It has increased women's bargaining power because before only men have earned the

household's livelihood. Therefore, women's opinion and view of the household's financial situation should be heard.

#### **1.4. Research questions**

To conclude the theory, having savings is crucial for everyone because savings can prevent financial crisis. Especially for parents, its importance increases. Most of the people who save money, have a reason behind it. The theory explains that it is important to have a motivator, instead of having a habit of saving money. If one makes the decision to invest, financial knowledge is needed. It decreases the risks of failing. One must know where and when to invest. Investing plan should be made well in order to success. Finally, parents' financial behavior has an impact on developing the child's financial behavior. Therefore, taking care of household's finance is necessary. The children will learn their use of money by their parents.

The research made by Lusardi, claims that households who do not plan are generally those who have a low education. In addition, it claims that education has an impact on savings and financial knowledge (Lusardi, 2008). Also, the research made by Aleksam et al., argues that parents' education level has an impact on their financial literacy (Aleksam et al. 2018). Because of this, it is important to investigate if also parents with low education level can save money. In addition, because higher education level is generally more valued and means better career, this research wants to find out if the parents with higher education level are able to save more than parents with secondary education level. Therefore, it gives hypothesis for the research: there is a difference between parents with higher education and parents with secondary education.



## **2. METHODOLOGY**

### **2.1. Methods**

The research can be done by using three different research methods which are qualitative research method, quantitative research method, and mixed research. Mixed research uses both methods: qualitative and quantitative research methods (Johnson, Christensen 2016, 84). Qualitative research is the right method when the focus group is smaller and specific. In qualitative research, the answers can be get by interviewing the members of the target group. Qualitative research also includes participant observation, open-ended questions and open responses which are used to get an understanding. One of the main purposes for qualitative research method is to find the desires and motives which is why in-depth interviews are the best way to get the answers. In contrast to qualitative research, quantitative research include numbers and statistics (Xavier University Library). Quantitative research is statistical and one of its goals is to test hypotheses. In addition, quantitative research has a goal to understand causes and effect. By understanding causes and effect, one is able to make predictions. Finally, a part of quantitative research method are quantities and amounts (KL University, 294). The chosen method for this thesis is mixed research. Because of the open-ended question, qualitative research methods are used for analysing. Quantitative research methods are used to get the statistical analysis. ANOVA is chosen for determining if the parents with higher education level and parents with secondary education level are significantly different from each other, and regression analysis is used to find out if the income affects the savings.

ANOVA test is a statistical method that is used to test hypotheses and to find out if the given results are significantly different. The compared two groups, parents with higher education level and parents with secondary education level, are unequal if the result is significant. Two groups are being compared, which is why this research uses one way ANOVA. The null hypothesis (H0) is set, stating that there is no difference in given samples. The alternative hypothesis (H1) claims that

the given samples are unequal. More closely, the difference between their savings and income. The set significance level for this research is 0.05 or 5%. The result is statistically significant if  $p \leq 0.05$ .

Moreover, the regression analysis is used as a part of statistical analysis too. More closely, it finds out if the income affects savings. If it does, regression analysis tells if the affect is positive or negative. The ordinary least square method, OLS, will be used in this study. In the simple linear regression model, one value is for the dependent variable and one is for the independent variable. In this case, the independent variable X is used for income, hypothesising it has an impact on the dependent variable Y, savings.

## **2.2. Sample**

According to McLeod, “A sample is the group of people who take part in the investigation.” (McLeod 2014) The samples are representing the target group in the survey so how the sample is chosen, is important. The sample must have the characteristic of the target group. If not, the results cannot be generalised (McLeod 2014). In qualitative research, the focus is on small samples that are selected purposefully. Instead, the quantitative methods investigate larger samples which are randomly selected (Patton 1990).

Mothers were chosen to participate in the research. The set goal for the survey was to reach 100 answers, preferable 50 from mothers with higher education level, and 50 from mothers with secondary education level. The participants were not beforehand chosen, anyone who wanted was allowed to participate. Overall 126 mothers agreed to participate. Sadly, the different amount of parents with higher education level and parents with secondary education level participated.

For this study, the opportunity sampling was used when gathering the participants. The social media was used as a tool. The survey was chosen to be shared for three Facebook groups that are made for Finnish women. Overall, the groups have more than 254000 members. The link for the survey was shared with a specific description of the target group, and those who belong to the target population, were asked to participate. That way, the participants could not be known before. The sample of the survey is 126 mothers; 35% mothers with higher education level, 58% are

mothers with secondary education level, 7% mothers with secondary education level than secondary education.

