Investing Habits and Interests of International Business Students in Finland

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Abstract

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This Bachelor's thesis examines investing habits and interests among International Business students across Finland. The goal of the research was to find out what kind of investment and savings options the students engage in. Another primary objective was to compare behavioural differences between nationalities and to find out what prevents students from investing.

This study includes a theoretical framework and a primary source in the form of a survey. The theory of this thesis looks into various investing options and fundamental investing theories such as modern portfolio theory and the capital asset pricing model.

Both quantitative and qualitative research methods were used in this thesis. The survey disturbed to eight Universities of Applied Sciences across Finland. 98 students of 18 different nationalities responded to the survey. The results were analysed with the help of SPSS. The survey gathered data regarding the students investing options, goals, behaviour, risk tolerance and preventing factors.

The results of the survey showed that students prefer savings accounts and stocks the most. Students had a long-term focus in their investing and saving. The attitude of the population towards risk was neutral. Finnish students showed more preference towards passive investments and were less sensitive to fluctuations. Students across the whole population strongly felt that there needs to be an increase in investing education and services.

The literature studied shows that financial understanding among young people is low around the world. The survey showed that a major reason for not investing is not having enough knowledge or information. This finding was supported by the observation that students wanted more education and services on the topic. Universities play a big role in this especially when the students chose universities as their most preferred information source. Basic and practical education regarding investing should be increased in the curriculums of Universities of Applied Sciences. Companies that offer investing and saving services should work with universities to introduce the subject more to students. This type of cooperation can be mutually beneficial.

Keywords
Investing and saving, Investing options, Risk and return, Behavioural finance, Universities of Applied Sciences

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1   Introduction

This chapter will cover the background information of the thesis alongside the research question and objective. It will cover the investigative questions used to conduct the thesis and showcase the project scope. Chapter one will also discuss the key concepts that help the reader in better understanding the thesis.

1.1   Background

Certain things are necessities in life. These things include food, clothing, and shelter. Many people in the world suffer from not having these necessities. Another necessity to add to this list is investing. Putting your money to work is imperative to reach financial goals and dreams. These dreams include building a future home for your family and having a comfortable retirement. (Tyson 2011, 9.)

This thesis will look at how International Business students invest their wealth. The study will examine multiple International Business programmes across Finland with the help of a survey. Past research on the subject has been done by Hietanen (2017), which focused on the attitudes of students towards investing. Another study about the subject was conducted by Mattsson (2018), which researched the investment behaviour of bachelor level students. Despite these studies, there is still more to be researched. By finding the habits and interests of international business students in Finland we can see if there are any differences between nationalities and different specializations. With the survey, it is possible to find out what prevents students from investing or saving, and thus suggestions can be made. The past studies will provide this thesis with useful information, that increases its significance. Comparing the results of the studies can provide new information about investing amongst students.

1.2   Research question

The topic of the thesis is financial investing. The objective of the thesis is to find out habits and interests in investing of international business students in Finland. More specifically the study aims to find out how the studied group engages in investing and through what options. Another objective of the dissertation is to study what prevents students from investing. These reasons will be further analysed and discussed later in the study. The aspect of nationality is also present since the study is conducted with international business students. The possible effects of nationality will be analysed.

The research question (RQ) is: What are the habits and interests of investing among International Business students in Finland?

Investigative questions (IQs):

1. What investment activities do the students engage in?
2. What differences are there in the investment habits and interests between nationalities?
3. What prevents the students from investing?
4. What do students hope to achieve with their investing?
5. What is the level of risk tolerance?
6. Where would the students prefer to receive investing information from?

1.3   Demarcation

Research Question: *What are the habits and interests of investing among International Business students in Finland?*

Since the focus will be on students, **age** will be the first area of demarcation. Even though there are university-level students of all ages the most common ages would be around 20-30. The important part is to target students rather than a specific age group.

Investing will be the focus of this thesis. The most common types of investing options such as shares, bonds, funds, and savings accounts will be discussed. The demarcation of certain securities will depend on the tendencies of the students. If there are none or very little activities in for example cryptocurrencies these will then be excluded. This thesis will not provide investment advice, or any purchase decisions should not be made because of it.

Next comes separating **International Business students** from all of the other study programmes. This is done mainly because it provides an international aspect to the study. It will also help in analysing if different cultural backgrounds affect investing habits of students. Limiting the study to International Business students makes the surveying more feasible and comparisons can be made with the GLOBBA programme.

Habits and interests are the focus of this study. This will include the reasons for investing and saving money. Analysing why students are not engaging in financial investing and what prevents them from investing will be looked at. This thesis will look at the options

the students are using but not in depth. The same applies to portfolio structures, strategies, and attitudes.

1.4   International aspect

Finance itself is an international subject due to the global markets. A study on investing naturally has an international angle. Financial markets are heavily intertwined and have effects on one and another. The study also covers theory that discusses the effects of nationality in financial behaviour. The survey used to conduct this research features international aspects. The results of the survey combined with previous literature on the subject will be discussed later in this thesis.

1.5   Benefits

The thesis will provide benefits to future students who are interested in investing. It will also give Haaga-Helia and other universities insight into the financial situation of their students. There needs to be more guidance and support from universities in educating students in investing. This thesis aims to improve awareness regarding student investing. This dissertation provides valuable information to investment companies and banks about students as their target audience. As a result, it is possible to offer different services and partnerships together with Haaga-Helia and other universities related to student investing. In the study conducted by Mattsson (2018) bachelor level students were asked if they would use their student loan for investing and saving. Out of the 150 answers, 52 agreed with the statement and 50 strongly agreed. However, in the same study when asking if students invest regularly only 72 agreed or strongly agreed. The study also asked students what the reason is for not investing regularly. The primary reason was that the students couldn't afford it and the secondary reason was the lack of information on the subject. These factors indicate that there is potential for companies and banks to target students.

In terms of the authors future, this study will give more credibility in the finance field. It would act as concrete evidence about the ability to research, analyse, study, and compare financial investing. Writing a bachelor thesis also gives basic knowledge of academic writing and conducting research.

1.6   Key concepts

This chapter will discuss the key concepts that are being used in this thesis. These key concepts are necessary for readers to understand before moving on to the theory of the thesis. All of these concepts and theories will revolve around financial investing.

Financial investing is an important concept to understand since it is the base for the theory of this thesis. Investing is described by Malkiel (1973, 26) as a technique to acquire assets to achieve profits in the form of sensibly predictable income such as dividends or appreciation of the asset over time. This definition separates investing from speculating. The interpretation of time and predictable income are the main differences in investing and speculation.

Investing options cover the various methods available for individuals to invest their money into the financial markets. The different options will be covered in depth in chapter 2 called fundamentals of financial investing.

Risk and return are a core concept of financial investing. Naturally, investors are looking for investments that have high returns with low risks. The Capital Asset Pricing Model (CAPM) was introduced in the 1960s and is still used often in investing. According to Rossi (2017), CAPM is useful when investors want to examine the trade-off between risk and return of an asset.

Time value of money is a concept where money currently owned is worth more now than in the future. This is because current funds can be invested and therefore are worth more currently than in the future. It is one of the foundations for financial investing. The following formula shows how to calculate the present value of cash flow. (Berk, DeMarzo & Harford 2018, 116.)

$$PV = \frac{C}{(1+r)^n}$$

PV = Present Value
C = Cash flow
r = Interest Rate per Period
n = Number of Periods

Financial behaviour describes the actions of humans when making financial decisions. When making a financial decision almost always there is an element of uncertainty. "Decision-making requires humans to evaluate choices under conditions of uncertainty." (Baker

& Ricciardi 2014.) This uncertainty makes investors act in different ways resulting in different investing strategies and decisions. Baker & Ricciardi also state that humans have certain preferences. If the individual is rational, these preferences are persistent even in complicated situations.

1.7 Risk analysis

The survey component poses the biggest risk in terms of this study. Surveying students requires research permits from the universities. This poses a risk and can seriously harm the study if multiple permits are denied. Applying for these permits takes time and effort away from other areas of the thesis.

The validity of data is another main concern regarding the survey. The survey was carefully crafted and tested beforehand to ensure that it was easy to understand. Any misinterpretations of the survey lower the validity of the data. The amount of answers required to provide meaningful analysis is a risk. Reaching hundreds of students across Finland will prove to be difficult. It is largely up to the programme leaders distributing the survey to increase the participation. These factors provide the thesis with certain limitations.

Personal risks for the author include time management and staying active. Creating a well thought out plan increases the likelihood of success. Sufficient interaction with the advisor is also needed to keep the study on the right track.

2 Fundamentals of financial investing

The purpose of this chapter is to give the reader information about the topic and subject of this thesis. The theoretical part of this thesis will begin with an introduction to investing. This chapter defines investing and covers fundamentals regarding the subject. After this, the theory covers different investing options available for investors. The section will divide these options into groups for individual studying. An established model that analyses risk and return will be introduced in chapter 2.3. Furthermore, the process of information gathering about investing is included. This will tie into the decision making of investors and the psychological side of financial behaviour. Chapter two will conclude with a review of cultural effects on investing.

2.1 Introduction to investing

Warren Buffett is perhaps the most known and recognisable investor of all time. He is the CEO of one of time largest holding companies in the world called Berkshire Hathaway. Buffet has his take on investing in a Berkshire shareholders letter as he defines "investing as the transfer to others of purchasing power now with the reasoned expectation of receiving more purchasing power – after taxes have been paid on nominal gains – in the future" (Berkshire Hathaway 2012.) He breaks this down to the ability to abstain from consumption today to have the capability to consume more later. Buffett lists investment options into three different categories. The first category is currency-based investments more commonly referred to as debt securities. These include savings accounts, bonds, mortgages, money-market funds, and other options. The second category is classified as assets that do not produce anything. Investors that acquire these types of assets are acting in the belief, that someone will purchase them at a higher price in the future. Gold is a prime example of this type of asset. The final category is the assets that produce something. These are the most preferred assets by Buffett, and he calls them the safest. Productive assets provide some sort of output. Companies and real estate are the major assets in this category.

Diversification is a key component when building a portfolio. It is generally accepted that adding random stocks with equal proportions lowers the risk of the portfolio. The risk decreases as the number of stocks increases. (Statman 1987, 353.) According to Evans and Archer (1968) after 15 stocks the overall risk of the portfolio stops to decrease. This is mainly because the economic benefits of adding stocks is exhausted after a certain

amount. Statman (1987, 354) states that diversification should be increased when the benefits of it exceed the costs. The benefits, in this case, are reduced risk and the costs are transaction costs. Statman's paper concludes that a stock portfolio should include at least 30 stocks to be considered well-diversified.

As time goes on references to the number of stocks in a well-diversified portfolio change. Benjelloun (2010) explains that in the U.S. markets this is due to the natural evolution of the risk structure. Evidence of this is Statman's paper that was published in 2004. This more recent research states that the optimal number of stocks in a portfolio is at least 300. This a significant change to the 30 stocks Statman claimed under 20 years before. There have been numerous researches done regarding optimal portfolio diversification. Despite this, a paper written by Kumar and Goetzmann (2001) found that the vast majority of investors in the United States are under-diversified. This conclusion was made through the examination of 40,000 equity investment accounts and their portfolios. The study explains that even though investors are well aware of the benefits of diversification they do not act according to it. Investors appear to have a misleading sense of control when holding under-diversified portfolios. The results indicate that investors lack the ability to implement and maintain a well-diversified portfolio. Statman (2004, 51) claims that this should not be the case since index-funds provide easy implementation and maintenance.

2.2   Investing options

2.2.1   Shares

A public corporation's ownership is divided into shares also called stocks which can be purchased in the stock market. The owners of these shares are called shareholders. Most companies issue shares in the form of common shares. This means that owners of these common shares have the right to receive any common dividends and the right to vote in the annual general meeting. According to the Accounting and Corporate Regulatory Authority (2019), the annual general meeting (AGM) is an event where a company presents its financial statements to the shareholders. Shareholders have the opportunity to express any concerns about the business and its condition. According to the act on Limited Liability Companies 624/2006 every limited liability in Finland has to organise an AGM within six months of the last financial year. In the financial market's a public firm stock is represented with a ticker symbol. This symbol is a unique abbreviation of the firm. (Berk & al. 2018, 222.) For example, in the Finnish stock market, Kone has the ticker symbol KNEBV and Konecranes is represented with KCR.

In Finland, there are two main ways to purchase shares of foreign and domestic companies. These are the book-entry account and the equity savings account. The equity savings account came to fruition in January 2020. This form of stock purchasing will be covered in chapter 2.2.5. Before the equity savings account investors in Finland primarily used a book-entry account. This account is where stocks owned by the investor are gathered. Opening a book-entry account is very simple and it can be done online. Many banks offer book-entry accounts, but private investors also use other providers such as Nordnet. Depending on the provider, book-entry accounts have different fees. Most providers have storage fees and transaction fees when investors purchase or sell securities. (Mäkinen 2019.) After opening an account, the next step for an investor is to purchase shares. When purchasing stocks, the first thing to look at is the stock quote which includes the last trade price, trade volume, bid and ask price. When purchasing, the ask and bid price are especially important. The ask is the lowest price someone in the market is willing to sell at. The bid is the highest price someone in the market is willing to buy at. The difference of these is known as the bid-ask spread. When the bid and ask price correspond a trade occurs. (Hernando 2020.)

2.2.2 Bonds

Companies have multiple ways of raising capital. A company can issue more shares or take out a loan from a bank, but it can also issue and sell bonds. When purchasing a bond, the company or the government gives a promise to pay a certain amount in a given time period. Depending on the bond you might also receive regular interest payments along the way. (O'Sullivan, Sheffrin & Steven 2003,568.)

A bond can be described as a loan and the terms of this loan are listed in the bond certificate. The final repayment date of a bond is called the maturity date. Ordinarily, bonds make two types of payments. The face value of a bond is an abstract amount used to calculate the interest payments of the bond. The face value is paid back at the maturity date. So typically, the two payments are the repayment of the face value and the interest payments. These interest payments are often referred to as coupons. This is why bonds with interest payments are called coupon bonds. The value of the coupons can be calculated with the following formula:

$$Coupon = \frac{CPR * FV}{NPER}$$

CPR = Coupon rate or interest rate
FV = Face value

NPER = Number of coupon payments per year

The most straightforward bonds are called zero-coupon bonds. These bonds do not make the coupon payments which were previously discussed. The investor receives only one cash flow as opposed to two. This cash flow is the face value of the bonds at the maturity date. The U.S government offers zero-coupon bonds with a maximum maturity of one year called treasury bills. Zero-coupon bonds are also called pure discount bonds. This is because investors buy the bonds at a discount price from the face value. When the bond matures the investor receives the face value of the bond. The investors are compensated based on the time value of money. (Berk & al. 2018, 184-186.) The timeline below show-cases the cash flow of an investor when purchasing a 50,000€ zero-coupon bond. In the timeline, the investor pays 49,000€ as a discounted face value and receives 50,000€ at the maturity date.

