



## SUSTAINABLE CORPORATE FINANCE AND INVESTMENTS

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### THE FINAL MASTER THESIS PROJECT

<b>TVARŪS FINANSINIAI SPRENDIMAI TARP JAUNIMO BALTIJOS ŠALYSE: TENDENCIJOS, IŠŠŪKIAI IR GALIMYBĖS</b>	<b>SUSTAINABLE FINANCIAL DECISIONS AMONG YOUTH IN THE BALTIC STATES: TRENDS, CHALLENGES AND OPPORTUNITIES</b>
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## **SUMMARY**

VILNIUS UNIVERSITY BUSINESS SCHOOL  
SUSTAINABLE CORPORATE FINANCE AND INVESTMENTS STUDY PROGRAMME  
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### **SUSTAINABLE FINANCIAL DECISIONS AMONG YOUTH IN THE BALTIC STATES: TRENDS, CHALLENGES AND OPPORTUNITIES**

Supervisor - Prof. Dr. Tadas Gudaitis

The final master's thesis was prepared in Vilnius, 2026.

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This master's thesis examines the level of sustainable financial literacy among youth in the Baltic States. The research highlights key trends, challenges, and opportunities related to sustainable financial decision-making and provides recommendations for policymakers and other relevant stakeholders.

Young people in the Baltic States face challenges such as insufficiently effective sustainable financial literacy education, unstable income and rising living costs. The aim of this study is to analyse the trends, challenges, and opportunities of sustainable financial decision-making among youth in the Baltic States. To achieve this aim, following research objectives were formulated: to review relevant theoretical concepts, identify key socio-economic factors that might have influence to youth's sustainable financial decisions, develop a survey, collect and analyse quantitative data, determine the main challenges, obtain conclusions and provide recommendations for future research on sustainability and financial literacy. A scientific literature analysis, quantitative and qualitative research approaches, statistical analysis, and comparative analysis were employed as research methods.

The findings indicate that socio-economic factors significantly influence the sustainable financial behaviour of youth in the Baltic States. Although young people tend to lack confidence in making sustainable financial decisions, the results demonstrate that sustainability values are important to the younger generation.

## **APIBENDRINIMAS**

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TVARŪS VERSLO FINANSAI IR INVESTICIJOS  
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### **TVARŪS FINANSINIAI SPRENDIMAI TARP JAUNIMO BALTIJOS ŠALYSE: TENDENCIJOS, IŠŠŪKIAI IR GALIMYBĖS**

Darbo vadovas - Prof. Dr. Tadas Gudaitis

Galutinis magistro darbas buvo parengtas Vilniuje, 2026 metais.

Magistro darbas sudarytas iš 103 puslapių.

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Šiame magistro baigiamajame darbe nagrinėjamas Baltijos valstybių jaunimo tvaraus finansinio raštingumo lygis. Tyrime išskiriamos pagrindinės tendencijos, iššūkiai ir galimybės, susijusios su tvarių finansinių sprendimų priėmimu, taip pat pateikiamos rekomendacijos politikos formuotojams ir sprendimų priėmėjams.

Baltijos šalių jaunimas susiduria su tokiais iššūkiais kaip nepakankamai efektyvus tvaraus finansinio raštingumo ugdymas, nestabilios pajamos ir augančios pragyvenimo išlaidos. Šio tyrimo tikslas – išanalizuoti tvarių finansinių sprendimų priėmimo tendencijas, iššūkius ir galimybes Baltijos valstybių jaunimo kontekste. Siekiant įgyvendinti tyrimo tikslą, buvo suformuluoti šie tyrimo uždaviniai: atlikti mokslinės literatūros analizę, identifikuoti pagrindinius socioekonominius veiksnius, kurie gali daryti įtaką jaunimo tvarių finansinių sprendimų priėmimui, parengti apklausą, surinkti ir išanalizuoti kiekybinius duomenis, išskirti pagrindinius iššūkius, suformuluoti išvadas ir pateikti rekomendacijas būsimiesiems tvarumo ir finansinio raštingumo tyrimams. Tyrime taikyti mokslinės literatūros analizės, kiekybinio ir kokybinio tyrimo metodai, statistinė bei lyginamoji analizės.

Tyrimo rezultatai rodo, kad socioekonominiai veiksniai daro reikšmingą įtaką jaunimui. Nors jaunimas dažnai stokoja pasitikėjimo priimdamas tvarius finansinius sprendimus, gauti rezultatai atskleidžia, jog tvarumo vertybės yra svarbios jaunajai kartai.

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## INTRODUCTION

In the modern times financial literacy and sustainability are becoming topics that are being discussed more frequently than ever before. As new policies and laws are being elected regarding the sustainable behaviour and financial reforms, it is crucial to research the levels of sustainable financial literacy of the people. As labour market volatility is growing higher due to new innovations and technologies, youth are facing more complex situations than previous generations regarding the stability of the wages and financial situation (Dyrda et. al, 2024). Sustainable financial behaviour is a skill that a lot of the youth lack, thus finding efficient ways on how to tackle this issue could further help the public and private sector on how to improve the education levels following these topics. To narrow the research to a single region, we selected to research Lithuania, Latvia and Estonia, Baltic states, which is considered unique due to facing cultural, economic and political influence from western, northern and eastern parts of Europe. As all these three countries share a similar recent history, our research might explain a regional pattern that could explain some of the behavioural patterns noticed during our study.

In 2021 the Estonian government enacted a reform which allowed countries residents to withdraw their participation in 2nd pillar pension funds. In 2026 Lithuania is following a similar pattern with Lithuania's government allowing the citizens of the country to withdraw from participation in the 2nd pillar pension funds as well, thus research on this topic will provide recent data on the values and point of view of the youth for this recent reform. These actions might correlate with the financial literacy and sustainability education in the Baltic states, thus evaluation of financial knowledge and understanding the sources of financial literacy education are crucial for this research. Both quantitative and qualitative research were conducted to identify and evaluate the information sources that the youth are choosing to develop their financial behaviour.

The main problem of our final master thesis that we are researching is that Baltic states youth are facing the challenges of unstable income, increasing living costs, and inefficient sustainable financial literacy education. The youth, even if willing, are unable to act financially sustainable and often have to perform actions that are not aligned with their ideas and values. There is insufficient comprehensive research that combines quantitative and qualitative data, that allows to identify the trends, challenges, and opportunities of sustainable financial decision making among youth in the Baltic States. Factors that are influencing sustainable financial behaviour of the youth are the main subject matter of the research as different variables are evaluated and systematised in the final master thesis. As the subject matter suggests, the objective of this research is to examine trends, challenges and opportunities of sustainable

financial decision making among the youth in the Baltic states. To successfully reach the objective of the research, we have excluded 5 different tasks to be completed:

- Examine the theoretical concepts of financial literacy and sustainable financial decision-making in the scientific literature.
- Identify key socio-economic factors influencing sustainable financial decisions among youth in the Baltic States.
- Develop a survey and compile quantitative data on youth demographic factors, saving behaviour, borrowing, investing and long-term financial planning.
- Identify the main challenges faced by young people in achieving financial sustainability in the Baltic States.
- Develop conclusions and recommendations for improving youth financial literacy and promoting sustainable financial behaviour among the youth in the Baltic states.

Scientific literature analysis, quantitative research, qualitative research model, statistical analysis, comparative analysis of the three Baltic states synthesis and generalization were used as research methods for the final master thesis project. Scientific literature of most recent and well-known financial literacy and sustainability researchers were analysed to understand the broader context of the selected topic and to prepare the fundamental background for further analysis. Quantitative research, a survey that collected data about the youth's financial literacy, sustainability literacy and financial sustainable behaviour, which was based on the scientific literature analysis background, was conducted in all 3 Baltic states to collect statistical data and find the trends, challenges and opportunities that the Baltic younger generation are facing. To further strengthen the research, interviews were conducted with two Lithuanian experts, one specialising in financial education and another expert focused more on the youth policies and non-formal education for young people in Lithuania's capital, Vilnius. Analysis of the data that was collected in the survey was conducted as well. Data was organised, descriptive statistics were conducted, and relationships and differences between different variables have been examined to be interpreted at the end of the analysis. Results were compared between different demographic, socio-economic and countries groups in order to find similarities, patterns, differences and relationships between different variables. Finally, both theoretic and empirical data were integrated to produce conclusions and recommendations for the research.

Final master thesis structure is based on the methodological guidelines for preparation, defence and evaluation of master thesis (project) (Oželienė, 2024). Masters' final thesis structure consists of Title page, which includes the study program, authors, supervisor, title of the master thesis, city and the year the final master thesis was written. Summaries of the thesis, both in

English and Lithuanian are provided in the second part of the thesis. The contents table includes all sections and subsections of the work made by authors. List of tables, figures and images are provided with a full list of these variables that are present in the thesis. To highlight the importance of the research, the introduction part consists of the problem that we have chosen to research, subject matter, main objective, tasks, research methods, structure of the work, and the difficulties and limitations that we faced while conducting our research. In the theoretical part, we have concluded an analysis of scientific papers of well-renowned scientists and most recent articles following financial literacy and sustainability topics. The methodological part explains our research methods and how we concluded our study. Interpretation of our research results and practical recommendations are present in the research part of the thesis. Conclusions and recommendations can be as a separate section which is presented after the research part. Finally, at the end of the thesis, bibliography and a list of references is provided for the reader. Annexes that will be mentioned in the text will be provided right after the bibliography part.

Some challenges were faced that had limitations to our research. There is a limited resource of scientific papers that are researching 2nd pension funds in the Baltic states thus reducing the ability to have broader theoretical research on this topic. The survey, which was conducted in all three of the Baltic states, had initial success in Lithuania for the factors that both authors had access via their profession or non-governmental institutions to reach out to the broader youth's audience, yet faced obstacles while gathering the answers of the respondents from Latvia and Estonia. The main obstacle could have been a language barrier that could have disregarded younger audiences to complete the survey as it could have been harder to understand the questions and options that could have been chosen for the answers.

Keywords: sustainability, sustainable financial literacy, sustainable financial decisions, financial literacy, youth financial behaviour, Baltic States youth sustainable financial literacy.

## **1. THEORETICAL PART**

In the introduction, after we discussed the importance of sustainable financial decision making of the youth and comparing its level across the Baltic States, it is very important to clarify how scholars and scientists are researching the influence of the financial literacy on the financial decision making, sustainability, investing and sustainable decision making on the everyday life of young individuals. It is also important to understand how possessing financial literacy knowledge helps a young person to improve his or her financial situation and sustainable actions that could contribute to a better social and ecological future.

In the theoretical analysis part, we will review and critically analyse different academic sources in order to take a look at different perspectives of experts in financial literacy and sustainability fields. By comparing, synthesising and systematising the insights and conclusions of researchers, we will develop a fundamental and well-rounded theoretical basis for examining the current level of Baltic states youth. This in turn will help us to dive deeper and facilitate an exploration of our core problems of the research - assessment of sustainable financial decision making among the youth in the Baltic states and highlighting the trends, challenges and opportunities that the youth are facing in the countries that are bordering the eastern Baltic coast. Research of academic sources will provide a solid foundation for the empirical part of the thesis and will allow us to formulate recommendations for educators, financial institutions, individuals and policymakers.

### **1.1 Conceptual foundations of sustainability**

To begin the research of relevant works of sustainability and financial literacy fields experts, first we need to understand the different concepts of sustainability. It is very important to distinguish the behaviour of financial literate, sustainable and financial literate behaviour and sustainable behaviour, so understanding the difference between these concepts plays a critical role in our research. The necessity of understanding different views on sustainability is crucial as different sustainable actions have multiple consequences for one's financial situation.

In 1987 the United Nations together created a clear definition on how sustainability, as a concept, should be understood: development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). This concept has encouraged countries from all around the world to save natural resources for future generations while developing their economies. As it has created a fundamental framework for sustainability ideas on the global arena, it was just a start of more international agreements that

had to take place in order for the world to move into a more sustainable direction. During the 90s convention on biological diversity and Kyoto protocol has further established requirements for developed and developing countries to sustainably use ecosystems and legally bind emission reduction targets for developed countries (United Nations, 1992) (UNFCCC,1997). Convention on biological diversity has established sustainable development as a guiding principle for the global community, and action plan “Agenda 21” was adopted, which described how countries should act on local, national and global levels. This event laid groundwork for precautionary, and polluter pays principle, which should have helped to create barriers for the increase of pollution levels. The Kyoto protocol, which was adopted under the United Nations framework convention on climate change, has set greenhouse gas emission reduction targets for developed countries and legally binds them to follow the targets. Market-based mechanisms were introduced during the convention as well, such as emissions trading, which allowed countries and companies to increase their levels of pollution by buying or selling tradable permits which increased the limits of pollution for these entities. While the Rio Earth summit established the frameworks and principles of sustainable development, Kyoto protocol transformed these principles into commitments for developed countries to follow and be legally responsible for not reaching the goals that were set during the conventions.

Following the frameworks that were created in the 20th century, new agreements were created in the previous decade. The United Nations General Assembly has created new guidelines for governments, public, and private sectors to follow which are called Sustainable development Goals (SDGs) in 2015 (United Nations, 2015). 10 years has passed since the adaptation of the 17 sustainability goals that were part of the 2030 agenda of sustainable development. The main aim of these goals is to tackle main global challenges, such as poverty, climate change, inequality and peace. These goals adapt to three core dimensions of sustainability - economic, social and environmental (ESG) and are applied to all of the countries, both developed and still developing. This framework encourages businesses, society and government to take action and reach the targets of each of the 17 goals. The Paris Agreement, a treaty that was adopted the same year, further strengthened the global response to climate change (UNFCCC, 2015). The main objective of this treaty is to limit the increase of global average temperature to be below 2 degrees Celsius above pre-industrial levels and to limit warming to 1.5 degrees Celsius. All participating countries are required to submit regular updates that outline reduction targets and their actions on how they are contributing to the common goal. Unlike the Kyoto protocol, this agreement applies to both developed and developing countries which reflects global responsibility for addressing the climate change crisis. Treaties and

guidelines like these create a common ground for countries all around the world to seek sustainable goals and this way reduce the impact of unsustainable behaviour.

Researchers mostly highlight the concept of sustainable consumption as it is most associated with minimising long-term impacts on people and environment. (Kadic-Maglajlic et al., 2019). By reducing the amount of food that is being tossed away and buying items that are that needs and not wants can greatly reduce the impact on the social and natural environment. Sustainable consumption is usually described as socially responsible, environmentally friendly and responsible, but in most discussions the social responsibility is usually neglected, and the main focus only goes to environmentally friendly topics. Vargas-Merino et al. (2023) also agrees that sustainable consumption is quite fragmented: although sustainable consumption is regarded as a critical variable for separation of economic growth from ecological degradation, this concept lacks a unified definition as ecological, social and economic perspectives are overlapping with each other (Vargas-Merino et al., 2023). As the ecological, environmental and government core dimensions overlap with each other, it can be hard to evaluate the impact of different entities on how they are influencing the sustainable or not so sustainable outcomes of their actions.

Sustainability is often viewed as a behavioural orientation as well. Beyond theoretical definitions, sustainability is often tackled as a behavioural phenomenon, as it mainly focuses on how different individuals are embracing sustainability values into their daily actions. Sustainable behaviour has a large range of actions such as reduced consumption, waste minimisation, mindful resource use and ethically tested products (Geiger et al., 2018). It is very important to notice that sustainable behaviour is often influenced not by the knowledge of a person, but by psychological factors - values, identity, social norms, habits, and an ability to control your own behaviour. These factors have to always be kept in mind when analysing young consumers, whose decisions are often shaped by both social environments and personal agenda. Values and identity are often shaped during the earlier years, mostly during childhood and teenage period as parents usually have a bigger influence on the child's development. Social norms can be developed by a country's culture and the community that a person belongs to as outside factors do have an influence on the inner understanding of the surrounding environment and human behaviour. Habits are formed by consistently repeating the same actions and those actions are taken because of the pressure from the environment we belong to, both social and natural. Understanding sustainability more as a behaviour rather than just a movement highlights the points that transform the idea of sustainability into concrete actions.

On the other hand, it is noted in recent studies that there is a disconnection between young people's attitude towards sustainability and their actual actions (Wyrwa et al, 2023). Study

suggests that young people often express a strong support towards the sustainability movement, but their purchasing decisions often do not reflect their sustainability values. This conflict between the values of the person and their actual actions suggests that sometimes actions of the youth might be influenced by some other factors rather than the ones mentioned in the previous paragraph - price, product availability or even lack of institutional support might limit their ability to act sustainably. These factors cannot be controlled by the individual itself as entities such as businesses or governmental institutions in market or mixed economies often have a decision making in product supply levels and institutional support for the different socio-economic groups. This means that to conceptualise sustainability we have to acknowledge that each person measures their own level of acceptance of sustainability as most of human actions are influenced by broader socio-economic factors. When observing further scientific literature, it is crucial to address different factors such as genders, income levels, age ranges and education levels of different subject groups.

Sustainability is usually viewed as a framework that is created by ethical principles. The concept itself implies that there should be an implied responsibility towards both the future and present generations. Sustainability should be viewed as a normal concept that requires justice and fairness and should be motivated morally and taken as a concept that requires justice and fairness (Abramovich & Vasiliu, 2023). A good example of human behaviour during a crisis could be Covid-19 pandemic. During the unexpected event, responsibility became a core value of sustainable behaviour as it shaped how individuals were reacting to obligations towards environment and society itself (Tigan et al, 2023). Responsibility functions as a practical and ethical requirement for people to consider impactful actions to the ecological and social surroundings. The author highlights that during crisis individuals tend to feel responsible not only for themselves, but for their surroundings as well. Insights like these reinforce the view of sustainability as a normative framework where personal decisions must take moral values, social cohesion and impact on the environment into account.

## **1.2 Financial literacy and youth financial decisions**

First, to analyse academic literature on financial literacy it is first needed to clarify how different experts understand financial literacy concepts and how they view the importance of financial knowledge to the youth's financial decision making. According to one of the most well-known financial literacy researchers Anna Maria - Lusardi, financial literacy refers to an individual's ability to make well-informed and rational decisions that regards personal financial management (Lusardi & Mitchell, 2014). Financial literacy includes knowledge of such concepts

as inflation, interest rates, diversification, saving, borrowing, investing, risk diversification and retirement planning. In addition to this, recent research in Lithuania explains that financial literacy takes into account not only basic understanding of financial literacy topics, but also the ability to apply the knowledge into daily actions and long-term planning for the future (I. Danilevičienė, 2024). It is noted that financially literate people tend to develop better financial habits, particularly saving and budgeting, while youth, who are not interested in getting knowledge of financial behaviour development are associated with financial vulnerability and delayed savings. Studies also show that the main determinants that influence the learning process of financial behaviour are school-based financial education, parents' money management skills and individual discipline on managing their personal finances (Chowa et al., 2023). It is noted that if a household belongs to a higher income category, there is a higher chance that both parents and their children will develop better financial management skills. It is worth considering that income levels could have a significant impact on a young person's financial literacy, education development and financial behaviour.

Parental communication and education on financial matters still remains one of the most important predictors of young people's financial behaviour and saving tendencies. In addition, it was noted that only education is insufficient to effectively develop efficient financial management habits unless it is supported by practical experience and self-regulation (Faisal et al., 2023). Parents that allow their kids to be involved in budget planning, saving, spending or investing processes often can view better financial education results and lead to more efficient financial behaviour. Early exposure to financial decision making through financial literacy programs for the youth and guided support significantly increases the likelihood that the youth will adopt better, and more responsible financial decision making and will carry those skills to their adulthood (Mancone et al., 2024). Practical experience in formal and informal education can fill the gaps that were left during the household education of financial literacy thus allowing children and teenagers to take part in financial decision-making process that some families tend to skip and exclude the youth from getting the experience of financial planning, saving and investing. Implementing practical financial literacy programs in schools could show more efficient financial literacy education.

People who are not interested in financial literacy education may understand this process as superficial and it may lead to engaging in learning financial behaviour at only a very basic level. In a recent study scientists distinguish between traditional and non-traditional approaches to teaching financial education (Kaiser et al., 2021). One of the most common financial education in the United States of America is work-place based education. Typically, one person is assigned to

teach the office on how to become a financially responsible person. Work-place based education is an effective way to reach out to a broader audience and show the importance of financial education as these trainings are often mandatory, yet it can have a negative outcome as not all of the workplaces have a person that has the required education to teach the employees financial literacy. Another approach is focused on teaching the youth on how to manage their finances while they are still studying at schools. This approach also actively includes parents for them to be able to help their children handle their money more responsibly which could lead not only to better financial management skills but creating a better bond between children and their parents when focusing on financial matters. The third approach is mentoring, where an individual, a young person or an adult is learning from a mentor on a one-to-one basis. This approach is the most expensive, yet most efficient way to teach people how to handle their personal finances efficiently. Mentors are usually more proficient in providing higher quality financial education, yet the expenses would skyrocket if the demand for the mentorship would drastically increase.

On the other hand, financial literacy is often associated with successful stock investing, high investment returns, low-interest and well-balanced borrowing, and effective retirement planning. However, a study conducted in Japan revealed somewhat different results (Kawamura et al., 2021). The findings of the research noted that high financial literacy is often linked with excessive borrowing, risky and unbalanced portfolios, naivety of individuals when making financial decisions and even speculative investment. Acquired financial knowledge can sometimes lead people to making bad financial decisions as it may make people overestimate their abilities and push them to make irresponsible and irrational actions. The author identified five main factors that can contribute to such behaviour: reliance on biased opinions, financial literacy, intuitive financial decision making, overconfidence and cultural differences. They note that different cultures exhibit varying levels of confidence in personal knowledge, which also affects confidence in one's financial literacy. Incompetent sources may influence the youth to follow biased opinions and lead to harmful decisions for one's financial health. Various financial institutions often aim to maximise their benefit by providing youth with financial advice that sometimes do more harm than good to the client. Financial literacy plays a crucial part as well - lack of financial knowledge might be far worse than having it, even if youth tend to overestimate it. Decisions that are made intuitively are usually driven by emotions rather than rational thinking, which frequently leads to worse financial outcomes. Knowledge of financial literacy and investing leads influences the range of possible choices, and the ability to make decisions determines how well person can implement his actions.

Understanding the foundations of financial literacy and youth financial behaviour is crucial because frameworks like these explain how and for what reason young people decide on what

decisions to take and what influences shape their choices. Research consistently shows that financial knowledge is not the only factor that determines the behaviour, rather it is influenced by psychological traits, financial capability, behavioural bias and socialisation (OECD, 2021). Combination of these elements forms youth's decision-making patterns that influence young people on their responsible money management, short-term and long-term consumption, savings and risky borrowing. Parental guidance, education in schools, peers and social media environment shapes their financial habits during the growth and allows them to form predictions on their financial wellbeing when they grow up (Shim et al., 2023). This theoretical base is very important for understanding why and what financial decisions the youth make, and it directly contributes to the analysis of sustainable financial decision making in Baltic states.