### **2.3. Data and survey results**

The data for the research is collected using self-made online survey. The research focuses on Finnish families, therefore only Finnish families were asked to participate. The chosen language for the survey is Finnish in order that all the participants understand the questions. More closely, the target group for the study is families with young children, and parents with maximum age of 35. Also, in all of the families who participate, the parents are living together. This target group is chosen because like the theory mentioned, lack of financial knowledge is more problem for young adults (Aleksam et al. 2018). The theory also explained that generally the mothers stay at home for the first three years of the child's life, and even more if they have more children. Once the mothers return to work life, it is not as easy as it was before (Myllyoja 2014). Therefore, the upper age limit for the target group is 35.

The online survey included 13 different questions. The first five questions included demographical information, such as age, number of children, children's age, education level of the respondent, and education level of the partner. The rest of the questions were financial questions. Questions number six and seven were asking about the source of income and household's amount of income per month. The mothers were also asked if the household saves money. If the answer was negative, they were asked to explain why. Vice versa, if the answer was positive, they were asked to explain why they save money. The participants were also asked if they find saving money difficult. Finally, the participants were asked if they invest money, and what types of investment and saving methods they are using. Last question asked the participants how much the household invests per month.

The first three questions of the survey asked the age of the participant, the number of children, and the children's age. These demographical questions were important to find out because the target group was very limited to parents with maximum age of 35. The more children they have, the more difficult it is to save money. Like can be seen from figure 1, from the respondents, four mothers answered to be under 18 years old. 23% of the mothers who participated were 27-29 years old, which was the highest number of respondents.

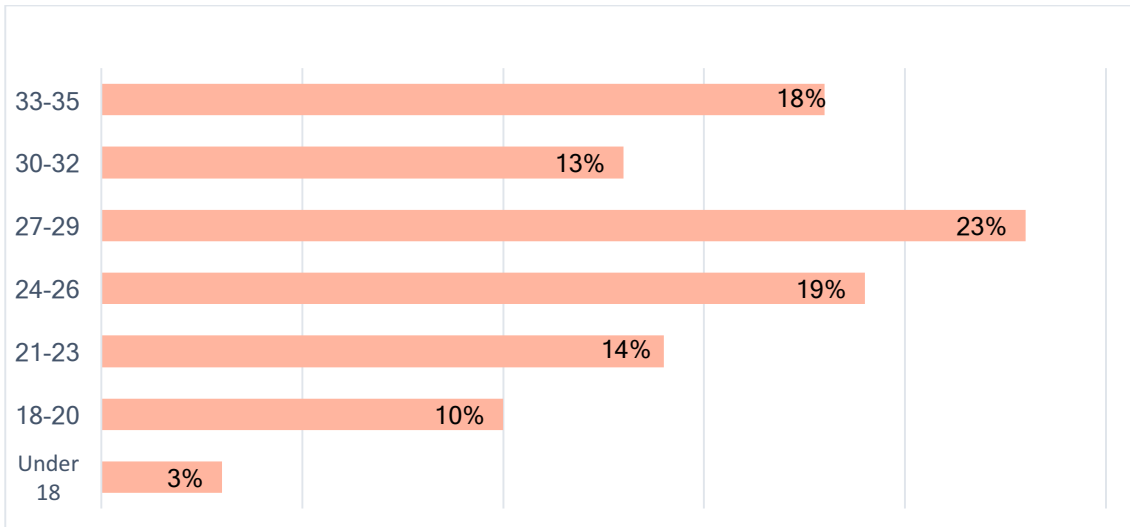


Figure 1. Age of the participants

Source: Author's online survey

Over half of the mothers, 63%, have only one child. 23% of the mothers have two children, 11% have three children, 1% has four children, and 2% have more than four children. The mothers have different aged children but the youngest child was only 7 weeks old, and the oldest child was 15 years old. However, over 56% of the mothers have at least one child less than five years old.

For this survey, finding the parents' education level is crucial. The study focuses on comparing households with two different education levels. Therefore, the mothers were asked their education level, and also their partner's education level. Figure 2. shows that from the mothers, 58% have secondary education level and 35% of the mothers have higher education level.