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(49,000€)              50,000€
    |                     |
    |---------------------|
    0                     1
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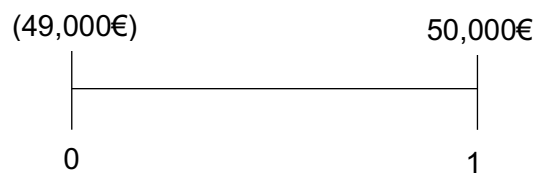
2.2.3 Funds and indexes

Funds are mainly categorised into mutual and exchange-traded funds (ETFs). Even though they have some differences they both are a combination of securities most commonly shares. Mutual funds gather money from several investors and then invest it into different securities like stocks and bonds. When investing, investors buy a share of the mutual fund. These shares represent ownership in the mutual fund. Mutual funds are professionally managed by fund managers. These managers choose the securities in the fund and track them. These funds are typically diversified. They invest in different industries and companies which lowers the overall risk of the investment. The costs of mutual funds are spread out amongst all investors which keeps the costs low. Investors will also have the benefit of liquidity since the shares can be redeemed at any time. All of these factors make mutual funds very convenient and popular. (Investors 2019.) ETFs have the same core principle as mutual funds. To gather money from investors and invest it into different securities. A key difference between ETFs and mutual funds is that ETFs are traded in the stock exchange like the shares of a public company. This results in constant pricing of the ETF while mutual funds are priced once a day after the market closes. (Vanguard 2019.)

According to the Cambridge dictionary (2019), an index is "a system of numbers used for comparing values of things that change according to each other or a fixed standard". In the U.S stock markets, the two most tracked indices are the Standard & Poor's 500 (S&P 500) and the Down Jones Industrial Averages which is also called the Dow. The S&P 500 is comprised of the 500 largest market capitalisations in the New York stock exchange. The wide scale of this index makes it an accurate indicator of the US stock market performance. The index represents around 80% of the U.S. stock market value. (McConville 2018.) The S&P 500 is weighted using the float-adjusted market capitalisation. This means that the shares used in the calculation are the ones available for investors. Shares that are held by control groups, publicly traded companies, government agencies and other strategic shareholders are excluded. This represents the value available for public investors. The market capitalisation of these shares is divided with an index divisor developed by Standard and Poor's. (S&P Dow Jones Indices 2019.)

The other closely tracked index in the U.S. market is the Down Jones Industrial Averages (DJIA). The DJIA is different from many other major indexes in that it uses price weighting rather than market capitalisation weighting like for example the S&P 500. Price weighting simply means that each stock is weighted by its price relative to the price of all of the stocks within the index. The DJIA includes 30 U.S. companies chosen by S&P Down Jones indexes. (Lo 2015.) There are no set rules for companies to be included in the DJIA but there are general guidelines. The companies included are required to be large established companies that represent a crucial portion of the U.S. economy. (Kennon 2019.)

2.2.4 Real estate

Investments are commonly divided into two classes. Traditional investments and alternative investments. The well-known assets like stocks and bonds are traditional investments. Real estate is considered to be an alternative investment. (Smith 2019.) Essentially real estate in financial investing is the owning of property. Real estate can be owned, leased, rented, or sold. This investing method might be unfamiliar to many, but it can provide good diversification to a portfolio. Real estate investing can be done also in the form of a fund or through debt. (OP 2019.)

There are different categories of real estate investing. Residential includes apartments, houses, condos, and townhouses. Commercial real estate (CRE) consists of property used for business purposes such as offices and restaurants. The other two categories are industrial and land. Warehouses, factories, and powerplants are industrial real estate. Investors have multiple ways of generating income from these categories. The most traditional way is to rent out the property and gain value from regular rent payments. Another

way to gain value from real estate is through appreciation. The increase in the value of the property over a certain period of time is the potential profit. Appreciation can be passive or active. (Fundrise 2019.)

2.2.5 Savings accounts

Savings accounts are a common way to set aside money and gain interest in the process. They are easy and effective in saving money. They offer a secure investment but with a low return. According to Bankrate (2019), the highest annual percentage yields (APYs) in January 2020 are just under 2%. The average historical return for the Finnish stock market in the past 20 years is 6,1% (Heikkilä 2019). From this, we can see that stocks offer a substantially higher rate of return. Savings accounts, however, are effortless and do not have the same price fluctuations as the stock market.

A fixed-term account is a form of saving. The interest rate for the funds deposited is decided beforehand which will last the whole duration that is agreed upon. These types of accounts interest rates usually increase the longer the saving duration is. (Nordea 2019.) As a part of the Finnish governments, housing programme individuals who are between the age of 15-39 can open an ASP account. This savings account is meant for the purchasing of their first home. The money deposited into the account earns an annual tax-free interest of 1% and an additional interest depending on the bank. Once 10% of the future homes price is gathered into the savings account the bank will grant an ASP loan for the rest. (OP 2019.)

Private investors in Finland will have the opportunity in 2020 to open an equity savings account. Through this account, investors will be able to purchase shares of domestic and foreign companies that are listed in the stock exchange. The maximum deposit for the account is 50,000€. The key point for the equity savings account is that investors can sell shares and re-invest dividends without any tax effects. As long as money is not being withdrawn from the account the selling of shares will not bear any direct tax effects. The legislation for this was passed in the hopes that investing would become more popular for average citizens. Because of the simple taxation, the stock market becomes more approachable for the ordinary small-scale investor. A drawback to the equity savings account is that when withdrawing funds all of the dividends earned are subjected to capital tax income. Traditionally 85% of the dividend earnings are subjected to tax and the 15% is tax-free income. (Eduskunta 2018.)

2.2.6 Commodities

A commodity is a simple good or material which has a relatively constant quality. This good or material is also widely available for numerous producers. The most common commodities include metals, agriculture, and energy. These commodities are traded in the commodity market. (Investing 2019.) Investing in commodities can be done through multiple channels. ETFs that track some commodity index like the Bloomberg Commodity Index (BCOM) are an option for investors. Directly investing in commodity company stocks is the simplest form of commodity investing. This can, however, be problematic at times. A company's stock price is not a direct representation of the commodity price. For example, the rise in crude oil prices does not necessarily mean that every crude oil company stock will rise. (Thompson 2019.)

Commodities have traditionally been a way of diversifying an investor's portfolio. Commodity futures are agreements to purchase or sell commodities at a specific price in the future. According to Gorton and Rouwenhorst (2006), traditional assets have a negative correlation with commodity futures and over longer time periods the negative correlation is stronger. This would indicate that commodities are a good investment for investors trying to hedge their traditional portfolios. Lombardi and Ravazzolo (2013) argue that this way of thinking has changed during recent years. It has been pointed out that equity and commodity prices have been moving in the same direction. One cause for this has been negative or positive assumptions about the global economy. Lombardi and Ravazzolo (2013) compared the weekly returns of the Morgan Stanley Capital International global equity index (MSCI) and the Standard & Poor's Goldman Sachs commodity index (SPGSCI) between 1980 and 2012. The results showed that correlations fluctuate between positive and negative but average around zero. They also used different methods to measure the correlations between equity and commodity returns which resulted in a positive correlation in the latter part of the sample. Their research also showcased that positive correlation increased substantially after the financial crisis of 2008. These findings would indicate that commodities might not offer safety for adverse equity investment price movements.

2.3 Risk and return

When considering financial investing a greater risk is often correlated with greater returns. Finding the optimal ratio between these two has been a key part of financial investing. An American economist called Harry Markowitz wrote a paper in 1952 called "Portfolio Selection". In this paper, Markowitz established the basis for Modern Portfolio Theory (MPT).

MPT says that individuals should focus on the trade-off between risk and return. In essence, MPT helps investors receive the maximum return for the risk level they are willing to take. This risk level can be lowered by choosing a diversified portfolio. Modern Portfolio Theory set the foundations for a model that is still applied to this day. This model is called the Capital Asset Pricing Model (CAPM).

CAPM was introduced by Jack Treynor (1962), William F. Sharpe (1964), John Lintner (1965) and Jan Mossin (1966). CAPM provides the expected rate of return of a stock based on its level of risk. Investments are often compared to their opportunity cost. Risk-free investments like government bonds are typically used as the opportunity cost when evaluating investments. The difference between the expected rate of return and the risk-free rate is called the risk premium. The risk premium shows the gain or loss of taking on additional risk. (Haruna 2017.) CAPM lays out two distinct types of risk. One of them is referred to as ß (beta). Beta is the measure of systematic risk also known as market risk. A positive beta suggests that the asset moves in the same direction as the market. A negative beta suggests the opposite. If the beta is close to zero, the asset price fluctuations are not influenced by the market. (Micklitsch 2018.) The other type of risk is unsystematic risk. This risk is inherent to the company but can be mitigated through a diversified portfolio. (Burton 1998.) The formula for CAPM is the following:

$$Re = Rf + \beta \ (Rm - Rf)$$

Re = Expected return of the investment
Rf = Risk-free rate
ß = Beta
Rm = Market return

The notion of two different types of risks is key to understanding CAPM. The actual formula of CAPM does not include unsystematic risk as it only includes beta. According to Lubatkin, Schulze, McNulty and Yeh (2003, 83) CAPM is not suitable for individual stocks and it was never intended to be. CAPM is a theory on how well-diversified investors manage risk. CAPM should be used to analyse portfolio risk and not individual stocks. This being said, Lubatkin & al. (2003) argue in their paper that using CAPM to evaluate a firm's cost of capital places the investor at risk. A big problem lies in the usage of beta. If companies use beta to calculate the cost of capital, they face the risk of underrating investor assumptions. By using beta companies only focus on the macroeconomic trends in which they have virtually no control over. Fama and French (2004, 43) stated that CAPM has never achieved empirical success. It inaccurately represents the relation between beta

and average returns. The relation between these two is lower than the model assumes. This results in an overly higher cost of equity for high beta stocks and vice versa. Despite this Fama and French (2004, 44) describe CAPM as a theoretical tour de force. It serves as an introduction to asset pricing and portfolio theory. This knowledge can be built upon and applied to more intricate models.

2.4 Financial literacy

A study was conducted in 2016 by Junior Achievement Europe (JA Europe) about improving financial education. Management in business and finance across Europe was surveyed on what are the most important financial skills needed from young people. The most frequently answered areas were financial planning, budgeting and accounting. Attitudes and soft skills were also high on the list. The survey followed up with a question on what financial skills young people are missing regularly. The results were that one or two of the three skills most needed were missing according to 71% of the respondents. In addition to this 23% specified that all three skills were missing. Another study found that among young people there is a serious inability regarding interest calculations, inflation and diversification. Only 27% of the participants were knowledgeable in these subjects (Lusardi, Mitchell, and Curto 2010, 19).

The studies mentioned before were targeted towards young adults however, it can be observed throughout the world that financial literacy is a problem across the whole population. Lusardi and Mitchell (2011, 13) concluded in their study that financial literacy is very low around the world. They demonstrated that even in developed European financial markets such as Germany and the Netherlands financial illiteracy is common. Another finding was that if a country has experienced inflation recently the respondents scored better on the inflation-related question. This suggests that real-world experience in economics increases the knowledge on the subject. When it comes to age, financial illiteracy followed an inverted U-shape pattern. This means that financial knowledge is the lowest amongst young and old groups. The peak is observed between these in the middle of the life cycle. Lusardi and Mitchell (2011, 10) also found that in most cases women seem to have less financial knowledge than men. This finding is in line with research done by Hasler and Lusardi (2017) for the Global Financial Literacy Excellence Center (GFLEC). Based on the Standard & Poor's Ratings Service Global Financial Literacy Survey (S&P Global FinLit Survey) they (2017, 16) state that financial illiteracy is widespread and especially noticeable among women. This gap between genders is present worldwide regardless of financial market development, institutional structure, social and cultural contexts.

The potential positive impact of financial education on financial literacy and behaviour has been demonstrated. Kaiser (2017, 22) provides evidence that financial education can be effective. His study found that some subjects were more effective than others. For example, improving saving and budgeting behaviour proved to be much more successful than improving debt behaviour. The effectiveness of financial education was affected by the characteristics of education. Kaiser (2017, 3) found that the positive effects were increased when applied teaching at a teachable moment. According to Miller & al. (2015, 13 in Kaiser 2017, 3) this moment occurs when the subject taught has immediate relevance. Another key finding was that the effects of financial education are depended on the group. Financial education towards lower-income groups had a lesser impact. The significance of financial education was also lower when the mean years of education increased. Kaiser explained that this was mostly due to diminishing marginal returns. Another major source of financial knowledge for young people according to Lusardi & al. (2010, 20) is their parents. In their study participants whose mothers had a high level of education or whose families owned shares or other savings were more financially literate. These young adults demonstrated better knowledge especially in risk diversification and other advanced topics. This would indicate that parents play a role in the financial literacy of young adults. A study conducted by Rena (2017, 21) supports this claim. Rena's study found that if the grandparents and parents of students had invested in the stock market then the students were more likely to value investing more.

2.5   Investing knowledge and analysis

There are many ways to start investing but it all comes to being knowledgeable. For students and younger people, it is common to receive advice from parents and relatives. Education also plays a major role in investing. Learning about investing does not differ from any other skill in life. There are numerous books written about every investment option possible. Books such as The Intelligent Investor written by Benjamin Graham in 1949 are still relevant and used by beginners who are just getting into investing. With today's world, a lot of information gathering can be done online. Sites like Morningstar.com offer free online classrooms that help new investors get started with the basics. For Finnish investors, sites such as Nordnet provide webinars that explain investing options and basic strategies.

When the basics are understood investment options can be analysed more comprehensively. Graham and Dodd (1934, 15) form three distinctive categories for the analysing of securities: descriptive, selective and critical. Descriptive analysis is assembling the facts regarding the issue and presenting them in a comprehensible and logical manner. This type of analysis can show the positive and negative implications of almost any security.

According to Graham and Dodd selective analysis goes deeper than this. It tries to figure out if a certain security should be sold, bought, exchanged, or held. Critical analysis is concerned about the facts being presented fairly. Analysts rely heavily on the information provided by accountants. Analysts have to be exceptionally critical of the accounting methods used. The inability to do so can lead investors into situations similar to Enron in 2001. Finally, analysts should be critical of the management decisions since these have large implications on the securities value. Graham and Dodd (1934, 20) lay out three obstacles for analysts. The first one is inadequate or incorrect data. The second is that the future is uncertain and the third is the irrational behaviour of the market. A renowned British economist called John Maynard Keynes had a famous quote that ties into the third obstacle: "The market can stay irrational longer than you can stay solvent". This means that even though your right about something the market can be so slow to change that you run out of money in the process.