### **1.3 Sustainable financial literacy concept overview**

As both financial literacy and sustainability terms were overviewed in the previous intersections, it is now important to overview how both frameworks overlap with each other. As per previous analysis, traditionally financial literacy focuses on a person's ability to understand and efficiently use the financial knowledge to make rational decisions on investing, saving and budgeting while also calculating and managing risks (Lusardi & Mitchell, 2014). On the other hand, research that was based on sustainability emphasises the need for people to act in ways that would reduce or fully prevent environmental harm, encourage long-term wellbeing of the surrounding environment and support social justice (OECD, 2020). As economic and ecological issues become more and more relevant, scientists notice that sustainability and financial literacy cannot be considered as separate matters and people should be introduced to a concept of sustainable financial behaviour.

Sustainable financial literacy is an integrated knowledge of attitudes, skills and values that enables a person to align its financial decisions with sustainable behaviour. These aspects include evaluation of financial products not only based on returns, but also on the environment, social and governance (ESG) characteristics (Amagir et al., 2020). Sustainable financial behaviour requires the understanding of notions such as green financial instruments, ethical banking, sustainable investing and the consequences of long-term implications of financial behaviour. These fundamental concepts are usually not well-known for the broader part of the population. Scientists view sustainable financial literacy as a holistic construct that combines financial competences with ethical reasoning and awareness (Filippini et al., 2022). By making financial decisions a person should not only focus on his knowledge that could impact financial gains but also take in consideration the effect that the behaviour will have on his environment. An

observation like this raises a challenge to a traditional overview that financial decisions are only purely based on return of investment and financial benefits, as it shows the importance of the impact on the communities and ecosystems.

The importance of behavioural aspects of sustainable financial literacy is highlighted in the recent studies. Knowledge possession is most of the time not enough to fully transform an individual into a person that behaves sustainably and financially rationally. Value orientation, motivation and actions of sustainable behaviour contribute for a more efficient sustainable decision making (Aprea & Wuttke, 2016). Young people tend to demonstrate rising concern for the climate change crisis and social injustice, but they often lack the skills or knowledge to transform their words into concrete financial actions that could make an impact. There is an issue that most of the youth are not capable of identifying ethical investment products or avoiding companies that add to degradation of the environment. Sustainable financial literacy is crucial to combine skills, knowledge and values in for a person to be more capable of making financial decisions that could contribute to positive long-term societal and environmental outcomes (Borg et al., 2022). By only having the knowledge and skills a person does not automatically develop sustainable behaviour as he does not be motivated or goals to act sustainably. Vice versa, even if a person seeks to minimize the negative impact on his environment, if one does not develop skills and knowledge on how to behave financially sustainably, the obstacles of lack of the information will cause serious issues with fulfilling sustainability missions.

It is essential to identify different forms of sustainable behaviour that are relevant to our research. Recent studies emphasise the idea of sustainable consumption, that encompasses both the reduction of negative environmental impact and the integration of broader social well-being aspects (White et al., 2019). Sustainable consumption is mostly understood as a responsible behaviour that benefits the surroundings and society as a whole over the long term. Discourse of the public often adopts a narrow view and only prioritises the environmental aspect of ESG, and overlooks social dimension, such as supply chain transparency, labour conditions and human rights. Without supply chain transparency there could be major violations of international agreements that could cause harm to natural habitat. Labour conditions and human rights are also important causes that are crucial for the improvement of life quality for workers and vulnerable social groups. This imbalance leads to an incomplete understanding of sustainability; thus, it is crucial to overview both environmental and social factors as equally significant and as connected components.

Perhaps one of the leading prominent concepts linking financial behaviour and sustainability is sustainable investing. This perspective is structurally different compared to

regular investing strategies, which are typically focused on maximising return of investment. In sustainable investing, investors assess not only profitability of financial instruments, but also their environmental, social and governance factors. This perspective integrates the ethical and long-term vision of investors into their financial decision making (Pástor et al., 2021). Investing in green bonds, ESG labelled funds, and sustainable 2nd pillar pension funds not only focuses on financial gains, but in addition adds the factor of influence to environment, social and governance aspects as well. This change of investor preferences is driven by rising awareness of climate change, corporate accountability and social inequalities that include sex, racial, religion and other social discriminations.

A third important form of sustainable behaviour is waste sorting, particularly in connection to textiles. It is estimated that around 87% of all textile products worldwide end up in landfills, even though roughly 90% of these discarded materials could, in principle, be recycled (Moazzem et al., 2021). Such figures indicate to us that a large share of the global population either lacks the necessary skills and knowledge to sort textile waste effectively or does not have access to suitable infrastructure and collection systems. This leads to a result of a lot of valuable materials lost while the negative impact of failed recycling process results in a growing burden associated with textile production waste growth. As fast fashion is rapidly increasing the use of textile products, emissions, the depletion of resources, and the effectiveness of recycling are also impacted (Niinimäki et al., 2020). Trends that are changing fast are influencing a major part of the population to focus on purchasing new clothes that usually do not have good quality materials thus requiring to be changed more often than better quality wardrobe. Improving the infrastructure of recycling and educating the general population on how to reduce textile waste could be an effective way to reduce the desire to buy lower quality clothes.

Rapid urbanisation, ongoing demographic expansion, and rising industrial output—which allow firms to manufacture goods at a pace exceeding realistic consumption levels—have collectively intensified one of the central environmental challenges of the twenty-first century: ensuring that as many used resources as possible are recovered and reintegrated into production cycles (Xiao et al., 2021). The promotion of waste sorting practices therefore represents a crucial policy tool. Governments and local authorities increasingly encourage households to separate waste through the implementation of dedicated collection schemes, economic incentives, regulatory frameworks, and public awareness initiatives. Such measures aim both to minimise the amount of waste disposed of in landfills and to facilitate the shift towards a circular economy.

As sustainable finance has expanded in recent years, researchers have increasingly attempted to translate the concept of sustainable financial literacy into measurable terms through

the development of more targeted instruments. Recent studies suggest that such measurement should go beyond purely cognitive knowledge and also capture sustainability-related attitudes and behavioural intentions. One of the earliest structured approaches was proposed by Käser and Müller, who developed a survey-based instrument that includes tasks such as recognising ESG criteria, distinguishing between conventional and sustainable investment products, and interpreting sustainability labels (Käser and Müller, 2021). In a related line of research, some scholars argue that preferences for sustainable investment can serve as a behavioural proxy for sustainable financial literacy and can be inferred from past investment behaviour, the likelihood of selecting ESG-screened portfolios, and a willingness to pay for sustainability-related attributes. Taken together, these approaches view sustainable financial literacy as a combination of knowledge-based competencies, observable behaviours, and underlying value orientations. This reflects a shift away from traditional financial literacy assessments towards frameworks that place greater emphasis on ESG-related considerations (Varmaz et al., 2021).

### **1.3.1. Demographic factors influence on sustainable financial literacy**

Recent evidence indicates that sex-related differences continue to shape both financial literacy and sustainable financial literacy, even though in complex and evolving ways. Different studies show that women are more often reporting lower self-assessed financial knowledge and confidence, even if they are objectively comparable to the skills of men (OECD, 2023). This confidence gap influences women's financial behaviour by reducing the likelihood of women to engage in investment activities or to take higher risks. By contrast, when sustainability is considered, women are more likely to exhibit more pro-environmental and pro social motivations, which positively influences their choices in sustainable investing and consumption (Banerjee et al., 2025). These findings indicate that women may face obstacles in traditional financial literacy, but they often excel in areas related to environmental responsibility, future-oriented goals, and ethical considerations. By improving the infrastructure of education that would be more suitable for women or increasing the interest for investing for females there could be more involvement of sustainable financial decision making and investing.

It is often assumed that men are perceived as more competent in handling financial matters. This assumption stems from historically defined gender roles, tracing back to historical periods in which men were considered the main authority within the household, and, in many cases, were responsible for financial decision-making within the household (Tinghög et al., 2021). However, nowadays research challenges this assumption. Research conducted in the United States analysed the comparison of financial literacy between men and women. The findings

demonstrated that, following the 2008 financial crisis, a growing number of individuals left traditional employment to pursue self-employment and entrepreneurship. Today, self-employed workers represent roughly one-third of the U.S. workforce. The study revealed that self-employed individuals generally exhibit higher financial literacy than those employed by others, yet insufficient financial knowledge remains a significant factor contributing to increasing the risk of bankruptcy among small enterprises. Notably, the study further revealed that women who had established their own small businesses demonstrated higher average levels of financial literacy than men working in large companies or even men who had started their own businesses (Struckell et al., 2022). Taken together, these results imply that when comparable opportunities are available to women and they take up similar entrepreneurial roles as men, they are fully capable of attaining, and occasionally outperforming, men's level of financial education levels. This challenges the persistent stereotype of male financial superiority and indicates that observed gender gaps in financial literacy are more likely related to differences in access, social expectations and role distribution than to inherent ability. From the perspective of sustainable financial literacy, these findings are particularly relevant: empowering women through education, entrepreneurship and equal access to financial resources may not only reduce gender disparities but also strengthen the overall quality and sustainability of financial decision-making in society.

Recent research indicates that gender-based differences also influence how ESG-related financial products are assessed and understood. Male respondents typically outperform female respondents in traditional financial literacy assessments, particularly in risk assessment, complex financial technology and diversification (Lusardi, 2025). Women, however, tend to score higher on sustainability-focused attitudes and behavioural measures, including willingness to invest in socially responsible funds, avoidance of companies with poor ethical practices and active consideration of environmental consequences when making financial decisions (Bohnet et al., 2025). The observed patterns suggest that differences should not be interpreted as weaknesses or deficits, but rather as distinct profiles shaped by socialisation, education and cultural norms. These asymmetries should be addressed education, and improved sustainability disclosure, as it continues to be considered one of the most important parts to achieve towards more sustainable finance.

Financial literacy disparities between men and women are additionally shaped by the broader societal and cultural setting individuals are embedded in. Social norms, value systems, and gender expectations shape norms determining who takes responsibility for money management, the ways financial decisions are organised within households and what kind of financial knowledge is considered necessary for men and for women (Kawamura et al., 2021).

Individuals who have more access to financial decision making in the household tend to have better financial management skills. Within societies that had a culture of men being a household decision maker, women tend to have fewer opportunities to gain practical experience in handling personal or family finances, which then translates to lower financial literacy levels., even if their abilities could be considered equal or at least similar. On the other hand, in cultures where women occupy a key position in household decision-making, for example borrowing, organizing household resources or savings, they may accumulate substantial finance management knowledge.

To reinforce the previous findings, we can look at a concrete illustration of how culture shapes gender differences in financial literacy that comes from India. Using nationally representative data, scientists examined how different kinship systems - patriarchal versus matrilineal - affect disparities in financial literacy between women and men. Their analysis shows that in patriarchal states, where men typically control household finances and property, women display substantially lower levels of financial literacy than men. However, this gap disappears in matrilineal states, where inheritance systems are matrilineal and where women have greater authority over economic decisions; in these regions, women are not only as financially literate as men but often more knowledgeable than women in patriarchal areas (Rink et al., 2021). These findings suggest that differences in financial literacy by gender are socially constructed rather than biologically fixed; rather, they reflect the distribution of power, education and the allocation of responsibility within households and communities. For sustainable financial literacy this means that improving access to information and education, strengthening women's decision-making roles and challenging gender roles can help reduce the financial literacy gap between males and females.

Youth involvement in the sustainable finance context needs to be studied at more comprehensive levels as their consumption and environmental value patterns differ from the older generations. Recent studies suggest that more and more younger people are adopting circular economy habits: repairing broken items, reusing them or participating in second-hand markets (Camacho-Otero et al., 2018). Behaviours like these reflect a shift from traditional consumerism and ownership mindset to access-based consumption. Digital platforms play a crucial role in supporting renting, resale and product sharing (Petrik et al., 2025). Minimalism, reduced material consumption, prioritisation of environmentally friendly products are the low impact lifestyle that is motivated by the concerns of the youth for climate change together with social norms shaped by peer groups (Ertmańska, 2021). These practices provide us with a basis grounded in personal value systems. It can be transitioned to financial practices: when the youth integrate ecological

responsibility into daily choices, they are more likely to choose financial products that are aligned to their personal core values that follow ESG patterns.

Recent research on Generation Z investment behaviour found evidence that young people generally do not incorporate sustainability into their financial decisions (Pašiūnienė et al., 2023). Although the results indicate that students display an interest in sustainability-related issues, green, and socially responsible investments, this interest does not translate into actual behaviour. While respondents acknowledge the benefits associated with green investing and its positive environmental impact, they often remain reluctant to adopt such practices because of limited financial resources, uncertainty regarding the credibility or financial performance of green products, and low confidence in their own investment skills. The authors further observed that there exists a diverse profile among youth investors: a segment of respondents reported that their investment decisions are driven by moral values and ethical considerations, whereas others prioritise more traditional investment criteria, including risk and expected returns. Taken together, the findings suggest that Generation Z is gradually moving towards more sustainable financial decision-making; however, greater emphasis on financial literacy education and improved access to investment tools is still required to convert positive attitudes into concrete actions.

Digital transformation in fintech innovations and financial services significantly enhance accessibility, user experience, and inclusion - conditions under which young people may adopt sustainable financial products more easily (Nwoke, 2024). Digital platforms provide impact dashboards, sustainability ratings, CO<sub>2</sub> calculators, and simplified ESG labels that help young investors integrate sustainability considerations into their decisions. Social influence mechanisms that are integrated into the platforms could also have an important role in shaping youth's sustainable investment decision making. Features such as social trading, sustainability focused online communities and peer comparison are influencing youth's choices in choosing the investment products options (Erdős et al., 2022). Beyond this, the design and usability of digital platforms also play a role in shaping young people's decisions to shift towards more sustainable investment alternatives. Interface elements that highlight environmental, social, and governance considerations can substantially raise the likelihood of choosing more sustainable financial products (Hettler et al., 2025). Moreover, the digital financial environment not only expands young investors' access to financial products but also actively influences their decision-making processes, shaping how choices are evaluated and ultimately made.

### **1.3.2. Research on the sustainable financial literacy levels and education in the Baltic states**

In the context of this study, which examines sustainable financial literacy levels and financial decision-making patterns across Lithuania, Latvia, and Estonia, it is necessary to explore the trends, challenges, and opportunities highlighted by researchers from these countries with regard to youth. As the topic was previously studied in 2022 by the author of this work, it is useful to revisit earlier research focused on assessing the sustainable financial literacy of youth in the Baltic States, which was conducted in collaboration with other researchers, and to review the conclusions reported in the academic publication. The analysis indicates that Baltic youth demonstrate moderate but uneven levels of both sustainability awareness and financial literacy. Understanding of core financial concepts, such as inflation and diversification, appears relatively higher compared with findings from previous international studies, with Estonian youth achieving stronger results relative to their counterparts in Lithuania and Latvia. By contrast, sustainability-related knowledge can be characterised as adequate; however, over half of the participants reported lacking confidence when asked about investments in sustainable financial products (Gedvilaitė et al., 2022). This suggests that most of the youth in the Baltic States remain unsure about the performance of ESG assets.

A more focused study on Lithuanian youth conducted among Millennials reinforces the earlier conclusions. The authors found that Generation Y exhibits a degree of financial literacy shaped by moderate financial understanding and predominantly positive financial behaviour, including timely fulfilment of financial obligations and restraint in impulsive spending. The study also reported that Millennials demonstrated a more favourable attitude towards financial sustainability, with results exceeding the global average, and found a statistically significant positive association between sustainability-oriented attitudes in financial services and individual financial behaviour (Ulbinaitė et al., 2023). The findings suggest that strengthening sustainable attitudes through government or public sector action may in turn affect sustainable financial decision-making. Research additional findings shows that financial literacy and sustainable behaviour could be interconnected which means, that vice versa, the improvement of financial literacy could have a positive impact on persons sustainable behaviour.

Latvian research conducted in 2023 confirms that young people in Latvia demonstrate relatively low levels of investment-related knowledge, particularly when dealing with more sophisticated financial instruments (Titco et al., 2023). The study reported that only a small proportion (8%) of young adults assessed their investment knowledge as good or very good, while nearly one-third indicated that they do not hold any savings. Familiarity with financial products

such as bonds also remained limited. The authors suggested that these shortcomings in youth financial literacy are largely associated with insufficiently targeted financial education, emphasising the importance of more structured and systematic approaches to financial literacy instruction. On the other hand, these results could indicate that Latvian population are not overestimating their own capabilities of making efficient and rational financial decisions. This outlook into financial decision making could positively impact risk aversion practices of Latvians as they would not overestimate their abilities to take upon riskier financial decisions. Overall, the findings underline the need for higher-quality financial education to support more informed, sustainable, and responsible financial decision-making among young people.

There are notable generational differences in Estonia in how various age groups perceive financial independence or overall financial well-being. Research conducted by Estonian scholars observed that younger individuals in Estonia tend to conceptualise financial well-being as a three-stage process: meeting basic needs and maintaining financial stability, achieving a desired level of quality of life, and ultimately reaching financial autonomy. In contrast, older adults and the elderly place greater emphasis on the capacity to maintain a comfortable standard of living in both the present and the future. Across all age groups, respondents acknowledged insufficient engagement in investing, saving, and long-term financial planning (Riitsalu et al., 2023). These findings are particularly relevant to the present study, as they indicate that sustainable financial literacy education should be better aligned with the needs of different age groups in Estonia and potentially across other Baltic countries. Translating aspirations and perceptions of security and freedom into tangible, sustainable financial behaviour remains a key challenge.

A need for sustainable financial literacy education was highlighted in the recent Baltic states study that showed the importance of integrating sustainability and financial literacy training in business and vocational education programs (Siiril et al., 2022). Data was drawn from the financial sector workers of the Baltic states, and it was noted that traditional financial literacy training is not enough to meet the labour market expectations. Employers in the financial sector are expecting that the youth will be well familiar with ESG investment strategies, sustainable finance instruments, regulatory context that shapes financial markets, and green transition risks. Study by Estonian scientists concludes that sustainable finance as a skill is becoming a crucial competence for finance professionals and that the teaching of this skill should be integrated into curricula of both vocational and higher education. As the research identified the key areas where industry stakeholders' needs are, this research has provided to us valuable information for targeted sustainable finance development in the Baltic region.

#### 1.4 Challenges of the youth when facing sustainable financial decisions

Greenwashing risk and information asymmetry can negatively influence young people's decisions to invest in sustainable products. A recent study published in 2024 explains that firms may deliberately mislead investors by taking advantage of inconsistencies in ESG regulations and strategically adjusting their ESG ratings (Hassani et al., 2024). The study introduces the concept of *cross washing*, which goes beyond conventional greenwashing and further complicates the assessment of ESG criteria. Cross washing occurs when companies attempt to offset weaknesses in certain ESG dimensions by overemphasising strengths in others or by selectively disclosing favourable ESG-related information. Such practices can mislead and confuse inexperienced and young investors, who often rely heavily on ESG ratings when identifying sustainable investment opportunities. Misleading or insufficient information can also have a negative effect on youths' will to learn and dive deeper in environment, social and governmental issues as the distrust in the system demotivates youth to use sustainable financial products.

Another challenge for the youth living in a small financial market such as the Baltic states is that there are not enough options to choose from a narrow range of sustainable financial products. While ESG investing is gaining momentum in emerging economies and smaller markets, there are still some constraints of the lack of sustainable financial alternatives (Adwani, 2025). This transforms into younger people facing less opportunities to translate their sustainable ideas into actions as market depth and liquidity are insufficient to provide a diverse range of accessible sustainable products for retail investors. One of the initiatives that could lead to a broader range of sustainable financial products is Nasdaq Baltics initiative First North growth markets which lets growth level companies to access capital by getting listed on the public markets (Nasdaq, n.d.). With advisors that are facilitating a smoother listing process and both institutional and retail investors that support the market, the range of investment options could greatly increase for both Nordic and Baltic investors.

Insufficient education in sustainability and financial literacy presents significant challenges for young people. Evidence from researchers based in Bremen indicates a statistically meaningful relationship between financial literacy education and students' investment choices, particularly their propensity to select ESG funds associated with relatively higher returns and lower risk exposure (Varmaz et al., 2021). At the same time, the authors acknowledge that investment behaviour is shaped by a range of additional factors, including individual traits, attitudes, risk preferences, and concerns specific to youth. Importantly, the study suggests that sociodemographic characteristics do not exert a significant influence on students' decisions to

invest in ESG financial products. Instead, individual level factors and sustainable financial literacy emerge as the key predictors of ESG fund selection. By having a higher level of sustainable financial literacy young people can better evaluate their choices for investments and not be impacted by their individual traits, their attitude towards different investment types and risk preferences. Overall, these findings highlight the central role of education in shaping students' financial behaviour, particularly in the context of sustainable investment decision-making.

Research by Bauer and his colleagues provides compelling evidence that sociodemographic factors indeed have an impact on the level of sustainable behaviour among youth (Bauer et al., 2021). The study shows that individuals with higher income, higher educational attainment, and greater wealth are more likely to select sustainable investment options. Meanwhile, investors from lower-income households who are less financially literate, a pattern more prevalent among younger investors, tend to prioritise short-term gains and liquidity over sustainability preferences. Short term view on investment choices and a willingness to invest only in more liquid instruments can lead to lower return on investment as young people with lesser wealth or education attainment would limit their choices of possibilities to invest in different asset classes. These findings underscore that socio-economic inequalities are directly associated with unequal participation in sustainable investing and that educational and financial barriers shape ESG investors' behaviour. Government input in providing more equal rights or income for the broader public would greatly influence youth's ability to be more prepared for rationally investing in sustainable financial assets.

Behaviour habits are the most noted obstacles to sustainable financial decision making among the young people. Scientists notice that young people often display short-termism by preferring faster returns on their investments or consumption over long term commitments to sustainability goals (Yakoboski et al., 2022). Education and parents' behaviour are the variables that have an influential impact for one's behaviour development in the early stage of life. By promoting long-term goals and more sustainable behaviour parents and teachers could influence youth to raise long-term goals more often thus influencing young people view on long term commitments. As it was mentioned before on the behaviour research of generation Z (Pašiūšienė et al., 2023), limited confidence in financial decision making has a major impact even on sustainably valued people who may avoid investing in sustainable financial products due to perceived complexity and uncertainty. Behavioural biases like these reduce willingness of the youth to pursue learning about unfamiliar financial products and lowers the probability of young people to promote sustainable actions while investing.

#### 1.4.1. Pension schemes and withdrawal of pension funds from the second pillar pension funds

Despite the widespread use of second-pillar pension schemes across the Baltic States, including compulsory funded pension systems in Lithuania, Latvia, and Estonia, there remains a lack of academic research examining the real-world consequences of third-party policy reforms, such as the option of fund withdrawals in Estonia. As there are limitations in theoretical examination of the distinctions between second-pillar pension schemes and the possibility of withdrawing funds from pension schemes in the Baltic States, it is important to examine examples of policy approaches and actions adopted in other countries and to analyse examples of other countries policies and actions towards these actions.