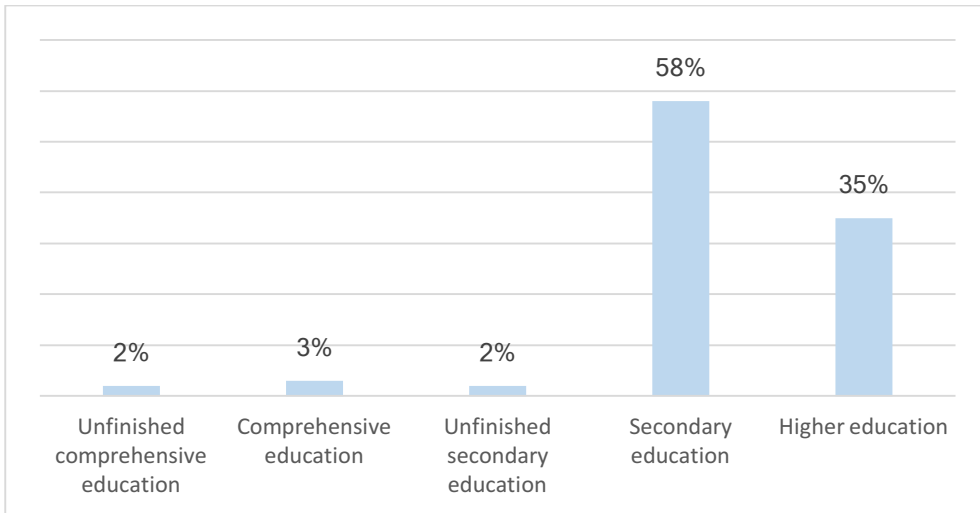


Figure 2. Mother's education level  
 Source: Author's online survey

Because all the participants were living in two-parent households, the partner's education level must be determined also. The answered partners' education levels are broadly similar to mothers. Figure 3 shows that most of the partners, 63% have secondary education level. 32% of the partners have higher education level.

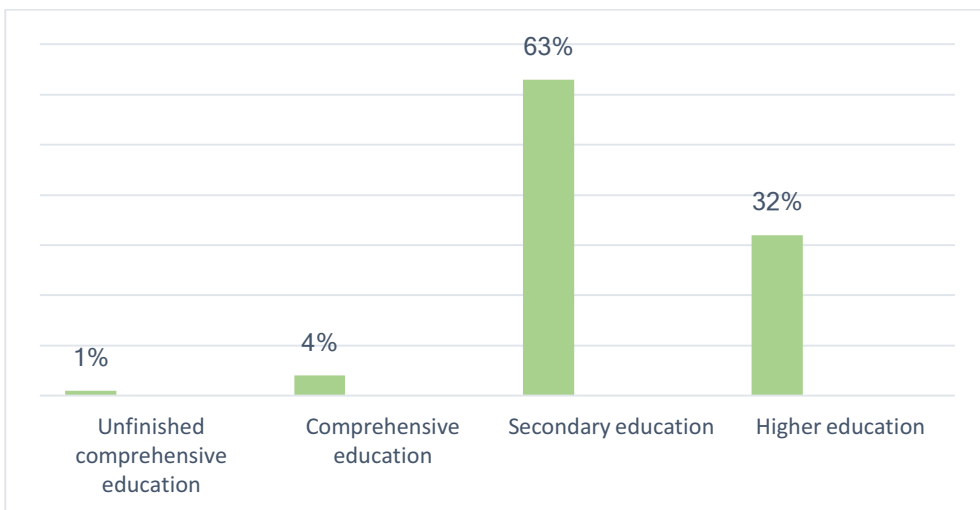


Figure 3. Partner's education level  
 Source: Author's online survey

After the demographical questions, the mothers were asked on the household's source of income. This question was asked to find out how much actually gets a household of its income from investments. Having an income from investments usually means good finance, at least great financial knowledge. 91% of the respondents have the main source of income from salary. 58% of the respondents also get part of their income from social benefits, such as child benefit. What is more, 14% of the respondents mentioned investments as one of the sources of income. However, over half of the mothers who mentioned investments as their household's source of income, does not have higher education level.

One of the most important question of the survey was, "Does your household save money?". When investigating saving habits and behavior, finding out how many save money is essential. If none of the participants save money, the study would not be logical. After all, like figure 4. shows, 79% of the respondents tend to save money whenever it is possible. This means that 21% do not save money. The main research question for survey was asking if parents with higher education level save more money than parents with secondary education. This question gave the result that when comparing the groups with different education levels, 15% of the parents with higher education level do not save money, and 24% of the parents with secondary education level do not save money. This gives an answer for the main research question: parents with higher education level, save more than parents with lower education level.