2.6   Interests and preferences

When it comes to the investing interests and preferences of students, we can notice that they differ from other groups. Since there is a lack of studies conducted specifically on students, we will use the age group known as millennials. Millennials are an age group born between the years 1980 and 1995 (Foot and Stoffman 1998). Nguyen (2017, 37) studied the investment risk profile of millennials. This study concluded that millennials are risk averse. It also found differences when comparing men and women. These findings were in line with the research mentioned earlier in this study. Nguyen states that women have a lower subjective level of financial knowledge than men. Men also scored higher in risk-related questions. According to Rena (2017, 33) millennials are interested in technology. They were raised with technology and it is a part of their everyday lives. Rena suggests that most young investors will demand more technology in investing and financial management. Many millennials also identify digital investing to lower fees and transaction costs. Rena's research found an interesting preference for millennial male investors. The study found that men seem to care less if the company shares their moral code when they receive higher profits. His research also raised an important point which relates to a key aspect of this thesis. The absence of business studies and financial literacy scares millennials away from investing.

Through the lifetime of millennials, there have been significant financial events such as the dot-com bubble and the financial crisis of 2008. According to Henricks (2014), the 2008 crisis has led to millennials stash cash instead of investing it. Many millennials see the markets and current climate as volatile. In Rena's (2017, 29) study it was asked if the

2008 financial crisis made the respondents less comfortable with the stock market. The results were almost evenly split with 50% feeling unaffected and 48% feeling less comfortable. The impacts of these bear markets and crashes vary. Vanguard (2018) researched risk-taking across generations. They found that the majority of Vanguard millennials are taking considerable levels of equity risk regardless of the events mentioned. When it comes to companies' millennials seem to prefer the technology industry. According to Apex Clearing's Millennial research (2019), the three most owned shares for millennials are Apple, Amazon, and Tesla. Millennials are a large group of investors nowadays. There are even indices and ETFs created that are compiled of companies that are preferred by millennials.

2.7   Behavioural finance

Traditionally investing behaviour is explained through conventional models and theories. Behavioural finance studies the psychological and sociological issues that affect investment decisions among individuals, communities, and companies. (Ricciardi & Simon 2000, 2.)

Behavioural finance defines common psychological mistakes that investors make. Investors face different types of pitfalls in decision making. A theory that covers the significance of losses was introduced by Kahneman and Tversky (1979). This theory was called the prospect theory. Through their research, they found that investors are averse to losses. Kahneman and Tversky (1979, 278) explain that people who are not comfortable with their losses accept new gambles which they would not accept under normal circumstances. This suggests that losses are trying to be recovered with potentially higher returns but with also much higher risks. Meta (2015, 17) references to this as the get-even-itis. This is a type of bias that places investors at risk of losing even more money. Meta's paper lists out multiple different biases that investors fall into. Confirmation bias is one of the most common ones. It occurs when individuals select information or view facts in a way that supports their view on the subject. This can prove to be detrimental in investing. Another type of bias mentioned is called Myopic loss aversion. In this, investors are more sensitive to losses than profits. If investors check their portfolios often, they might overreact to short-term losses. Home bias refers to the phenomenon that investors prefer stocks that relate to their domestic markets. Chan, Covrig, and Ng (2005) conducted a study on over 3,000 mutual funds from 22 countries. They found out that the home bias attitude is strong based on the managers location, language and cultural background. The study shows that managers are inclined to invest in U.S. companies that have a presence in their home country over companies that do not. These managers tend to increase their holdings in a

company after it establishes operations in their home country. This evidence provided by Chan, Covrig and Ng (2005) shows a clear home bias in managers regarding foreign investments.

2.8   Cultural effects

In investing, culture affects attitudes, interest, patience, and risk management. All of these are key components of investing even though investors all across the globe are looking for the same end goal. Behavioural finance shows that there is one way to act rationally but multiple ways of acting irrationally. (Meta 2015,18.) Even though the world is more globalised now than ever before there are still noticeable patterns in different cultures.

Hofstede (2001) defined culture as "the collective programming of the mind which distinguishes the member of one group or category of people from another". Given that culture can be hard to measure and quantify it presents a challenge in comparing it to investing and market behaviour. Wang, Rieger and Hens (2016, 13) studied how culture effects time preferences. Their survey consisted of 6912 university students across 53 countries. When observing if participants prefer to receive 3400$ this month or 3800$ next month differences were found. The highest percentage that was willing to wait for next month was in Germany. The lowest percentage was in Nigeria. Figure 1 demonstrates the percentages that chose to wait for the next month grouped by cultural origin.
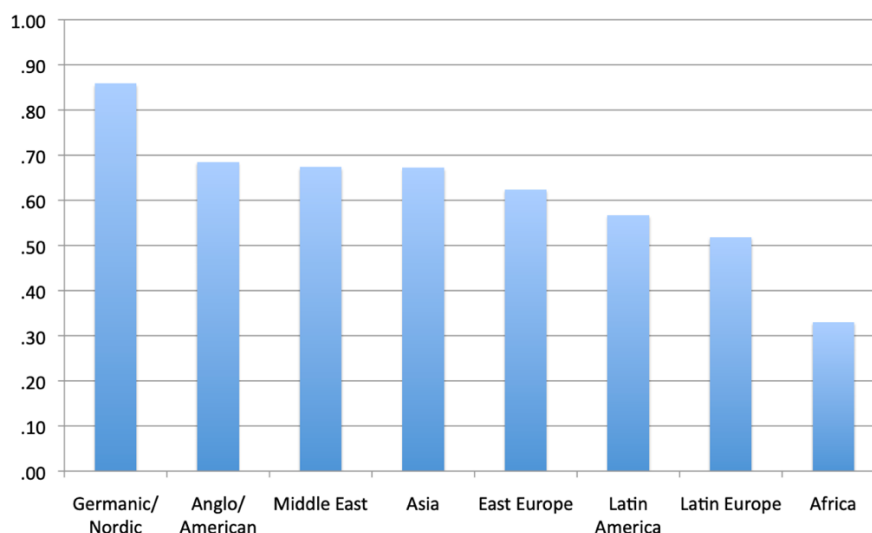

Figure 1. The percentage of choosing to wait grouped by cultural origin (Wang, Rieger and Hens 2016, 13.)

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Wang, Rieger, and Hens (2010, in Meta 2015, 20) provide evidence to differences in loss tolerance across cultures. Anglo-Saxon countries have the highest tolerance of loss and individuals from eastern Europe are highly loss averse.

This type of study can be linked to the cultural dimensions defined by Geert Hofstede. Table 1 shows the applicable dimensions for this study. Alongside the definition, there are three examples of the extreme highs and lows of every dimension.

Table 1. Hofstede's Cultural Dimensions (adapted from Hofstede-Insights)

Hofstede	Definition	High	Low
Power Distance	The degree of power a person can apply over others.	Malaysia, Guatemala, Panama	Austria, Israel, Denmark
Individualism versus Collectivism	The extent of interpendence a community manages amongst it.	United States, Australia, United Kingdom	Guatemala, Ecuador, Panama
Masculinity versus Femininity	Success defined as winning or being the best (Masculine) vs the quality of life and not sticking out of the crowd (Feminine).	Japan, Hungary, Austria	Sweden, Norway, Netherlands
Uncertainty Avoidance	The approach in a society to the fact that the future cannot be know	Greece, Portugal, Guatemala	Singapore, Jamaica, Denmark
Long-Term Orientation	How communities retain tradition while addressing the present and the future	China, Hong Kong, Taiwan	Sierra Leone, Nigeria, Ghana

Differences in risk-taking are apparent across cultures as well. Individuals in lower-income countries have higher goals in relation to their current earnings. These individuals are willing to take more risks not because they enjoy it but rather because they are willing to use it as payment to progress in life. In the context of the cultural dimensions countries that

are high in collectivism allow for more risk-taking. This is because these cultures provide safety for the drawbacks of the risks. (Statman 2008, 38-44.) The figure below demonstrates that people in highly individualistic countries such as the United States have a natural tendency to avoid risk. While countries with high collectivism such as China and Vietnam have higher natural tendencies to accept risk.
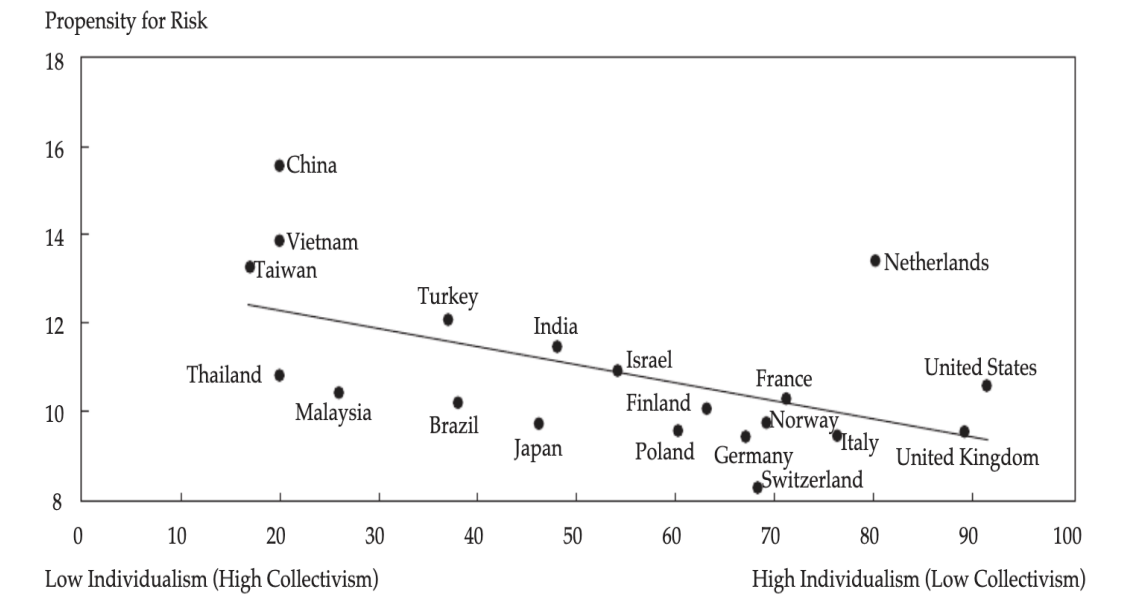

Figure 2. The Association between Degrees of Individualism or Collectivism of the People of Various Countries and Their Propensity for Risk (Statman 2008)

3 Research methods

The main goal of this thesis is to find out habits and interests in investing of international business students. This chapter will analyse the different components of research conducted for this study. It will discuss how data was gathered and composed. It will also provide a structure for the design of the research.

3.1 Research design

This research is conducted in two phases. The first phase consists of secondary research. Past literature and studies will be examined in this phase. The second phase consists of a survey that was constructed specifically for this thesis. This survey serves as primary research for this study. The survey results are analysed with statistical and qualitative methods. This analysis is carried out with the help of Webropol, Excel, and SPSS. After phases one and two are complete they are analysed together and then with the original research question.
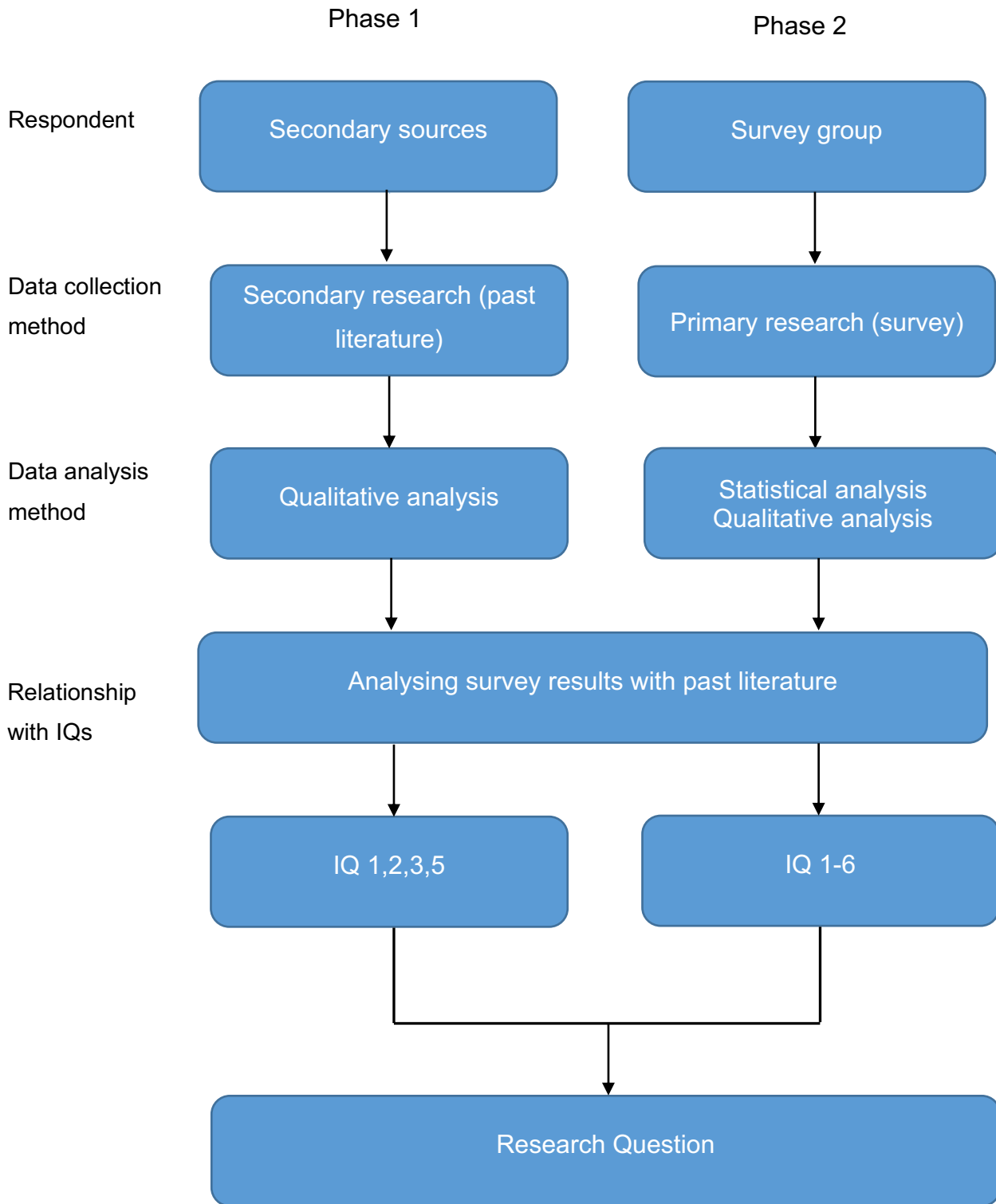
	Phase 1	Phase 2
Respondent	Secondary sources	Survey group
Data collection method	Secondary research (past literature)	Primary research (survey)
Data analysis method	Qualitative analysis	Statistical analysis Qualitative analysis
Relationship with IQs	Analysing survey results with past literature	
	IQ 1,2,3,5	IQ 1-6
	Research Question	

Figure 3. Research design

3.2   Population and sampling

The population consisted of International Business students from eight Universities of Applied Sciences (UAS) across Finland. The aim was to get a wide range of UAS's ranging from different parts of Finland. The survey was sent to the following schools: Haaga-Helia University of Applied Sciences, South-Eastern Finland University of Applied Sciences, Metropolia, Häme University of Applied Sciences, Satakunta University of Applied Sciences, Oulu University of Applied Sciences, Kajaani University of Applied Sciences and Lapland University of Applied Sciences.