Most European countries rely on multi-pillar pension schemes that combine public, occupational, and private contributions into pension systems in order to diversify income sources. The prevailing structure remains the three-pillar framework, which includes a public pay-as-you-go (PAYG) system, mandatory or voluntary occupational pensions, as well as individually funded private pensions (Pension Adequacy Report – Current and Future Income Adequacy in Old Age in the EU, 2024). The first-pillar pension, which forms the core of the entire pension system, provides defined benefits based on contribution history, wage levels, and age. However, as Europe's population continues to age, it is estimated that the old-age dependency ratio will increase from 34%, recorded in 2020, to 57% by 2050 (Eurostat, 2023). Demographic developments of this kind may prompt European countries to further increase the statutory retirement age, adjust indexation mechanisms, and tighten eligibility criteria for pension benefits. Without the policy changes European countries would be at risk of having insufficient funds to provide later pension age generations with enough income to maintain at least a decent level of lifestyle and to fulfil their basic needs.

Occupational pensions, or better known as second pillar pensions, are funded by employers or shared contribution by both employers and employees. Western and northern Europe have highly developed occupational pension markets while southern and eastern Europe are lagging behind and are relying more on public pillar (EIOPA, 2021). Countries with stronger occupational systems often benefit from higher wages, greater institutional capacity and more stable employment relationships. These findings reflect labour market structure and employer involvement in retirement provision. A bigger shift to the second pillar in the east or south would expose the citizens to a higher market risk, but on the other hand it could be beneficial for financial health in the later years. More studies regarding the cultural and income factors should be

concluded in order to have a better understanding on the pension system differences between the south and east regions versus Nordic and western European parts.

The third pillar consists of individually funded pension products, including pension insurance, mutual funds, personal retirement accounts, and tax-advantaged private savings. Participation rates within the third-pillar system also vary across Europe, as individual pension investing is more widespread in Northern and Western Europe relative to Southern and Eastern regions. These patterns may be associated with lower levels of financial awareness and more limited disposable income (OECD, 2022). As the Baltic region's economy continues to expand, disposable income is expected to increase accordingly, and in the coming years it may become possible to observe a growing number of individuals allocating their resources to voluntary investment in third-pillar pension schemes.

An analysis of pension withdrawals in Chile provides comprehensive evidence demonstrating that allowing access to second-pillar pension assets can adversely affect retirement security and long-term fiscal sustainability. Inzunza and Madeira published a study in 2025 examining three withdrawal rounds that were introduced during the COVID-19 crisis. The withdrawal measures resulted in a substantial reduction of funded pension balances, with findings indicating that younger and financially vulnerable workers were more likely to withdraw their savings (Inzunza & Madeira, 2025). These measures increased the share of individuals who will need to depend solely on publicly financed pensions and also raised future replacement-rate pressures. The resulting fiscal burden is expected to be considerable, as future governments will be required to allocate additional public resources to mitigate financial inequality among older populations by offsetting reduced levels of private savings. The pension reform introduced in 2025, which aims to reduce gender disparities and secure continuous employer contributions, may help address the current challenges related to the erosion of pension fund assets.

Furthermore, the Australian example of early pension withdrawals as a stimulus to reduce the immediate financial pressure caused by the COVID-19 pandemic also affected the long-term financial outlook of Australian citizens (Hamilton et al., 2023). According to estimates reported in the study, approximately one in six individuals of working age withdrew, on average, 5% of their pension balances, which could result in balances being around USD 120,000 lower in today's terms. Withdrawals from pension funds intensified liquidity pressures, as more than USD 38 million was withdrawn from investment accounts. The study indicates that approximately 80% of individuals who accessed their savings exhibited present-biased behaviour. This suggests that when designing policies that permit individuals to access pension savings early, a pronounced trade-off is likely to arise between macroeconomic stabilisation objectives and long-term

retirement savings policy. Not only the youth, but later generations as well succumbed to the short-term outlook for their financial perspectives.

Lietuvos bankas (Lithuanian central bank) has assessed the proposed reform of the Lithuanian government that allows Lithuanian citizens to withdraw accumulated funds in their second pillar pension funds. Allowing participants to withdraw accumulated funds would generate short-term macroeconomic fluctuations while posing substantial long-term risks to pension adequacy (Bielskis et al., 2025). The analysis provides us with insights that the broad withdrawal rate would stimulate the economy for a short-term by increasing consumption and inflation, but in a long-term time period the economy would stabilise. On the other hand, replacement rates would significantly decrease, especially for low-income earners, and thus increasing resilience on the first pension pillar. As the 2nd pension pillar plays a crucial role in mitigating demographic pressure on the pension system, huge withdrawal rates will require higher government contribution rates in order to maintain adequate retirement incomes for future generations. Fund withdrawals may undermine the sustainability of the pension system unless accompanied by broader structural and policy adjustments.

Estonia introduced its reform that allowed the citizens to withdraw their pension savings in 2021 and made participation in the 2nd pillar pension program a voluntary act. 20% of eligible contributors withdrew their savings immediately, taking the equivalent of 4.6% of the GDP one year before the reversal (Meriküll, 2025). Pension reform in Estonia demonstrated that the allowance of early fund withdrawals can have both short and long-term effects on household savings and macroeconomy of the country. Temporary inflation rise was seen due to increased consumption of the households that used their money. Studies noted that the reversal had a positive effect on inflation and that it was mainly induced by the demand component. As it is still too early to analyse the long-term results for the withdrawers of their pensions, further research should be concluded after more time to examine the influence of the withdrawing capital from pension funds to the people's income who are retiring while not being part of the 2nd pillar pension funds.

### **1.5 Theoretical part summary and conceptual model**

The theoretical part of this master's thesis mainly focuses on sustainable financial decision-making and financial literacy levels among young people both in general and across the Baltic States. The behaviour was examined by integrating research on sustainability, sustainable financial literacy, behavioural tendencies, regional patterns, financial literacy, and generational developments. This section of the thesis demonstrates that sustainable financial behaviour is

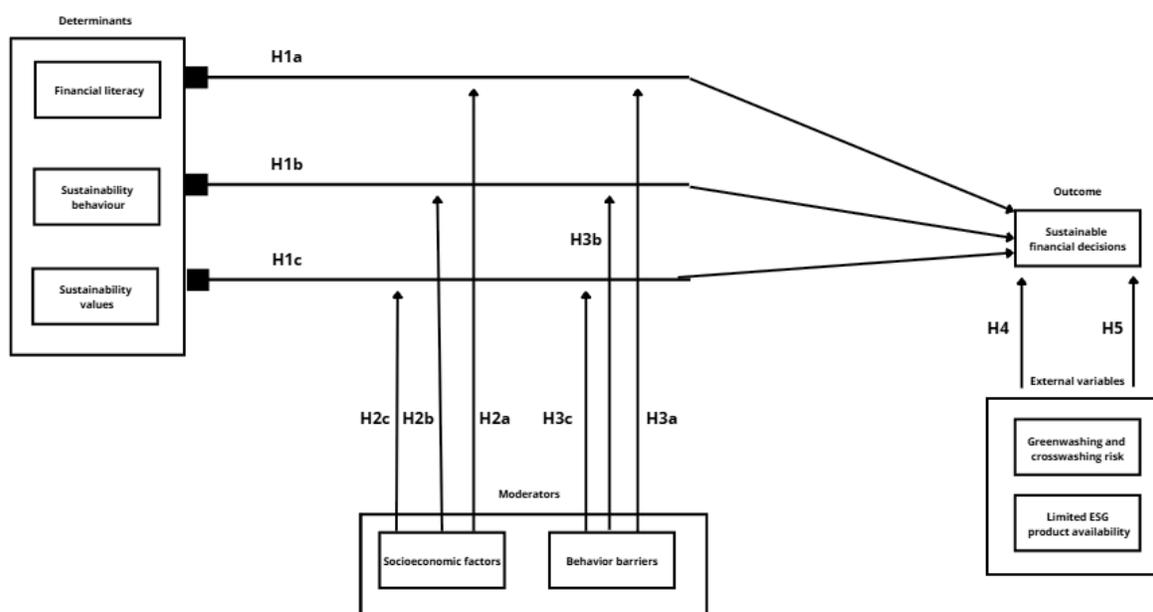
influenced by a range of interconnected factors, including socio-economic conditions, the degree of financial literacy, values, behavioural characteristics, and market frameworks. The majority of the reviewed studies concluded that financial and sustainability literacy are important for translating sustainable intentions into responsible actions.

When examining the Baltic States' context, several constraints to translating sustainable values into practice become apparent. Small financial markets result in limited exposure to sustainable financial products and represent a key obstacle explaining why Baltic youth are less familiar with green investments. Educational gaps in the Baltic States partly explain the comparatively lower levels of financial capability, as insufficient emphasis is placed on the teaching of sustainable financial literacy across both vocational and informal education systems. Strengthening education and improving access to sustainable financial products could enhance young people's confidence and encourage them to adopt rational financial decision-making.

Digital platforms also play a crucial role in shaping younger generations sustainability values and financial decisions. Shifting generational values and raising sustainability awareness could provide new opportunities that would strengthen sustainable financial behaviour. As we compared international evidence, especially when we examined pension schemes, we could highlight the importance of long-term financial planning and the dangers that Chile and Australia faced when people prioritised short term gains over sustainable financial security. Digital platforms, especially ones that focus on the 2nd pillar pension systems, should focus more on forming more sustainable citizens' views towards saving and investing for the future.

Insights from researchers all around the world allowed us to obtain a holistic point of view towards the youth's behaviour when making sustainable financial decisions. By reviewing multiple domains that influence youth's behaviour we could create a conceptual model based on theoretic findings that will support our methodological and research parts of the thesis by explaining our hypotheses. As per the image below (Figure 1.) We have extracted determinants, moderators, external variables, and outcome from our research.

Figure 1

*Conceptual model*

Source: compiled by the authors, based on conducted research

First, we aim to revisit our hypotheses H1a, H1b, and H1c. H1a explains that financial literacy has a positive effect on youth's sustainable financial decision-making. This assumption is grounded in the rationale that individuals who possess financial literacy skills, such as budgeting, investing, and saving, are better equipped to understand sustainable financial products. Understanding these products requires at least a basic understanding of financial planning and core investment principles; consequently, individuals who lack the ability to grasp fundamental financial concepts are unlikely to make rational choices when engaging in sustainable financial decision-making. H1b suggests that if a young individual seeks to behave sustainably, this will result in sustainable financial decisions. Actions such as socially responsible consumption or activism contribute to sustainable financial literacy. Individuals who aim to act sustainably tend to acquire knowledge about sustainable practices and actively seek information on sustainable financial products, thereby enhancing their understanding of sustainable finance. Finally, H1c explains that sustainability values directly influence sustainable financial behaviour. Young people who are attentive to ESG standards are more inclined to develop knowledge related to sustainable financial literacy and to act in line with their values, both in financial matters and in other domains. According to our hypothesis, financial literacy, sustainability behaviour, and sustainability values

constitute the primary factors contributing to youth sustainable financial literacy, which is essential for individuals seeking to develop sustainable financial behaviour.

As we overviewed the main hypotheses it is crucial to look at moderators H2a, H2b, and H2c which are influencing the determinators. Hypotheses H2a suggests that socioeconomic factors such as gender, income, and education moderate the connection between financial literacy and sustainable financial behaviour. Individuals, who are born in well-educated families tend to have a better financial literacy thus leading to more sustainable behaviour. Higher income also correlates with more financially sustainable behaviour as people are well aware on how to sustainably create resourceful cash flows. The H2b hypothesis suggests that females tend to act more sustainably and responsibly, but on the other hand males tend to have more confidence in their financial decisions and act more often when investing in financial products. Explanation for the H2c hypothesis suggests that socioeconomic factors could have an impact on personal sustainability values. Youth tend to communicate and follow sustainability values more often than their older peers, but they often lack knowledge of money management. Youth with better education tend to have more sustainable values. H2a, H2b and H2c hypotheses explain that socioeconomic factors influence youth's financial literacy, sustainability behaviour, and sustainability values.

Behavioural barriers do have an impact on the three main determinants that were identified in our conceptual model. Hypothesis H3a indicates that overconfidence and reliance on simplified financial principles acquired earlier may negatively affect youth's sustainable financial behaviour. Even when an individual is financially literate, risk aversion can influence behaviour and thus result in an individual choosing lower-risk financial products, which may be less sustainable than higher-risk sustainable alternatives. Hypothesis H3b suggests that short-term orientation and a preference for conventional financial products may indicate that young people are unwilling to behave sustainably and that their actions will not lead to sustainable financial decisions. These behavioural barriers prevent youth from taking advantage of the possibility to explore alternative opportunities by investing over longer time horizons in more novel financial products. In line with hypothesis H3c, behavioural barriers such as low self-confidence and confirmation bias, which encourage youth to remain with traditional financial products, negatively affect young people's sustainability values. A lack of trust in one's own financial and sustainability-related knowledge and avoidance of new sustainable financial products may modify the values of young individuals and shift them towards more conservative behaviour when selecting investment vehicles for allocation of funds.

External variables are also determining the final outcomes of our hypothesis. Greenwashing and cross washing are external factors that are shaping the financial sustainable decision making of the youth, according to our H4 hypothesis. False claims of environmentally friendly practices and disclosing positive ESG factors while concealing weaknesses in other fields are complicating young investors' decision making while choosing to which financial assets they should invest. Factors like these distort information that is available to investors which reduces the trust in the market for sustainable instruments. Younger investors might feel confused as they usually lack the knowledge on how to critically assess sustainability claims and it leads the younger generation to be hesitant on making sustainable financial decisions. Even if the youth have financial literacy, are trying to act sustainably and have sustainable values, Greenwashing and cross washing could be leading factors why investors back off from sustainable investing and focus more on traditional products.

Finally, our last H5 hypothesis explains that limited ESG product availability in the Baltic market also influences youth's sustainable financial decision-making. While the interest in allocating funds to ESG-oriented financial products continues to increase, the limited variety of sustainable financial investment products creates obstacles for youth to engage in such investment products. Without sufficient alternatives to conventional financial instruments, young investors are compelled to select options that may not align with their values. Sophisticated investment procedures and digital platforms that do not actively promote sustainable financial products further disrupt sustainable financial behaviour. In the absence of expert guidance and supportive infrastructure designed to guide young people towards more sustainable investment choices, it becomes challenging for young individuals to adjust to innovation and act more sustainably in their investment decision-making.

To conclude, we have examined the conceptual model of our thesis that was created by following the theoretic research findings. Analysis of H1a, H1b, H1c hypotheses highlights that financial literacy, sustainable financial behaviour and sustainable values are main determinants that are moving youth to more sustainable financial decisions. Moderating values provided in H2a, H2b, and H2c hypotheses showed us how socioeconomic factors and behaviour biases are both positively and negatively influencing the determinants. Finally, external values add further complexity to youth's financial decision making with misleading information and lack of sustainable financial products. These insights and hypotheses allow us to create a survey for collection of empirical data that will help us to understand the current situation of the youth sustainable financial actions in the Baltic region.

## **2. THE IMPORTANCE OF FINANCIAL LITERACY AND SUSTAINABLE FINANCE AMONG YOUTH: RESEARCH METHODOLOGY**

After completing the theoretical part of the final master's thesis, we continued our research by collecting data from respondents across all three Baltic states. Both quantitative and qualitative research were conducted to obtain statistical data from respondents and to gain valuable insights that could help us create better recommendations and conclusions for this work. The study's main purpose was to examine the relationship between financial literacy, sustainability literacy, and sustainable financial decision-making among young people in the Baltic States. To achieve this goal, a structured research design was developed that defined the research focus, target population, and data collection and analysis methods.

### **2.1 Research problem, aim, objectives, and research questions**

Despite the growing role of sustainability in economic and financial decision-making, limited empirical research has examined how financial literacy and sustainability literacy jointly shape financial behaviour among youth in the Baltic States. Existing studies often analyse these concepts separately, leaving a gap in understanding their interaction, especially in the framework of sustainable financial decisions made by young people. The study's main aim is to examine trends, challenges, and opportunities in sustainable financial decision-making among youth in the Baltic states. The aim of the quantitative research is to assess financial and sustainability literacy among individuals aged 7-29 in the Baltic States and to evaluate how these competencies are related to sustainable financial decision-making, based on the results of an original empirical survey. The main goal of the qualitative study was to examine experts' opinions on financial literacy topics and further strengthen the research by providing valuable insights that could lead the final master's thesis to higher-quality conclusions and outlooks for the future.

To achieve the research goal, the following objectives were formulated for this research:

1. To identify the characteristics and selection criteria of the target respondents.
2. To design a questionnaire measuring financial literacy, sustainability literacy, and financial decision-making behaviour for both quantitative and qualitative questionnaires
3. To conduct an empirical survey and collect primary data.
4. To determine an appropriate sample size for the study.
5. To analyse and interpret the collected data in accordance with the research objectives.

The empirical research uses quantitative and qualitative research methods. Primary data for the quantitative research was collected through a questionnaire survey specifically developed for this study. The survey data was analysed using descriptive statistics and nonparametric methods to identify trends, relationships, and differences in sustainable financial behaviour. The study's target population consists of young people aged 7-29 residing in Lithuania, Latvia, and Estonia. This age group was selected for its relevance to the formation of financial behaviour, as individuals in this stage of life begin to manage personal finances independently, make long-term financial decisions, and develop attitudes toward sustainability. In addition, young people are increasingly exposed to sustainability-related information through education, digital media, and social networks, which may influence their financial choices.

Data from interviews with the financial literacy expert and policy maker were collected through a questionnaire survey designed to gather meaningful insights that could provide researchers with useful information. These can be also used for further actions by policy makers and other counterparts that could influence sustainable financial literacy education. Vidmantas Mitkus, a Lithuanian public sector official and youth affairs specialist who currently serves as the Head of the Youth and Non-formal Education Division at the Vilnius City Municipality, was selected as the first respondent for the interview. As a policymaker responsible for youth affairs and non-formal education in the capital of Lithuania, the largest capital among the three Baltic countries, can provide important insights for future research. Second interviewee, Viktorija Vegelytė, was selected for the interview for her active involvement in educating youth through her own financial literacy programs. Viktorija is an educator, financial literacy influencer, founder and director of "Versli klasė". Vegelytė's answers to the questions in the interview provide us with insights from the private sector side and highlights alternate outtake on financial literacy education compared to the public sector.

The chosen research design enables the identification of gaps in financial and sustainability-related knowledge and gives insights that may be useful to policymakers and educational institutions when developing or improving educational initiatives to promote sustainable financial behaviour among youth. In addition, the use of an online survey enabled efficient access to respondents across the Baltic countries and supported the collection of comparable data. Furthermore, online interviews conducted with Lithuanian experts strengthened our research by offering useful perspectives that have influenced our recommendations for policymakers, households, and the private sector.

## **2.2 Research methodology, stages, justification of chosen research models**

The survey uses a quantitative research approach, enabling the systematic collection and analysis of numerical data to detect trends and relationships among financial literacy, sustainability literacy, and sustainable financial decision-making among young people in the Baltic States. A quantitative methodology was selected due to its suitability for comparing respondents' literacy levels and financial behaviour across countries and demographic groups. Primary data was collected through an online questionnaire designed specifically for this study. The questionnaire was structured into thematic sections covering respondents' socio-demographic characteristics, financial literacy, sustainability literacy, and financial decision-making behaviour. The use of a standardised survey instrument ensured consistency in data collection and enabled statistical comparison of responses.

The research was conducted in several consecutive stages. At the first stage, a review of relevant scientific literature and international studies was conducted to identify key concepts related to financial literacy, sustainability literacy, and sustainable finance. This stage provided the conceptual basis for developing the research framework and the survey instrument. At the second stage, the questionnaires for both quantitative and qualitative research were developed based on the theoretical perspectives obtained from the literature review. The survey questions were formulated to measure respondents' knowledge, attitudes, and behaviours related to financial and sustainability issues. Prior to full-scale data collection, the questionnaire was reviewed to guarantee clarity, relevance, and accordance with the research objectives. The interview with the experts was designed to provide authors with additional insights into financial literacy education in Lithuania and to ensure that the theoretical analysis is relevant to the Baltic states and to Lithuania's cultural, demographic, and political context. The third stage involved the empirical data collection. The quantitative survey was distributed online to people aged 7-29 living in Lithuania, Latvia, and Estonia. Online distribution channels were chosen to reach a broad, geographically diverse group of respondents and to facilitate cross-country data collection. The search for the most relevant interviewees was conducted by creating a list of possible candidates and then contacting them via social media channels such as Facebook, LinkedIn and Instagram. At the fourth stage, the collected data were processed and prepared for analysis. Data cleaning procedures were applied to eliminate incomplete or inconsistent responses for the survey. The interviewees answered the questions via social media and email. The answers were analysed separately, compared with the researchers' opinions analysed in the theoretical part, and with each other. The final dataset was then analysed using descriptive statistical methods to summarise respondents' characteristics and literacy levels, as well as non-parametric statistical

approaches to assess relationships between variables related to sustainable financial decision-making. The final stage of the research involved interpreting the results and linking the empirical findings to the study's conceptual model. The outcomes of this stage enabled the identification of key trends, relationships, and possible gaps in financial and sustainability literacy among young people in the Baltic States and provided a basis for conclusions and recommendations.

An online survey format was selected due to its accessibility and suitability for the target population aged 7-29. Young people are active users of digital platforms, making online distribution an effective way to reach respondents from different geographical locations. Furthermore, online surveys reduce administrative costs, ensure anonymity, and encourage honest responses, in particular when focusing on personal financial behaviour. For data analysis of the online study, descriptive statistical methods were used to summarise respondents' socio-demographic characteristics and overall levels of financial and sustainability literacy. Nonparametric statistical methods were selected to examine relationships between variables, as they are appropriate for ordinal data and do not require strict assumptions about data distribution. These approaches allow the identification of statistically significant relationships between literacy levels and sustainable financial decision-making.

The chosen combination of research methods ensures the reliability and validity of the findings and is in accordance with the overall purpose of the study. By applying quantitative survey-based methods, appropriate statistical techniques, and qualitative study, the analysis presents empirically grounded insights into the financial and sustainability literacy of young people in the Baltic States and their influence on financial decision-making behaviour. To determine the required sample size for the quantitative study, the Paniotto formula was applied, a commonly used method in social science research for calculating sample sizes in survey-based studies. The calculation was executed using a 10% margin of error, which is considered acceptable for exploratory and descriptive studies.

The Paniotto formula is expressed as follows:

$$n = \frac{1}{\Delta^2 + \frac{1}{N}}$$

Where:  $n$  – the required number of respondents to be surveyed.

$\Delta$  – the sampling error or margin of sampling error (in social science research, an acceptable error is 5-10%, i. e.  $\Delta = 0.05$  to  $0.1$ ).

$N$  – the size of the population under study.

### **2.3 Research instrument and data collection procedure**

The primary research instrument employed in this study was a systematic questionnaire designed to measure financial literacy, sustainability literacy, and sustainable financial decision-making among young people in the Baltic States. The questionnaire consisted of multiple thematic blocks, each covering a specific dimension of the research objectives. A copy of the survey can be found in Annex 1.