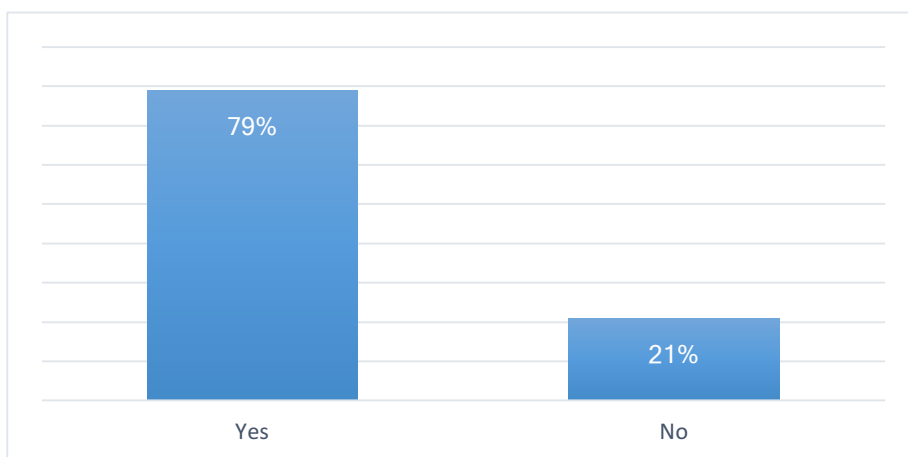


Figure 4. Households that save money  
Source: Author's online survey

After the respondents were asked if they save money, they were given a chance to explain their motivation behind saving, or the reason why their household cannot save money. It is important to

find the motivator because without it, saving is more difficult. If one does not have a motivation for saving, the money is easily spent. The questions were open-ended, in order that the mothers were able to express their thoughts. Overall the answers were very different and a lot of different important motivators were mentioned. However, a few factors stood out. 17% of the respondents are saving for an apartment or a house, which was the highest percent. The second highest, 15%, was for vacation. Surprisingly, although 15% of the respondents mentioned vacation as a motivator for saving, only one person with higher education level mentioned it. 12% of the respondents mentioned that one of the reasons why they save is for rainy days, 11% mentioned their children, and another 11% mentioned future. Other factors that the respondents mentioned were car, renovation, driving license, retirement, wedding and bigger investments. Those who do not save money, explained it with the fact that they have too little income to save money. Financially, they cannot afford saving money. That was the only thing that was mentioned.

In addition, the respondents were asked if they find saving difficult. Because the assumption is that saving is difficult for parents with young children, this question was asked to find out if the assumption is true. Figure 5. shows that 60% of the respondents do not find saving difficult, when 40% did. However, 68% from the mothers with higher education and 57% from the mothers with secondary education did not think saving is difficult for them.

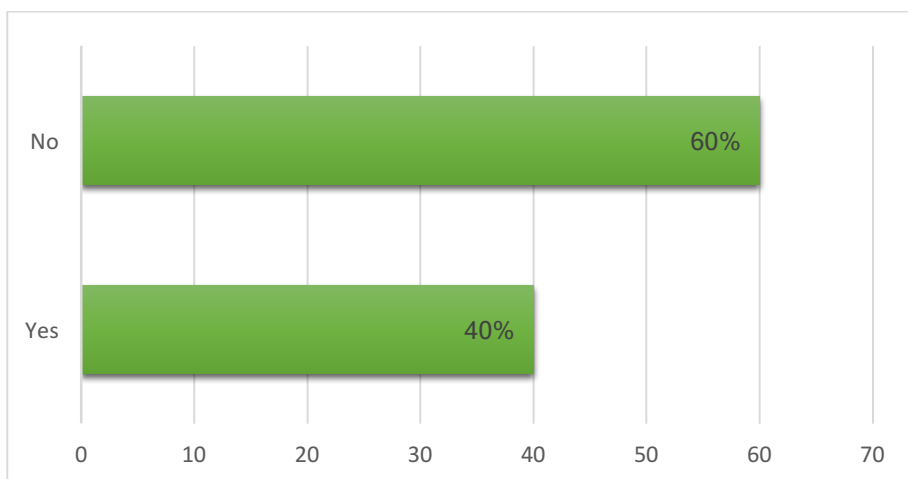


Figure 5. Households' difficulty to save money  
Source: Author's online survey

The second research question is "How does the education level impact on investing?" Investing money requires financial knowledge. The less knowledge one has, the bigger the risk is. In

addition, investing requires sufficient finance because there is always a risk of losing money. However, what is the education level's impact, or does it even impact on investing? Therefore, in the eleventh questions, the participants were asked if their household invests money. Altogether 63% of the participated households do not invest money, and 37% does invest money. More closely, 29% of the parents with secondary education invest money, and 53% of the parents with higher education level invest money. Clearly, this show that parents with higher education level invest more money. This can be concluded, that higher education level impact on investing positively; parents with higher education level are more likely to invest than parents with secondary education level.

