

UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**FINANCIAL LITERACY AND INVESTMENT CULTURE AMONG
SLOVENIAN STUDENTS**

Ljubljana, November 2023

KRIŠTOF KUZMAN, TAJA NOVAK LEVSTEK

AUTHORSHIP STATEMENT

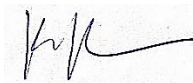
The undersigned, Krištof Kuzman, student at the University of Ljubljana, School of Economics and Business, (hereafter: SEB LU), author of this written final work of studies with the title Financial Literacy and Investment Culture Among Slovenian Students, prepared under the supervision of Full Professor Aljoša Valentinčič, PhD.

DECLARE

1. this written final work of studies to be based on the results of my own research;
2. the printed form of this written final work of studies to be identical to its electronic form;
3. the text of this written final work of studies to be language-edited and technically in adherence with the SEB LU's Technical Guidelines for Written Works, which means that I cited and / or quoted works and opinions of other authors in this written final work of studies in accordance with the SEB LU's Technical Guidelines for Written Works;
4. to be aware of the fact that plagiarism (in written or graphical form) is a criminal offence and can be prosecuted in accordance with the Criminal Code of the Republic of Slovenia;
5. to be aware of the consequences a proven plagiarism charge based on the this written final work could have for my status at the SEB LU in accordance with the relevant SEB LU Rules;
6. to have obtained all the necessary permits to use the data and works of other authors which are (in written or graphical form) referred to in this written final work of studies and to have clearly marked them;
7. to have acted in accordance with ethical principles during the preparation of this written final work of studies and to have, where necessary, obtained permission of the Ethics Committee;
8. my consent to use the electronic form of this written final work of studies for the detection of content similarity with other written works, using similarity detection software that is connected with the SEB LU Study Information System;
9. to transfer to the University of Ljubljana free of charge, non-exclusively, geographically and time-wise unlimited the right of saving this written final work of studies in the electronic form, the right of its reproduction, as well as the right of making this written final work of studies available to the public on the World Wide Web via the Repository of the University of Ljubljana;
10. my consent to publication of my personal data that are included in this written final work of studies and in this declaration, when this written final work of studies is published.
11. that I have verified the authenticity of the information derived from the records using artificial intelligence tools.

Ljubljana, October 16th 2023

Author's signature:



AUTHORSHIP STATEMENT

The undersigned, Taja Novak Levstek, student at the University of Ljubljana, School of Economics and Business, (hereafter: SEB LU), author of this written final work of studies with the title Financial Literacy and Investment Culture Among Slovenian Students, prepared under the supervision of Full Professor Aljoša Valentinčič, PhD.

DECLARE

1. this written final work of studies to be based on the results of my own research;
2. the printed form of this written final work of studies to be identical to its electronic form;
3. the text of this written final work of studies to be language-edited and technically in adherence with the SEB LU's Technical Guidelines for Written Works, which means that I cited and / or quoted works and opinions of other authors in this written final work of studies in accordance with the SEB LU's Technical Guidelines for Written Works;
4. to be aware of the fact that plagiarism (in written or graphical form) is a criminal offence and can be prosecuted in accordance with the Criminal Code of the Republic of Slovenia;
5. to be aware of the consequences a proven plagiarism charge based on the this written final work could have for my status at the SEB LU in accordance with the relevant SEB LU Rules;
6. to have obtained all the necessary permits to use the data and works of other authors which are (in written or graphical form) referred to in this written final work of studies and to have clearly marked them;
7. to have acted in accordance with ethical principles during the preparation of this written final work of studies and to have, where necessary, obtained permission of the Ethics Committee;
8. my consent to use the electronic form of this written final work of studies for the detection of content similarity with other written works, using similarity detection software that is connected with the SEB LU Study Information System;
9. to transfer to the University of Ljubljana free of charge, non-exclusively, geographically and time-wise unlimited the right of saving this written final work of studies in the electronic form, the right of its reproduction, as well as the right of making this written final work of studies available to the public on the World Wide Web via the Repository of the University of Ljubljana;
10. my consent to publication of my personal data that are included in this written final work of studies and in this declaration, when this written final work of studies is published.
11. that I have verified the authenticity of the information derived from the records using artificial intelligence tools.

Ljubljana, October 16th, 2023

Author's signature:



TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	LITERATURE REVIEW.....	3
2.1	Defining financial literacy	3
2.2	Challenges related to financial literacy.....	7
2.3	Benefits of financial literacy.....	8
3	FINANCIAL LITERACY AND ITS CORRELATES	9
3.1	Socio-demographic characteristics.....	9
3.2	Financial literacy and retirement planning.....	12
3.3	Financial literacy and investment behaviour	13
4	GENERAL INFORMATION ABOUT THE REPUBLIC OF SLOVENIA.....	14
4.1	Structure of household financial assets in Slovenia.....	14
4.1.1	Real assets	14
4.1.2	Financial assets	15
4.2	Socio-demographic characteristics.....	16
4.3	Pension system and retirement planning in Slovenia	21
4.3.1	Brief overview of the Slovenian pension system	21
4.3.2	Slovenian pension system in comparison to the world’s top performers	24
4.3.3	Sustainability and challenges of the Slovenian pension system.....	25
4.4	Slovenian students.....	26
4.4.1	General information.....	26
4.4.2	Student work.....	28
4.4.3	Overview of programmes addressing financial literacy in Slovenia.....	29
5	MEASURING FINANCIAL LITERACY	35
5.1	Challenges related to measuring financial literacy.....	35
5.2	OECD/INFE Toolkit for measuring financial literacy and financial inclusion	36
5.3	Results of past measurements.....	38
5.3.1	G20/OECD report on adult financial literacy in the G20 countries (2020)...	38
5.3.2	Financial literacy research in Slovenia.....	42
6	RESERCH DESIGN FOR ANALYSING FINANCIAL LITERACY	45
	AMONG SLOVENIAN STUDENTS	45