The first block (Question number 1) focused on respondents' sources of financial education and learning. Respondents were asked to indicate where they had learned or were currently learning how to manage their personal finances, including formal, informal, and self-directed learning sources. This section provided insights into the role of family, education systems, digital media, and professional institutions in shaping financial literacy. To examine the relationship between the education source and confidence levels, the second block (Question 2) assessed respondents' perceived confidence in key financial and sustainability-related concepts. Participants evaluated their familiarity with topics such as interest rates, inflation, risk diversification, financial planning, taxation of investments, ESG investing, green finance, and pension systems. This section was used to capture self-assessed levels of financial and sustainability literacy.

Moving on to 2nd pillar topics, the third block (Questions 3, 4, 5, and 6) examined respondents' participation in the second pillar pension system and their attitudes toward it. Questions addressed current participation status, level of trust in the system, future intentions regarding continuation or withdrawal, and the main reasons influencing these decisions. This block enabled analysis of trust, long-term financial planning, and institutional confidence. To further review the youth's behaviour following financial actions, the fourth block (Question 7) focused on financial decision-making criteria. Respondents were asked to evaluate the importance of various factors, such as expected returns, risk level, fees, environmental and social impact, and compatibility with personal values, when making financial decisions. Responses were measured on a five-point Likert scale, enabling quantitative comparisons of decision-making priorities.

To examine the sustainability levels of the youth, the fifth block (Question number 8) measured attitudes toward sustainability and sustainable finance. Respondents indicated their level of agreement with statements related to confidence in managing personal finances, understanding of sustainable investing principles, willingness to accept lower returns for sustainability, integration of ESG criteria into pension funds, and the importance of financial education. These statements were also measured using a five-point Likert scale. To align sustainability and financial literacy levels, the sixth block (Questions 9, 10, and 11) addressed saving behaviour and

sustainability-related financial actions. Respondents identified their main saving goals, their familiarity with sustainable financial products, and their personal engagement in sustainable financial activities over the past 12 months, such as investing in ESG funds, checking sustainability ratings, or supporting environmental initiatives.

The seventh block (Question 12) examined perceived barriers to sustainable investing, including a lack of knowledge, income constraints, trust issues, and concerns about greenwashing. In addition, respondents were asked to indicate their preferred investment areas if they could influence how their pension savings are invested, as well as to express their views on the relative value of financial returns and sustainability. To further analyse psychological factors and behavioural patterns, the eighth block (Questions 13, 14, 15, and 16) evaluated respondents' confidence in the impact of their financial decisions on sustainability goals and their potential responsiveness to policy incentives, such as tax benefits for sustainable investments.

The final block collected socio-demographic data, including country of residence, age, gender, education level, employment status, and monthly net income. These variables were used to describe the research sample and to perform comparative and subgroup analyses. Socio-demographic data allows us to group participants into different segments, enabling us to make observations and recommendations for different categories of youth representation. Each social and demographic group has a different background, and different variables may influence their decision-making and preferred investment and sustainable financial behaviour. Data was collected using an online questionnaire administered via the Microsoft Forms platform. The survey was conducted during the second half of 2025 and distributed electronically to individuals aged 7–29 residing in Lithuania, Latvia, and Estonia. Participation was voluntary and anonymous, and respondents were informed of the research's purpose and assured of the confidentiality of their responses. All collected data were handled in accordance with ethical research standards and used for academic purposes only.

The interview with the experts focused mainly on financial literacy evaluation, highlighting the main challenges youth face when making personal financial decisions and providing recommendations on how the public and private sectors could improve financial literacy education in Lithuania and the Baltic states in general. The interview consisted of five questions. A copy of the interview in the Lithuanian language, as it was concluded in the native expert's language, can be found in Annex 2:

- How would you describe the financial literacy level as of today, what strengths and weaknesses do you spot for the youth?

- How do you think young people are getting their knowledge of personal finances management?
- What are the biggest financial challenges youth face today?
- How do you assess the quality of financial education in the formal education system (schools and universities)? Which elements of this education do you consider effective, and which aspects are lacking in order for young people to better understand and apply financial knowledge in practice?
- Which measures or initiatives do you consider as the most effective for improving young people's financial literacy in the future, and why these in particular?

Data from the interview was collected and analysed in the first week of December 2025. The authors formulated questions after conducting a literature review and identifying main topics that were not sufficiently assessed by the scientists, to ensure our research was well-rounded and supported by sufficient evidence to yield relevant recommendations and conclusions. The answers to these questions should provide us with sufficient evidence on Lithuania's financial literacy levels and thus allow us to make suggestions to policymakers and the private sector of the Baltic states that correspond to the cultural, economic, and political regional context.

## **2.4 Data analysis methods**

The collected data were processed and analysed using IBM SPSS Statistics Software. Prior to inferential analysis, descriptive statistical methods were applied in order to provide an overview of the dataset. Frequencies and percentage distributions were calculated to describe the sociodemographic characteristics of the respondents, including age, gender, education level, employment status, and income category. Because most variables were measured using ordinal Likert-type scales or categorical response formats, the data was assessed for distributional properties. The analysis indicated that the assumptions of normality required for parametric statistical tests were not met. Therefore, non-parametric statistical methods were selected as the most appropriate analytical approach for this study. To examine differences between two independent groups, such as respondents who engage in sustainable financial behaviours and those who do not, the Mann-Whitney U test was employed. This test is suitable for ordinal data and does not require normally distributed variables, making it appropriate for comparing median differences between independent samples. For comparisons involving more than two independent groups, including differences across age groups, education levels, or income categories, the Kruskal-Wallis test was used as a nonparametric alternative to the one-way

ANOVA. When statistically significant differences were identified, the results were interpreted by comparing rank distributions across groups.

Relationships between categorical variables were analysed using the Chi-square test of independence, which identified statistically significant associations among financial literacy indicators, sustainability awareness, and sustainable financial behaviours. In order to assess relationships between ordinal variables, Spearman's rank-order correlation coefficient was applied. This method was used to analyse both the strength and direction of monotonic relationships between key constructs related to financial literacy, sustainability attitudes, and decision-making processes behaviour.

All statistical analyses were performed with a 5% significance level ( $p < 0.05$ ). A 5% significance level ( $p < 0.05$ ) was adopted, as it is widely used in social science research and is independent of the margin of error used to determine the sample size. The results of the applied statistical tests provided the basis for interpreting the relationships among financial literacy, sustainability awareness, and sustainable financial decision-making among youth. All empirical analysis is structured to test the conceptual model's hypotheses. In particular, hypotheses are assessed by examining relationships between financial literacy indicators, sustainability values/behaviour, and sustainable financial decisions. Moderation effects related to socio-demographic factors are assessed by subgroup comparisons (e.g., gender, education, income) where applicable. Barriers and external factors are analysed using descriptive statistics and association tests depending on variable type.

### 3. ANALYSIS OF YOUTH FINANCIAL LITERACY AND SUSTAINABLE FINANCIAL BEHAVIOUR

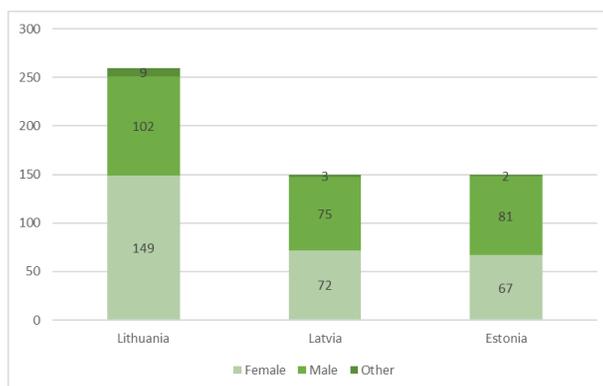
Based on 2025 data from national statistical offices, the population of individuals aged 14–29 in Lithuania amounted to 468,719, while 242,845 individuals aged 13–26 were reported in Latvia, and 295,624 individuals aged 7–26 in Estonia (Official Statistics Portal (OSP) of Lithuania, 2025), (OSP of Latvia, 2025), (Statistics Estonia, 2025). These figures illustrate the size of the target population relevant to the present study. The sociodemographic characteristics of the respondents, including age, gender, education level, employment status, and income, were subsequently analysed to provide an overview of the sample and identify general trends and patterns that support the interpretation of the empirical results in relation to the research objectives. Chapter 3 presents empirical results in line with the conceptual model. First, sociodemographic and literacy indicators are described (Sections 3.1–3.2), followed by the analysis of attitudes, decision-making, sustainable behaviour, and barriers used to assess hypotheses H1–H5 (Sections 3.3–3.8).

#### 3.1. Sociodemographic characteristics of respondents

The study sample consisted of 560 respondents, including 260 from Lithuania, 150 from Latvia, and 150 from Estonia. Most respondents were aged 18–24 years, followed by those aged 25–29 years, while a smaller proportion were aged 7–17. Regarding gender, the sample comprised 51.4% females and 46.1% males. In addition, 2.5% of respondents preferred not to specify their gender (see Figure 2).

**Figure 2**

*Gender distribution of the research sample across Baltic countries*

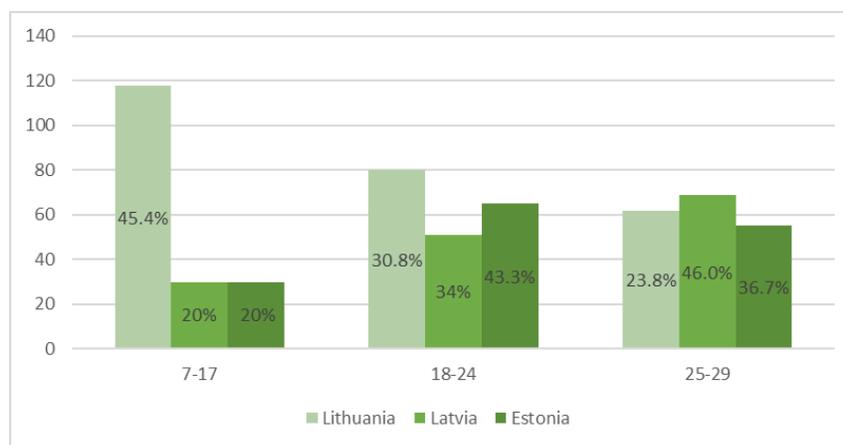


*Source:* compiled by the authors, based on conducted research

The largest age group across all three countries was 18-24 years old (35%), the second-largest was 25-29 years old (33.2%), and the smallest was 7-17 years old (31.8%). As Lithuania had the most respondents in the survey, the largest share of respondents in the 7-17 age category came from Lithuania. The youngest group of survey participants will be best represented in Lithuania, but other age groups' representation will be evaluated almost equally, as the number of participants does not have an impactful difference between age groups across all three Baltic countries. Age group distribution per country can be overviewed in Figure 3. Estonia and Latvia had fairly similar age representation in all of the categories, thus allowing us to efficiently analyse different sustainable financial literacy levels in each country when comparing different age groups and their genders.

**Figure 3**

*Research sample age group distribution across Baltic countries*



Source: compiled by the authors, based on conducted research

The data analysis revealed that education levels within the total research sample varied considerably. The largest proportion of respondents reported having completed high school (29.1%), followed by those holding a bachelor's degree (24.6%). A considerable proportion of respondents indicated that they were currently pursuing higher education, including those in the first cycle (14.1%) and the second cycle (8.8%). Additionally, 10.0% of respondents reported holding a master's degree, while only a marginal proportion indicated doctoral studies (0.5%), elementary education (1%), or no formal education (0.2%). A clear educational progression across age groups is observed: younger respondents aged 7–17 were predominantly engaged in secondary education, while respondents aged 18–24 and 25–29 were more likely to report

ongoing or completed higher education, including bachelor's and master's degrees (see Figure 4).

**Figure 4**  
*Education level distribution among respondents by age group*



Source: compiled by the authors, based on conducted research

In summary, the research sample consisted of respondents from different age groups and educational backgrounds, providing a broad overview of the youth population in the Baltic countries. The distribution of respondents by age, gender, and education level highlights clear demographic differences across groups, which form a relevant basis for further analysis of financial literacy, sustainability awareness, and financial decision-making behaviour in the next sections of the study. These results will allow us to further identify correlations and relationships across age groups in all three Baltic states and to identify trends for both females and males when evaluating populations' sustainable financial literacy and behaviour.

### **3.2. Sources of financial knowledge and level of financial literacy**

This section analyses respondents' sources of financial knowledge and evaluates their level of financial literacy. Understanding where respondents acquire financial knowledge is essential, as different learning sources may contribute differently to financial awareness, confidence, and decision-making behaviour. In addition, the assessment of financial literacy provides insight into respondents' understanding of key financial concepts, which is later used to examine their relationship with sustainable financial behaviour.

#### **3.2.1. Sources of financial education**

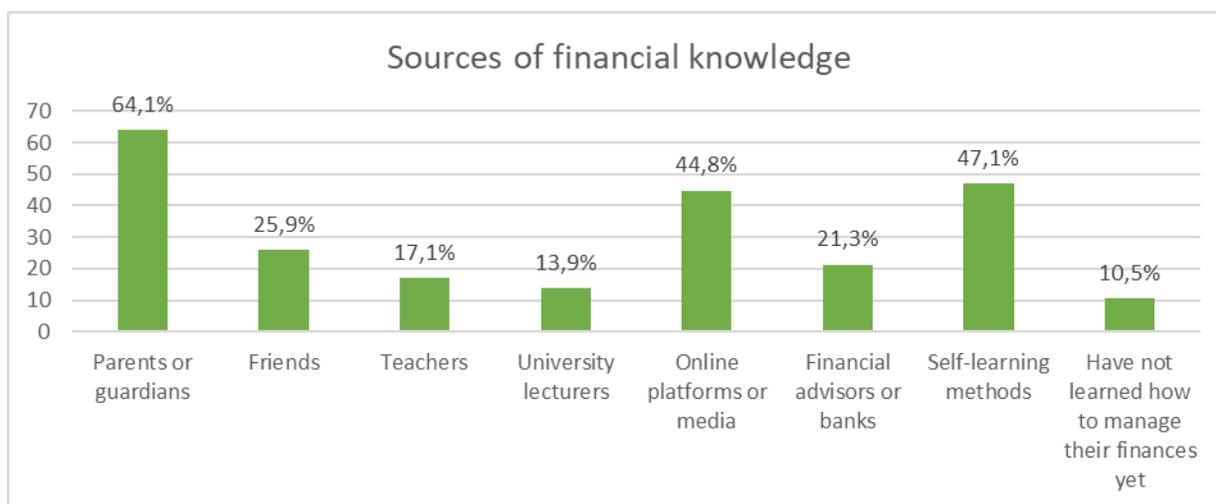
Respondents were asked about their main sources of financial education (Q1). Although an "Other" option was included in the questionnaire, this category was excluded from the quantitative analysis due to limitations in response coding and its limited analytical relevance. Representatives of the younger generation were allowed to select multiple answers from the following options:

- Parents or guardians;
- Friends;
- Teachers;
- University lecturers;
- Online platforms or media;
- Financial advisors or banks;
- Self-learning methods such as books, podcasts, and courses;
- Have not learned how to manage their finances yet.

The analysis of the sources of financial knowledge reveals that the most common source among respondents was parents or guardians, indicated by 64.1% of the participants (see Figure

5). This suggests that the family environment plays a crucial role in shaping young people's financial understanding. A substantial proportion of respondents also reported acquiring financial knowledge through self-learning methods such as books, podcasts, and courses (47.1%), as well as online platforms and media (44.8%), highlighting the growing importance of non-formal and digital learning channels. Friends were identified as a source of financial knowledge by 25.9% of respondents, while financial advisors and banks were mentioned by 21.3%. Teachers and educational institutions were selected by 17.1% of participants, whereas universities were reported as a source by 13.9% of respondents. Additionally, 10.5% of the respondents indicated that they had not acquired financial knowledge from any of the listed sources. Since respondents were allowed to select more than one answer, the results reflect the percentage of respondents who indicated each source rather than mutually exclusive categories. Overall, the results show that financial knowledge among youth is predominantly acquired through family and self-directed learning, with formal educational and professional sources playing a comparatively smaller role.

**Figure 5**  
*Sources of financial knowledge among respondents*



*Source:* compiled by the authors, based on conducted research

### 3.2.2. Understanding of key financial concepts

It is necessary to evaluate respondents' understanding of key financial concepts, which could indicate their level of basic financial literacy (Q2). Assessing knowledge of fundamental financial concepts is essential, as such knowledge underpins individuals' ability to make well-informed financial choices, manage personal finances, and evaluate financial risks. Here, we focus on

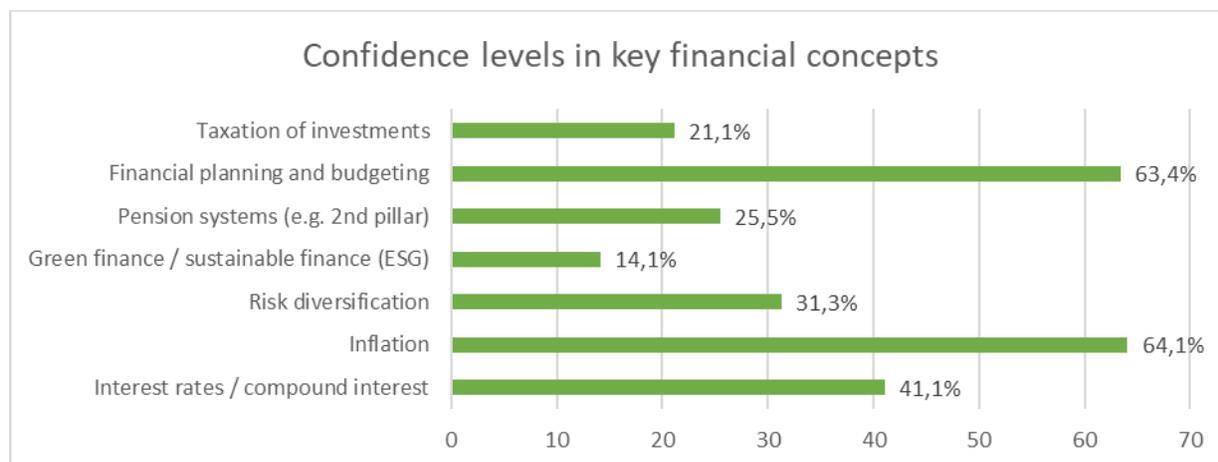
respondents' self-reported confidence in understanding selected financial concepts related to personal finance and investment. Evaluating perceived financial knowledge is important, as individuals' confidence in specific financial topics may influence their financial behaviour, decision-making quality, and willingness to participate in more complex or sustainable financial practices. These results are later used to assess the relationship between financial literacy and sustainable financial behaviour.

The analysed concepts included interest rates and compound interest, inflation, risk diversification, green or sustainable finance (ESG), pension systems, financial planning and budgeting, and taxation of investments. As multiple responses were allowed, the results reflect the percentage of respondents who reported confidence in each concept rather than mutually exclusive categories (see Figure 6). The data show that respondents demonstrated the highest level of confidence in inflation (64.1%,  $n = 359$ ) and financial planning and budgeting (63.4%,  $n = 355$ ). This suggests that fundamental financial concepts related to everyday economic conditions and personal money management are relatively well understood among the surveyed youth. A substantial proportion of respondents also reported confidence in interest rates and compound interest (41.1%,  $n = 230$ ), showing a moderate level of understanding of basic financial mechanisms. Lower levels of confidence were observed in more complex or specialised topics. Risk diversification was selected by 31.3% of respondents ( $n = 175$ ), while pension systems, such as the second pillar, were indicated by 25.5% ( $n = 143$ ). Confidence in taxation of investments was reported by 21.1% ( $n = 118$ ) of participants. Notably, only 14.1% ( $n = 79$ ) of respondents expressed confidence in green or sustainable finance (ESG) concepts, highlighting a comparatively limited understanding of sustainability-related financial topics.

Finally, the analysis suggests that although respondents generally feel confident in basic financial concepts, their confidence decreases as financial topics become more complex or long-term-oriented, especially in fields related to sustainability and investment structures. This gap in understanding may limit young people's ability to fully integrate sustainable considerations into their financial decision-making, drawing attention to the importance of targeted financial education that addresses both traditional financial literacy and sustainability-related financial knowledge. This pattern is also relevant for testing H1a, as a limited understanding of ESG-related concepts may constrain the ability to apply sustainability principles considerations into financial decisions.

**Figure 6**

*Understanding of key financial concepts among respondents*



*Source: compiled by the authors, based on conducted research*

### **3.3. Youth attitudes towards pension systems (Second-pillar)**

Evaluating youth attitudes towards pension systems could be a strong indicator of how youth perceive the 2nd pillar fund system. We examined youth attitudes towards the second-pillar pension system, focusing on participation, trust, and future intentions to continue or withdraw from the system. Pension systems have a significant impact on long-term financial security and provide an important context for analysing sustainable financial behaviour, as pension decisions often involve long-term planning, risk assessment, and value-based considerations. The analysis of attitudes towards the second pillar pension system is particularly relevant for assessing the moderating role of social and economic factors, as proposed in hypotheses H2a, H2b, and H2c. These hypotheses suggest that demographic and socio-economic characteristics, such as gender, income, and education level, shape financial literacy, sustainability-related attitudes, and financial decision-making behaviour among youth. By examining participation patterns, levels of trust, and future intentions regarding the second-pillar pension system, this section provides empirical insight into how these factors shape young people's engagement with long-term financial instruments.

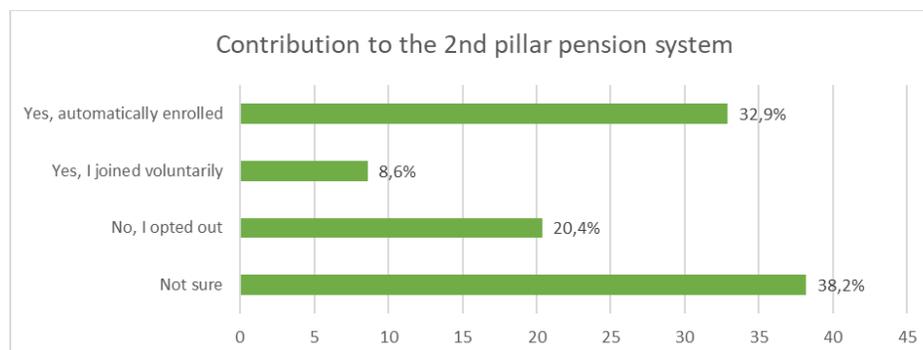
#### **3.3.1. Participation in the second pillar pension system**

Participation in the second-pillar pension system, with a particular focus on young adults, is critical to our further research on youths' financial behaviour (Q3). Understanding whether young people actively participate in the second pillar is essential, as this association reflects engagement

in long-term financial planning. Participation in pension schemes also serves as an important indicator of financial awareness and responsibility, demonstrating the use of formal financial instruments to ensure future financial security and stability. Respondents were asked whether they currently contribute to their country's second-pillar pension system. The descriptive analysis indicates that participation in the second-pillar pension system varies among respondents. A proportion of respondents reported actively contributing to the system, while others indicated that they do not currently participate. Additionally, some respondents reported being uncertain about their participation status or stated that the second-pillar pension system was not applicable to them. The observations provide an initial overview of young people's engagement with the second-pillar pension system and serve as the basis for further analysis of participation differences across socio-economic groups.