The participants were asked what kind of saving and investing methods their household is using. There are different saving methods that can be used, such as holding money on bank account or on saving account. Also, money can be invested in different assets. The participants were able to choose more than one option, and they were able to give their own option if it was not mentioned. From the saving methods, saving account is the most common one: 70% save money for saving account. Moreover, 46% mentioned bank account as one of the methods, and 1% uses a piggy bank. From investing methods, mutual funds are the most common investing method with 29%. 21% of the households are investing in stocks, 8% in properties, and 1% in bonds.



## 3. RESULTS

### 3.1. Empirical results

For two questions, ANOVA was used to get statistical analysis between two groups. Two groups with different education levels were compared with each other: parents with higher education level and parents with secondary education level. Shortly, ANOVA is used to determine if the two groups are significantly different from each other. For this study, the set significance level was 0.05 or 5%. Thus, the results are statistically significant if  $p \leq 0.05$ .

The set of hypotheses for the statistical analysis are:

H0: The given sample variances are equal.

H1: The given sample variances are unequal.

The households' monthly income was asked with given options from 1000 to 10000. From households with secondary education level, the maximum monthly income was 7000-7500, when only 4% answered it for their household's income. Instead, from households with higher education level, 6% has a monthly income of 10000. The hypotheses were tested to get the difference in monthly income between two education groups. The answers included two numbers, and the maximum values were used in comparison.

The responses for monthly income were separated between two groups, to be able to compare the difference between groups' income. The calculations were made in Microsoft Excel, ANOVA: Single Factor.

Table 1. Summary and ANOVA of the difference in monthly income

<b>GROUPS</b>	<b>COUNT</b>	<b>SUM</b>	<b>AVERAGE</b>	<b>VARIANCE</b>		
Higher education	44	201000	4568	3076638	-	-
Secondary education	73	2740000	3753	2236967	-	-
<b>SOURCE OF VARIATION</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>P-value</b>	<b>F crit</b>
Between groups	18224098	1	18224098	7.144	0.0086	3.92
Within groups	293357098	115	2550931	-	-	-
Total	3115581197	116	-	-	-	-

Source: Author's calculations based on data from Appendix 2

This statistical analysis shows, that p-value is 0.0086. Comparing p-value to the significance level,  $0.0086 < 0.05$ . This means that the result is statistically significant and the null hypothesis (H0) is rejected. In other words, the alternative hypothesis (H1) can be accepted. The given sample variances are unequal.

To get the more understanding about households' saving habits, the mothers were asked about the amount that their household saves each month. The question included options from 1-50 euros, to 'over 700'. The maximum value of the options were used to compare the savings. However, generally rare people save the same amount every month; it depends on the month and its expenses. For this reason, the participants estimated how much they save every month. 12% of the households with secondary education level save 100-150 euros in a month, which was the highest percent. From the households with higher education level, 15% save 350-400 euros in a month, and it was the highest percent. Figure 6. below, shows the results for the question.

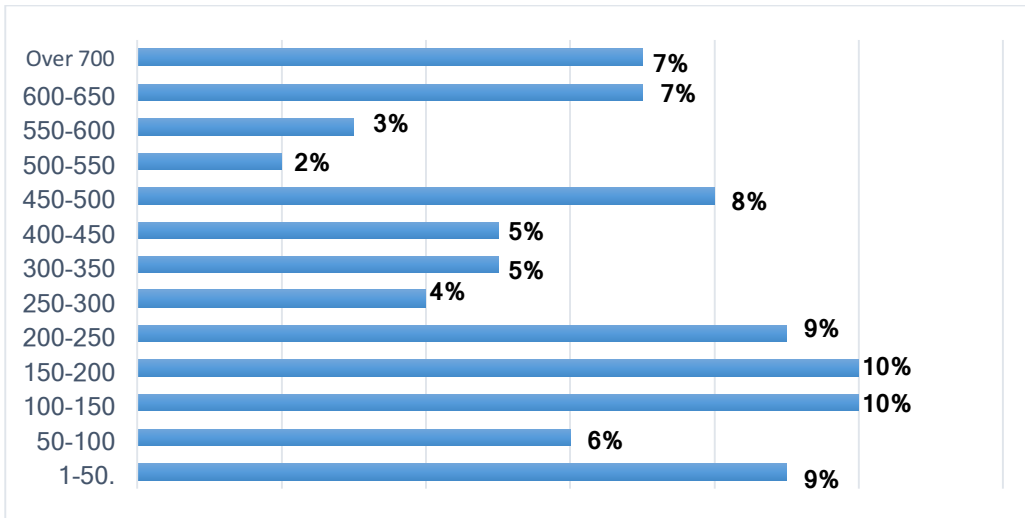


Figure 6. Households' savings per month.