6.1	Research questions	45
6.2	Research hypotheses.....	45
6.3	Research methodology	49
7	RESERCH RESULTS FROM CONDUCTING FINANCIAL LITERACY SURVEY	50
7.1	Description of the sample.....	50
7.2	Analysis of the survey results	52
7.2.1	Financial literacy score.....	52
7.2.1.1	Financial behaviour score.....	53
7.2.1.2	Financial attitude score.....	58
7.2.1.3	Financial knowledge score.....	58
7.2.2	Other findings.....	60
7.3	Hypotheses testing	61
7.4	Discussion	76
7.5	Research limitations and suggestions for future research	81
8	CONCLUSION	82
	REFERENCE LIST	84
	APPENDICES	93

LIST OF FIGURES

Figure 1: Huston's concept of financial literacy.....	5
Figure 2: Financial literacy model	6
Figure 3: Structure of household real assets in Slovenia, [%], 2017	15
Figure 4: Structure of household financial assets in Slovenia [%], 2020	16
Figure 5: Age distribution of the Slovenian population in 2020 and the 2060 projection..	17
Figure 6: Unemployment as a percentage of the labour force in Slovenia [%], 2008-2022Q1	19
Figure 7: Gini coefficient of income inequality in Slovenia compared to other economies, 2022.....	19
Figure 8: Percentage of Slovenian residents (15-64 years) engaging in smoking and drinking [%], by gender, 2015	21
Figure 9: Pension as a percentage of salary before retirement [%], 2019.....	23
Figure 10: Public expenditures on old-age benefits [% of GDP], 202.....	24
Figure 11: Education and employment status of young adults (18-24), by sex, 2019 [%].	27

Figure 12: Number of students in tertiary education by their field of study (KLASIUS-P-16), Slovenia	28
Figure 13: Reasons for working while studying [%], 2019.....	29
Figure 14: Financial literacy scores across three dimensions in the G20 countries, OECD research, 2020	39
Figure 15: Financial knowledge score (1-7) in the G20 countries, OECD research, 2020 .	40
Figure 16: Financial behaviour score (1-9) in G20 countries, OECD research, 2020	41
Figure 17: Financial attitude score (1-9) in the G20 countries, OECD research, 2020	42
Figure 18: Financial literacy dimensions by age, Valicon research, 2019	43
Figure 19: Financial Literacy dimensions by personal net income, Valicon research, 2019	44
Figure 20: Financial literacy score, (n=124)	53
Figure 21: Sources of information that had the biggest influence on financial product decision, (n=124).....	57
Figure 22: Financial goals of Slovenian students [%], (n=124).....	60
Figure 23: Most common actions taken to achieve desired financial goals by Slovenian students [%], (n=124)	61
Figure 24: Financial literacy scores of Slovenian students by age, (n=124).....	63
Figure 25: Financial literacy scores of Slovenian students by gender, (n=124)	64
Figure 26: Financial literacy of Slovenian students by highest attained education level, (n=124)	65
Figure 27: Financial literacy of Slovenian students, business major vs. non-business major, (n=124).....	66
Figure 28: Financial literacy of Slovenian students by region, (n=124)	67
Figure 29: Financial literacy of Slovenian students, smokers vs. non-smokers, (n=124)...	68
Figure 30: Survey question: Money is there to be spent (Likert scale 1-5 (1=I do not agree, 5=I totally agree)), (n=124)	69
Figure 31: Survey question: I find it more satisfying to spend money than to save it for the long term (Likert scale 1-5 (1=I do not agree, 5 =I totally agree)), (n=124)	70
Figure 32: Survey question: When I decide to save or invest my money, I am willing to take risks (Likert scale 1-5 (1=I do not agree, 5=I totally agree), (n=124)	71
Figure 33: Investment habits among different levels of financial literacy scores	72
Figure 34: Survey question: How do you plan to take care of your pension? (Multiple answers possible).....	73
Figure 35: Financial literacy and knowledge vs knowledge perception	74
Figure A.1: H1a hypothesis testing – One Sample t-test results	29
Figure A.2: H1b hypothesis testing – One Sample t-test results	29
Figure A.3: H1c hypothesis testing – One Sample t-test results	29
Figure A.4: H1d hypothesis testing – One Sample t-test results	30
Figure A.5: H2a hypothesis testing – Spearman's rank correlation.....	30
Figure A.6: H2b hypothesis testing – Welch Two Sample t-test	30
Figure A.7: H2c hypothesis testing – Spearman's rank correlation.....	31

Figure A.8: H2d hypothesis testing – Welch Two Sample t-test.....	31
Figure A.9: H2e hypothesis testing – Welch Two Sample t-test (n=113)	31
Figure A.10: H2f hypothesis testing – Spearman's rank correlation.....	32
Figure A.11: H2g hypothesis testing – Spearman's rank correlation	32
Figure A.12: H2h hypothesis testing – Welch Two-sample t test.....	32
Figure A.13: H2i hypothesis testing – Welch Two-sample t test.....	33
Figure A.14: H2j hypothesis testing – Spearman's rank correlation	33
Figure A.15: H3 hypothesis testing One Sample t-test	33
Figure A.16: H3 hypothesis testing One Sample t-test	34
Figure A.17: H4 hypothesis testing One Sample t-test	34
Figure A.18: H5 hypothesis testing Welch Two-sample t test.....	34
Figure A.19: H10a hypothesis testing Spearman's rank correlation	35
Figure A.20: H10b hypothesis testing Spearman's rank correlation	35