The analysis of respondents' participation in the second-pillar pension system reveals mixed levels of involvement and certainty among young people (see Figure 7). The results show that 32.9% of respondents are currently participating in the second-pillar pension system through automatic enrolment, while an additional 8.6% reported joining the system voluntarily. This indicates that slightly more than two-fifths of the sample (41.5%) are actively contributing to the second pillar pension scheme. At the same time, a considerable proportion of respondents (20.4%) stated that they have opted out of the second-pillar pension system, suggesting a degree of scepticism or reluctance towards long-term pension saving among a part of the youth population. Furthermore, a large segment of respondents (38.2%) indicated that they were unsure whether they currently contribute to the second-pillar pension system. This response was most selected by respondents from the youngest age group (7-17 years;  $n = 149$ ). The high level of uncertainty may also reflect limited awareness or insufficient understanding of pension system mechanisms, particularly regarding automatic enrolment and early-stage participation. In general, the results indicate that although a significant proportion of young people are formally included in the second-pillar pension system, a considerable share either consciously withdraws or lacks clarity about their participation status. This emphasises potential gaps in pension-related financial literacy and communication, which may influence youths' long-term financial planning and retirement preparedness.

**Figure 7**  
*Youth participation in the second pillar pension system*



*Source:* compiled by the authors, based on conducted research

To examine whether participation in the second pillar pension system differs by gender, a Chi-square test of independence was conducted to test Hypothesis H2b. The findings show that there is no statistically significant association between respondents' gender and their participation status in the second pillar pension system ( $\text{Chi}^2 = 8.098$ ,  $\text{df} = 6$ ,  $p = 0.231$ ). Although minor differences were observed in descriptive distributions - for instance, both female and male respondents showed similar proportions of automatic enrolment, voluntary participation, and uncertainty regarding their participation status - these differences did not reach statistical significance. This suggests that gender alone does not determine whether young people participate in the second pillar pension system. Consequently, Hypothesis H2b, which suggests that gender moderates youth participation in the second pillar pension system, is not supported by the empirical findings of this study. It should be noted that a small number of respondents selected the "Other / Prefer not to say" option, resulting in some expected cell counts below five. However, given the exploratory nature of the analysis and the overall sample size, the results remain informative for understanding general participation patterns (see Table 1).

**Table 1***Participation in the second pillar pension system by gender (Chi-square)*

		Youth participation in the second pillar pension system			Total
		Female	Male	Other	
<b>Contribution to the 2nd pillar pension system</b>	Yes, automatically enrolled	94 (32.6%)	88 (34.1%)	2 (14.3%)	184 (32.9%)
	Yes, I joined voluntarily	29 (10.1%)	17 (6.6%)	2 (14.3%)	48 (8.6%)
	No, I opted out	57 (19.8%)	56 (21.7%)	1 (7.1%)	114 (20.4%)
	Not sure	108 (37.5%)	97 (37.6%)	9 (64.3%)	214 (38.2%)
Total		288 (100%)	258 (100%)	14 (100%)	560 (100%)

*Source:* compiled by the authors, based on conducted research

### 3.3.2. Trust in the second pillar pension system

This subsection examines respondents' level of trust in the second-pillar pension system, which represents an important attitudinal dimension influencing long-term pension participation and retirement-related decision-making (Q4). Trust in pension systems is particularly relevant for young people, as uncertainty or lack of confidence may discourage sustained engagement in long-term saving instruments. Respondents were asked to evaluate their trust in the second-pillar pension system on a five-point scale ranging from very low to very high. The descriptive findings show that trust in the second pillar pension system among youth is predominantly neutral. More than half of the respondents (55.2%) reported a neutral level of trust, suggesting a cautious or undecided attitude rather than strong confidence or distrust. A considerable share of respondents reported lower levels of trust. Specifically, 15.5% indicated low trust and 12.0% reported very low trust, resulting in a combined 27.5% of survey respondents expressing scepticism towards the second-pillar pension system. In contrast, relatively fewer respondents demonstrated positive attitudes: 11.3% reported high trust, while only 6.1% indicated very high trust, together accounting for 17.4% of the sample. The data show that although outright distrust is not dominant, strong confidence in the second pillar pension system is limited among young people. The prevalence of neutral responses may reflect insufficient knowledge, limited personal experience, or uncertainty regarding the long-term stability and benefits of the pension system. This pattern of trust provides an important contextual basis for further analysis of behavioural intentions,

including decisions to continue participation or consider withdrawal from the second pillar pension scheme.

To examine whether trust in the second pillar pension system differs by gender, a Mann-Whitney U test was conducted (H2b). The analysis included only female and male respondents, with the “Other / Prefer not to say” category excluded due to the test's methodological requirements ( $n = 546$ ). The data suggest that there is no statistically significant difference in trust levels between female and male respondents ( $U = 35,906$ ,  $Z = -0.744$ ,  $p = 0.457$ ). Although male respondents had a slightly higher mean rank for trust (Mean Rank = 278.33) than female respondents (Mean Rank = 269.17), this difference did not reach statistical significance. Hypothesis H2b, which proposes that gender moderates trust in the second pillar pension system, is not supported by the empirical findings of this study.

To assess whether trust in the second-pillar pension system differs across education levels, a Kruskal-Wallis test was conducted (H2a). The analysis uncovered no statistically significant differences in trust among respondents with different levels of education ( $H = 13.691$ ,  $df = 8$ ,  $p = 0.090$ ). Although variations in mean ranks suggest that respondents with higher levels of education tended to report slightly higher trust in the second-pillar pension system, these differences did not reach statistical significance. This indicates that educational background alone does not significantly affect young people's trust in the second-pillar pension system. Consequently, Hypothesis H2a, which proposes that socioeconomic variables, such as education, moderate trust in pension systems, is not supported in the context of trust in the second-pillar pension system. It should be noted that some education categories include very small numbers of respondents, which may reduce statistical power and limit the robustness of group comparisons.

**Table 2**

*Trust in the second pillar pension system by education level (Kruskal-Wallis test)*

	<b>Education level</b>	<b>N</b>	<b>Mean rank</b>
<b>Trust in the 2nd pillar pension system</b>	I have no formal education	1	34.00
	Elementary school	3	217.33
	Middle school	65	288.22
	High school	163	285.27
	I am currently in my first cycle of studies	79	286.25

	Bachelor's degree	138	262.78
	I am currently in the second cycle of my studies	49	269.74
	Master's degree	56	293.20
	I am currently in the third cycle of my studies	6	441.08
<b>Test statistics (Kruskal-Wallis)</b>	<b>Kruskal-Wallis H</b>	<b>df</b>	<b>p</b>
	13.691	8	0.090

Source: compiled by the authors, based on conducted research

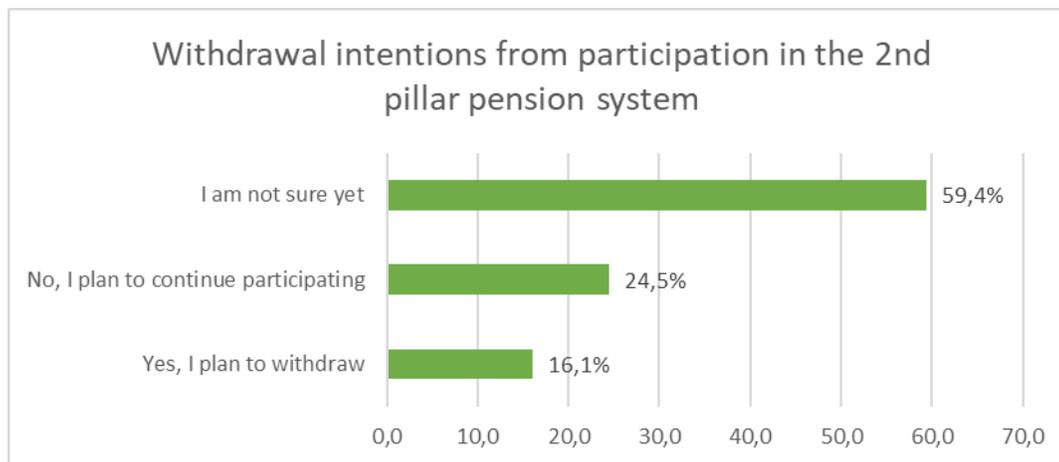
Note: Continuation of Table 2

### 3.3.3. Intentions to continue or withdraw from the second pillar

Intentions regarding continued participation or potential withdrawal from the second-pillar pension system should be examined in order to have a better image of the willingness of the respondents to participate in the 2nd pillar pension system (Q5). Understanding these intentions is essential for assessing the stability of long-term pension engagement among youth and identifying potential risks to sustained participation. The descriptive analysis reveals a high level of uncertainty among respondents regarding their future participation in the second-pillar pension system. The majority of respondents (59.4%) indicated that they are not yet sure whether they plan to withdraw from or continue participating in the system. This significant level of uncertainty suggests a lack of clarity or confidence among youth when making long-term pension-related decisions. A smaller proportion of respondents (24.5%) reported that they plan to continue participating in the second-pillar pension system, showing a relatively stable commitment to long-term pension saving. In contrast, 16.1% of respondents stated that they plan to withdraw from the system, indicating a notable level of withdrawal or reconsideration of participation. The outcomes point to mixed attitudes toward the second-pillar pension system, with uncertainty clearly outweighing firm intentions to stay in or out of the system (see Figure 8). The results show that although a segment of youth demonstrates commitment to long-term pension participation, a considerable proportion remains undecided, underscoring the need for clearer information, guidance, and trust-building measures to support informed pension-related decision-making.

**Figure 8**

*Respondents' intentions to withdraw from or continue participation in the second pillar pension system*



*Source:* compiled by the authors, based on conducted research

For inferential statistical analysis, the response categories were refined. Respondents who indicated that they were not part of the second pillar pension system, that their country does not offer a withdrawal option, or selected the “Other” category were excluded from the Chi-square analysis. This filtering ensured conceptual comparability across groups and allowed the analysis to focus specifically on respondents for whom withdrawal intentions were relevant. As a result, the final analysis included three analytically meaningful categories: uncertainty regarding withdrawal, intention to withdraw, and intention to continue participation.

To examine the relationship between participation status in the second-pillar pension system (Q3) and withdrawal intentions (Q5), a Chi-square test of independence was conducted. The data reflect a statistically significant association between respondents' participation status and their intentions to withdraw from or continue participation in the second-pillar pension system ( $\text{Chi}^2 = 144.052$ ,  $\text{df} = 6$ ,  $p < 0.001$ ). Descriptive findings show notable differences across participation groups. Among respondents who were automatically enrolled in the second-pillar pension system, nearly one-third (31.6%) reported intentions to withdraw, while 49.0% planned to continue participating. In contrast, respondents who voluntarily joined the system were more likely to continue participation (47.4%) and less likely to plan withdrawal (21.1%). Those who had opted out or were unsure of their participation status showed considerably higher levels of uncertainty about withdrawal intentions, with over 80% of these groups reporting they were unsure whether they would withdraw. The observations imply that the type of entry into the second-pillar pension

system is significantly related to young people's withdrawal intentions. Automatic enrolment appears to be associated with higher withdrawal uncertainty and withdrawal intentions, whereas voluntary participation is linked to stronger commitment to continued participation. This outcome emphasises the importance of involvement mechanisms in shaping youth attitudes towards long-term pension engagement. Although this analysis does not directly test the hypotheses proposed in the conceptual model, the outcomes deliver important contextual insights into how institutional participation mechanisms may shape young people's pension-related decision-making and uncertainty.

**Table 3**

*Relationship between participation in the second pillar pension system and withdrawal intentions among youth (Chi-square)*

		Withdrawal intentions from participation in the 2nd pillar pension system			Total
		I am not sure yet	Yes, I plan to withdraw	No, I plan to continue participating	
<b>Contribution to the 2nd pillar pension system</b>	Yes, automatically enrolled	19 (19.4%)	31 (31.6%)	48 (49%)	98 (32.9%)
	Yes, I joined voluntarily	12 (31.6%)	8 (21.1%)	18 (47.4%)	38 (12.8%)
	No, I opted out	17 (81%)	3 (14.3%)	1 (4.8%)	21 (7%)
	Not sure	129 (91.5%)	6 (4.3%)	6 (4.3%)	141 (47.3%)
Total		177 (59.4%)	48 (16.1%)	73 (24.5%)	298 (100%)

*Source:* compiled by the authors, based on conducted research

An additional descriptive analysis was conducted to examine the main reasons why respondents consider withdrawal from the second pillar pension system (Q6). This analysis was restricted to respondents for whom withdrawal was a relevant option, excluding those who indicated that the question was not applicable to their situation. Consequently, the results reflect the motivations of respondents who actively considered withdrawal rather than the entire survey sample. The analysis shows that the most frequently cited reason for considering withdrawal was a lack of trust in the pension system, reported by 45.7% of respondents. This outcome

emphasises trust as a critical determinant of youth engagement with long-term pension schemes. A substantial proportion of respondents also indicated a preference for managing their savings independently (42.4%), showing a tendency towards greater financial autonomy and potential scepticism towards institutional pension mechanisms. In addition, 37% of respondents identified low investment returns as a motivating factor, reflecting concerns about the perceived effectiveness and attractiveness of the second pillar as a future-oriented savings instrument. Financial difficulties were mentioned less frequently (22.8%), indicating that withdrawal considerations are driven more by behavioural and perception-related factors than by instant financial pressure.

From a theoretical perspective, these results closely align with the behavioural barriers outlined in all H3 categories. Limited trust, preference for traditional or self-managed financial solutions, and scepticism towards institutional investment outcomes may discourage sustained participation in pension systems, even among individuals with basic financial literacy. While this subsection provides an initial descriptive summary of withdrawal motivations, a more in-depth analysis of behavioural barriers and their relationship with sustainable financial behaviour is presented in Section 3.6.

### **3.4. Financial decision-making criteria and saving behaviour**

Young people's financial decision-making practices, saving behaviour, and attitudes toward sustainability-related financial choices provide important context for understanding how individuals prioritise different financial goals and evaluate long-term financial decisions. The analysis focuses on the factors respondents consider when making financial decisions, their confidence and perceived knowledge in financial and sustainability-related matters, as well as their saving goals and familiarity with sustainable financial products. Together, these elements offer insight into the broader financial behaviour patterns that may influence participation in pension systems and sustainable investment practices.

#### **3.4.1. Importance of financial and ethical factors in decision-making**

This subsection examines the relative importance of financial and ethical factors that influence young people's financial decision-making (Q7). Respondents were asked to rate the importance of several criteria when making financial decisions, such as saving, investing, or taking a loan, using a five-point Likert scale ranging from 1 ("Not important") to 5 ("Very important"). As presented in Table 4, the results indicate that expected return is the most important factor in financial decision-making among respondents ( $M = 4.0786$ ,  $SD = 0.89577$ ), suggesting

that financial performance remains a primary consideration when evaluating financial choices. Similarly, fees and charges ( $M = 3.8268$ ,  $SD = 1.05332$ ) and risk level ( $M = 3.8625$ ,  $SD = 1.03119$ ) were also rated as highly important, highlighting respondents' sensitivity to cost efficiency and risk exposure. At the same time, compatibility with personal values received a relatively high mean score ( $M = 3.7161$ ,  $SD = 1.06317$ ), indicating that ethical alignment and personal beliefs play a meaningful role in financial decision-making for a substantial share of respondents. In contrast, environmental and social impact was rated as moderately important ( $M = 3.2750$ ,  $SD = 1.15804$ ), suggesting that while sustainability-related considerations are present, they tend to be secondary to traditional financial criteria such as returns, risk, and costs.

Taken together, these findings reveal a decision-making pattern in which financial rationality remains dominant, while ethical and sustainability-related aspects play a complementary role. The high importance assigned to expected returns, risk level, and fees indicates that young people primarily evaluate financial decisions through traditional financial criteria. At the same time, the relatively high importance of compatibility with personal values and the moderate importance of environmental and social impact suggest that value-based considerations are also integrated into financial decision-making processes. This combination of financial and ethical criteria is consistent with the study's theoretical framework, particularly Hypothesis H1c, which emphasises the role of sustainability values in developing sustainable financial behaviour. Although sustainability-related factors do not outweigh financial considerations at this stage, their presence points to an underlying value orientation that may influence sustainable financial actions under favourable conditions. The extent to which such value-based considerations translate into actual sustainable financial behaviour is examined in the following sections of the analysis, which assess financial literacy, behavioural barriers, and contextual factors more directly.

**Table 4**

*Importance of financial and ethical factors in financial decision-making*

Factor	N	Min	Max	Mean	Std. Deviation
Importance of expected return	560	1	5	4.08	0.90
Importance of risk level	560	1	5	3.86	1.03
Importance of environmental and social impact	560	1	5	3.28	1.16
Importance of compatibility with personal values	560	1	5	3.72	1.06

<b>Importance of fees and charges</b>	560	1	5	3.83	1.05
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Source: compiled by the authors, based on conducted research

Note: Continuation of Table 4

### 3.4.2. Saving goals and financial planning

Saving goals are considered as an indicator of financial planning behaviour among youth (Q9). Saving objectives reflect individuals' financial priorities and time horizons and provide insight into whether financial decision-making is oriented toward short-term needs, precautionary motives, or long-term financial security. As respondents were allowed to select multiple saving goals, the results are presented using a multiple-response approach, indicating the share of respondents who selected each goal.

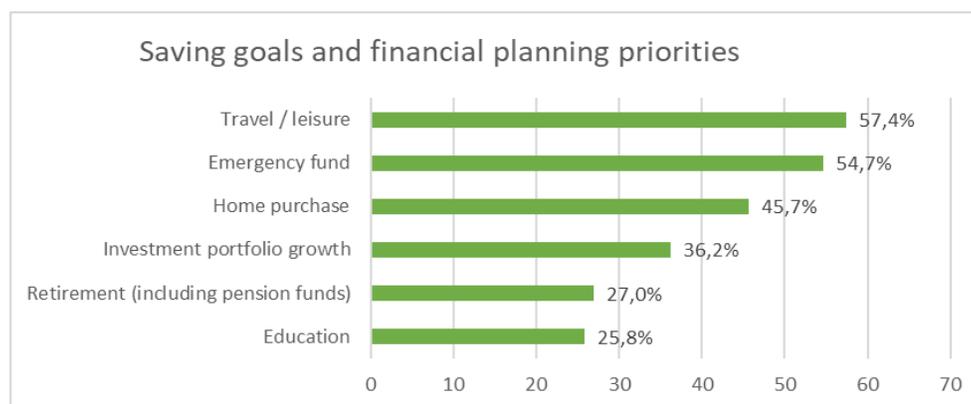
The analysis shows that the most frequently reported saving goals are related to short- and medium-term objectives. Saving for travel and leisure was indicated by 57.4% of respondents, while 54.7% reported saving for an emergency fund. It appears that financial flexibility and preparedness for unexpected expenses play a central role in youth saving behaviour. A substantial proportion of respondents also reported saving for home purchase (45.7%), indicating an orientation toward major life investments. Longer-term financial goals were present but less dominant. Investment portfolio growth was reported as a saving goal by 36.2% of respondents, while only 27.0% indicated saving for retirement or pension-related purposes. Additionally, 25.8% of respondents reported saving for education-related expenses. The relatively lower emphasis on retirement-oriented saving suggests that long-term pension planning remains a secondary priority for many young adults, potentially due to the perceived temporal distance of retirement or limited engagement with pension systems at earlier life stages.

It should be noted that a group of respondents indicated that they do not have a specific saving goal. As this option does not represent an active saving objective, it was excluded from the multiple response analysis and therefore is not displayed in Figure 9. Furthermore, although an "Other" option was available in the questionnaire, responses in this category were recorded as open-ended text entries. Due to inconsistent textual coding and limited analytical relevance, the "Other" category was excluded from quantitative analysis to ensure data reliability and interpretability. Comprehensively, the findings show that although many young individuals engage in saving behaviour, their financial planning is predominantly focused on short- and medium-term objectives rather than long-term financial security, particularly retirement savings. This descriptive pattern suggests the presence of short-term financial orientation, which may act as a behavioural

constraint in the adoption of long-term and sustainable financial strategies. In this sense, the data present a descriptive foundation relevant to the whole hypothesis H3 group, which addresses behavioural barriers such as short-termism, as well as to Hypothesis H1a, which assumes that more structured financial planning is associated with more educated financial decision-making. The extent to which these saving patterns translate into sustainable financial behaviour is examined in the next sections of the analysis. While saving goals may vary across different age groups, this subsection focuses on overall saving patterns among youth, with age-related differences explored in later sections where behavioural and sustainability-related factors are analysed.

### Figure 9

*Main saving goals among youth (multiple responses allowed)*



*Source:* compiled by the authors, based on conducted research

### 3.5. Awareness and perception of sustainable and ESG investing

The examination of respondents' awareness and perceptions of sustainable and ESG-related investing plays a significant role in our research. Understanding how young people perceive sustainable finance is essential, as awareness and attitudes toward ESG principles may influence their willingness to consider sustainability-related factors in financial and investment decisions. The analysis focuses on respondents' familiarity with sustainable and ESG financial products, their self-assessed understanding of sustainability-related concepts, and their general attitudes toward sustainable investing. Awareness is treated as a prerequisite for informed decision-making, as individuals who lack knowledge of sustainable investment options may be less likely to engage with such products, regardless of their personal values or intentions. This part of the research builds on the previous analysis of financial decision-making criteria and saving

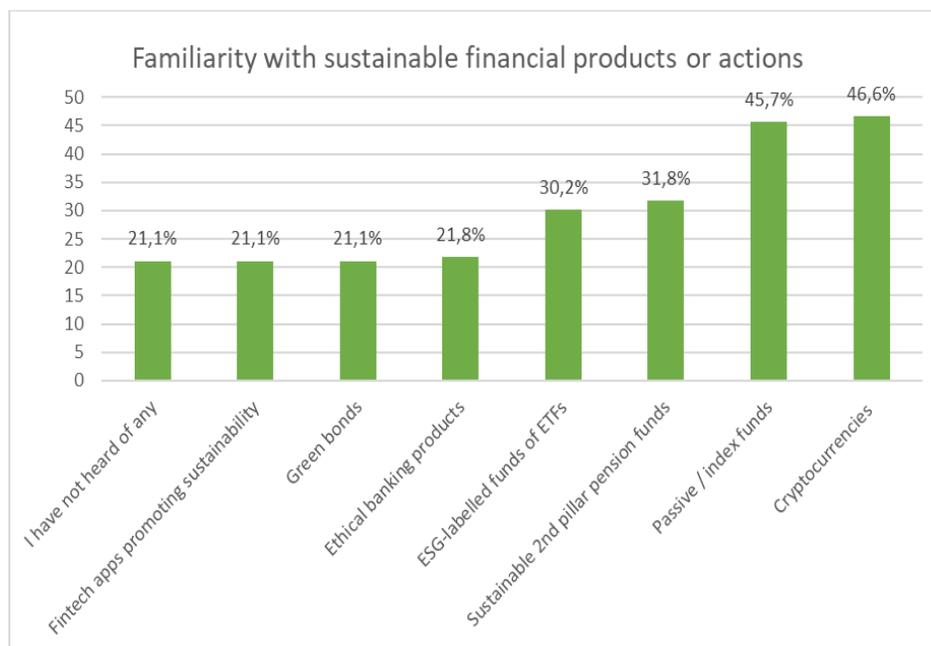
behaviour by exploring whether respondents recognise and understand sustainability considerations. The results displayed here are primarily descriptive and provide an empirical foundation for subsequent sections of the analysis, where the relationship between sustainability awareness and sustainable financial behaviour is examined in greater depth..