Source: Author's online survey

Like in previous table, the responses were separated between two groups. Each respondent's saving amount was listed and Microsoft Excel, ANOVA: single factor was used to get the difference.

Table 2. Summary and ANOVA of the difference in savings

<b>GROUPS</b>	<b>COUNT</b>	<b>SUM</b>	<b>AVERAGE</b>	<b>VARIANCE</b>		
Higher education	35	13900	397	42933	-	-
Secondary education	67	17150	256	32918	-	-
<b>SOURCE OF VARIATION</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>P-value</b>	<b>F crit</b>
Between Groups	458188	1	458188	12.614	0.00059	3.94
Within Groups	3632326	100	36323	-	-	-
Total	4090515	101	-	-	-	-

Source: Author's calculations based on data from Appendix 2

The given p-value is 0.0006. When it is compared to p-value of significance level,  $0.0006 < 0.05$ . Again, the result is statistically significant. Thus, the null hypothesis (H0) is rejected. The alternative hypotheses (H1) can be accepted, meaning that the given sample variances are unequal. The statistic also gives an answer for the first research questions. The two education groups are unequal and parents with higher education level save more money than parents with secondary education level.

In addition, the regression analysis is used in this study to find out if the income affects the savings, and if so, is its affect negative or positive. More closely, ordinary least square method (OLS-regression) was used in this study. The independent variable X was used for income, hypothesising it has an impact on the dependent variable Y, savings. The calculations were made in Microsoft Excel.

Table 3. Descriptive statistics of parents with higher education level

<b>Variable</b>	<b>Mean</b>	<b>St.Dev.</b>	<b>Min</b>	<b>Max</b>	<b>N</b>
Savings	315,91	245,37	0	700	44
Income	4568,18	1754,03	1000	9000	44

Table 4. Descriptive statistics of parents with secondary education level

<b>Variable</b>	<b>Mean</b>	<b>St.Dev.</b>	<b>Min</b>	<b>Max</b>	<b>N</b>
Savings	234,93	187,58	0	700	73
Income	3753,42	1495,65	1500	7500	73

Source: Author's calculations on Excel

The descriptive statistics show that averagely, parents with higher education save more than parents with secondary education. Also, their average income is higher than parents' with secondary education level. However, averagely all the participants save a lot of money. That tells that although it might be financially hard to raise children at young age, it is still possible to save money. The standard deviations are high, meaning that the data is widely spread.

Table 5. OLS-regression, parents with higher education level

Variable	Dependent variable: savings		
	Coefficient	t-value	p-value
Income	0.068	3.595	0,0008
Constant	5.923	0.064	0.9491
R square	24 %		
Adjusted r2	22 %		

Source: Author's calculations based on data from Appendix 3

Table 6. OLS-regression, parents with secondary education level

Variable	Dependent variable: savings		
	Coefficient	t-value	p-value
Income	-0,055	-4,119	0,0001
Constant	441,669	8,182	7,6769
R square	19 %		
Adjusted r2	18 %		

Source: Author's calculations based on data from Appendix 3

When looking at the OLS-regressions, one can notice that there is a positive correlation between savings and income regarding parents with higher education level. Instead, there is a negative correlation between savings and income regarding parents with secondary education level. However, the correlations are really small, and this means that the affect is small. The p-values for incomes regarding both education groups are 0.0008 and 0.0001, which means that income is statistically significant. But because the correlations were small, the affect is also small. The adjusted r2 levels are 22% and 18%. This means that the model explains 22% of the variable regarding parents with higher education level, and 18% of the variable regarding parents with secondary education level.

## 3.2 Discussion

The main goal for the research was to find answers for the three research questions, and they were found. The given results show that 79% of the families are saving money and over half of the respondents do not think saving is difficult for them. From households with higher education level, 85% are saving money. Instead, from households with secondary education level, 76% are saving money. The results were a positive surprise, because when all of the participants are maximum 35 years old and rare of them have actually been able to build a successful career. They all have children, so the assumption was that saving is more difficult for them and for their household. Relating to theory, being able to save money requires taking care of personal finance (Hikipää, Sjögren 2014). Because 79% of the participants are able to save money, it means they can take care of their personal finance as well.