LIST OF TABLES

Table 1: Financial literacy definitions.....	4
Table 2: Number of people (aged 15+), by education and gender in Slovenia, 2020.....	18
Table 3: Country comparison of household economics curriculum	30
Table 4: Overview of active improvement programmes addressing financial literacy in Slovenia, 2022.....	32
Table 5: Frequency table for age groups	50
Table 6: Frequency table for highest attained education.....	51
Table 7: Frequency table for primary household monthly net income level	51
Table 8: Frequency table for personal monthly net income level	52
Table 9: Summary of financial behaviour score results, Budgeting, (n=124)	54
Table 10: Summary of financial behaviour score results, Active saving, (n=124).....	55
Table 11: Summary of financial behaviour score results, Approach to making ends meet, (n=124).....	56
Table 12: Summary of financial behaviour score results, Other, (n=124).....	57
Table 13: Summary of financial attitude score results, (n=124)	58
Table 14: Summary of financial knowledge score results, (n=124)	59
Table 15: Summary of hypothesis findings.....	75

LIST OF APPENDICES

Appendix 1: Summary in Slovenian.....	1
Appendix 2: Online questionnaire in Slovenian.....	3
Appendix 3: Online questionnaire in English	17
Appendix 4: Hypotheses testing	29

LIST OF ABBREVIATIONS

ATVP	– (sl. Agencija za trg vrednostnih papirjev); Securities Market Agency
BS	– (sl. Banka Slovenije); Bank of Slovenia
EC	– (sl. Evropska komisija); European Commission
ECB	– (sl. Evropska centralna banka); European Central Bank
FURS	– (sl. Finančna uprava Republike Slovenije); Financial Administration of the Republic of Slovenia
GDP	– (sl. Bruto domači proizvod); Gross Domestic Product
HFCS	– (sl. Raziskava o finančnih sredstvih in porabi gospodinjstev); Household Finance and Consumption Survey
ILO	– (sl. Mednarodna organizacija dela); International Labour Organization
INFE	– (sl. Mednarodna mreža za finančno izobraževanje); International Network on Financial Education
LJSE	– (sl. Ljubljanska borza); Ljubljana Stock Exchange
MDDSZ	– (sl. Ministrstvo za delo, družino, socialne zadeve in enake možnosti); Ministry of Labour, Family, Social Affairs and Equal Opportunities
NFEP	– (sl. Nacionalni program finančnega izobraževanja); National Financial Education Programme
NIJZ	– (sl. Nacionalni inštitut za javno zdravje); National Institute of Public Health
OECD	– (sl. Organizacija za gospodarsko sodelovanje in razvoj); Organization for Economic Co-operation and Development
SDH	– (sl. Slovenski državni holding); Slovenian Sovereign Holding
sl.	– Slovenian
SURS	– (sl. Statistični urad Republike Slovenije); Statistical Office of the Republic of Slovenia
SZZ	– (sl. Slovensko zavarovalno združenje); Slovenian Insurance Association
ZBS	– (sl. Združenje bank Slovenije); The Bank Association of Slovenia
ZDU-GIZ	– (sl. Združenje družb za upravljanje investicijskih skladov); Association of Companies for the Management of Investment Funds
ZPIZ	– (sl. Zavod za pokojninsko in invalidsko zavarovanje Slovenije); Pension and Disability Insurance Institute of Slovenia

1 INTRODUCTION

In recent years, financial literacy has emerged as a critical topic due to the increasing complexity of financial markets and widespread access to credit. The challenges confronting financial literacy are evident at the micro-level and macro-level, which include excessive reliance on the financial industry, lack of financial knowledge, overconfidence in financial knowledge, inadequate government initiatives, frameworks, and regulations, lack of life-cycle planning, and a shortage of engaging approaches to teach financial literacy skills (Mitchell & Abusheva, 2016; European Commission, 2007a).

At the same time, developed countries, including Slovenia, have experienced a strong trend towards population ageing due to increased life expectancy and a decrease in fertility rates, resulting in a drastically different demographic profile. In the European Union, it is projected that the median age of the population will rise from 43.7 years in 2019 to 48.2 years in 2050.

By 2050, there will be fewer than 2 people of working age (those aged 20 to 64) for every person aged 65 and older (Eurostat, 2020). This will ultimately lead to significant weakening of pension systems that are based on the principle of solidarity (ZPIZ, 2020a).

Therefore, improving financial literacy is a pressing task, extending even to the realm of governmental responsibility. By enhancing financial literacy, we can alleviate the stress on pension systems and encourage individuals to take a more proactive role in managing their finances effectively (Batsaikhan & Demertzis, 2018).

Financially literate consumers can drive efficiencies in the financial industry by seeking better and cheaper products and services, promoting competition, innovation, and quality improvement, leading to economic welfare. Additionally, financially literate citizens can provide additional liquidity to capital markets, which can boost small-business financing and support growth and jobs (European Commission, 2007a). Moreover, financial literacy promotes inclusive growth as it is inversely associated with poverty, inequality, social exclusion, and social immobility (Batsaikhan & Demertzis, 2018).