Having International Business students as the sample provided different nationalities which increases the scope of the study. This population also offers a wide range of specialisations. The impacts of these two will be examined further in this thesis.

3.3   Data collection

The primary data was collected with a survey. Priscilla (2005, in Pinsonneault and Kraemer 1993) states that surveys are suitable for gathering information from larger audiences about their activities, attitudes, and characteristics. Furthermore, Priscilla (2005, in McIntyre 1999, 74) indicates that surveys are suitable for demographic data. Surveys can also gather data about opinions that would be otherwise difficult. Based on these factors the survey method was appropriate for this dissertation. The survey used in this study consisted of 16 questions. The first question of the survey split the demographic into two categories. These were students that had investments or savings and students that did not. Based on this, students were first asked questions related to investing and saving options. After this, the survey moved into questions relating to investing education and services available for students. Risk and other behavioural tendencies were enquired next. The survey concluded with demographic questions. Questions that asked students about their opinions and feelings used the Likert scale.

The survey proved to be the right data collection tool considering the geographical location of the universities that were surveyed. Each University of Applied Sciences was contacted regarding the survey. Most of the UAS's required a research permit to survey their students. No applied permits were denied in the process of this thesis.

The surveys were distributed to the students depending on the UAS. Some schools sent emails to all of the International Business students with a link to the survey. Other schools

posted the survey in their Intranet. The survey began on the 20th of January 2020 and it lasted for two weeks until the 2nd of February.

3.4   Data analysis methods

The main data analysis method for this thesis will be quantitative analysis. This type of analysis will be carried out with SPSS. Descriptive statistics are used to define the relationships among different variables in the population. Each respondent has characteristics that differ from others. These are called variables. The population is also analysed with the use of central tendencies. The arithmetic mean also known as the average is used to get an overview of the data. (Ali and Bhaskar 2016, 662-669).

In terms of quantitative analysis, the main tool being used is non-parametric testing. This type of method does not assume that the data set used is normally distributed. Furthermore, it makes minimal or no assumptions at all about the data used. Nonparametric measuring allows for a broader scope due to no assumptions being made for the population. It is also suitable even when the data set is produced with a weaker measurement scale which in this study is the nominal and ordinal data. (Hesse, Ezekiel, and Ofosu 2018). The two types of nonparametric tests being used in this research are called the Mann-Whitney U test and the Kruskal-Wallis one-way ANOVA. The Mann-Whitney U test compares the differences in medians of two data series. This test is used instead of the t-test because the sample is not normally distributed. The Mann-Whitney U test will assess the null hypothesis for different scenarios. (Milenović 2011, 73-79). The Kruskal-Wallis test will provide similar results but with more than two groups of an independent variable.

3.5   Reliability, validity and relevance

Reliability, validity, and relevance are protected with thorough preparation of a survey which is the primary source for this thesis. The data from the primary source will be presented validly and accurately. The survey results are analysed with Excel and SPSS. The survey was tested with a small sample to ensure that it was easy to understand and answer. There are some natural limitations to the population reach of the survey. These were neglected as much as possible with the active promotion of the survey.

In research, reliability is related to the consistency of the method used. The survey used in this research has some reliability concerns. The main one being diachronic reliability which refers to how stable are measurements over time (Howell & al. 2012).

The personal and financial situation of each student will affect how they answer the survey. Any major political or economic occurrences can impact the student's perception of investing. In this thesis, validity looks at how well does the data from the survey comprise the area of research. The survey questions were formed based on the investigative questions of this study. With this method, the survey can cover every area of the research. Six distinctive areas are covered with the survey. (Taherdoost 2016, 28-36.)

The main method of obtaining information is the survey. This is the most efficient way to gather data from a large group of students. Interviewing is not a practical solution since the population of the study is located all across Finland. Distributing an online survey via the program coordinators is the method that was chosen. The goal is that students provide data that is accurate and authentic. The survey questions were designed in a way that the students felt comfortable answering them. The wording of the questions is also important since the validity of the data is harmed if the questions are understood incorrectly. The main aspect of relevance will come through the multiple universities that will be surveyed in the thesis. The two past studies done on the subject have a large focus on the capital region of Finland. This study will look at multiple different universities all across Finland.

Critical thinking has been applied to secondary sources. Alternative theories and more recent studies have been applied to further increase the relevance and validity of the study. A multitude of research has been studied to further expand the scope of the theory.

4   Results

This chapter of the thesis will analyse the results of the survey. The results will be presented in numerical and graphical form. Statistical analysis was conducted with the help of SPSS. There are some limiting factors in terms of the demographic in this analysis. First, any culture comparisons will be done between Finnish students and students from other countries. This is due to the lack of respondents from other countries. The analysis will include four of the eight universities that were surveyed. These four universities in question had more than 10 respondents. Any analysis of the student's specialization is limited to the following specializations: Accounting & Finance, Marketing, and No Specialization. There were two nonparametric tests used in SPSS which were the Mann-Whitney U test and the Kruskal-Wallis one-way ANOVA. The Mann-Whitney U test is applied to samples that had two groups: gender and nationality. The Kruskal-Wallis one-way ANOVA is applied to specialization and school since they had more than two groups.

4.1   Investing and saving

A total of 98 people answered the survey. Background information was asked at the end of the survey. This was done so that students would get engaged in the subject right from the beginning. The survey began by asking the respondents *"What investing or savings options are you using?"* (figure 4). Out of the 98 answers, 68 replied "Yes" to the first question. Almost 56% of students that answered "Yes" were female. A noticeable difference was found in the nationalities of the students. Finnish students had a higher investing and saving rate with 77% answering "Yes". Students that were not Finnish had the corresponding rate of 46%. Students that had investments were then asked, *"What investing or savings options are you using?"* (figure 4). Savings accounts were the most selected option with 72% and stocks the second with 43%. Nearly 79% of women had savings accounts. For men, the most chosen options were savings accounts with 68% and stocks with 50%. Women had a lower preference for stocks with 37%. When analysing mutual funds and ETFs there was a difference between men and women. 26% of women had invested in mutual funds but only 8% into ETFs. For men, this was the opposite with 11% for mutual funds and 25% for ETFs. Other notable categories for both men and females were indices and real estate.

When comparing Finnish students with students from other countries savings accounts remained the most chosen option. A difference between these students was with mutual funds and indexes. One non-Finnish student invested in mutual funds while 11 out of 70

Finnish investors had investments in them. Only Finnish students answered with having investments related to indexes.
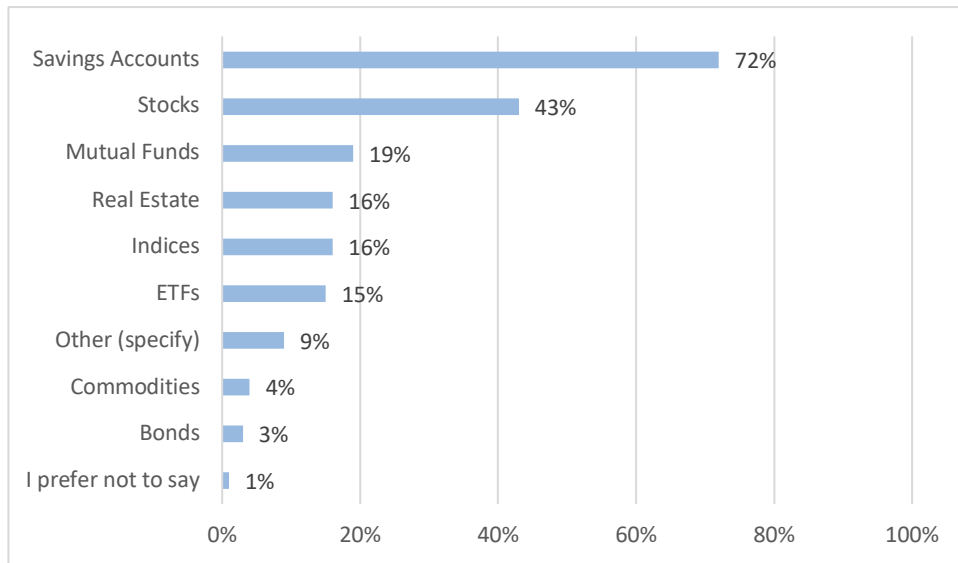

Figure 4. Investing options

Students were then asked, *"What is your primary goal in investing?"* (figure 5)*.* The answers were predominantly divided between two options. 43% selected "General increase in financial stability" as their primary goal in investing. The second largest reason for investing with 32% was "Saving for a long-term goal (For example a house)". Comparing investing options and goals showed that students with savings accounts had long-term goals in investing. Students with savings accounts had two primary goals, the general increase in financial stability with 49% and long-term goals with 35%. The same trend was apparent in stocks with over 72% of stock investors falling into the two categories mentioned.
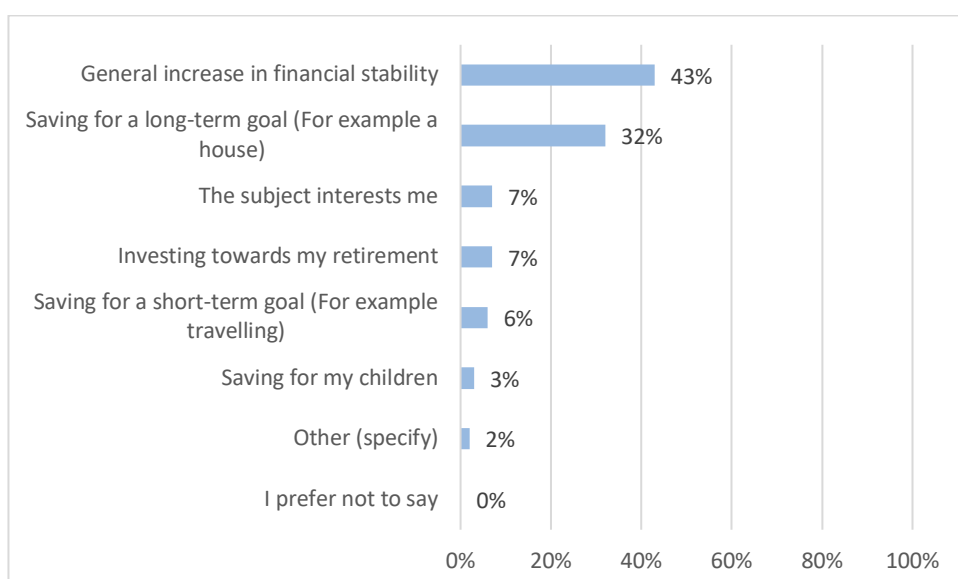
Figure 5. Investing goals

In the survey, 30 students stated that they do not have investments or savings accounts. The gender of these 30 students was almost evenly split with 14 being female and 16 males. The respondents were asked, *"To what extent are the following factors the reason for not investing or saving?"* (figure 6). This was done using a 4-point Likert scale ranging from not at all to a lot. "Not enough spare funds currently" and "Not having enough knowledge and information about the financial markets" had the highest means with 2.8. Not having an interest in the subject, not having a need to save money and it being too risky all had an average close to 2.

When comparing the factors for not having investments or savings accounts with the specialization of the students a difference was noticed. A significant (p-value 0.049) difference in the category "Not enough spare funds currently" was observed. For accounting and finance students this reason was much more important than for other students. Lack of spare funds had a mean of 3.8 for accounting and finance students. For other specializations the mean was around 3.
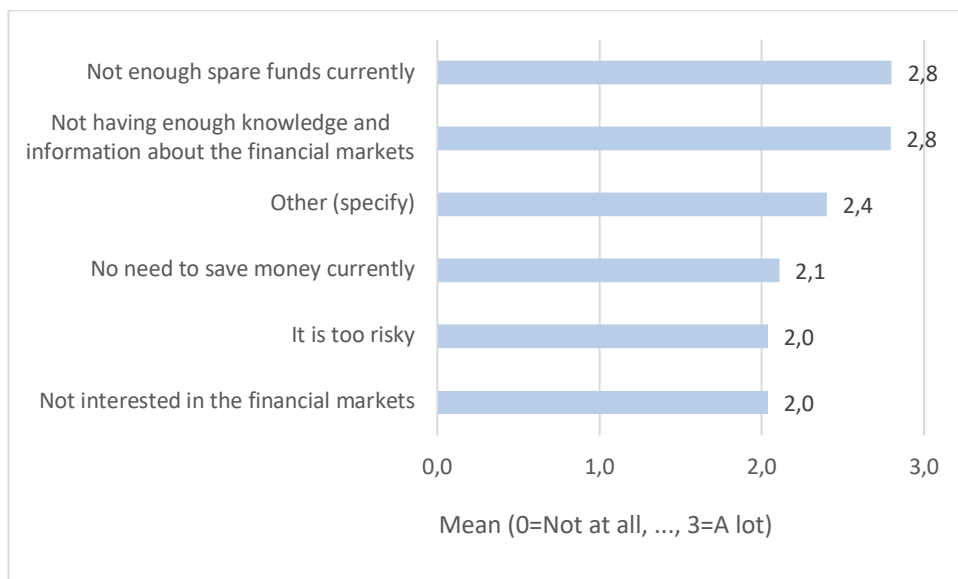

Figure 6. Reasons for not investing

These 30 respondents were also asked, *"What would make you invest your money?"* (figure 7). 77% of students chose "Having more spare funds" which made it the most popular. Another popular scenario was "Having knowledge and information about the financial markets" which 57% of the respondents chose. The students that chose "Having more spare funds" showed a preference towards certain information outlets. Universities, banks, and

the internet were the most popular ones. The students that didn't invest because of a lack of knowledge and information about the subject also chose these three outlets the most.
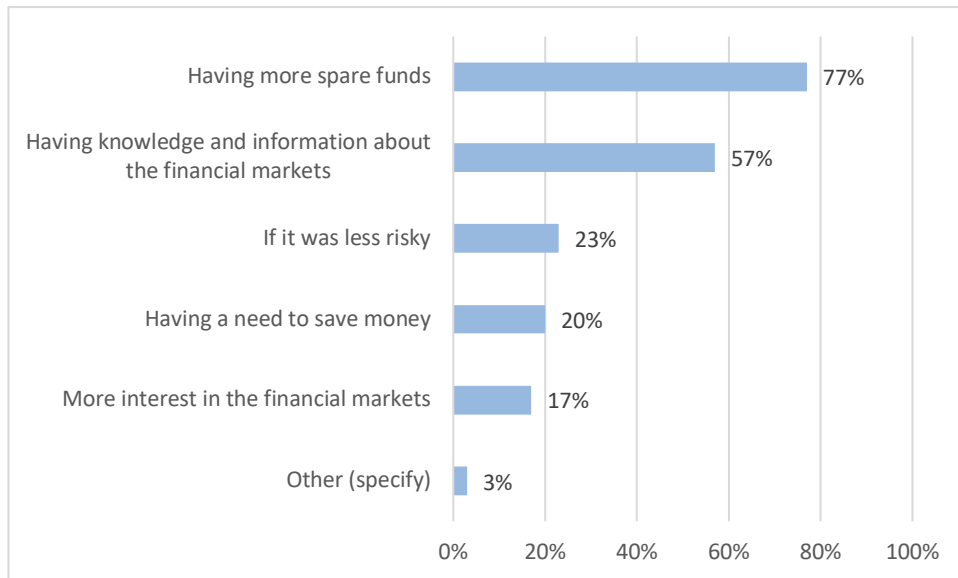

Figure 7. What would make students invest?