Shortly, we can conclude that most of the households seem to have a stable finance. In addition, over 37% of the participants are investing money, which is a big percent for young parents. Actually, 29% of the parents with secondary education level invest money, when even 53% of the parents with higher education level invest money. The previous research made by Lusardi, claims that households with low education and low income are those who do not use planning. Instead, households with higher education do it well, and are more likely to invest (Lusardi 2008). This research supports the same results, when parents with higher education level invested more than parents with lower education level. The difference was even 24%.

To be able to do successful investing, financial knowledge is needed (Myllyoja, Kullas 2010). Investing requires financial knowledge because if one does not understand where they are investing, the risk of losing money increases. In addition, 14% of them mentioned investing as their source of income. The biggest surprise was that 8% of the participants are investing in properties. Like mentioned before, few people are investing in properties, although many people own one (Myllyoja, Kullas 2010, 384). Because investing in properties generally requires quite much money, even 8% of young parents with young children investing in them, is a lot.

The theory explained that everyone has a different motivator behind their saving decision. The saving is more likely to be fulfilled, if there is a reason behind it (Romer 2001). From the participants, all the households that are saving money, have a motivator behind the saving. The motivators were different but more importantly everyone had a reason what they are saving for.

Saving for a specific purpose is more efficient than saving without a goal. Unexpected result was that those who do not save money, do not do it because they are not interested in doing so, but rather because they cannot afford saving. This means that none of the participants thinks that saving money is not important, it just requires more money than what they have. According to the theory, many people think they cannot put money aside (Myllyoja, Kullas 2015). They think that will start saving money once they have leftovers. However, few people actually have leftovers (Hikipää, Sjögren 2014). With successful budgeting, everyone can have some leftovers to put aside (Smith 1986).

ANOVA and regression analysis were used for statistical analysis. ANOVA was used to compare the two education groups; households with higher education level and households with secondary education level. This statistical analysis proved that households with higher education level and households with secondary education level are significantly different from each other, when income and savings are compared. This means that null hypothesis (H0) was rejected in both cases, because p-values were smaller than set significance level, 0.05. Instead, regression analysis was used to test if the income affects the savings. The result show that income is statistically significant but its affect is small.

## CONCLUSION

The study was focusing on families with young children because the parents are still building their career, while they are raising children. Also, it is possible that the parents have not even got a proper job since they graduated. For them, saving is more difficult because raising young children requires a lot of money. However, saving money is really important, especially when one is responsible for their children's wellbeing and parenting.

The aim of the research was to find out if there is difference on saving habits and behavior between parents with higher education level and parents with lower education level. Generally, higher education level is more valued, and the assumption is that the income is better also. However, income is not the only thing affecting the saving. The research made by Lusardi in 2008, tells that households with higher education level tend to have more financial knowledge (Lusardi, 2008). In addition, the previous research made by Aleksam et al., claims that young generation tend to have lack of financial knowledge (Aleksam et al. 2018). Therefore, the parents with maximum age of 35 were chosen to participate.

The second aim for the research was to find out are the parents investing money. More closely, the parents with higher education level and parents with secondary education level were compared, to find out if the education level has an impact on investing. Thirdly, the final aim was to find out what are the main reasons behind the parents' saving decisions.

All the main research questions for the study were answered. The main research questions were:

1. Do parents with higher education level save more money than parents with secondary education level?
2. How does the education level impact on investing?
3. What are the main reasons behind the saving decision?



The main results of the study show that there is a significant difference between parents with higher education level and parents with secondary education level, when their income and savings are being compared. 15% of the parents with higher education level do not save money, when 24% of the parents with secondary education level do not save money. Averagely, parents with higher education level save 397 euros each month, and parents with secondary education level save 256 euros every month. This also gives an answer for the first research question; parents with higher education level save more than parents with secondary education level.

When the participants were asked about investing, the result show that 37% of them are investing money. The two education groups were also being compared, and 29% of the parents with secondary education level are investing money, when 53% of the parents with higher education level are investing. It means that parents with higher education level are more likely to invest than parents with secondary education level, so education level does affect on investing. Thus, higher education affect positively on the investing decision. The result give an answer for the second research question.

Finally, the result for the final research question was also given. All of the households that admitted they are saving money, are saving for a special purpose. Overall the answers were quite different when everyone had a different reason behind their saving decision. The motivators that stood out were an apartment or a house, vacation, rainy days, children, and future. However, 14% of the parents with secondary education level mentioned vacation as a motivator, when only one person with higher education level admitted saving for a vacation. This means that parents with higher education level tend to save for things in long term.