Consequently, it is imperative to nurture financial decision-making skills among younger generations, who are on the brink of confronting significant socio-economic challenges, including the implications of an aging population.

The purpose of this master's thesis was to highlight the importance of financial literacy among the Slovenian population, focusing particularly on university students.

We set 10 research questions, which present the core scope of our master's thesis:

RQ1: How financially literate are Slovenian students compared to previous research?

RQ2: What are the determinants of financial literacy among Slovenian students?

RQ3: What is the attitude towards money and investing among Slovenian students?

RQ4: How risk averse are Slovenian students when it comes to investing their money?

RQ5: Does financial literacy influence the investment habits of Slovenian students?

RQ6: What are the most popular financial asset investment options among Slovenian students?

RQ7: Which information sources influence the decision for financial products?

RQ8: How are Slovenian students planning to fund their retirement?

RQ9: What are the most important financial goals among Slovenian students and how do they achieve them?

RQ10: Do Slovenian students overestimate their financial literacy?

To address the research questions posed in this master's thesis, a comprehensive literature review and empirical research were conducted. The literature review, comprising of the first four chapters, relied on secondary data, such as academic articles, journals and relevant databases. Over 100 sources were utilised to gain a proper understanding of the subject matter.

The first chapter of the thesis reviews the concept of financial literacy, its associated benefits and challenges. The second chapter delves into the relationship between financial literacy and various factors, such as socio-demographic characteristics, investment behaviour and retirement planning. In the third chapter, the focus shifts to Slovenia, reviewing factors relevant for the master's thesis. This includes the analysis of the structure of household financial assets, socio-demographic characteristics, the pension system and retirement planning. Special focus is put on Slovenian students. The fourth chapter covers methodological challenges associated with measuring financial literacy and provides an overview of past studies conducted in the field.

Following the theoretical review, in the fifth chapter, research design for analysing financial literacy among Slovenian students is presented. We have prepared an online survey, which was based on the OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion (2018) with some minor adjustments, mainly due to the lack of some financial instruments, which are not available in Slovenia. The aim of the survey was to assess the level of financial literacy among Slovenian university students and explore their attitudes towards saving and investing in the short and long term. We agreed to use the 1KA online survey tool and spread it to students through social media, e-mail, and SMS. The only condition we have set for our survey was a student status at the time being, which is why we

have filtered out all the respondents who did not fit this criterion during our pre-processing phase of analysis. The main part of the data gathered was collected via the online platform 1KA from 17th September to 26th October 2022. The survey was conducted in the Slovenian language and consisted of 53 questions, divided into 4 main categories. The results were analysed in R Studio.

Lastly, in the sixth part, research results from the survey are given. Specifically, the description of the sample, analysis of the research results by dimension of financial literacy, hypotheses testing, and a discussion. Overall, many conclusions from statistical analysis were in line with the findings from the literature review. Nonetheless, research limitations and suggestions for future research should be considered.

Using such a comprehensive tool for measuring financial literacy also proved to be a disadvantage, because of the survey length (approx. time spent solving it was 14min 36s), which translated into a low finalised survey rate (40 percent) in the end and underrepresentation of some groups, which limited our ability to examine potential interactions between different variables within these groups. This implies that there could be important relationships that we were unable to detect due to a lack of sufficient data. In future studies, it would be beneficial to ensure more balanced sample sizes across groups to avoid such limitations.

As for opportunities for further research, by having a larger sample, future research could also conduct clustering to uncover distinct subgroups within our student sample based on three financial literacy components. This could help uncover different segments of students with different needs and provide insights for tailoring financial literacy interventions to specific groups, thereby improving the effectiveness of programmes.

2 LITERATURE REVIEW

This chapter reviews definitions of financial literacy, its challenges, and benefits.

2.1 Defining financial literacy

The concept of financial literacy is multi-faceted and has yet to be fully defined by researchers in the field. The term has been frequently used as a synonym for financial education or financial knowledge. However, these constructs are conceptually different - thus utilising them synonymously can lead to confusion (Grigion & Mendes, 2016). The literature suggests that financial literacy encompasses multiple dimensions, highlighting the importance of constructing and validating models that take into account the various measures and the relationships between them.

To establish a common understanding of financial literacy in subsequent chapters, various literature has been reviewed and the main definitions have been compiled in Table 1, which

confirm the need for constructing a model for understanding financial literacy throughout the research.

Table 1: Financial literacy definitions

Source	Definition
Noctor, Stoney & Stradling (1992)	The ability to make informed judgements and to take effective decisions regarding the use and management of money.
Mason & Wilson (2000)	An individual's ability to obtain, understand and evaluate the relevant information necessary to make decisions with awareness of the likely financial consequences.
Vitt et al (2000)	Personal financial literacy is the ability to read, analyse, manage and communicate about the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy.
Hilgert, Hogarth & Beverley (2003)	Financial knowledge.
FINRA (2003)	The understanding ordinary investors have of market principles, instruments, organisations and regulations.
Moore (2003)	Individuals are considered financially literate if they are competent and can demonstrate they have used knowledge they have learned. Literacy is obtained through practical experience and active integration of knowledge.
National Council on Economic Education (NCEE) (2005)	Familiarity with basic economic principles, knowledge about the U.S. economy, and understanding of some key economic terms.
Mandell (2007)	The ability to evaluate the new and complex financial instruments and make informed judgements in both choice of instruments and extent of use that would be in their own best long-run interests.
Lusardi and Mitchell (2007)	Familiarity with the most basic economic concepts needed to make sensible saving and investment decisions.
Lusardi and Tufano (2008)	Focus on debt literacy, a component of financial literacy, defining it as the ability to make simple decisions regarding debt contracts, in particular how one applies basic knowledge about interest compounding, measured in the context of everyday financial choices.
ANZ Bank (2008), drawn from Schagen (2007)	The ability to make informed judgements and to take effective decisions regarding the use and management of money.