4.2   Education and services for students

Using a 5-point Likert scale the respondents were asked, *"To what extent do you agree with the following statement: There needs to be more services available for students about investing and saving."* (figure 8). The scale used ranged from strongly disagree to strongly agree. The large majority agreed (44%) or strongly agreed (30%) with the statement. 18% of the respondents had a neutral response to the statement. In total, only 8% had a negative response to the statement.
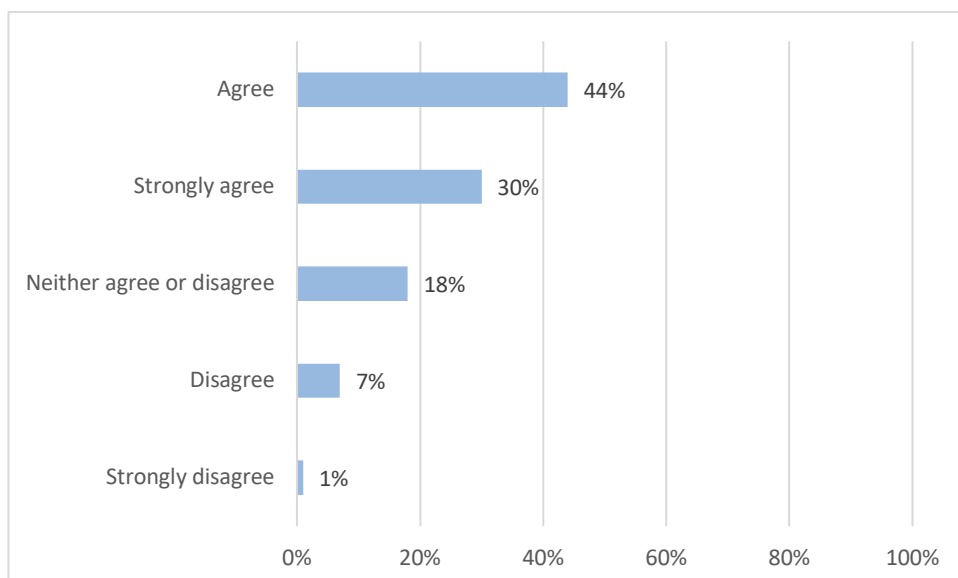
Figure 8. Need for investing and saving services

The students were asked to rate the same statement but with regards to education in-stead of services in figure 9. This yielded similar results with 47% agreeing and 36% strongly agreeing with the statement. 9% of the replies were neutral and 8% negative.
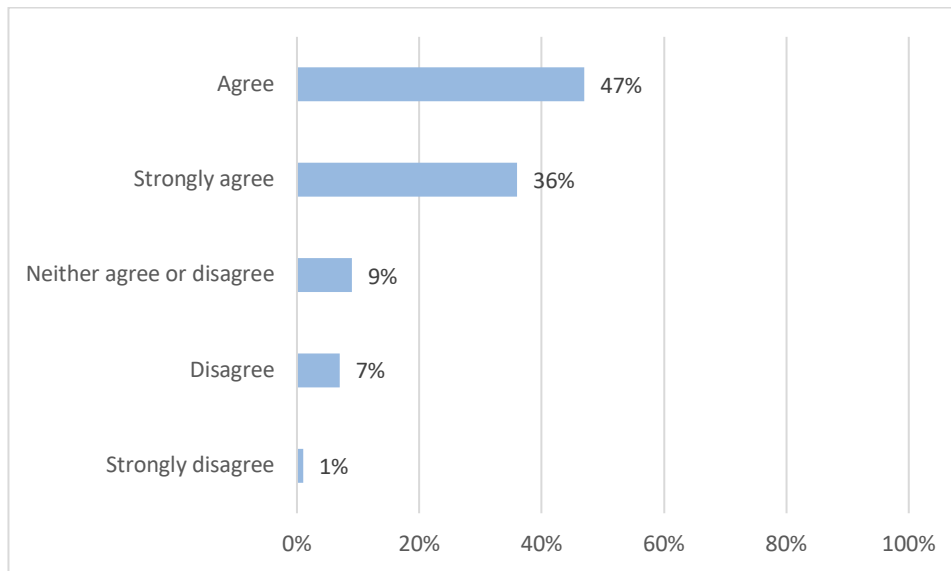

Figure 9. Need for investing and saving education

In the next part of the survey, students were enquired the following: *"From where would you like to gain information about investing and saving?"* (figure 10). This question was a multiple-choice question. 72% of respondents chose "Universities" as a source of infor-mation which made it the most popular choice. This was followed up by banks which 54% of the respondents also chose. Other popular sources of information were the internet (45%), investing companies (41%), and investment societies (36%).
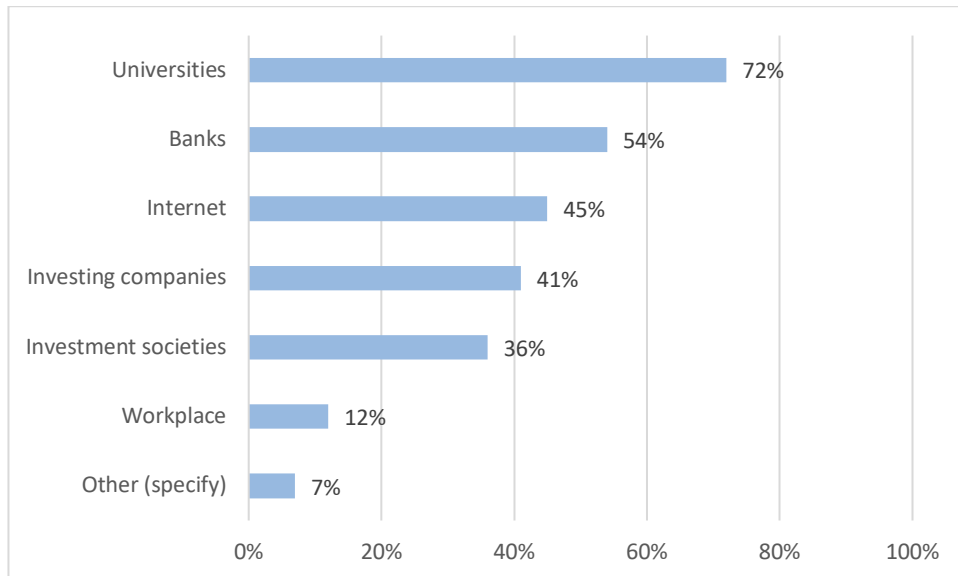
Figure 10. Source of information

4.3   Investing behaviour

Next, the survey set out to enquire *"How important would you rate the following aspects when making an investing decision?"* (figure 11). This question was conducted with a 4-point Likert scale ranging from not at all important to very important. All of the given factors were on average rated as at least somewhat important. The lowest mean being low risk at 2.88. The most important factor was to fully understand the investment with a mean of 3.66. The respondents also valued high returns and low fees highly.

The results of this question were compared to the background of the students using the Kruskal-Wallis one-way ANOVA test since there were more than two groups in question. Accounting & finance, marketing, and no specialization were the three most popular specializations chosen. This test was conducted with these three. A significant difference (p-value 0.021) was found with the rating of "Low risk". When looking at the mean values for "Low risk" it is clear that students with marketing as their specialization viewed it as more important. Marketing students had a mean of 3.25 for "Low risk" while the other two specializations had 2.80 and 2.56. This question was also compared with the school of the respondents. Haaga-Helia, Metropolia, Oulu, and Satakunta UAS were included in this test because of their sufficient response rate. A significant difference (p-value 0.021) in the distribution of low-risk importance was found. When looking at the mean values Haaga-Helia and Satakunta UAS had the highest by far with 3.11 and 3.07.

The impacts of cultural background were analysed with preference on investment factors by using the Mann-Whitney U test. A significant difference (p-value 0.015) in the preferred

level of attention or engagement needed for investment was found between Finnish and foreign students. Finnish students had a mean of 3.13 in this category. Foreign students had a lower mean of 2.69.
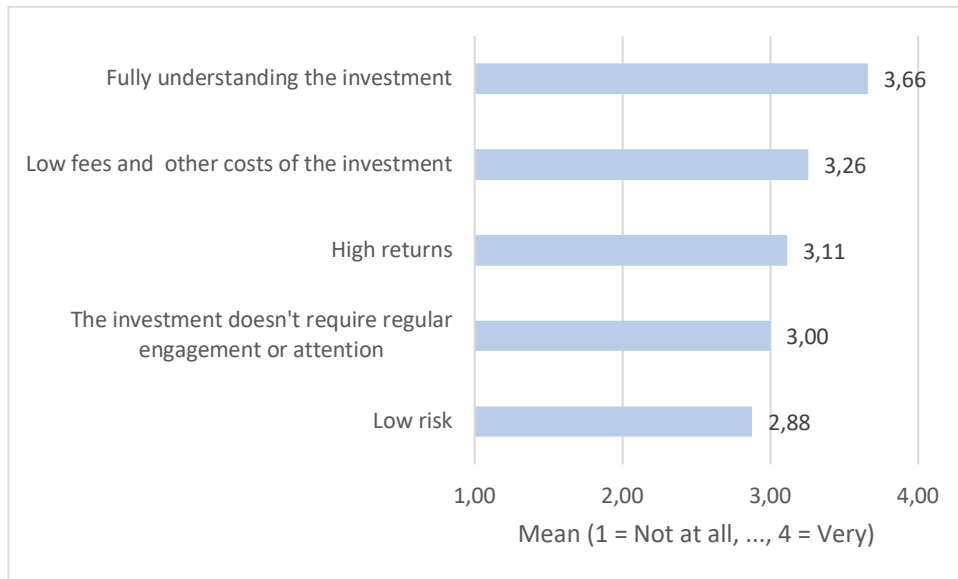
Figure 11. Aspects in investing decisions

Investing behaviour was observed with the question *"How comfortable are you about fluctuations in your investment over the short-term? (less than 5 years)"* (figure 12). Most students chose "Neutral". This category was nearly half of the population at 48%. The second-largest category was "Comfortable" with 35%. No student felt very uncomfortable with the idea of short-term fluctuations in their investments.

Figure 12. Fluctuations in investments

Investing behaviour was continued with asking *"How would you react if your investment dropped by 10% in a week?"* (figure 13). Students were then given three different options on how to act. 71% responded that they would not change anything. 27% said that they would switch to a different investment which had less risk.

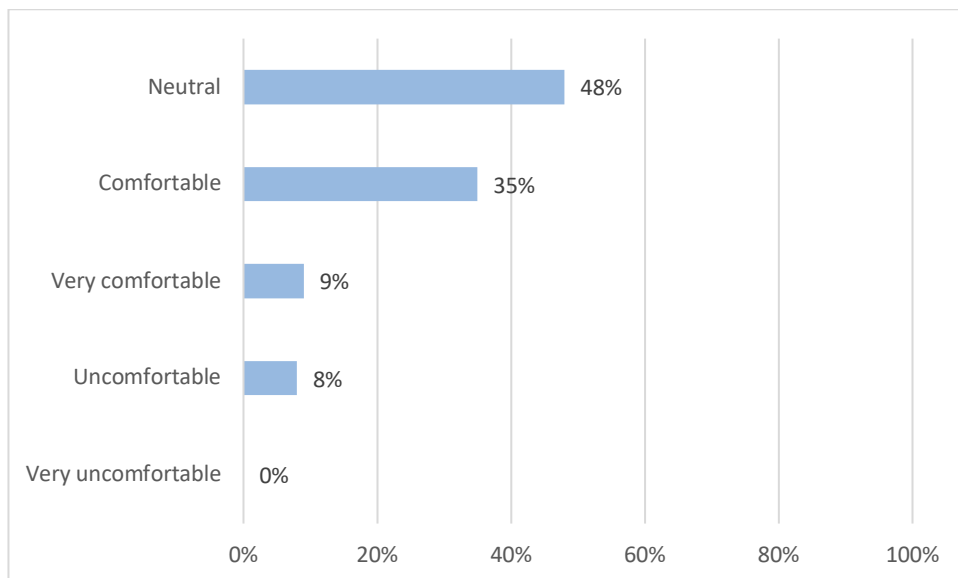This question was analysed together with the background information of the students using the Mann-Whitney U test. There was a significant (p-value 0.017) difference in the distribution of results among cultural backgrounds. Finnish students had a lower mean of 1.23 as oppose to foreign students with a mean of 1.54. In this case a lower mean indicates more passive behaviour instead of changing to another investment. Other analysis with regards to the students' background yielded no significant results with this question.
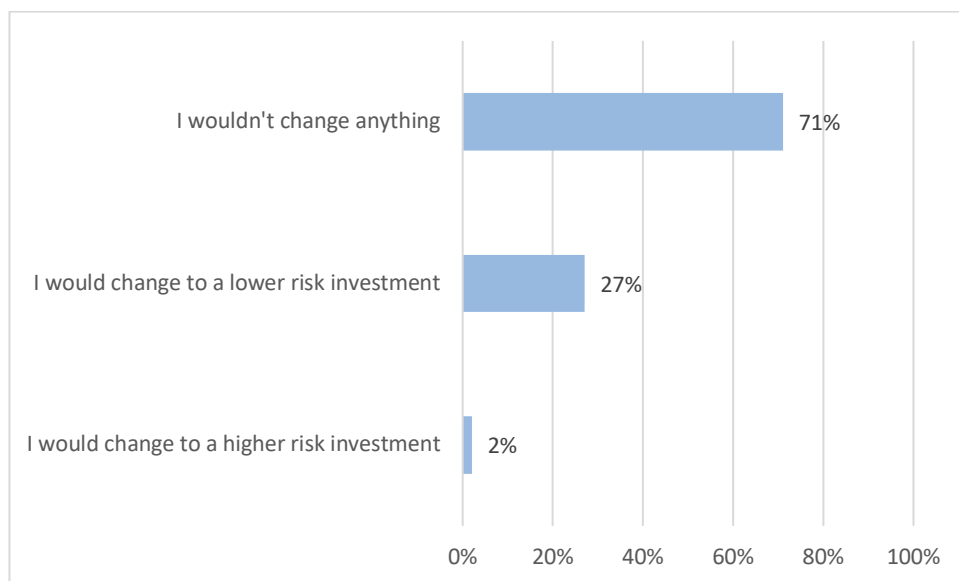
Figure 13. Reacting to investments

The final question regarding the thesis topic was *"How would you categorise yourself as an investor?".* Five options were available ranging from conservative to aggressive. Most students described themselves as "In between". This was the largest category with 44% of the students. The second and third largest were "Slightly conservative" with 24% and "Conservative" with 20%.