### **3.5.1. Familiarity with sustainable financial products**

This subsection examines the respondents' familiarity with sustainable and ESG-related financial products and actions, offering an understanding of the level of awareness that underpins sustainable financial behaviour among young people (Q10). The findings show a mixed, uneven pattern of familiarity across various financial instruments (Figure 10). The highest level of familiarity was reported for cryptocurrencies (46.6%) and passive or index funds (45.7%), suggesting that young respondents are most aware of widely discussed or mainstream investment options, even when these instruments are not inherently sustainability-focused.

Awareness of explicitly sustainable financial products appears more limited. Approximately one-third of respondents reported familiarity with sustainable second pillar pension funds (31.8%) and ESG-labelled funds or ETFs (30.2%). In contrast, fewer respondents reported familiarity with ethical banking products (21.8%), green bonds (21.1%), or fintech applications that foster sustainability, such as carbon footprint tracking or green spending insights (21.1%). Notably, more than one-fifth of respondents (21.1%) stated that they had not heard of any sustainable financial products listed in the survey. This finding points to a substantial awareness gap, even among a relatively young and financially active population. Taken together, these results imply that even though general investment awareness among youth is relatively high, familiarity with sustainable and ESG-specific financial products remains moderate. This descriptive evidence provides an important basis for subsequent analysis of attitudes, behaviours, and barriers related to sustainable finance, which are explored in later sections of the study.

**Figure 10**  
*Familiarity with sustainable and ESG-related financial products among respondents*



Source: compiled by the authors, based on conducted research

### 3.5.2. Attitudes towards sustainable finance and ESG criteria

Analysis of respondents' attitudes toward financial self-confidence, sustainability considerations in financial decision-making, and the perceived role of education in facilitating sustainable and responsible financial behaviour has been carefully analysed in the research (Q8). These attitudes form an important perceptual foundation for later analysis of sustainable financial actions and pension-related decisions. The results indicate that respondents generally express a relatively high level of confidence in managing their personal finances. More than 65% of respondents agreed or strongly agreed with the statement that they feel confident managing their personal finances, while approximately 23% reported a neutral position. Only a small minority expressed disagreement, suggesting that most young people perceive themselves as capable of handling everyday financial decisions.

In contrast, the understanding of sustainable investing appears to be more uneven. While a combined 40.3% of respondents agreed or strongly agreed that they understand the basic principles of sustainable investing, a large share remained neutral (28.2%), and over 31% expressed some level of disagreement. This distribution suggests that although sustainability concepts are familiar to some respondents, a considerable proportion of youth may lack sufficient

knowledge or confidence in this area. Respondents' normative attitudes toward sustainability were more clearly positive. A majority (54.6%) agreed or strongly agreed that sustainability should be considered in financial decision-making, while fewer than 11% disagreed. Nevertheless, a sizable neutral group (34.8%) suggests that, for many respondents, sustainability may be viewed as desirable in principle but not yet firmly embedded as a decisive criterion in financial decisions.

This uncertainty becomes more noticeable when sustainability is framed as involving possible financial trade-offs. Willingness to accept slightly lower returns for more sustainable investments was notably mixed: while 36.4% of respondents agreed or strongly agreed with this statement, the largest proportion (36.8%) selected a neutral response. This pattern suggests hesitation or conditional support, implying that sustainability considerations may be secondary to financial performance for many youngsters. Strong consensus emerged regarding the impact of education. A clear majority of respondents (68.2%) agreed or strongly agreed that sustainability education should be taught in schools and universities. An even stronger consensus was observed for financial education, which received the highest level of agreement among all statements. These findings indicate broad recognition of education as a primary means for strengthening both financial literacy and sustainability awareness among youth. Generally, the results reveal a pattern in which financial self-confidence and traditional financial rationality coexist with generally positive, but not yet dominant, sustainability attitudes. While respondents express support for including sustainability in financial decision-making, uncertainty arises when such considerations affect potential costs or lower returns. The detailed distribution of responses is presented in Table 5. These attitudinal trends demonstrate an important contextual basis for upcoming sections, which examine how awareness and perceptions translate into concrete sustainable financial behaviours and choices.

**Table 5**

*Attitudes toward sustainability and financial decision-making among young respondents*

Statement	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
I feel confident managing my personal finances	2.3%	9.5%	23.2%	42.3%	22.7%
I understand the basic principles of sustainable investing	9.5%	22%	28.2%	28.9%	11.4%

I believe sustainability should be considered in financial decisions	2.7%	7.9%	34.8%	38%	16.6%
I am willing to accept slightly lower returns for more sustainable investments	8.6%	18.2%	36.8%	27.3%	9.1%
My 2nd pillar pension fund should consider ESG criteria	2.7%	6.4%	57.7%	23.2%	10%
Sustainability education should be taught in schools and universities	2.9%	7.1%	21.8%	32.1%	36.1%
Financial education should be taught in schools and universities	1.3%	2.1%	15%	28.4%	53.2%

*Source:* compiled by the authors, based on conducted research

*Note:* Continuation of Table 5

### 3.6. Sustainable financial behaviour and barriers

While the previous sections examined respondents' demographic characteristics, sources of financial knowledge, levels of financial literacy, and attitudes toward sustainability and ESG-related issues, this section shifts the focus from awareness and perceptions to actual financial behaviour. Specifically, it analyses the extent to which youth engage in sustainable financial activities and identifies key barriers that may prevent translating positive attitudes and knowledge into concrete actions. Building on the theoretical framework and hypotheses outlined in the theoretical part, this section directly addresses the behavioural dimension of sustainable finance. Prior research suggests that financial literacy, sustainability values, and pro-sustainability attitudes do not automatically result in sustainable financial behaviour. Instead, behavioural biases, perceived risks, limited product availability, and informational constraints may weaken or obstruct this relationship. Accordingly, Section 3.6 investigates both sustainable financial practices and the barriers that influence youth decision-making in this domain. The analysis integrates descriptive statistics and inferential methods to examine whether higher levels of financial literacy and sustainability awareness are associated with more sustainable financial behaviour, and to what extent behavioural and structural barriers moderate these relationships. In doing so, this section provides a direct empirical foundation for evaluating the study's hypotheses related to sustainable behaviour and behavioural constraints.

### 3.6.1. Sustainable investment practices

To assess whether sustainability-oriented attitudes translate into actual behaviour, respondents were asked whether they had personally engaged in selected sustainability-focused financial activities during the past 12 months (Q11). Overall, the results indicate a relatively low level of active engagement in sustainable financial practices (Table 6). Only 10.5% of respondents reported choosing a sustainable or ESG investment fund, while 17% reported checking the ESG or sustainability rating of an investment. Similarly, 13.4% had switched or adjusted their second-pillar pension funds, suggesting limited proactive management of pension investments from a sustainability perspective. A slightly higher share of respondents (21.3%) reported investing in renewable energy or green projects, while 13.6% reported donating to or supporting environmental initiatives. Across all activities, the majority of respondents selected “No,” with an additional 9-14% indicating uncertainty, which may reflect limited awareness or incomplete understanding of what constitutes sustainable financial behaviour. These descriptive findings point to a considerable gap between respondents’ generally positive attitudes in favour of sustainability, discussed in previous sections, and their actual engagement in sustainable financial activities. While awareness and favourable perceptions appear to be present, they do not consistently translate into concrete financial actions. This pattern is conceptually aligned with the assumptions underlying Hypothesis H3, which suggests that positive attitudes towards sustainable finance do not necessarily result in active sustainable financial behaviour among youth. However, at this stage of the analysis, no statistical testing of this relationship is conducted. A more in-depth analysis of the factors that may explain this attitude-behaviour gap is undertaken in the following subsections.

**Table 6**

*Self-reported engagement in sustainable financial activities among respondents (N = 560)*

<b>Sustainable financial activity (last 12 months)</b>	<b>Yes</b>	<b>No</b>	<b>Not sure</b>	<b>Total</b>
Chosen a sustainable or ESG investment fund	10.5%	77.3%	12.1%	100%
Checked the ESG or sustainability rating of an investment	17%	73.4%	9.6%	100%
Switched or adjusted your 2nd pillar fund	13.4%	77.9%	8.8%	100%
Invested in renewable energy or green projects	21.3%	64.5%	14.3%	100%
Donated to or supported environmental initiatives	13.6%	73.9%	12.5%	100%

*Source:* compiled by the authors, based on conducted research

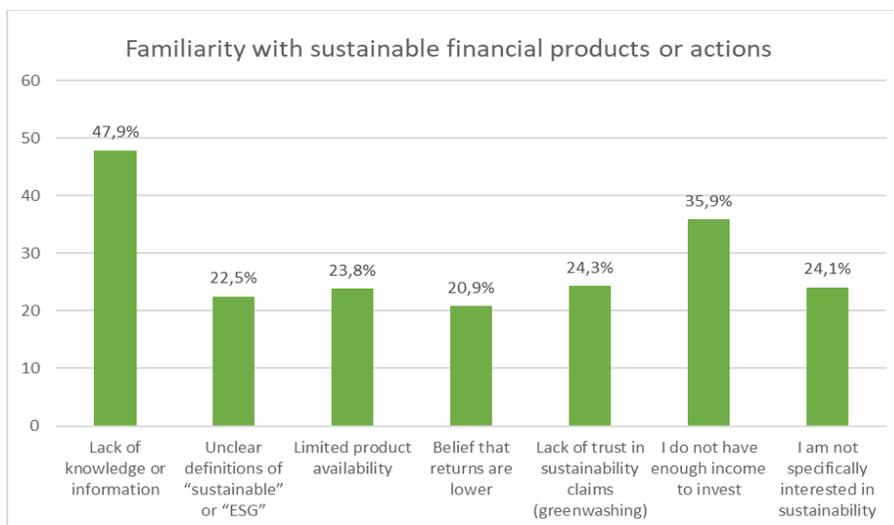
### 3.6.2. Barriers to sustainable investing

The analysis of barriers preventing engagement in sustainable investing reveals that informational and structural constraints play a more important role than attitudinal resistance (see Figure 11). The most frequently reported barrier was a lack of knowledge or information, indicated by 47.9% of respondents. This suggests that many young individuals do not feel sufficiently informed to engage confidently in sustainable financial products. Financial restrictions also appeared as a major obstacle, with 35.9% of respondents reporting insufficient income to invest sustainably. This highlights the importance of economic capacity in shaping sustainable investment behaviour among youth. Trust-related and market-related barriers were reported by approximately one quarter of respondents. Specifically, 24.3% indicated a lack of trust in sustainability claims, reflecting concerns about greenwashing, while 23.8% pointed to the limited availability of suitable sustainable financial products. In addition, 22.5% of respondents reported unclear definitions of “sustainable” or “ESG” investing, suggesting conceptual ambiguity in this domain. Notably, only 20.9% of respondents believed that sustainable investments necessarily yield lower returns, suggesting that scepticism regarding investment performance is less dominant than commonly assumed. Responses categorised as “Other” were excluded from further analysis due to their open-ended nature and very low frequency, which did not allow for meaningful quantitative interpretation.

Generally, the observed results indicate that the main barriers to sustainable investing among youth are primarily related to limited information, financial capacity, and trust, rather than a lack of interest or negative attitudes toward sustainability (Q12). Socio-demographic and psychological factors are influencing younger generations’ financial sustainability behaviour and habits by creating barriers that are rarely crossed by the youth if big emphasis on the variables are being put by kids and teenagers. This pattern provides important context for interpreting sustainable financial behaviour in further sections of the analysis.

**Figure 11**

*Main barriers to sustainable investing (multiple response analysis)*



*Source: compiled by authors, based on conducted research*

### 3.6.3. Socioeconomic differences in main barriers to sustainable investing

While the previous sections examined young people's sustainable financial behaviour and general obstacles to engagement, this subsection focuses on socioeconomic differences in the perceived barriers to sustainable investing. Understanding whether such barriers vary across income levels and countries is essential for identifying structural and contextual factors that may hinder the adoption of sustainable financial practices. Through the analysis of these differences, the completed overview provides deeper insight into how socioeconomic conditions shape both access to and perceptions of sustainable investment opportunities.

#### **Income-related differences in perceived barriers (H2a)**

##### *Income and lack of knowledge as a barrier to sustainable investing*

To examine whether perceived barriers to sustainable investing differ across income groups, a Chi-square test of independence was conducted to assess the relationship between respondents' monthly net income and the likelihood of reporting lack of knowledge or information as a barrier to sustainable investing. Both variables are categorical, making the Chi<sup>2</sup> test an appropriate analytical approach. The results indicate a statistically significant association between income level and the perception of insufficient knowledge as a barrier (Chi<sup>2</sup> = 18.704, df = 5, p =

0.002,  $N = 560$ ). Descriptive data suggest a clear socioeconomic gradient: respondents in lower-income categories were substantially more likely to report lack of knowledge as a barrier compared to higher-income respondents. Specifically, more than half of respondents earning below 1,000 EUR per month identified insufficient knowledge as a limiting factor, whereas this share steadily declined among higher income groups, reaching less than one-third among respondents earning 2,000 EUR or more. The study shows empirical support for Hypothesis H2a, which proposes that economic and demographic factors moderate sustainable financial behaviour. The results suggest that income not only constrains financial capacity but is also closely linked to informational and cognitive resources, therefore determining individuals' ability to engage with sustainable investment options. Lower-earning individuals appear to face a dual constraint, combining limited financial resources with reduced access to relevant sustainability-related knowledge. From a methodological perspective, the assumptions of the Chi-square test were fully satisfied. No expected cell counts fell below the recommended threshold of five, and the minimum expected frequency exceeded 27, indicating that the test results are statistically reliable and robust. This analysis demonstrates that informational barriers to sustainable investing are unevenly distributed across income groups, strengthening current financial and social differences in sustainable financial participation.

#### *Income and unclear definitions of sustainable and ESG investing as a barrier*

The relationship between respondents' monthly net income and their perception of unclear definitions of "sustainable" or "ESG" investing as a barrier was examined using a Chi-square test of independence. The results indicate that this association is not statistically significant ( $\text{Chi}^2 = 3.346$ ,  $df = 5$ ,  $p = 0.647$ ,  $N = 560$ ). Across income groups, the proportion of respondents identifying unclear definitions as a barrier remains relatively stable. Approximately one-fifth to one-quarter of respondents in most income categories reported uncertainty surrounding the meaning of sustainability in financial products. No consistent upward or downward trend is observed as income levels increase, suggesting that this barrier is not strongly conditioned by respondents' economic position. This points to the conceptual ambiguity surrounding sustainable and ESG investing, which represents a broadly shared challenge among young individuals rather than a barrier unequally impacting specific income groups. Unlike knowledge-related or economic restrictions, which may vary according to socioeconomic status, uncertainty regarding sustainability concepts appears to stem from wider issues, for example, inconsistent terminology, limited standardisation, and unclear communication within the financial market. In the context of Hypothesis H2a, this result suggests a differentiated effect. While income may influence certain

barriers, such as perceived affordability or access to investment opportunities, it does not significantly form perceptions of definitional clarity. This indicates the demand to distinguish between economically driven barriers and structural or informational barriers that cut across income levels.

#### *Income and the belief that sustainable investments yield lower returns*

To further examine socioeconomic differences in perceived barriers to sustainable investing, a Chi-square test of independence was used to assess the relationship between respondents' monthly net income and the belief that sustainable investments generate lower financial returns. The examination reveals a statistically significant association between income level and this perceived barrier ( $\text{Chi}^2 = 25.342$ ,  $\text{df} = 5$ ,  $p < 0.001$ ,  $N = 560$ ). The descriptive patterns indicate a clear income gradient. Among respondents with the lowest monthly income (<600 EUR), only 9.8% identified lower expected returns as a barrier to sustainable investing. In contrast, this perception becomes moderately prevalent among higher-income groups. For example, 29.3% of respondents earning 1000-1499 EUR and 32.6% of those earning 2000 EUR or more reported concerns about lower returns. This suggests that as income increases, respondents are more likely to evaluate sustainable investments through a return-oriented lens. These findings imply that higher-income individuals may apply more traditional profitability criteria when assessing sustainable investment options, likely as a result of greater market exposure, better investment experience, or stronger expectations regarding risk-return trade-offs. Conversely, lower-income respondents appear less likely to frame sustainability-related decisions primarily in terms of expected returns, possibly because financial participation itself is more constrained or because sustainable investing remains less salient within their investment considerations. In relation to Hypothesis H2a, these results provide strong empirical support. Income emerges as a significant differentiating factor in forming return-related scepticism towards sustainable investments. This draws attention to the importance of tailoring communication and policy measures to different income groups, particularly by addressing performance-related concerns among higher-income individuals who may otherwise be receptive to sustainable financial products.

#### *Income and limited availability of sustainable investment products*

A Chi-square test of independence was conducted to examine the relationship between respondents' monthly net income and the perception that limited availability of sustainable financial products constitutes a barrier to sustainable investing. The results indicate a statistically

significant association between income level and this identified barrier ( $\text{Chi}^2 = 40.863$ ,  $\text{df} = 5$ ,  $p < 0.001$ ,  $N = 560$ ). The descriptive results display a strong income-based gradient. Among respondents in the lowest income group (<600 EUR), only 10.4% reported limited product availability as a barrier. This share increases steadily across income categories, reaching 27.3% among those earning 1000-1499 EUR, 34.3% in the 1500-1999 EUR group, and as high as 40.7% among respondents with monthly incomes of 2000 EUR or more. In contrast, respondents who preferred not to disclose their income were least likely to report this barrier (13.8%). These findings suggest that higher-income individuals are more likely to actively encounter and evaluate the range of available sustainable financial products and, as a result, are more sensitive to perceived limitations in product diversity or accessibility. Conversely, for lower-income respondents, limited product availability appears to be less salient, potentially because participation in sustainable investment markets is already constrained by financial capacity or lower engagement. In line with Hypothesis H2a, results provide strong empirical support. Income strongly affects how respondents perceive structural market barriers, especially regarding the availability of sustainable financial products. This highlights the need for differentiated policy and market strategies: while increasing affordability may be important for lower-income groups, expanding product diversity and visibility may be more relevant for higher-income individuals.

#### *Income and lack of trust in sustainability claims*

A Chi-square test of independence was conducted to examine the relationship between respondents' monthly net income and the perception of lack of trust in sustainability claims as a barrier to sustainable investing. The results indicate a statistically significant association between income level and this barrier ( $\text{Chi}^2 = 17.629$ ,  $\text{df} = 5$ ,  $p = 0.003$ ,  $N = 560$ ). The descriptive results show that lack of trust is more frequently reported among respondents with higher income levels. While only 16.9% of individuals earning less than 600 EUR per month identified a lack of trust as a barrier, this proportion increases to 22.4% among those earning 600-999 EUR, 31.3% in the 1000-1499 EUR group, and reaches 34.9% among respondents with monthly incomes of 2000 EUR or more. In contrast, respondents who preferred not to disclose their income were least likely to report this barrier (13.8%). The observations imply that higher-income individuals may be more exposed to sustainability-related investment information and marketing claims, making them more critical and sceptical of perceived greenwashing or insufficient transparency. For lower-income respondents, trust-related concerns appear to be less salient, potentially because financial constraints limit engagement with sustainable investment products in the first place. In line with Hypothesis H2a, outcomes further support the moderating role of income. Together with previous

findings on limited product availability and beliefs about lower returns, the analysis demonstrates that higher-income groups are more likely to report market- and credibility-related barriers, whereas lower-income groups are primarily constrained by more fundamental financial considerations.

*Income and lack of interest in sustainability as a barrier*

A Chi-square test of independence was conducted to examine the relationship between respondents' monthly net income and a lack of interest in sustainability as a perceived barrier with regard to sustainable investing. The findings show that this association is not statistically significant ( $\text{Chi}^2 = 1.330$ ,  $\text{df} = 5$ ,  $p = 0.932$ ,  $N = 560$ ). Across all income groups, the proportion of respondents who report a lack of interest in sustainability as a barrier remains relatively stable, ranging from 19.0% among those who preferred not to disclose their income to 26.9% among those earning 600-999 EUR per month. Notably, even among the highest-income group (2000 EUR or more), 25.6% reported a lack of interest in sustainability, a proportion comparable to that observed in lower-income categories. These findings suggest that disengagement from sustainability-related investing is not mainly motivated by financial capacity. Unlike income-related or structural barriers, such as insufficient income or limited product availability, which vary significantly across income levels, the lack of interest appears to be evenly distributed throughout the sample. This result clarifies the interpretation of Hypothesis H2a by demonstrating that although income significantly moderates material and informational barriers to sustainable investing, it does not substantially influence motivational or attitudinal barriers. Consequently, policies aimed at increasing sustainable investment participation may require differentiated approaches: financial support and product availability to lower-income groups, and targeted awareness-raising or value-based engagement strategies across all income levels.

*Income and lack of income as a barrier to sustainable investing*

A Chi-square test of independence was carried out to evaluate the relationship between respondents' monthly net income and the perception of insufficient income as a barrier to sustainable investing. The analysis shows a statistically significant association between income level and this barrier ( $\text{Chi}^2 = 44.014$ ,  $\text{df} = 5$ ,  $p < 0.001$ ,  $N = 560$ ). The findings show a clear and systematic gradient across income groups. Nearly half of the respondents earning less than 600 EUR per month (48.1%) indicated that they do not have enough income to invest sustainably. This proportion remains relatively high among respondents earning 600-999 EUR (38.8%) and

1000-1499 EUR (30.3%), but declines sharply among higher-income groups. Only 8.1% of respondents earning 2000 EUR or more identified a lack of income as a barrier, compared to over one-third of the total sample (35.4%). The outcomes indicate that financial capacity constitutes a primary, structurally binding constraint for low-income earners, limiting their ability to engage with sustainable investment options regardless of their attitudes or awareness. In contrast, respondents with higher incomes are significantly less likely to perceive income-related barriers, indicating that additional factors, such as trust, product availability, or perceived returns, become more salient once basic financial limitations are alleviated. This outcome delivers strong empirical support for Hypothesis H2a. Together with the preceding analyses, the findings confirm that income not only affects the likelihood of sustainable investment engagement but as well as fundamentally reshapes the nature of perceived obstacles.