continues

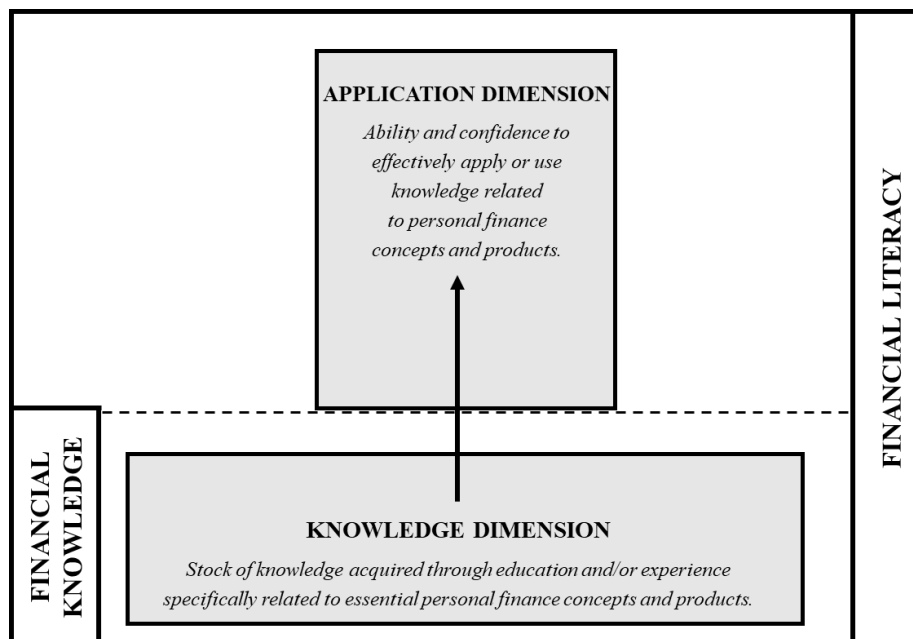
Table 1: Financial literacy definitions (cont.)

Source	Definition
Lusardi (2008, 2011)	Knowledge of basic financial concepts, such as the working of interest compounding, the difference between the nominal and real values, and the basics of risk diversification.

Source: Own work.

Huston (2010) argues (Figure 1), that financial literacy encompasses two dimensions: understanding (knowledge dimension), which embodies personal financial knowledge or education, and use (application dimension), which pertains to the management and application of this knowledge. In this framework, possessing financial knowledge is not sufficient on its own; to be deemed financially literate, an individual must also have the capability and confidence to utilize this knowledge effectively in decision-making processes (Grigion & Mendes, 2016). Thus, financial literacy extends beyond the mere basics of financial education or knowledge, embodying a more intricate concept.

Figure 1: Huston's concept of financial literacy



Source: Huston (2010).

The knowledge dimension of financial literacy is characterised as a form of capital acquired through various forms of financial education or experience related to essential personal finance concepts and products. This includes an aggregation of understanding various financial concepts and procedures, such as knowledge about money management, savings and investment, risk management, and available financial products and services (Grigion & Mendes, 2016). However, financial literacy also encompasses the behaviours and attitudes

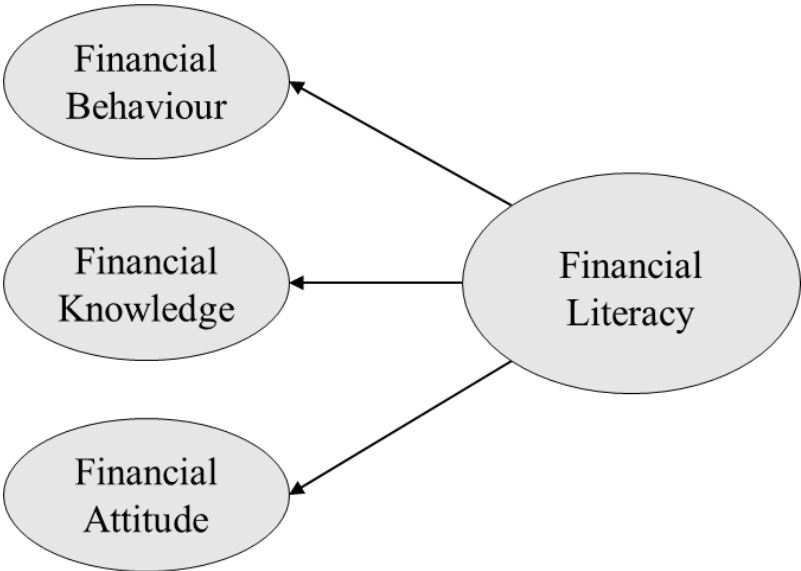
of individuals towards financial matters, referred to as the application dimension by Huston (2010).

Financial attitudes are defined as a personal combination of information and emotions towards financial matters. Attitudes influence individuals' decisions of whether or not to act in certain financially related scenarios. These attitudes are closely related to financial behaviour, defined as a pattern of individuals' basic money management and savings/investment management, including active participation in financial markets through various means, such as bonds, stock investments, and deposits (Grigion & Mendes, 2016).