4.4   Respondent background

Respondents were asked about their background with four questions. The first one being gender. Out of the 98 respondents 52 (53%) were female and 44 (45%) male. Two respondents preferred not to state their gender. Next, the survey asked about the respondents' nationality. There was a wide scale of different nationalities however the majority of

respondents were from Finland. In total there were 18 different nationalities. As previously mentioned, for the statistical analysis the nationalities were split into Finnish students and students from the rest of the world. A more detailed categorization was also conducted, and it is represented in figure 14. This consisted of students from Africa, Asia, Finland, and the rest of Europe. Finland was separated from Europe since it held 72% of the re-spondents. The second-largest group was "rest of Europe" with 14%. Asia comprised 11% of the answers and Africa 1%. Two respondents chose not to state their nationality.
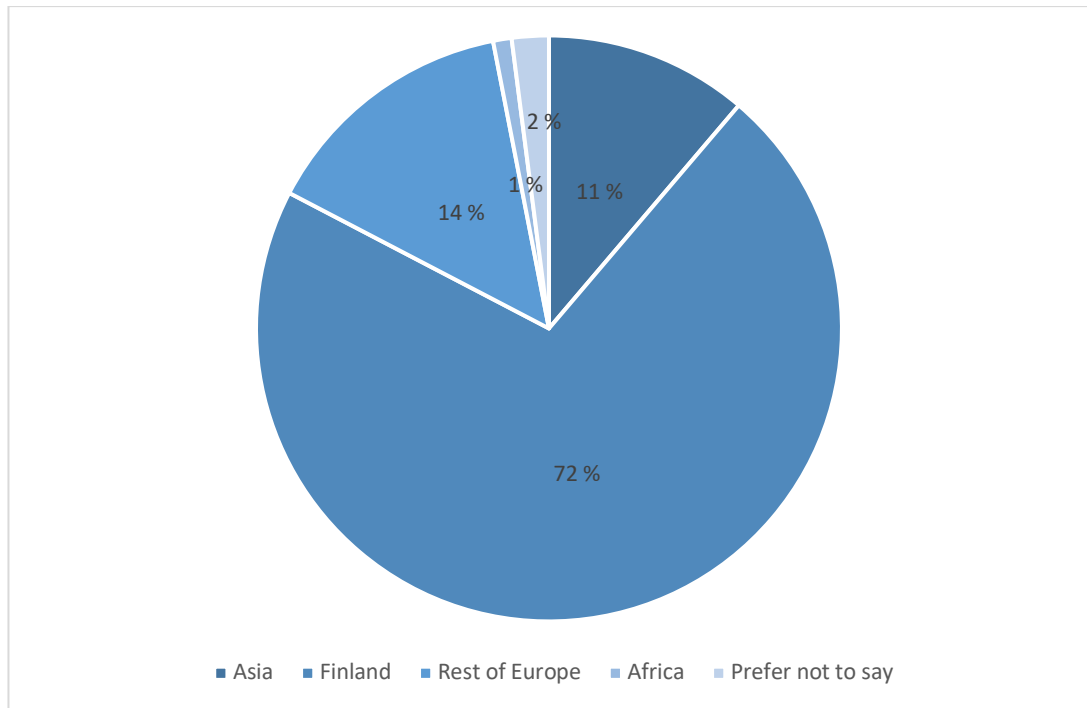
Figure 14. Nationalities

The survey was sent out to eight different Universities of Applied Sciences. In total students from six universities answered the survey. Haaga-Helia UAS and Satakunta UAS had the highest participation of 29% each. The second highest participation was in Oulu UAS with 17%. The survey gained the least answers from Metropolia, Lapland, and Kajaani UAS.
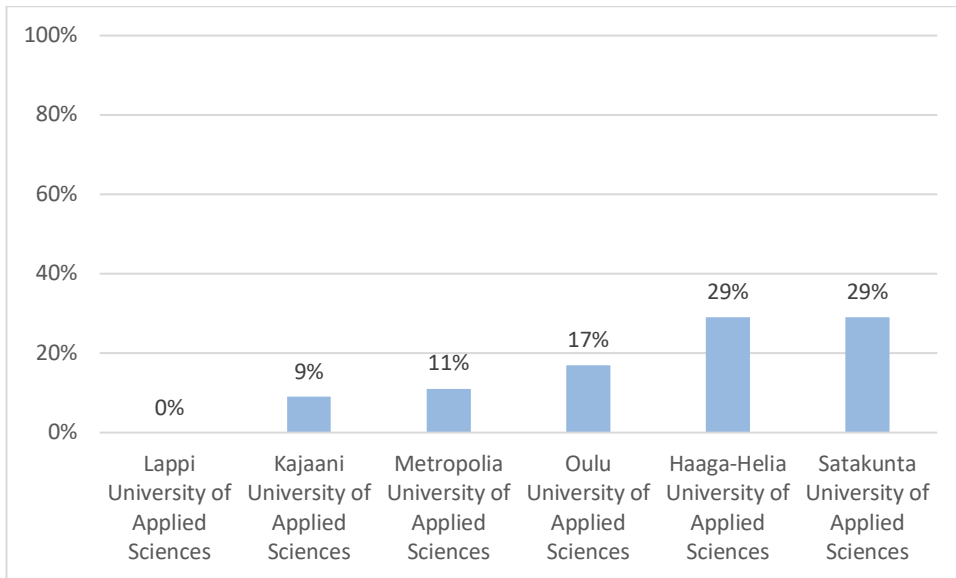
Figure 15. University participation

The final question for the background section was to state your specialisation. Some International Business programmes offer a chance to specialise in a specific subject. However, this opportunity is not offered in every UAS and this is why "No specialisation" had the largest portion of 37%. The most common specialisation was accounting and finance which amounted to 21% of the respondents. Marketing was a very close second with 20%. Entrepreneurship proved to be the least popular specialisation out of the sample with 4%.
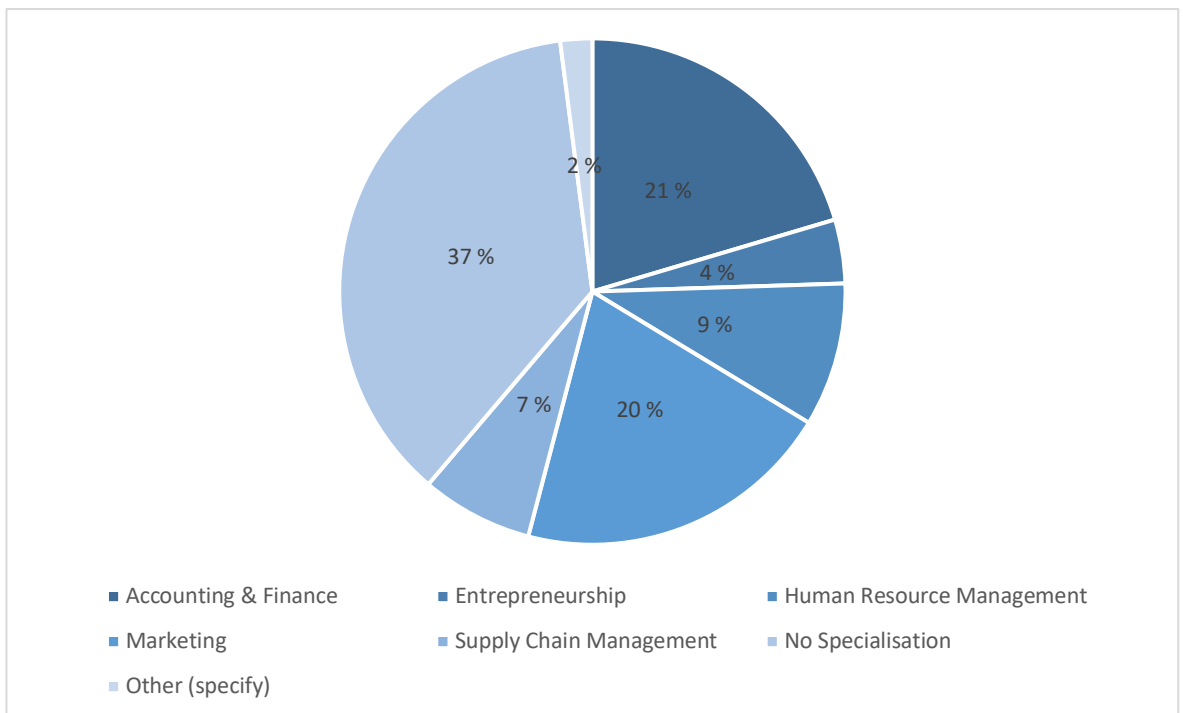
Figure 16. Specialization

5 Conclusions

The final chapter of this thesis will discuss the main findings of this study through the investigative questions and research question. It will also provide suggestions for further research on the subject and present the limitations of this research. The chapter will conclude with the author's reflection on learning.

5.1 Main findings

This research began by laying out six different investigative questions that define the research. With data from the survey, conclusions were reached for each IQ. With answers to each IQ, it is possible to reach a conclusion for the research question.

For the first IQ, the goal was to **find the most preferred investment options for the students**. The majority (68%) of students engaged in some kind of investment or saving activity. The most favoured options being savings accounts and stocks. 72% of the students had savings accounts making them the clear favourite. Stocks were the second most chosen option with 43%. These two options stood out from the rest which came as no surprise. Savings accounts are simple, passive, and mostly risk-free. This makes them a popular choice even though they offer low returns. Stocks are perhaps the most known and common way of investing money. They offer higher returns than for example bonds but usually bear a greater risk also. In terms of qualities the whole population valued all of the options that were given highly but the once that stood out were low costs and an investment that they fully understood.

The second IQ focused on **internationality and comparing different interests and behaviours between nationalities.** This aspect became difficult to study due to the limitations of the sample size. Because of this, comparisons were conducted between Finnish students and students from the rest of the world. With the use of nonparametric testing, it was observed that Finnish students valued passive investments higher than students from other countries. This difference was found to be statistically significant with a p-value of 0.015. Furthermore, it was observed that Finnish students reacted differently to fluctuations in their investments. Finnish students demonstrated more passive behaviour when their investment suddenly dropped in value. This difference compared to students from the rest of the world was found statistically significant with a p-value of 0.017. This indicates that Finnish students prefer passive investments more than students from other countries and that Finnish students are not so sensitive to price drops.

The next IQ set out to find **what prevented certain students from investing**. Out of the 98 respondents, 30 stated that they are not engaging in any investment or saving activity. For these students, the lack of spare capital was one of the main reasons holding them back. An equally significant factor was that the students felt that they did not have enough knowledge or information regarding the subject. These two reasons were in line with the findings of Mattsson (2018). These two factors were also the ones that students chose the most in a question regarding what would make them invest. It is worth mentioning that students with accounting & finance as their specialization showed that a lack of spare funds was by far the leading reason for not investing. Comparing this to other specializations a significant difference was noticed with a p-value of 0.049. These students also rated the lack of knowledge or information as a reason lower than other specializations. This shows that students with more education and experience in the subject felt that money is the primary reason holding them back.

In terms of **goals in investing,** students across all backgrounds showed similar desires. The majority of students were looking to increase their financial stability through investing and saving. Many students were also looking to save for a long-term goal such as the purchasing of a home. Very few students selected retirement or their children as the primary focus of their investing. No significant findings were made with the relation of the students' background or investing method on their goals.

Risk tolerance was a part of the behavioural aspect and it was studied through the survey. Students showed a tendency towards being more neutral and passive in their investing. The level of extent in passiveness was somewhat different between countries as mentioned before. Overall students showed a neutral attitude towards short-term fluctuations and categorized themselves as in between a conservative and an aggressive investor. Based on this research the students are comfortable with short-term risk and fluctuations. The students ranked "low risk" as the least important factor when making an investment decision. This was, however, different across specializations with marketing students valuing a lower risk investment higher than others. Further research should be conducted about the effects of the field of study in investing and risk tolerance to make assumptions regarding the subject.

The final IQ was aimed at the **information gathering of the students.** There was a consensus amongst students, that there needs to be more services and education regarding investing. In terms of services, 73% of the students felt a need for more investing services available for the students. This was even higher for education with 83% feeling a need for more investing education. This shows that students want more information and knowledge

in investing and saving or at least want an increase in the availability of said information. Universities have a big role in this since the students chose them as the primary outlet to receive information about investing and saving. Banks have traditionally been a source of information for anything related to finance. They were the second most chosen source of information with 54% of students choosing it. Other notable sources included the internet and investing companies.

The aim of this thesis was to find out what kind of investing activities are international business students engaging in. Another objective was to see what was preventing some students from investing. The impacts of nationality and field of study were examined. The research question for this thesis was the following: **What are the habits and interests of investing among International Business students in Finland?**

With a comprehensive examination and analysis on the results on the survey, a conclusion can be reached. The main types of investment options for the students are savings accounts and stocks. Students were mostly trying to increase their financial stability and save long-term. The students who were not engaging in any investment or savings activity were predominantly held back by a lack of capital and information. These students stated that an improvement in these factors would make them begin investing. Across the whole population, students demonstrated a neutral attitude towards risk. Finnish students showed a more passive preference towards their investments and were more hesitant to react against price fluctuations. The field of study played a role in risk preference with marketing students valuing low risk more than others. Students across the sample felt a strong need to increase both services and education for investing and saving. Universities and banks were the preferred outlets.