**Table 7**

*Relationship between monthly net income and barriers to sustainable investing (Chi-square tests).*

<b>Barriers to sustainable investing</b>	<b>Chi<sup>2</sup></b>	<b>df</b>	<b>p</b>	<b>Result</b>
Lack of knowledge or information	18.704	5	0.002	Significant
Unclear definitions of “sustainable” / “ESG”	3.346	5	0.647	Not significant
Belief that sustainable investments yield lower returns	25.342	5	<0.001	Significant
Limited availability of sustainable products	40.863	5	<0.001	Significant
Lack of trust in sustainability claims (greenwashing)	17.629	5	0.003	Significant
Not having enough income to invest	44.014	5	<0.001	Significant
Not interested in sustainability	1.330	5	0.932	Not significant

*Source:* compiled by authors, based on conducted research

*Note:* The “Other” barrier category was excluded from inferential analysis due to the very small number of observations.

### **Education-related differences in perceived barriers (H2b)**

The relationship between education level and perceived barriers regarding sustainable investing was examined using Chi-square tests. The results indicate that education significantly

moderates several key barriers, thereby supporting Hypothesis H2b. Statistically significant differences were observed for the barriers related to lack of knowledge or information ( $\text{Chi}^2 = 17.900$ ,  $\text{df} = 8$ ,  $p = 0.022$ ), belief that sustainable investments yield lower returns ( $\text{Chi}^2 = 26.402$ ,  $\text{df} = 8$ ,  $p < 0.001$ ), limited availability of sustainable products ( $\text{Chi}^2 = 52.021$ ,  $\text{df} = 8$ ,  $p < 0.001$ ), and lack of trust in sustainability claims ( $\text{Chi}^2 = 29.154$ ,  $\text{df} = 8$ ,  $p < 0.001$ ). Respondents with lower levels of education, particularly those with high school or lower educational attainment, more frequently reported lack of knowledge as a barrier (e.g., 57.1% among high school graduates), compared to respondents with a master's degree (48.2%). In contrast, respondents with higher levels of education were more likely to report trust-related and market-related barriers, such as scepticism toward sustainability claims and perceived limitations in product availability. No statistically significant differences were found for barriers related to unclear definitions of sustainability ( $p = 0.360$ ) or lack of interest in sustainability ( $p = 0.492$ ), suggesting that these barriers are not strongly differentiated by education level. These findings confirm that education shapes are not only the prevalence but also the type of perceived barriers, supporting Hypothesis H2b.

### **Employment-related differences in perceived barriers (H2c)**

Chi-square tests were used to assess differences in perceived barriers across employment status groups. The results show that employment status significantly influences several barriers to sustainable investing, providing support for Hypothesis H2c. Significant associations were found between employment status and belief that sustainable investments yield lower returns ( $\text{Chi}^2 = 20.954$ ,  $\text{df} = 4$ ,  $p < 0.001$ ), lack of sufficient income to invest ( $\text{Chi}^2 = 35.257$ ,  $\text{df} = 4$ ,  $p < 0.001$ ), limited availability of sustainable products ( $\text{Chi}^2 = 33.997$ ,  $\text{df} = 4$ ,  $p < 0.001$ ), and lack of trust in sustainability claims ( $\text{Chi}^2 = 27.829$ ,  $\text{df} = 4$ ,  $p < 0.001$ ). Income-related constraints were particularly emphasised among students and unemployed respondents, with 44% of students and 55.1% of unemployed respondents indicating insufficient income as a barrier, compared to only 20.3% among full-time employed respondents. However, full-time employed and self-employed respondents were more likely to report trust-related barriers and concerns about product availability. No statistically significant differences were found for lack of knowledge ( $p = 0.221$ ), unclear definitions ( $p = 0.273$ ), or lack of interest in sustainability ( $p = .136$ ). These results indicate that employment status primarily affects structural and financial barriers rather than informational or attitudinal ones, thus confirming Hypothesis H2c.

### **Cross-country differences in perceived barriers (H3)**

To test H3, which proposes that perceived barriers to sustainable investing differ across countries due to institutional and circumstantial factors, Chi-square tests were conducted comparing respondents from Estonia, Latvia, and Lithuania. The results partially support Hypothesis H3 by demonstrating that national context influences selected barriers. Statistically significant cross-country differences were found for lack of knowledge or information ( $\text{Chi}^2 = 6.533$ ,  $\text{df} = 2$ ,  $p = 0.038$ ), limited availability of sustainable products ( $\text{Chi}^2 = 21.330$ ,  $\text{df} = 2$ ,  $p < 0.001$ ), and lack of interest in sustainability ( $\text{Chi}^2 = 30.180$ ,  $\text{df} = 2$ ,  $p < 0.001$ ). Lithuanian respondents reported the lack of knowledge as a barrier more frequently (52.3%) than respondents from Estonia (39.3%) and Latvia (46%). In contrast, perceived limited product availability was substantially more common in Estonia and Latvia than in Lithuania, suggesting differences in financial market structures and product accessibility. Additionally, respondents from Latvia were significantly more likely to indicate a lack of interest in sustainability (40%) than respondents from Estonia (19.3%) and Lithuania (16.9%). No statistically significant differences were observed for unclear definitions of sustainability ( $p = 0.296$ ), lack of trust ( $p = 0.863$ ), or insufficient income ( $p = 0.467$ ), indicating that these barriers are relatively consistent across countries. To summarise, these findings confirm that institutional and contextual factors shape certain, but not all, barriers to sustainable investing, thereby providing partial support for Hypothesis H3.

### **3.7. Preferences for sustainable pension and investment options**

This section reviews respondents' preferences for sustainable and non-sustainable investment options in the context of second-pillar pension savings. The aim of this analysis is descriptive: to identify which sectors and investment themes are most attractive to young respondents and to offer further explanation for previously tested hypotheses related to values, behavioural factors, and perceived barriers to sustainable investing. Respondents were asked to imagine that they could personally decide where their second pillar pension savings are invested and to indicate all preferred options (Q13). As this was a multiple-response question, percentages are calculated based on the total number of respondents rather than summing to 100%.

The results reveal a clear preference for innovation and growth-oriented sectors. The most frequently selected option was technology and innovation firms, chosen by 42.3% of respondents (see Figure 12). This suggests that young people strongly associate long-term pension investments with technological progress, digitalisation, and high growth potential. Such

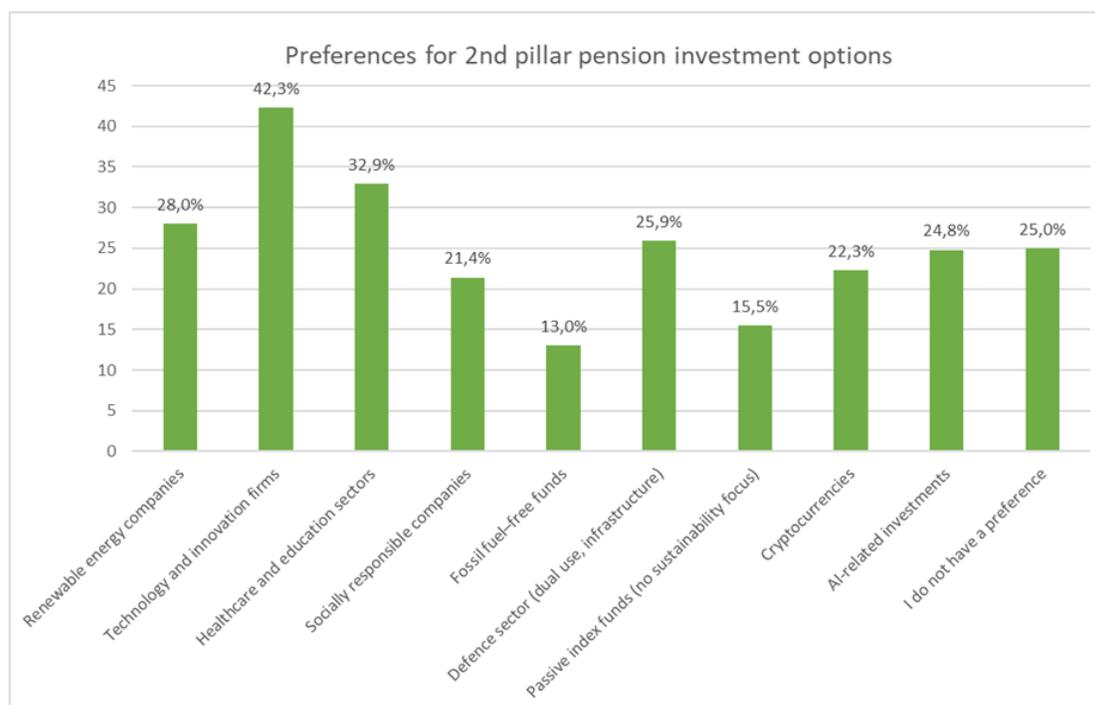
preferences are consistent with prior research indicating that younger investors are more inclined toward growth-oriented and innovation-driven assets. The second most preferred category was the healthcare and education sectors, selected by 32.9% of respondents. This finding indicates a powerful social dimension in investment preferences, as these sectors are commonly perceived as having a beneficial impact to social well-being while also offering long-term stability. Similarly, renewable energy companies were chosen by 28.0% of respondents, indicating substantial interest in environmentally oriented investments, even if such options are not the dominant choice. A considerable proportion of respondents stated interest in defence-related investments (dual-use and infrastructure) (25.9%), as well as AI-related investments (24.8%). These results suggest that young investors do not view sustainability in a narrow sense, but rather combine ethical aspects with strategic and technological relevance. The popularity of AI-related investments further highlights openness to emerging technologies and future-oriented economic sectors. At the same time, 25% of respondents indicated that they do not have a clear investment preference, which may reflect limited engagement with pension-related decision-making, insufficient financial literacy, or the perception that pension investments are distant and abstract. This corresponds to earlier findings in the study, which identified information gaps and low perceived personal relevance as barriers to sustainability-focused financial engagement. Interestingly, explicitly framed sustainable financial products received comparatively lower support. Socially responsible companies were selected by 21.4% of respondents, while fossil fuel-free funds were chosen by only 13.0%. Additionally, passive index funds without a sustainability focus were preferred by 15.5% of respondents. These results suggest that although young respondents show interest in sustainability-related outcomes, they may not necessarily associate sustainability with specific financial products, such as fossil-fuel-free or socially responsible funds. This finding is consistent with earlier sections of the analysis, which identified lack of knowledge, unclear definitions, and limited trust in sustainability claims as important barriers to sustainable investing.

This section does not introduce new hypothesis testing, as the main hypotheses related to sustainable financial decision-making were examined in previous sections. However, the observed preferences provide supportive contextual evidence for earlier findings. In particular, the strong orientation toward technology, healthcare, and AI-related investments complements H1, which emphasises the role of values and behavioural factors in forming sustainable financial decisions. Furthermore, the relatively low selection of explicitly sustainability-related financial products reinforces the relevance of H2 and H3, highlighting how socioeconomic, along with contextual elements, influence not only perceived barriers but also concrete investment choices. To conclude, the data shows that young individuals tend to favour sectors perceived as

innovative, socially relevant, and future-oriented, rather than narrowly defined eco-friendly financial instruments. This illustrates the crucial importance of improving communication, product clarity, and financial education if sustainable investment options are to better match the preferences and expectations of younger generations.

### Figure 12

*Young people's preferences for 2<sup>nd</sup> pillar pension investment options (multiple response analysis).*



Source: compiled by authors, based on conducted research

### 3.8. The role of incentives and financial education in promoting sustainability

This part of the research analyses respondents' attitudes towards the role of financial incentives and education in promoting sustainable financial behaviour. While previous sections focused on actual behaviour, barriers, and preferences, this part of the analysis shifts attention to underlying motivations and perceptions that may shape future engagement with sustainable investing. Understanding how youth evaluate the trade-off between financial returns and sustainability, as well as their openness to policy incentives and educational interventions, provides important context for assessing the potential effectiveness of external measures to foster sustainable financial decision-making.

Respondents were asked to indicate which statement best reflects their views regarding the relative importance of sustainability and financial returns (Q14). The findings show a diverse distribution of attitudes. The largest proportion of respondents (34.8%) stated that sustainability is equally important as financial returns, indicating a balanced perspective in which ethical and environmental aspects are weighed alongside financial performance. At the same time, a substantial share of participants (31.3%) indicated that financial returns are more important than sustainability, highlighting the continued dominance of traditional financial priorities among a significant segment of youth. Only a small proportion of respondents (7.3%) reported that sustainability is more important than financial returns, indicating that strong sustainability-driven investment preferences remain relatively limited. Notably, more than a quarter of respondents (26.6%) stated that they have never actively considered the relationship between sustainability and financial returns. This analysis shows a considerable level of disengagement or a lack of reflection on sustainability-related trade-offs, underscoring the potential need for financial education and awareness-raising initiatives to foster more informed attitudes. This analysis reveals that although sustainability is not rejected by the majority of respondents, it is often viewed as a complementary rather than dominant factor in financial decision-making. This mixed attitude provides an important backdrop for evaluating the role of incentives and educational interventions, which are further explored in the subsequent parts of this section.

To further assess respondents' perceptions of their role in fostering sustainability, participants were asked how confident they are that their personal financial decisions can contribute to sustainability goals, such as climate action or social welfare (Q15). The findings show a generally moderate level of confidence among respondents, with a strong concentration of responses around neutral and moderately positive. The largest share of respondents (36.6%) reported a neutral level of confidence, suggesting uncertainty about the actual impact of individual financial choices on wider sustainability outcomes. This neutrality may reflect limited knowledge about sustainable financial instruments or scepticism regarding the effectiveness of personal actions. At the same time, a combined 24.8% of respondents demonstrated confidence in their ability to contribute to sustainability through financial decisions, with 19.6% reporting that they are confident and an additional 5.2% indicating that they are very confident. The outcomes suggest that approximately one quarter of the sample perceives personal financial behaviour as a meaningful channel for supporting sustainability goals. Conversely, a substantial proportion of respondents demonstrated low confidence. Specifically, 17.5% indicated that they are not confident at all, while a further 20.5% reported being only slightly confident. Taken together, these results imply that nearly two-fifths of respondents doubt the effectiveness of their financial

decisions in contributing to sustainability. The findings highlight a clear gap between awareness of sustainability issues and confidence in personal financial agency. This lack of confidence reinforces the importance of targeted financial education and institutional support mechanisms that may help young adults better understand how specific financial choices can align with and support sustainability objectives.

To assess the potential effectiveness of policy incentives in encouraging sustainable investment behaviour, respondents were asked how likely they would be to invest in sustainable financial products if their country introduced a tax incentive, such as a lower tax rate (Q16). The results indicate a generally positive attitude towards incentive-based initiatives among young respondents. A considerable share of participants expressed a willingness to respond positively to such incentives. Specifically, 33% of respondents reported they would be likely to invest in sustainable financial products if tax incentives were introduced, while an additional 20% stated they would be very likely to do so. Taken together, the results show that over half of the respondents (53%) would be positively influenced by fiscal incentives, highlighting their potential effectiveness in encouraging sustainable investment behaviour. At the same time, a notable proportion of the survey respondents showed uncertainty or reluctance. 32% of participants reported a neutral position, suggesting hesitation or the need for further information or reassurance before committing to sustainable investments. Meanwhile, a smaller share expressed negative attitudes: 10% reported being unlikely to participate, and 5% very unlikely, suggesting that financial incentives alone may not be sufficient for all individuals. These results underline the importance of institutional and policy-level interventions in encouraging sustainable financial behaviour. While earlier findings in this study identified barriers related to limited knowledge, trust, and product accessibility, the strong positive response to tax incentives suggests that these policies could partially offset these obstacles. Consequently, the findings support the argument that financial incentives and financial education should be implemented jointly, as incentives may motivate initial engagement, while education is vital for informed and sustained participation in sustainable financial markets.

### **3.9. Current youth financial education situation overview with field experts**

To further strengthen our analysis, interviews with Viktorija Vegelytė, children's financial literacy educator and founder of "Versli klasė", and Vidmantas Mitkus, youth affairs specialist, and Head of the Youth and Non-formal Education Division at the Vilnius City Municipality, were conducted. Financial literacy experts, especially one who focuses mostly on the education of the Lithuanian youth, provided us with insights and challenges that the youth and educators face

when trying to gain financial management skills and control their capital more efficiently. Vidmantas, who has a long history of working with youth organizations, and non-formal education programs in the capital of Lithuania, helped us to understand the view on financial literacy education issues from the policymaker perspective and highlighted the importance of integrating financial literacy education into the formal education. Viktorija and Vidmantas both come from different backgrounds: Viktorija, who educates youth in the private sector and on social media can share her experience from this area while Vidmantas, whose main work focuses more on the public sector, can give us insights from the public institutions. Both interviewees allowed us to quote, and rephrase their answers, interviews were conducted in the first week of December, 2025.

We began our interview by asking *how would you describe financial literacy level today and what strengths and weaknesses do you see for the youth?* Both interviewees noted that it is really hard to evaluate the level of financial literacy of the youth as it is quite fragmented. Viktorija noted that the younger part of the population has isolated pieces of knowledge, but they lack a systemic understanding of how money works in the long term while Vidmantas emphasised demographic factors, such as age, life stage, and social and economic factors that are mostly influencing different groups of the youth. It is clear that all of the youth cannot be categorised into one specific genre and multiple factors must be taken in consideration when evaluating the financial literacy of the younger generation. Viktorija highlighted that the young people are not afraid of financial topics as they speak confidently about investing, entrepreneurship, passive income, and they are keen on exploring different platforms, looking for positive examples online and are skilled in grasping new technologies and digital solutions. Mitkus also noticed that youth are capable of using modern digital and financial tools, and in addition some young people have a fairly solid basic understanding of income, work and everyday financial decisions. We can understand that the younger generation are getting more and more involved in financial education and they are keen on learning how to control their personal finances. Both interviewees noticed that youth has some key weaknesses: V. Vegelytė highlighted that many young people fail to understand the consequences of financial decisions, especially finding it difficult to understand the difference between income and cash flow, bankruptcy cases of relatively successful businesses, and how risk, interest and debt actually works. The main attribute that was noted in Viktorija's interview is the lack of patience in trying to understand that the financial outcomes are a process rather than an immediate result. Vidmantas agrees with the lack of patience of the youth, but in addition notes that a relatively cautious attitude toward financial risks can also be observed - loans and quick credit products are not widespread among young people. These

answers suggest that the youth are considered impatient and are not planning their finances for the long term, often seeking the results of their financial actions. Some of the topics, like borrowing, budgeting, bankruptcy are not in the interest field of the youth and are often overlooked, yet most of the youth can use the latest technology to gather knowledge of financial literacy.

We asked Viktorija's and Vidmantas's opinions on *how they think young people are getting their knowledge of personal finances management*. Both interviewees provided three main sources: family, information online and education institutions. Both interviewees, Vidmantas and Viktorija, highlighted the importance of family as a source that has a significant impact on the development of financial habits, especially in the younger age. Personal finance topics should be discussed openly with kids in order to promote more efficient and rational financial management behaviour. Both people that were interviewed agreed that most often the younger generation seeks their financial education from social media, yet Vidmantas noted that this source can often be not reliable, and the younger generation should focus more on getting help from financial professionals, structured educational programs, and information that is provided by the public institutions. Viktorija and Vidmantas highlighted the importance of practical experience for the youth to develop their skills more efficiently. Answers to this question allow us to understand that most frequently youth is seeking for the information online, yet it sometimes cannot be reliable, thus improving the education of their parents and public institutions could greatly increase the financial literacy education level.

Interviewees were asked *what are the biggest financial challenges youth face today*. Vegelytė highlighted that the main obstacles the youth is tackling are impulsive consumption, the pressure of having everything here and now, constant comparison with others, and lack of understanding how debt and risk work, while Mitkus notes that the main challenges are related to reaching financial independence, such as unstable income, high living expenses, which often lead young people to postpone living independently. We can view that both psychological and external variables can influence youth's decision making as youth is more eager to make short-term decisions and are often influenced by external factors that they can't control, such as raising house prices or inflation. Vegelytė also explains that youth are afraid to start investing by explaining it as the lack of money for the investments, yet they are often seen using their money freely on small everyday expenses that are not crucial for their survival. She states that the psychological factor, fear of failure, is an addition to this practice as they are usually ashamed to fail and do not view it as a learning practice. This can often be caused by peer pressure or influence of parenting in the childhood and teenage years period. Vidmantas gives more attention

to the wage's aspect, as they have become one of the main factors in financial decision making. Unsatisfactory working conditions are encouraging constant job changes or temporary withdrawals from labour markets which affects youth's everyday life as younger people are constrained from cultural activities, and desired leisure, which further impacts their quality of life. Insights on youths' financial challenges allows both our and future research to have a broader understanding of external and internal factors that are influencing youth's financial behaviour. By taking in consideration not only individual decision making, but macroeconomic aspects we can better understand what influences the youth on their well-made and irrational decisions.

We've got mixed answers to questions: *How do you assess the quality of financial education in the formal education system (schools and universities)? Which elements of this education do you consider effective, and which aspects are lacking for young people to better understand and apply financial knowledge in practice?* While both interviewees agree that the financial literacy education is still not efficient as it lacks practical experience, Vidmantas gives a more positive outlook on the education system. Mitkus believes that formal education provides youth with a general foundation of financial knowledge, it often remains at theoretical level, to which Vegelytė agrees, but on the other hand she evaluates Lithuanian financial education in the formal education system as “tragic”. While Vidmantas highlights that pupils and students acknowledge receiving useful information, some feel unprepared for real-life situations related to financial independence or future planning. Viktorija's answers add an additional layer by emphasizing that what is usually covered are basic concepts (budgeting, income, expenses) and isolated modules of economics or entrepreneurship. The younger generation feels unprepared for the real-life situations that are related to financial independence or future planning. Both interviewees agree that the lack of practical experience is the main issue of the education system and by allowing students to practically implement their theoretical knowledge by calculating, and analysing their own mistakes, it would greatly improve the quality of the formal education. Vegelytė also notes that there is a lack of people who can deliver the required knowledge and skills to the youth. These answers suggests that the experts are not satisfied with the current situation of the formal education in Lithuania and thus are recommending improving it by adding more practical experience and training teachers and educators on how to teach the younger generation more efficiently on financial matters.

In the end of the interview, Viktorija and Vidmantas were asked *which measures or initiatives do you consider as the most effective for improving young people's financial literacy in the future and why these in particular?* Viktorija raised concerns that financial literacy education should be implemented as soon as possible from a very young age, even in elementary school,

if possible and integrating kids' parents as well. Financial literacy education should be understood as not another lesson, but as a life skill that not only covers insurance topics but also explains that money should be used as an instrument that helps to make more rational decisions. The one who teaches financial literacy should not be a teacher, but rather a person from the private sector, who would teach the younger generation with experience and real-life examples. Vidmantas, on the other hand, suggests for financial literacy education to better represent economic and social situations and also to grow the financial literacy skills that the younger people are lacking. He notices that at this moment, non-formal education institutions and non-governmental organizations activities and consultations from government institutions. Mitkus notices that the participation in activities that promote entrepreneurship competencies are not very popular amongst the youth, thus improving, strengthening and talking more about these initiatives could reach more younger people and improve both their financial and economic knowledge. From both interviewees answers it can be understood that both public and private sector view education, that is provided in schools, inefficient and lacking proper financial literacy education. Investing in finance management education could greatly increase the skills and knowledge of the youth when pursuing better financial education.