A common understanding of financial literacy is essential for research in this field. Thus, we have synthesized the definitions from the literature (Grigion & Mendes, 2016; Huston, 2010) and define financial literacy as a composite of three elements: knowledge, attitudes and behaviour dimensions (Figure 2). This composite enables individuals to make responsible financial decisions and strive for financial well-being.

Such a definition is also in line with the one proposed by the OECD and used throughout this master's thesis. The OECD (2018a) defines financial literacy as: "Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing". The definition will be further elaborated in chapter 5.2 OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion.

Figure 2: Financial literacy model



Source: Grigion & Mendes (2016); Huston (2010).

2.2 Challenges related to financial literacy

Regardless of how one defines financial literacy, it is widely acknowledged in the literature, that financial literacy and inclusion play an essential role in promoting sustainable welfare and enhancing transparency and fairness in our rapidly changing society.

Globalisation and capitalism have accelerated the development of financial products, requiring individuals to make a number of complex financial decisions. Even though the information is easily accessible on the internet as well as in financial and educational institutions, consumers often lack the motivation, skills and knowledge to leverage the range of available financial products and services to their benefit (Mitchell & Abusheva, 2016). Moreover, the COVID-19 pandemic has brought about a significant shift towards digital finance, including cashless transactions, online and mobile accounts, and the adoption of FinTech solutions (Răzvan, 2021). Mejía et al. (2022) suggest there has never been a greater need for these skills to manage and grow personal income wisely, however, financial literacy is too often neglected.

Mitchell & Abusheva (2016) highlight that the obstacles facing financial literacy present themselves both at the micro and macro levels. These challenges encompass an overdependence on the financial industry, a deficit in financial knowledge, overconfidence in one's financial understanding, insufficient government initiatives, policies, and regulations, a lack of planning for various life stages, and a shortage of effective and engaging methods to improve financial literacy skills.

Firstly, as reported by the European Commission (hereinafter: EC), individuals are facing difficulties in understanding financial matters, and they are becoming more aware of lacking essential skills to deal with and comprehend financial affairs. Such inadequacy could have far-reaching impacts on their ability to interact with financial providers and secure the best deals available (European Commission, 2007a). A study in the UK found that consumers generally do not know basic economic terms, for example, only 38 percent of UK adults understand the word inflation (Financial Conduct Authority, 2021). Additionally, a survey conducted in France, Spain and Italy highlighted that a large proportion of low-income earning people pay no attention to the difference between costs when comparing various financial institutions. What is more, they were not even able to evaluate those differences (Anderloni et al., 2007).

The second challenge of financial literacy identified is that individuals often overestimate their understanding of financial services and concepts (European Commission, 2007a). Individuals are unlikely to give importance to financial literacy unless they acknowledge its relevance, therefore the EC proposes to raise awareness among those who are unaware of their lack of financial knowledge (European Commission, 2007a). Several surveys in the US and Australia have revealed that people tend to overestimate their understanding of financial concepts, but when tested, they demonstrate only a limited level of comprehension

(European Commission, 2007a). Merkle (2017) highlighted that overconfidence is linked to increased trading activity, more risky decision making and less investment diversification. Young investors who overestimate their financial understanding are more likely to borrow money and engage in unhealthy debt behaviour (Cwynar et al., 2020). At the same time, overconfident individuals are more likely to plan for their retirement and minimise their investment fees (Parker et al., 2012).

The third challenge highlighted by the EC is that a significant number of individuals do not engage in financial planning or select appropriate financial products, leading to a higher risk of falling into debt and facing challenges during periods of personal problems such as loss, relationship breakdown, or unemployment. It can also result in difficulties in maintaining a satisfactory standard of living during retirement (European Commission, 2007a). Research conducted in the UK revealed that people across all income brackets struggle with financial planning, with 70 percent lacking any form of financial safety net to cope with a sudden drop in income (Kempson et al., 2006).

2.3 Benefits of financial literacy

Financial literacy plays a crucial role in enhancing the well-being of individuals by helping them manage their financial affairs more efficiently. It also has an impact on the behaviour of financial institutions, which in turn affects financial stability. Moreover, it affects the allocation of resources in the real economy, influencing the potential growth rate of the economy in the long run (Reserve Bank of New Zealand, 2007).

The advantages of developed financial literacy skills are observable not only at the individual level but also in society and the overall economy.

a) Benefits for individuals

Financial literacy is beneficial for individuals of all ages, providing them with valuable skills and knowledge for well-informed financial decisions. It equips children with concepts about money management, budgeting, and saving, while young people and students can gain skills for independent living. Adults can benefit from good financial literacy when planning for significant life events, such as buying a home or starting a family (Reserve Bank of New Zealand, 2007; European Commission, 2007a).

Research conducted by Reserve Bank of New Zealand suggests, all else being equal, individuals with higher financial literacy are more likely to be better prepared for unforeseen circumstances, invest and budget wisely, maintain a sustainable debt level and have retirement savings (Reserve Bank of New Zealand, 2007).