5.2   Recommendations

The main focus groups for recommendations in this study were universities, students, and different service providers. A clear lack and need for information were observed with the conducted survey. The students expressed demand for more services and education regarding investing and saving. Chapter 2.4 discussed the notion of teaching financial education at the right moment. Many university students are at the beginning of their financial independence. This means that they have multiple financial factors to consider for the first time. One of them being the student loan, which for many individuals is their first loan. Another factor for students in Finland is living alone for the first time when their higher education begins. Balancing out a loan, government support, accommodation, part-time working, investing, and saving can be overwhelming.

A recommendation for the universities that participated in this study would be to increase or revise their curriculum for education regarding investing. Additional information should be gathered from the students to know the specifics as to what they feel like is lacking from the current curriculum. An example of an area to focus on could be to provide more practical education for investing instead of purely theory-based teaching. The majority of students in the study preferred universities as a source of information which means that students value and trust them as a source. Universities are mostly impartial which makes them more trustworthy than for example banks. Many universities engage in partnerships and cooperation with companies. This is a great way to increase awareness and exposure to investing. The students would get more information and knowledge on what options are available for them and how to get started. Different companies in the investing and banking industry would benefit from new customers and receive exposure. For students that are specializing in the subject, this could mean possible career opportunities down the line. This is especially important since Universities of Applied Sciences have a focus on working life and a more practical approach in education.

5.3   Reliability and validity

Chapter 3.5 discussed the reliability and validity concerns of this study. Diachronic reliability became apparent in the research. If the survey would have been conducted later the impacts of the coronavirus could have affected how the students responded to the survey. Any major phenomena that have economic implications can cause issues with diachronic reliability.

Validity issues regarding this thesis were related to the survey. The goal was that the data from the survey represented the areas that were being researched. Since the questionnaire was formed based on the investigative questions this caused no issues. There were limiting factors to the population of this research. This meant that the validity of conclusions drawn from the population was less significant.

The use of an online survey reduced many general issues. Since the students could answer the survey privately and when they wanted to it mitigated social pressure issues. This meant that students could feel comfortable and would answer the survey truthfully, which increases the validity of results. Using a survey also meant that it was feasible to reach the research population across Finland.

5.4   Limitations

This research was limited by several factors. Most of these are related to the primary research that was conducted with a survey. This study focused only on Universities of Applied Sciences and thus no traditional university was included in the study. If these universities were to be included the size and significance of the study would increase. Most institutions that were contacted required a research permit. This opposed a limitation on how many universities could be included with the resources available.

A major limitation of the study was the participation of different nationalities. One objective of this thesis was to study the differences in investing between different nationalities. This proved to be limited since the overwhelming majority (72%) of respondents in the survey were Finnish. Overall the number of nationalities was very high with 18 different nationalities. However, it is important to note that most countries outside of Finland only had one or two respondents from their respective nationalities. This severely limits any cultural comparisons and conclusions that could be conducted. The same type of limitations can be applied to the specialization and university of the students. Only three specializations and four out of eight universities provided a sufficient number of respondents for valid comparison. All of these factors limited this research and should be taken into account when comparing results.

5.5   Suggestions for further research

This study opposed multiple limitations and thus further research should be conducted on the subject. The biggest limitation was on the international side of the study. The survey did not produce enough respondents from each nationality to conduct a wide analysis of different countries. A larger study with multiple students from each nationality would show if there are differences in investing interests and behaviour between countries. Another area which should be researched further is the effects of the field of study in investing behaviour. This thesis only examined International Business students across Finland. A wide range of both universities of applied sciences and traditional universities would give a better understanding to how students are investing and saving across Finland.

A more detailed study on what prevents students from investing and saving would provide a clearer sense of this problem. This type of research could be linked to the information gathering that was looked at in this study as well. Finding what students lack in investing services and education would allow universities to adjust their curriculum. This type of research could be done for a commissioning company.

5.6   Reflection on learning

The process of this thesis has improved the author's knowledge about investing and saving. The topic required thorough research regarding fundamental investing theory which proved very rewarding. The thesis planning course offered by Haaga-Helia prepared the author well for the writing process. The course set the groundwork and gave the framework for the research.

Construction and analysis of a survey required the author to learn new tools and methods. Webropol and SPSS were used for the first time and with great guidance from Haaga-Helia, the process went smoothly. The survey also required the author to contact multiple universities across Finland regarding research permits and coordinate the survey process throughout the thesis. This research would have not been possible without the cooperation of the universities that participated in this study.

Balancing out part-time work, courses and the thesis process proved difficult from time to time for the author. For the latter part of the thesis, the coronavirus outbreak caused minor inconveniences. The virus affected the global economy heavily and currently, the stock market is experiencing a downturn. This means that a thesis like this is more relevant than ever and especially for students that are starting their financial independence.

References

Accounting and Corporate Regulatory Authority (ACRA) 2020. What is an AGM. URL: https://www.acra.gov.sg/how-to-guides/annual-general-meetings/what-is-an-agm. Accessed: 28.1.2020.

Act on Limited Liability Companies. URL: https://www.finlex.fi/en/laki/kaannokset/2006/en20060624. Accessed: 10.11.2019

Ali, Z. & Bhaskar, S. 2016. Basic statistical tools in research and data analysis. Indian Journal of Anaesthesia, 60, 9, pp. 662-669.

Apex Clearing 2019. Apex next investor outlook: Q4 2019 Top 100 Stocks. URL: https://go.apexclearing.com/apex-next-investor-outlook-q42019-top100. Accessed: 1.2.2020

Atkinson, A. & Messy, F.A. 2012. Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study. OECD Working papers on finance. Insurance and Private Pensions, 15, pp. 1.

Baker, H. & Ricciardi. 2014. Investor Behavior: The psychology of financial planning and investing. John Wiley & Sons. Hoboken.

Bankrate 2020. Best online savings accounts. URL: https://www.bankrate.com/banking/savings/rates/. Accessed: 9.1.2020

Benjelloun, H. 2010. Evans and Archer - forty years later. Investment Management and Financial Innovations, 7, 1, pp. 98-104.

Berk, DeMarzo & Harford. 2018. Fundamentals of corporate finance. 4th Edition. Pearson Education. London.

Berkshire Hathaway 2012. Letter to shareholders. URL: https://www.berkshirehathaway.com/letters/2011ltr.pdf. Accessed: 11.11.2019

Burton, J. 1998. Revisiting the capital asset pricing model. Dow Jones Asset Manager. pp. 20-28.

Cambridge Dictionary 2019. Meaning of *index* in English. URL: https://dictionary.cambridge.org/dictionary/english/index. Accessed: 20.12.2019.

Chan, K., Covrig, V. & Ng, L. 2005. What determines the domestic bias and foreign bias? Evidence from mutual fund equity allocations worldwide. The Journal of Finance, 60, 3, pp. 1495-1534.

De Luca, T.J. & Young, J.A. 2018. Risk-taking across generations. Vanguard. URL: https://pressroom.vanguard.com/nonindexed/Research-Risk-taking-across-generations-072418.pdf. Accessed: 1.3.2020

Eduskunta 2018. Hallituksen esitys HE 279/2018 vp. URL: https://www.eduskunta.fi/FI/vaski/HallituksenEsitys/Sivut/HE_279+2018.aspx. Accessed: 1.12.2019

Eduskunta Hallituksen esitys 279/2018 vp. URL: https://www.eduskunta.fi:443/FI/vaski/HallituksenEsitys/Sivut/HE_279+2018.aspx. Accessed: 29.1.2020

Evans, J. & Archer, S. 1968. Diversification and the reduction of dispersion: An empirical analysis. The Journal of Finance, 23, 5, pp. 761-767.

Evans, J. & Archer, S. 1968. Diversification and the reduction of dispersion: An empirical analysis. The Journal of Finance, 23, 5, pp. 761-767.

Fama, E.F. & French, K.R. 2004. The capital asset pricing model: Theory and evidence. The Journal of Economic Perspectives, 18, 3, pp. 25-46.

Foot, D.K. & Stoffman, D. 1998. Boom, bust & echo 2000. Macfarlane Walter & Ross. Toronto.

Fundrise 2019. How to Invest in real estate: The basics. URL: https://fundrise.com/education/blog-posts/how-to-invest-in-real-estate-the-basics. Accessed: 23.1.2020

Ghauri, P. & Grønhaug, K. 2010. Research methods in business studies. 4th ed. Pearson Education. London.

Gorton, G. & Rouwenhorst, K.G. 2006. Facts and fantasies about commodity futures. Financial Analysts Journal, 62, 2, pp. 47-68.

Graham, B. & Dodd, D.L. 1934. Security analysis. 1st ed. McGraw-Hill. New York.

Haruna, G.O. 2017. Capm: Theory, empirical evidence and interpretation. Masaryk University Faculty of Economics and Administration.

Hasler, A. & Lusardi, A. 2017. The gender gap in financial literacy: A Global Perspective. The George Washington University School of Business.

Heikkilä, T. 2019. Helsingin pörssin 20 vuoden tuotto ja johtopäätökset tuottokehityksestä. Sijoittaja. URL: https://www.sijoittaja.fi/124139/helsingin-porssin-20-vuoden-tuotto-ja-johtopaatokset-tuottokehityksesta/. Accessed: 10.11.2019

Henricks, M. 2014. When it comes to investing, millennials lack a taste for risk. URL: https://www.institutionalinvestor.com/article/b14zbglls1y7n2/when-it-comes-to-investing-millennials-lack-a-taste-for-risk. Accessed: 12.2.2020

Hernando, A. 2020. How to invest in stocks for beginners. Rogationist College. Cavite.

Hesse, C., Ezekiel, N. & Ofosu, J. 2018. Introduction to nonparametric statistical methods. Akrong Publications Limited.

Hietanen, T. 2017. University students' attitudes towards investing: A comparison between the United Kingdom and Finland. Metropolia University of Applied Sciences. Helsinki.

Hofstede-Insight 2020. National culture. URL: https://hi.hofstede-insights.com/national-culture. Accessed: 16.4.2020

Hofstede, G. 2001. Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations. 2nd ed. Sage, Thousand Oaks, CA.

Howell, J., Miller, P., Park, H., Sattler, D., Schack, T., Spery, E., Widhalm, S. & Palmquist, M. 2012. Reliability and validity. Colorado State University. URL: https://writing.colostate.edu/guides/guide.cfm?guideid=66. Accessed: 16.4.2020

Investing 2019. Commodity. URL: https://www.investing.com/education/terms/commodity-200358083. Accessed: 4.10.2019.

Investor 2020. Mutual Funds. URL: https://www.investor.gov/introduction-investing/investing-basics/investment-products/mutual-funds-and-exchange-traded-1. Accessed: 15.11.2019

Junior Achievement Europe 2016. Sharpening financial education. URL: http://jaeurope.org/index.php?option=com_attachments&task=download&id=354:Final_Education-Report-web. Accessed: 26.1.2020

Kahneman, D. & Tversky, A. 1979. Prospect theory. Econometrica, 47, 2, pp. 263-291.

Kaiser, T. & Menkhoff, L. 2017. Does financial education impact financial literacy and financial behavior, and if so, when? World Bank Economic Review, 31, 3, pp. 611-630.

Kennon, J. 2019. Understanding the Dow Jones Industrial Average (DJIA). URL: https://www.thebalance.com/understanding-the-dow-jones-industrial-average-djia-357912. Accessed: 14.1.2020

Klapper, L., Lusardi, A. & van Oudheusden, P. 2011. Financial literacy around the world. Journal of pension economics and finance, 10, 4, pp. 497-508.

Kumar, A. & Goetzmann, W. 2001. Equity portfolio diversification. Review of Finance, 12, 3, pp. 1-44.

Lakonishok, J. & Shapiro, A.C. 1986. Systematic risk, total risk and size as determinants of stock market returns. Journal of Banking and Finance, 10, 1, pp. 115-132.

Lombardi, M. & Ravazzolo, F. 2013. On the correlation between commodity and equity returns: implications for portfolio allocation. Bank for International Settlements.

Lubatkin, M.H., Schulze, W.S., McNulty, J.J. & Yeh, T.D. 2003 But will it raise my share price? New thoughts about an old question. Long Range Planning, 36, 1, pp. 81-91.

Lusardi, A. & Mitchell, O.S. 2011. Financial literacy around the world: an overview. Journal of Pension Economics and Finance, 10, 4, pp. 497-508.

Lusardi, A. 2008. Increasing the effectiveness of financial education in the workplace, Center for Financial Studies. Frankfurt.

Lusardi, A., Mitchell, O.S. & Curto, V. 2010. Financial literacy among the young: Evidence and implications for consumer policy. CFS Working Paper. vol. 2010/09.

Mäkinen, T. 2019. Here's how you open up a book-entry account. URL: https://home.in-vesdor.com/en/blog/heres-how-you-open-up-a-book-entry-account. Accessed: 19.2.2020

Malkiel, G. 1973. A Random Walk Down Wall Street. W. W. Norton & Company. New York City.

Mattsson, J. 2018. Investment behavior of bachelor level students. Arcada University of Applied Sciences.

McConville, D. 2018. What are the top 5 most traded indices and why? URL: https://capi-tal.com/what-are-the-top-5-most-traded-indices-and-why. Accessed: 15.1.2020

McIntyre, L. J. 1999. The practical skeptic: Core concepts in sociology. Mayfield Publish-ing. California City.

Meta, R. 2015. Behavioral Finance: The psychology of investing.

Micklitsch, J. 2018. Portfolio Beta: What is your number and why should you care? URL: https://ancora.net/portfolio-beta-number-care/. Accessed: 15.1.2020

Milenović, Ž 2011. Application of mann-whitney u test in research of professional training of primary school teachers. Metodički obzori/Methodological Horizons, 6, 1, pp. 73-79.

Modigliani, F. & Miller, M.H. 1958. The cost of capital, corporation finance and the theory of investment. The American economic review, 48, 3, pp. 261-297.

Nguyen, V.L. 2017. Investment risk profile of the millennial generation. Aalto University. Mikkeli.

Nordea 2019. Fixed-term account. URL: https://www.nordea.fi/en/personal/our-ser-vices/savings-investments/savings-accounts/maaraaikainen-sijoitustili.html#tab=Prices. Accessed: 4.10.2019.

O'Sullivan, Sheffrin, & Steven 2003. Economics: Principles in action. Pearson Prentice Hall. Upper Saddle River.