What is more, it is important to mention that the most common investing method along the participants was mutual funds, when 29% are investing in them. Stocks got second place with 21%, and properties got third place with 8%. From saving methods, saving account was overwhelmingly most common saving method; even 70% are saving for saving account. Moreover, 46% are using saving money on regular bank account as one of their saving methods.

To conclude the study, surprisingly many parents are able to save money, while raising children. All the participants find saving important. Generally, most of the participants have a long term motivator behind the saving decision. Many of the participants have financial knowledge because they have the knowledge to invest money. Nevertheless, the parents with higher education level

invest more. This means that the education does affect on saving, and parents with higher education level save more than parents with secondary education level. However, parents with secondary education level are able to save money considerably.

For further research, financial knowledge should be investigated more. Relating to the theory, it is one of the biggest factors on saving decision. One should investigate more how people gain their financial knowledge, and how to increase their knowledge regarding finance if they do not have an education relating to finance. In addition, it is important to investigate how to get people save more. Saving is not difficult, and saving even a small amount each month helps in long term. However, people seem to think that saving is pointless if one does not save much every month.

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# APPENDICES

## Appendix 1. Questionnaire

### 1. Age of the participant

- Under 18
- 18-20
- 21-23
- 24-26
- 27-29
- 30-32
- 33-35

### 2. Number of children

- 1
- 2
- 3
- 4
- More than 4

### 3. Education level (participant)

- Unfinished comprehensive school
- Comprehensive school
- Secondary education
- Higher education
- Other

### 4. Education level (partner)

- Unfinished comprehensive school
- Comprehensive school
- Secondary education
- Higher education
- Other

### 5. Household's source of income (you can choose more than one option)

- Salary
- Social benefits
- Investments
- No income
- Other

6. Household's income in euros per month

- 1000-1500
- 1500-2000
- 2000-2500
- 2500-3000
- 3000-3500
- 3500-4000
- 4000-4500
- 4500-5000
- 5000-5500
- 5500-6000
- 6000-6500
- 6500-7000
- 7000-7500
- 7500-8000
- 8000-8500
- 8500-9000
- 9000-9500
- 9500-10000
- Over 10000
- Other

7. Does your household save money?

- Yes
- No

8. If your answer was no, why not?

Long-answer text

9. If your answer was yes, what for?

Long-answer text

10. Do you find saving difficult?

- Yes
- No

11. Does your household invest money?

- Yes
- No

12. What different investing and saving methods does your household have? (you can choose more than one option)

- Bank account
- Saving account
- Stocks
- Mutual funds
- Properties

- Bonds
- We do not save or invest
- Other

13. How many euros does your household save averagely each month?

- We do not save money
- 1-50
- 50-100
- 100-150
- 150-200
- 200-250
- 250-300
- 300-350
- 350-400
- 400-450
- 450-500
- 500-550
- 550-600
- 600-650
- 650-700
- Over 700

## Appendix 2. ANOVA

### SUMMARY

#### Income

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Higher education	44	201000	4568	3076638
Secondary education	73	274000	3753	2236967

### ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	18224098	1	18224098	7,144	0,0086	3,92
Within Groups	293357098,4	115	2550931			
Total	311581196,6	116				

### SUMMARY

#### Savings

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Higher education	35	13900	397	42933
Secondary education	67	17150	256	32918

### ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	458188	1	458188	12,614	0,00059	3,9
Within Groups	3632326	100	36323			
Total	4090515	101				



### Appendix 3. Regression analysis

#### SUMMARY OUTPUT

Higher education level

<i>Regression Statistics</i>	
Multiple R	0,49
R Square	0,24
Adjusted R Square	0,22
Standard Error	217,11
Observations	44

#### ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	609178	609178	13	0,0008
Residual	42	1979686	47135		
Total	43	2588864			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	5,923	92,23	0,06	0,949	-180,2	192,1	-180	192
X Variable 1	0,068	0,02	3,595	0,0008	0,030	0,11	0,03	0,11

SUMMARY OUTPUT

Secondary education level

<i>Regression Statistics</i>	
Multiple R	0,44
R Square	0,19
Adjusted R Square	0,18
Standard Error	169,71
Observations	73

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	488625	488625	17	0,0001
Residual	71	2044799	28800		
Total	72	2533425			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	441,669	53,98	8	8E-12	334	549,3	334	549
X Variable 1	-0,055	0,01	-4,119	0,0001	-0,082	-0,03	-0,08	-0,03