Moreover, developed financial literacy can reduce the risk of payment fraud and help individuals make better choices regarding financial services tailored to their needs. Those

with financial literacy are more likely to pay attention to regulatory risk warnings, avoid purchasing unnecessary products, refrain from being tied into products they do not understand, and prevent financial difficulties resulting from excessive risk-taking (European Commission, 2007a; Reserve Bank of New Zealand, 2007).

b) Benefits for society

The European Commission claims developed financial literacy not only benefits individuals but also has a positive impact on society. It leads to decreased financial exclusion by increasing engagement with the mainstream financial industry and reducing reliance on high-risk fringe providers or loan sharks. It can motivate citizens, including those on low incomes, to save and plan for their financial future (European Commission, 2007a).

c) Benefits for the economy

Financial literacy plays a crucial role in promoting financial stability by equipping consumers with the knowledge to make well-informed choices regarding suitable financial products and services. This informed decision-making can lead to reduced instances of loan and mortgage defaults, as well as the creation of more diversified and secure savings and investment portfolios. By enhancing financial literacy, it is possible to avert or lessen the impact of crises similar to the 2007 sub-prime mortgage crisis in the US, which had far-reaching effects on global financial markets (Reserve Bank of New Zealand, 2007).

Moreover, financially literate consumers can drive efficiencies in the financial industry by seeking better and cheaper products and services, promoting competition, innovation, and quality improvement, leading to economic welfare. Additionally, financially literate citizens can provide additional liquidity to capital markets, which can boost small-business financing and support growth and jobs (European Commission, 2007a).

3 FINANCIAL LITERACY AND ITS CORRELATES

The goal of this chapter is to explore the influence of various socio-demographic characteristics on financial literacy. It elaborates on research findings from various parts of the world and presents a base for RQ3 (exploring the socio-demographic determinants of financial literacy).

3.1 Socio-demographic characteristics

As the literature has shown, there are many factors contributing to distinct levels of financial literacy scores. Different socio-demographic characteristics have a substantial influence on financial literacy, through which we can explain and understand the discrepancy in measurement results between different nationalities.

a) Age

The study from Canada (Boisclair et al., 2015) revealed that in matters of financial literacy, individuals below 35 years of age consistently underperformed compared to their older counterparts. Additionally, an investigation in Switzerland (Brown & Graf, 2013) discovered that financial literacy levels were lower in both young and elderly participants, compared to those in middle age. This phenomenon can be attributed to two opposing factors: an increase in understanding of inflation with advancing age, contrasted by a decrease in comprehension of compound interest and risk diversification as age progresses.

The study focusing on students aged 18 to 24 (Shaari et al., 2013) indicated a direct correlation between age and the financial literacy of college students. As students grow older and gain more experience, their financial knowledge tends to improve. This is primarily because most of them are at an initial stage in their financial life cycle, where they encounter a limited range of financial matters, mainly concerning basic knowledge, savings, and borrowing. At this early stage, their earnings are typically used more for consumption than for investment (Shaari et al., 2013). A similar trend was observed in a study by Gok & Ozkale (2019) on university students in Turkey, which found a notable difference in the financial literacy levels between senior students and first-year students.

b) Gender

A survey by the OECD (2017) across G20 nations revealed that men generally exhibit higher financial literacy than women, with this trend being consistent in all but three countries with comparable data. Furthermore, in Canada, research by Boisclair et al. (2015) highlighted not only the gender disparity in financial literacy but also that women were more inclined to choose "do not know" responses in surveys.

In contrast, a study in Turkey (Gok & Ozkale, 2019) noted a significant difference in financial literacy between senior male and female students, with males showing higher levels. However, research from 2009, along with findings by Shaari et al. (2013) in a study of 384 students at the University of Malaysia, indicated no significant difference in financial knowledge between male and female students.

c) Education

Boisclair et al. (2015) discovered a significant impact of education on financial literacy levels. Specifically, individuals with higher educational achievements demonstrated greater financial literacy. Additionally, the study indicated that the frequency of respondents opting for the response "I do not know" diminishes with increasing levels of education.

Furthermore, there is also a significant relationship between the financial literacy level and whether the respondent is a Business Major or a Non-Business Major. This difference arises mainly due to the fact that students enrolled in business major courses have been exposed to

financial topics more, compared to the non-business major students (Shaari et al., 2013). The same observation was also confirmed by Gok & Ozkale (2019), where students with social science backgrounds had higher levels of financial literacy scores, compared to students with health-science, natural or applied sciences backgrounds, both when comparing first-year students as well as senior students.

Moreover, research has demonstrated that the educational level of parents significantly affects their children's financial literacy (Firli, 2017). According to the PISA study results (OECD, 2014), which focused on 15-year-old high-school students, there is a correlation between a student's financial literacy performance and the highest level of education achieved by their parents. The findings, consistent across nearly all participating countries and economies, show that students with at least one parent who has completed tertiary education tend to have higher financial literacy than those whose parents did not attain such education (OECD, 2014).

d) (Un)employment and wealth

In most scenarios, self-employed individuals showcased the highest performance, whereas groups not in the workforce, such as students, homemakers, and unemployed persons, exhibited the lowest performance across all questions (Boisclair et al., 2015). These observations align with global trends, where consistently lower levels of financial literacy are observed among the young, women, those with limited educational background, and non-working individuals (Boisclair et al., 2015). Similarly, a study from Switzerland (Brown & Graf, 2013) indicated that women, individuals with lower educational achievements, immigrants, and those with lower income and wealth tend to have significantly lower financial literacy levels.

Additionally, a study on 15-year-old students (OECD, 2014) revealed a strong correlation between students' financial literacy and their parents' occupation. This categorization of students is based on the highest occupational status of either parent, with the higher-status group encompassing children of managers, professionals, and associate professionals, including teachers. On average, in OECD countries and economies, there is a comparable performance gap in financial literacy, mathematics, and reading among students, which is directly linked to the highest occupational status of their parents (OECD, 2014).