Op 2019. Real estate Investments. URL: https://www.op.fi/corporate-customers/investment/investing-accrued-assets/real-estate-investment. Accessed: 4.10.2019.

Pinsonneault, A. & Kraemer, K. L. 1993. Survey research methodology in management information systems: An assessment. Journal of Management Information Systems, 10, p. 77.

Priscilla, A. 2005. Fundamentals of survey research methodology. Mitre. URL: https://www.mitre.org/sites/default/files/pdf/05_0638.pdf. Accessed: 4.10.2019.

Rena, H.H. 2017. The determinants and implications of millennials' stock market investment habits and opinions. Appalachian State University. Boone.

Ricciardi & Simon, K. 2000. What Is behavioral finance? Business, Education and Technology Journal, 2, 2, pp. 1-9.

Rossi, M. 2016. The capital asset pricing model: a critical literature review. Global Business and Economics Review, 18, 5, pp. 604-617.

S&P Dow Jones Indices 2019. S&P float adjustment methodology. URL: https://us.spindices.com/documents/index-policies/methodology-sp-float-adjustment.pdf. Accessed: 13.1.2020

Smith, C. 2019. What are the traditional and alternative asset classes? URL: https://investorjunkie.com/asset-allocation/traditional-alternative-asset-classes/. Accessed: 23.1.2020

Statman, M. 1987. How many stocks make a diversified portfolio? Journal of Financial and Quantitative Analysis, 22, pp. 353-354.

Statman, M. 2004. The diversification puzzle. Financial Analysts Journal, 60, 4, pp. 44-53.

Taherdoost, H. 2016. Validity and reliability of the research instrument; How to test the validation of a questionnaire/survey in a research. International Journal of Academic Research in Management (IJARM), 5, 3, pp. 28-36.

Thompson, C. 2020. How to invest in commodities. Smartasset. URL: https://smartasset.com/investing/how-to-invest-in-commodities. Accessed: 20.1.2020

Tyson, E. 2011. Investing For Dummies. 6th ed. John Wiley & Sons. Hoboken.

Vanguard 2020. What are ETFs. URL: https://www.vanguardinvestor.co.uk/investing-explained/what-are-etfs. Accessed: 16.11.2019

Wang, M., Rieger, M.O. & Hens, T. 2015. How time preferences differ: Evidence from 53 countries. Journal of Economic Psychology, 52, pp. 115-135.

Womack, K. 2003. Understanding risk and return, the CAPM, and the Fama-French Three-Factor model. Tuck School of Business.

Attachments

Attachment 1. Survey

The Investing Habits and Interests of International Business Students Survey

1. Do you have current investments or savings accounts?

◉ Yes
○ No

2. What investing or savings methods are you using?

☐ Bonds
☐ Commodities
☐ Exchange-traded funds (ETF)
☐ Investing in Indexes
☐ Mutual Funds
☐ Real Estate
☐ Savings Accounts
☐ Stocks
☐ I prefer not to say
☐ Other (specify) [_____]

3. What is your primary goal in investing?

○ Saving for a short-term goal (For example travelling)
○ Saving for a long-term goal (For example a house)
○ Saving for my children
○ Investing towards my retirement
○ General increase in financial stability
○ The subject interests me
○ I prefer not to say
○ Other (specify) [_____]

4. To what extent are the following factors the reason for not investing or saving?

	Not at all	A little	Somewhat	A lot
Not enough spare funds currently	○	○	○	○
Not interested in the financial markets	○	○	○	○
Not having enough knowledge and information about the financial markets	○	○	○	○
No need to save money currently	○	○	○	○
It is too risky	○	○	○	○
Other (specify) [_____]	○	○	○	○

5. What would make you invest your money?

☐ Having more spare funds

☐ More interest in the financial markets

☐ Having knowledge and information about the financial markets

☐ Having a need to save money

☐ If it was less risky

☐ Other (specify) [   ]

6. To what extent do you agree with the following statement:
There needs to be more services available for students about investing and saving

○ Strongly disagree

○ Disagree

○ Neither agree or disagree

○ Agree

○ Strongly agree

7. To what extent do you agree with the following statement:
There needs to be more education available for students about investing and saving.

○ Strongly disagree

○ Disagree

○ Neither agree or disagree

○ Agree

○ Strongly agree

8. From where would you like to gain information about investing and saving?

☐ Banks

☐ Investing companies

☐ Universities

☐ Internet

☐ Workplace

☐ Investment societies

☐ Other (specify) [   ]

9. How important would you rate the following aspects when making an investing decision?

	Not at all	A little	Somewhat	Very
High returns	○	○	○	○
Fully understanding the investment	○	○	○	○
Low risk	○	○	○	○
Low fees and other costs of the investment	○	○	○	○
The investment doesn't require regular engagement or attention	○	○	○	○

10. How comfortable are you about fluctuations in your investment over the short-term? (less than 5 years)

○ Very comfortable

○ Comfortable

○ Neutral

○ Uncomfortable

○ Very uncomfortable

11. How would you react if your investment dropped by 10% in a week?

○ I wouldn't change anything

○ I would change to a lower risk investment

○ I would change to a higher risk investment

12. How would you categorise yourself as an investor?

○ Conservative investor

○ Slightly conservative

○ In between

○ Slightly aggressive

○ Aggressive

13. What is your gender?

○ Female

○ Male

○ Other (specify) [   ]

○ Prefer not to say

14. Please select your nationality

Select ⇕

15. Select your current school

- ◯ Aalto Mikkeli Campus
- ◯ Arcada University of Applied Sciences
- ◯ Haaga-Helia University of Applied Sciences
- ◯ Häme University of Applied Sciences
- ◯ Kaakkois-Suomi University of Applied Sciences
- ◯ Kajaani University of Applied Sciences
- ◯ Lappi University of Applied Sciences
- ◯ Metropolia University of Applied Sciences
- ◯ Oulu University of Applied Sciences
- ◯ Satakunta University of Applied Sciences
- ◯ Seinäjoki University of Applied Sciences
- ◯ Tampere University of Applied Sciences
- ◯ Turku University of Applied Sciences
- ◯ Other (specify) [ ]

16. Please state your specialisation

- ◯ Accounting & Finance
- ◯ Entrepreneurship
- ◯ Human Resource Management
- ◯ Marketing
- ◯ Supply Chain Management
- ◯ No Specialization
- ◯ Other (specify) [ ]

Attachment 2. SPSS Non-Parametric Testing Results

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of How important would you rate the following aspects when making an investing decision?:High returns is the same across categories of Please state your specialisation.	Independent-Samples Kruskal-Wallis Test	.407	Retain the null hypothesis.
2	The distribution of How important would you rate the following aspects when making an investing decision?:Fully understanding the investment is the same across categories of Please state your specialisation.	Independent-Samples Kruskal-Wallis Test	.987	Retain the null hypothesis.
3	The distribution of How important would you rate the following aspects when making an investing decision?:Low risk is the same across categories of Please state your specialisation.	Independent-Samples Kruskal-Wallis Test	.021	Reject the null hypothesis.
4	The distribution of How important would you rate the following aspects when making an investing decision?:Low fees and other costs of the investment is the same across categories of Please state your specialisation.	Independent-Samples Kruskal-Wallis Test	.409	Retain the null hypothesis.
5	The distribution of How important would you rate the following aspects when making an investing decision?:The investment doesn't require regular engagement or attention is the same across categories of Please state your specialisation.	Independent-Samples Kruskal-Wallis Test	.651	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

Please state your specialisation		How important would you rate the following aspects when making an investing decision?: High returns	How important would you rate the following aspects when making an investing decision?: Fully understanding the investment	How important would you rate the following aspects when making an investing decision?: Low risk	How important would you rate the following aspects when making an investing decision?: Low fees and other costs of the investment	How important would you rate the following aspects when making an investing decision?: The investment doesn't require regular engagement or attention
Accounting & Finance	Mean	3.05	3.55	2.80	3.45	2.95
	N	20	20	20	20	20
	Std. Deviation	.999	.999	.834	.605	.826
Marketing	Mean	2.95	3.70	3.25	3.10	3.15
	N	20	20	20	20	20
	Std. Deviation	.686	.571	.716	.912	.813
No Specialization	Mean	3.19	3.72	2.56	3.19	3.03
	N	36	36	36	36	36
	Std. Deviation	.786	.513	.909	.749	.736
Total	Mean	3.09	3.67	2.80	3.24	3.04
	N	76	76	76	76	76
	Std. Deviation	.819	.681	.880	.764	.774

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Not enough spare funds currently is the same across categories of Please state your specialisation.	Independent–Samples Kruskal–Wallis Test	.049	Reject the null hypothesis.
2	The distribution of Not interested in the financial markets is the same across categories of Please state your specialisation.	Independent–Samples Kruskal–Wallis Test	.187	Retain the null hypothesis.
3	The distribution of Not having enough knowledge and information about the financial markets is the same across categories of Please state your specialisation.	Independent–Samples Kruskal–Wallis Test	.148	Retain the null hypothesis.
4	The distribution of No need to save money currently is the same across categories of Please state your specialisation.	Independent–Samples Kruskal–Wallis Test	.520	Retain the null hypothesis.
5	The distribution of It is too risky is the same across categories of Please state your specialisation.	Independent–Samples Kruskal–Wallis Test	.385	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

Please state your specialisation		Not enough spare funds currently	Not interested in the financial markets	Not having enough knowledge and information about the financial markets	No need to save money currently	It is too risky
Accounting & Finance	Mean	3.80	1.20	2.20	1.40	1.20
	N	5	5	5	5	5
	Std. Deviation	.447	1.095	.447	1.140	.837
Marketing	Mean	3.29	2.29	2.86	2.00	1.86
	N	7	7	7	7	7
	Std. Deviation	.951	.756	.690	1.155	.900
No Specialization	Mean	2.55	1.82	2.82	1.36	2.00
	N	11	11	11	11	11
	Std. Deviation	1.036	1.168	1.250	.674	1.183
Total	Mean	3.04	1.83	2.70	1.57	1.78
	N	23	23	23	23	23
	Std. Deviation	1.022	1.072	.974	.945	1.043

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of How important would you rate the following aspects when making an investing decision?:High returns is the same across categories of Select your current school.	Independent-Samples Kruskal-Wallis Test	.519	Retain the null hypothesis.
2	The distribution of How important would you rate the following aspects when making an investing decision?:Fully understanding the investment is the same across categories of Select your current school.	Independent-Samples Kruskal-Wallis Test	.433	Retain the null hypothesis.
3	The distribution of How important would you rate the following aspects when making an investing decision?:Low risk is the same across categories of Select your current school.	Independent-Samples Kruskal-Wallis Test	.021	Reject the null hypothesis.
4	The distribution of How important would you rate the following aspects when making an investing decision?:Low fees and other costs of the investment is the same across categories of Select your current school.	Independent-Samples Kruskal-Wallis Test	.941	Retain the null hypothesis.
5	The distribution of How important would you rate the following aspects when making an investing decision?:The investment doesn't require regular engagement or attention is the same across categories of Select your current school.	Independent-Samples Kruskal-Wallis Test	.690	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

Select your current school		How important would you rate the following aspects when making an investing decision?: High returns	How important would you rate the following aspects when making an investing decision?: Fully understanding the investment	How important would you rate the following aspects when making an investing decision?: Low risk	How important would you rate the following aspects when making an investing decision?: Low fees and other costs of the investment	How important would you rate the following aspects when making an investing decision?: The investment doesn't require regular engagement or attention
Haaga-Helia University of Applied Sciences	Mean	3.07	3.68	3.11	3.29	2.93
	N	28	28	28	28	28
	Std. Deviation	.979	.819	.916	.810	.766
Metropolia University of Applied Sciences	Mean	3.18	3.45	2.36	3.45	2.91
	N	11	11	11	11	11
	Std. Deviation	.603	.820	1.027	.688	1.136
Oulu University of Applied Sciences	Mean	3.29	3.76	2.47	3.29	3.00
	N	17	17	17	17	17
	Std. Deviation	.849	.562	.800	.772	.707
Satakunta University of Applied Sciences	Mean	3.00	3.57	3.07	3.29	3.18
	N	28	28	28	28	28
	Std. Deviation	.720	.634	.813	.763	.723
Total	Mean	3.11	3.63	2.87	3.31	3.02
	N	84	84	84	84	84
	Std. Deviation	.822	.708	.915	.760	.791

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of How important would you rate the following aspects when making an investing decision?:High returns is the same across categories of Please select your nationality.	Independent–Samples Mann–Whitney U Test	.125	Retain the null hypothesis.
2	The distribution of How important would you rate the following aspects when making an investing decision?:Fully understanding the investment is the same across categories of Please select your nationality.	Independent–Samples Mann–Whitney U Test	.645	Retain the null hypothesis.
3	The distribution of How important would you rate the following aspects when making an investing decision?:Low risk is the same across categories of Please select your nationality.	Independent–Samples Mann–Whitney U Test	.093	Retain the null hypothesis.
4	The distribution of How important would you rate the following aspects when making an investing decision?:Low fees and other costs of the investment is the same across categories of Please select your nationality.	Independent–Samples Mann–Whitney U Test	.893	Retain the null hypothesis.
5	The distribution of How important would you rate the following aspects when making an investing decision?:The investment doesn't require regular engagement or attention is the same across categories of Please select your nationality.	Independent–Samples Mann–Whitney U Test	.015	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

Please select your nationality		How important would you rate the following aspects when making an investing decision?: High returns	How important would you rate the following aspects when making an investing decision?: Fully understanding the investment	How important would you rate the following aspects when making an investing decision?: Low risk	How important would you rate the following aspects when making an investing decision?: Low fees and other costs of the investment	How important would you rate the following aspects when making an investing decision?: The investment doesn't require regular engagement or attention
Rest of the World	Mean	3.2692	3.5000	3.1154	3.2692	2.6923
	N	26	26	26	26	26
	Std. Deviation	.82741	.94868	.81618	.72430	.78838
Finnish	Mean	3.0143	3.6571	2.7857	3.2714	3.1286
	N	70	70	70	70	70
	Std. Deviation	.80744	.61115	.88289	.77873	.75989
Total	Mean	3.0833	3.6146	2.8750	3.2708	3.0104
	N	96	96	96	96	96
	Std. Deviation	.81650	.71627	.87359	.76060	.78800

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of How would you react if your investment dropped by 10% in a week? is the same across categories of Please select your nationality.	Independent-Samples Mann-Whitney U Test	.017	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

How would you react if your investment dropped by 10% in a week?

Please select your nationality	Mean	N	Std. Deviation
Rest of the World	1.5385	26	.64689
Finnish	1.2286	70	.42294
Total	1.3125	96	.50913