Both experts have provided valuable insights on financial literacy education in one of the Baltic states, Lithuania. Evaluation of financial literacy education should be evaluated more holistically by understanding that different socio-economic criteria should be taken in consideration when trying to understand the different levels of financial education amongst the youth. Social media, formal and informal education and parents are the main channels that younger generations are getting their knowledge of personal finance management thus improving the quality of these variables would improve the education levels of the youth. Factors such as lack of confidence, unstable wage, insufficient education, high living expenses and impulsivity are strongly influencing youths' financial behaviour.

## 4. CONCLUSIONS & RECOMMENDATIONS

The main objective of the final master thesis was to examine trends, challenges and opportunities of sustainable financial decision making among the youth in the Baltic states. As the Baltic states youth face financial difficulties and inefficient sustainable financial literacy education issues, the younger generation, even if willing, are unable to act financially sustainable and often act not according to their own values and ideas. With fully examined scientific literature, quantitative and qualitative research models, statistical analysis, and comparative analysis of the three Baltic states synthesis and generalization, it is possible to conclude the study and give scientifically based recommendations to the counterparties that are influencing or are influenced by external and internal variables affecting sustainable financial literacy.

### 4.1 Conclusions

1. Financial literacy is a concept including not only knowledge, but also confidence, attitudes, and behavioural capability, while sustainable financial decision-making extends traditional rational financial logic by integrating ESG-related awareness and long-term societal and environmental considerations. Multiple scientists have concluded that sustainable financial literacy as a concept is becoming a more relevant trend amongst the youth, yet the internal and external factors are positively and negatively influencing youths' behaviour thus making the younger generation act against their own will and perform actions that can harm or benefit the environment that they are surrounded by. Empirical analysis reflects this theoretical complexity by highlighting that relatively high over-confidence in managing personal finances, yet it was shown that sustainability financial literacy is uneven and often not prioritized by the youth when making financial decisions. The most relevant example is shown in the quantitative research as willingness to accept relatively smaller returns when investing in sustainable financial products was not prioritised by a large percent of the respondents.

2. Socio-economic factors are mostly relevant through their influence on structural barriers. Employment status and national context affect specific perceived obstacles to sustainable investing. Cross country testing showed significant for lack of knowledge, limited product availability, and lack of interest, while unclear definitions, lack of trust, insufficient income were relatively stable across countries. Youth in Lithuania more frequently reported a lack of knowledge as a key obstacle, while limited availability of sustainable investment products and lower interest levels were more prominent among respondents in Latvia. Estonia's youth provided the results

that lack of knowledge is less frequent obstacle to sustainable investing thus allowing the conclusion that either the sustainable financial literacy level of Estonia's youth is higher than its Baltic counterparts or Estonians are more confident when making sustainable financial decisions. These results additionally support the conclusion that youths' sustainable financial decisions are not only shaped by individual attributes, but also by different contexts and institutional conditions that are different in each of the Baltic states.

3. While more than 65% of respondents feel confident managing personal finances, only about 40% report understanding the basic principles of sustainable investing, and a large neutral segment repeatedly appears across sustainability-related statements, signalling uncertainty and incomplete internalisation of sustainability into financial reasoning. In the preference module (pension investment choices), respondents most often selected more risky innovation and growth-oriented sectors (technology/innovation; healthcare/education), while explicitly framed sustainable products (e.g., fossil fuel-free funds) received noticeably lower support, suggesting that sustainability interest exists, but is not always translated into “labelled” sustainable financial product choices.

4. Research has conducted that a major challenge of that was noted is informational and conceptual uncertainty of the youth. Limited understanding of sustainable investing and persistent neutrality in responses indicate that many young people are not fully confident about what sustainable investing means or how it functions in practice. In addition, there is a motivational trade-off issue: 34.8% of the respondents see sustainability as equally important as returns, 31.3% prioritise returns, and 26.6% have never considered the relationship at all, indicating that sustainability is often not yet a primary decision criterion. To further emphasize the uncertainty issue, nearly two-fifths of respondents report low confidence that their financial decisions can contribute to sustainability goals, while the largest group remains neutral, suggesting uncertainty and low perceived impact of individual actions.

5. The thesis confirms that youth in the Baltic States are not opposed to sustainability in finance, but their engagement is constrained by unclear personal relevance, incomplete understanding of sustainable investing, and uneven market context. Increasing youth sustainable financial behaviour therefore requires combined action: strengthening practical financial and sustainability literacy, improving product clarity and trust, and supporting participation through policy tools such as fiscal incentives.

## 4.2 Recommendations

1. Implement practice-based sustainable financial literacy programmes that develop core finance competence, ESG awareness, behavioural capability, and self-regulation, rather than treating sustainable finance as a non-essential topic which is integrated in different subjects of formal education programs. Financial literacy can create overconfidence and suboptimal risk-taking which could lead to unsuccessful financial decisions thus negatively impacting one's personal financial wellbeing. Improving sustainable financial literacy education would benefit youth's sustainable financial behaviour and reduce the effect of overconfidence by improving the knowledge and skills of a person that is making sustainable financial decisions. This could be achieved by students being able to build their own ESG based simulation portfolios thus getting real-life experience in managing their own investments.

2. Policymakers should implement specified policies for each individual country and Baltic region as a whole to tackle the issue of limited ESG financial products range. Sustainable behaviour is constrained by the limitations of the sustainable financial products range as the Baltic region market lacks the available options for the youth and general population to invest in. Policies that would increase the available ESG product range or increase institutional support that would improve the consideration of these products' purchase ability would influence youth to think of investing more sustainably when making investing related financial decisions. Research evidence suggests that Lithuania should focus more on reducing the lack of knowledge barrier by investing in more efficient education via supporting youth channels, and formal education institutions to prioritise the definition clarity and product comprehension. Latvia's government should prioritise distribution, for example, mainstream platform placement expansion, and simplified entry levels in the market for ESG products. Estonia's example on better financial literacy education should be viewed as a benchmark for other Baltic countries and best practices should be identified and shared with other countries in the region.

3. Financial institutions and pension platforms should reframe sustainable investing in categories that are relevant to the youth (technologies, health, education). The digital infrastructure should be adapted in a way that would make sustainable products easier to identify and understand. As it was noted in the research, digital platforms shape decision making through its interface, dashboards, peer influence, and as youth was keener on choosing products that were not labelled as an ESG, it mainly suggests that the framing and lack of understanding of ESG definition negatively influences youth's choice of sustainable products.

4. Reduce conceptual uncertainty and distrust by standardising definitions and strengthening anti-greenwashing protections. Introduce a standardised sustainable finance

glossary and disclosure minimums across providers and strengthen enforcement against greenwashing/cross washing to reduce information asymmetry as it is especially important for inexperienced youth investors. Sustainability is fragmented conceptually, definitions overlap, and youth face informational uncertainty, thus encouraging independent audits and education on how to spot the sustainability claims via practice could positively influence youth's confidence in making sustainable financial decisions.

5. Adopt a combined policy package that simultaneously strengthens sustainable financial literacy, expands product availability, and uses targeted incentives, while designing pension policy and interfaces to counter present bias and short-term withdrawals. As the conceptual model in the theoretical part has shown, sustainable financial decisions are influenced by multiple determinants, behavioural barriers, moderators and external variables. Present bias can erode long-term welfare when early withdrawal is easy, thus participation initiatives, market development, and pension platform design that shows long-term projections clearly while warning about withdrawal consequences could positively alternate youth's choices when considering the option of withdrawal of the 2nd pillar pension funds. Actions like these increase alignment between youth values and financial behaviour and protects long-term financial security from short-term shocks.

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## ANNEXES

### Annex 1

#### *Quantitative survey*

1. Where did you learn (or are learning) how to manage your finances?
  - Parents / guardians
  - Friends
  - Teachers
  - University lecturers
  - Online platforms / media
  - Financial advisors / banks
  - Self-learning (books, podcasts, courses)
  - I have not learned to manage my finances yet
  - Other
2. Which of the following concepts do you feel confident about?
  - Interest rates / compound interest
  - Inflation
  - Risk diversification
  - Green finance / sustainable finance (ESG)
  - Pension systems (e.g., 2nd pillar)
  - Financial planning and budgeting
  - Taxation of investments
3. Do you currently contribute to the 2nd pillar pension system in your country?
  - Yes, automatically enrolled
  - Yes, I joined voluntarily
  - No, I opted out
  - Not sure
4. How would you describe your trust in the 2nd pillar pension system?
  - Very low
  - Low
  - Neutral
  - High
  - Very high

5. Do you plan to withdraw from or suspend your participation in the 2nd pillar pension system?

- Yes, I plan to withdraw
- No, I plan to continue participating
- I am not sure yet
- I am not part of the 2nd pillar system
- No, my country does not have an opportunity to withdraw from 2nd pillar pension system (applicable to Latvia)
- Other

6. If yes, what is your main reason for considering withdrawal?

- Lack of trust in the system
- Low investment returns
- Prefer managing savings independently
- Financial difficulties
- I am not stopping contributions to my 2nd pillar pension fund in the future
- Other
- Not applicable

7. When you plan a financial decision (e.g., saving, investing, taking a loan), how important are the following factors?

Factors	Not important (1)	Slightly important (2)	Neutral (3)	Important (4)	Very important (5)
Expected return					
Risk level					
Environmental and social impact					
Fees and charges					
Compatibility with personal values					

8. To what extent do you agree with the following statements?

Statement	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

I feel confident managing my personal finances					
I understand the basic principles of sustainable investing					
I believe sustainability should be considered in financial decisions					
I am willing to accept slightly lower returns for more sustainable investments					
My 2nd pillar pension fund should consider ESG criteria					
Sustainability education should be taught in schools and universities					
Financial education should be taught in schools and universities					

9. If you save money, what are your main saving goals?

- Emergency fund
- Travel / leisure
- Home purchase
- Education
- Retirement (including pension funds)
- Investment portfolio growth
- I don't have a specific goal
- Other

10. Which of the following sustainable financial products or actions are you familiar with?

- ESG-labelled funds or ETFs

- Green bonds
- Ethical banking products
- Fintech apps promoting sustainability (e.g., CO<sub>2</sub> tracking, green spending insights)
- Passive / index funds
- Sustainable 2nd pillar pension funds
- Cryptocurrencies
- I have not heard of any

11. Have you personally used or invested in any of the following in the last 12 months?

Activity	Yes	No	Not sure
Chosen a sustainable or ESG investment fund			
Checked the ESG or sustainability rating of an investment			
Switched or adjusted your 2nd pillar fund			
Invested in renewable energy or green projects			
Donated to or supported environmental initiatives			

12. What are the main barriers that prevent you from investing sustainably?

- Lack of knowledge or information
- Unclear definitions of “sustainable” or “ESG”
- Belief that returns are lower
- Limited product availability
- Lack of trust in sustainability claims (greenwashing)
- I do not have enough income to invest
- I am not specifically interested in sustainability
- Other

13. Imagine you could decide where your pension savings (2nd pillar) are invested. Which options would you prefer?

- Renewable energy companies
- Technology and innovation firms
- Healthcare and education sectors
- Socially responsible companies (fair wages, equality)
- Fossil fuel-free funds
- Defence sector (dual use, infrastructure)
- Passive index funds (no sustainability focus)
- Cryptocurrencies
- AI-related investments
- I do not have a preference

14. Which statement do you agree with the most?

- Financial returns are more important than sustainability
- Sustainability is equally important as returns
- Sustainability is more important than returns
- I have never thought about it

15. How confident are you that your financial decisions can contribute to sustainability goals (e.g., climate, social welfare)?

- Not confident at all
- Slightly confident
- Neutral
- Confident
- Very confident

16. Suppose your country offered a tax incentive (e.g., lower tax rate) for sustainable investments.

How likely would you be to participate?

- Very unlikely
- Unlikely
- Neutral
- Likely
- Very likely

17. Please indicate your country of residence:

- Lithuania
- Latvia
- Estonia

## 18. Age:

- 7-17
- 18–24
- 25–29

## 19. Gender:

- Female
- Male
- Other / Prefer not to say

## 20. Education level:

- I have no education
- Elementary school
- Middle school
- High school
- I am currently in my first cycle of studies
- Bachelor's degree
- I am currently in the second cycle of my studies
- Master's degree
- I am currently in the third cycle of my studies

## 21. Employment status:

- Employed full-time
- Employed part-time
- Student
- Unemployed
- Self-employed

## 22. Monthly net income (EUR):

- < 600
- 600-999
- 1,000-1,499
- 1,500-1,999
- 2,000+
- Prefer not to say

## Annex 2

*The interview questions and responses (in Lithuanian)*

### Klausimai:

1. Kaip apibūdintumėte jaunimo finansinio raštingumo lygį šiandien? Kokius stipriausius ir silpniausius aspektus pastebite?
2. Iš kur, Jūsų nuomone, jaunimas dažniausiai įgyja žinių apie asmeninius finansus? (pvz., šeima, mokykla, socialiniai tinklai, asmeninė patirtis) Kurie šaltiniai yra patikimiausi ir kodėl?
3. Su kokiais didžiausiais finansiniais iššūkiais jaunimas susiduria šiandien?  
Kaip šie iššūkiai veikia jų sprendimus ir finansinį elgesį?
4. Kaip vertinate finansinio ugdymo kokybę formaliojo švietimo sistemoje (mokyklose, universitetuose)? Kokie šio ugdymo elementai, Jūsų nuomone, yra veiksmingi, o kokių aspektų trūksta, kad jaunimas geriau suprastų ir taikytų finansines žinias praktikoje?
5. Kokios priemonės ar iniciatyvos, Jūsų nuomone, būtų veiksmingiausios siekiant pagerinti jaunimo finansinį raštingumą ateityje? Kodėl būtent jos?

### Atsakymai (Viktorija Vegėlytė):

1. Jaunimo finansinio raštingumo lygį šiandien vertinčiau kaip fragmentišką. Jaunimas turi daug pavienių žinių, tačiau trūksta sisteminio supratimo, kaip pinigai veikia ilgalaikėje perspektyvoje.

Stiprioji pusė, tai jaunimas nebijo pinigų temų. Jie drąsiai kalba apie investavimą, verslą, pasyvias pajamas, domisi platformomis, mato pavyzdžius internete. Jie greitai perpranta technologijas ir skaitmeninius sprendimus.

Silpnoji pusė, tai sprendimų pasekmių suvokimas. Daugeliui sunku suprasti:

- kuo skiriasi pajamos ir pinigų srautas,
- kodėl bankrotas įvyksta net „gerai atrodantiems“ verslams,
- kaip veikia rizika, palūkanos, skolos.
- Taip pat pastebiu, kad jaunimui trūksta kantrybės ir supratimo, jog finansiniai rezultatai yra procesas, o ne greitas rezultatas.

2. Didžioji dalis jaunimo žinių ateina iš: socialinių tinklų (YouTube, TikTok), daug ateina ir iš šeimos patirties, jaunimo asmeninių bandymų ir klaidų. (kas tikrai nėra blogai).

Mokykla šioje vietoje vis dar atlieka labai ribotą vaidmenį, dažniausiai perteikdama teoriją be praktinio pritaikymo.

Patikimiausi šaltiniai (bet čia mano nuomone):

- šeima, kai joje atvirai kalbama apie pinigus, sprendimus ir klaidas.
- praktinė edukacija, kur vaikas pats skaičiuoja, planuoja, klysta, struktūruotos programos, kurios paaiškina ne tik „kaip“, bet ir „kodėl“.
- Socialiniai tinklai gali būti naudingi kaip įkvėpimas, bet jie dažnai pateikia iškreiptą realybę, neparodo rizikų. Vaikai pasimauna.

3. Didžiausi iššūkiai yra, kai vaikai veikia per impulsyvų vartojimą, spaudimą „turėti čia ir dabar“, lyginimasis su kitais, nesupratimas, kaip veikia skolos ir rizikos. Jaunimas dažnai renkasi greitą malonumą vietoje ilgalaikio tikslo. Pastebiu, kad daug kas bijo pradėti taupyti ar investuoti, nes atrodo, kad „per mažai turi“, o tuo pačiu drąsiai leidžia pinigus smulkiems dalykams.

Be to, daliai jaunimo būdingas klaidingas įsitikinimas, kad nesėkmė (pvz., bankrotas ar prarasti pinigai) yra gėda, o ne mokymosi dalis. Aš nuolat kartoju, kad tai ne tiesa! Nėra nei vieno verslo, be skaudžių pamokų

4. Finansinio ugdymo kokybę formaliojoje sistemoje vertinčiau kaip nepakankamą ir per daug teorinę. Tai tragedija. Visa sistema sukurta sistemai, bet ne vaikams. Bazinės sąvokos (biudžetas, pajamos, išlaidos), pavieniai ekonomikos ar verslumo moduliai.

Trūksta: praktinių užduočių, realių skaičių, klaidų analizės, ilgalaikio nuoseklumo. Ir žinoma žmonių kurie gebėtų tai mokyti ir dėstyti.

Jaunimas geriau mokosi tada, kai pats skaičiuoja, planuoja, mato pasekmes, o ne tik atsiskaito testą. Finansinės žinios be praktikos lieka abstrakčios ir greitai pamiršamos.

5. Mano nuomone, veiksmingiausios būtų ankstyvas finansinis ugdymas (nuo pradinio amžiaus), tėvų įtraukimas į finansinį ugdymą, praktinės programos, paremtos realiomis situacijomis, mokymas per patirtį, o ne per teoriją.

Svarbiausia, tai vaikams pakeisti požiūrį, kad finansinis raštingumas nėra „dar viena pamoka“, o gyvenimo įgūdis. Kai vaikai supranta pinigus ne kaip draudimų sistemą, o kaip įrankį, jie pradeda priimti brandesnius sprendimus. Bet tam reikia tinkamos aplinkos ir tinkamo žmogaus. Ne mokytojo, o verslininko.

**Atsakymai (Vidmantas Mitkus):**

1. Jaunimo finansinio raštingumo lygis šiandien yra nevienodas ir stipriai priklauso nuo amžiaus, gyvenimo etapo bei socialinės ir ekonominės aplinkos. Dalis jaunų žmonių turi pakankamai tvirtą bazinį supratimą apie pajamas, darbą ir kasdienius finansinius sprendimus. Jie geba savarankiškai užsidirbti, orientuojasi darbo rinkoje ir aktyviai naudojami šiuolaikiniais skaitmeniniais bei finansiniais įrankiais. Taip pat pastebimas gana atsargus požiūris į finansines rizikas – paskolos ar greitieji kreditai tarp jaunimo nėra plačiai paplitę. Vis dėlto didžiausi trūkumai išryškėja kalbant apie ilgalaikį finansinį planavimą. Dalis jaunimo finansinį savarankiškumą atideda, dažnai dėl nestabilių pajamų ar ribotų galimybių, o finansiniai sprendimai dažniau orientuoti į trumpalaikį stabilumą. Be to, vidutinis sąmoningumas renkantis studijas ar profesiją gali turėti ilgalaikių pasekmių pajamų stabilumui ir karjeros raidai. Apibendrinant, jaunimas turi pakankamą finansinį pagrindą kasdieniams sprendimams, tačiau trūksta nuoseklaus, ilgalaikio požiūrio į finansinį saugumą.

2. Jaunimas apie asmeninius finansus dažniausiai mokosi ne per formalųjį ugdymą, o kasdienėje aplinkoje. Didelę įtaką daro šeima ir artimi žmonės, ypač jaunesniame amžiuje, kai finansiniai įpročiai formuojasi stebint kitų elgesį. Ne mažiau svarbi ir asmeninė patirtis – pirmosios pajamos, bandymai derinti išlaidas su poreikiais ir iš to kylančios pamokos. Mokyklose ir studijose suteikiamos pagrindinės teorinės žinios, tačiau jos ne visada pritaikomos realiose situacijose. Dėl to jaunimas dažnai ieško informacijos internete ir socialiniuose tinkluose. Nors šie šaltiniai yra lengvai prieinami, jų patikimumas skiriasi, o informacija ne visada vertinama kritiškai. Patikimiausi šaltiniai išlieka finansų specialistai, struktūruotos švietimo programos ir viešųjų institucijų teikiama informacija, kuri yra pagrįsta patikrintais duomenimis ir orientuota į ilgalaikę naudą, o ne greitą pelną.

3. Didžiausi jaunimo finansiniai iššūkiai šiandien susiję su finansinio savarankiškumo pasiekimu. Nestabilios pajamos ir aukštos pragyvenimo, ypač būsto, išlaidos lemia tai, kad nemaža dalis jaunų žmonių savarankiško gyvenimo pradžią atideda. Darbo užmokestis tampa vienu svarbiausių veiksnių priimant sprendimus – netenkinančios sąlygos dažnai skatina keisti darbą ar laikinai pasitraukti iš darbo rinkos. Finansiniai ribojimai daro įtaką ir kasdieniam gyvenimui: dalis jaunimo negali sau leisti norimo laisvalaikio ar kultūrinių veiklų, o tai veikia jų gyvenimo kokybę ir socialinį aktyvumą. Nors rizikingi finansiniai įsipareigojimai nėra plačiai paplitę, bendra tendencija rodo, kad sprendimai dažniau orientuoti į trumpalaikį išgyvenimą, o ne ilgalaikį finansinį planavimą.

4. Formalusis švietimas suteikia jaunimui bendrą finansinių žinių pagrindą, tačiau dažnai lieka teoriniame lygmenyje. Nors mokiniai ir studentai pripažįsta gaunantys naudingos

informacijos, dalis jų jaučiasi nepasirengę realioms situacijoms, susijusioms su finansiniu savarankiškumu ar ateities planavimu. Ypač trūksta aiškaus ryšio tarp mokymosi turinio ir ilgalaikių finansinių pasekmių, tokių kaip pajamų stabilumas, karjeros galimybės ar finansinis saugumas. Tai rodo, kad formalusis ugdymas padeda susidaryti bendrą vaizdą, tačiau nepakankamai ugdo gebėjimą taikyti žinias praktikoje.

5. Siekiant pagerinti jaunimo finansinį raštingumą ateityje, svarbu, kad formaliojo švietimo turinys labiau atspindėtų dabartinę socialinę ir ekonominę realybę bei ugdytų trūkstamas praktines kompetencijas. Šiuo metu šį poreikį iš dalies užpildo neformalusis švietimas, nevyriausybinių organizacijų veiklos ir viešųjų institucijų teikiamos konsultacijos. Taip pat išryškėja žemas jaunimo įsitraukimas į verslumą ir verslumą skatinančias iniciatyvas. Tik nedidelė dalis jaunuolių yra jose dalyvavę, o kai kurie apie tokias galimybes apskritai nėra girdėję. Todėl šių iniciatyvų stiprinimas, didesnis jų matomumas ir praktinės patirties suteikimas galėtų reikšmingai prisidėti prie finansinių ir ekonominių įgūdžių ugdymo.