Closely related to occupational status is also a family's socio-economic status. Research across OECD countries and economies reveals on average a positive association between financial literacy and socio-economic status. However, there exists a considerable diversity in performance beyond what socio-economic status alone can anticipate. This shows that numerous students with below-average socio-economic status demonstrate high financial literacy scores, and conversely, some with high socio-economic status perform less accurately. The highest discrepancies are therefore seen by comparing the most advantaged versus the most disadvantaged students from a socio-economic perspective (OECD, 2014).

e) Economic state of the country

Firli (2017) also mentions the economic state of the country as a crucial factor - such countries also have a lower educational level and overall lower income per capita, which impacts the development of financial literacy.

Further studies (OECD, 2014) indicate that student performance in financial literacy also varies based on their living location. The size and population density of a community can influence learning opportunities, as larger communities often offer exposure to a broader and more complex array of financial products compared to smaller communities. The PISA index of economic, social, and cultural status also supports this, showing that students generally score higher in financial literacy when they attend schools in urban or city environments, as opposed to those in rural areas (OECD, 2014).

f) Smoking & alcohol consumption

Despite ongoing efforts to reduce their prevalence, smoking and alcohol consumption remain significant economic, health, and social challenges. Recent studies in the USA (Rahim et al., 2021) and Japan (Watanapongvanich et al., 2021) have demonstrated that individuals with higher levels of financial literacy and education tend to make more rational decisions, including choices related to smoking. These studies reveal a notably negative correlation between financial literacy and smoking behavior, indicating that those with a better understanding of financial matters are less likely to smoke. This is based on the idea that financial literacy serves as a tool for rational decision-making, helping to steer individuals away from irrational behaviors like smoking.

Additionally, the study from Japan (Watanapongvanich et al., 2021) indicates that enhancing financial literacy and education may contribute to reducing smoking behavior. However, when it comes to alcohol consumption, recent research (Pongpat et al., 2021) has not found the same correlation as with smoking. These findings suggest that, unlike with smoking, financial literacy, as a tool for rational decision-making, does not influence daily alcohol consumption decisions (Pongpat et al., 2021).

3.2 Financial literacy and retirement planning

Numerous studies have explored the relationship between financial literacy and retirement planning. Lusardi and Mitchell (2011b) observed that a significant segment of the US population does not engage in retirement planning, often neglecting it even as they approach retirement age. They affirm that there is a strong positive correlation between retirement planning and financial literacy, with those who are financially literate being more inclined to prepare for retirement. This connection is crucial, as evidenced by Behrman et al. (2010) and similar studies, which show that individuals with lower financial literacy tend to accumulate less wealth by the time they retire.

Similar outcomes have been found in other countries. In Italy, Fornero and Monticone (2011) found that financial literacy increases the probability of participation in a pension fund, while Bucher-Koenen and Lusardi (2011), Alessie et al. (2011), and Sekita (2011) found similar outcomes in Germany, the Netherlands, and Japan, respectively.

However, Crossan et al. (2011) did not find any significant correlation between financial literacy and planning for retirement in New Zealand. They suggest that this could be attributed to the prevailing influence of New Zealand's universal public pension system in ensuring retirement income stability.

In all analysed countries there appears to be a general pattern, suggesting that financial literacy has a positive influence on retirement planning and financial well-being after retirement, though.

3.3 Financial literacy and investment behaviour

In various studies, financial literacy has been proven to be a crucial tool for informed investment decisions. For instance, less financially literate individuals display lower participation rates in the stock market (van Rooij et al. 2011), they opt for mutual funds with higher fees and choose more costly pension managers (Hastings and Mitchell, 2018).

Volpe et al. (2002) found that in the realm of online investing, male investors who are older and possess graduate degrees generally exhibit higher investment literacy. Similarly, Calvet et al. (2009) observed a positive correlation in Swedish households between financial sophistication and the possession of risky assets, the size of the household, and financial wealth. Furthermore, Bucher-Koenen & Ziegelmeyer (2011) uncovered that German investors with lower levels of financial literacy were less likely to have invested in the stock market. They also tended to incur losses during the financial crisis and were more likely to realize losses on the assets they did sell.

Moreover, several studies have shown a causal link between financial literacy and investment behavior. Van Rooij & Lusardi (2007), utilizing data from a Dutch survey, identified a causal connection between financial literacy and participation in the stock market. Abreu & Mendes (2010) discovered in their study of Portuguese investors that higher levels of education and financial literacy positively influence portfolio diversification, with similar results observed for Italian investors.

Zhao et al. (2021) as well as other studies conclude that financial literacy is positively correlated with investing in cryptocurrencies. Moreover, Kim et al. (2022) found that overconfident investors were more likely to invest in cryptocurrencies though investors with higher levels of financial literacy are more likely to make informed and rational investment decisions (Tajinder, 2023).

4 GENERAL INFORMATION ABOUT THE REPUBLIC OF SLOVENIA

The goal of this chapter is to explain how characteristics of financial literacy discussed in previous chapters fit in the context of Slovenia.

4.1 Structure of household financial assets in Slovenia

Household savings are a part of the disposable income that is not being spent, but rather saved. Therefore, household savings are equal to disposable income decreased by the amount of final consumption (SURS, 2021c).

According to the latest European Central Bank (hereinafter: ECB) study on savings and investment behaviour in the euro area (ECB, 2016a), the main reasons for saving include: securing sufficient funds for possible unpredictable events, securing enough income for the retirement period, securing enough funds for larger purchases (apartments, furniture, vehicles), saving for vacations, education and financial aid for children/grandchildren (ECB, 2016a).

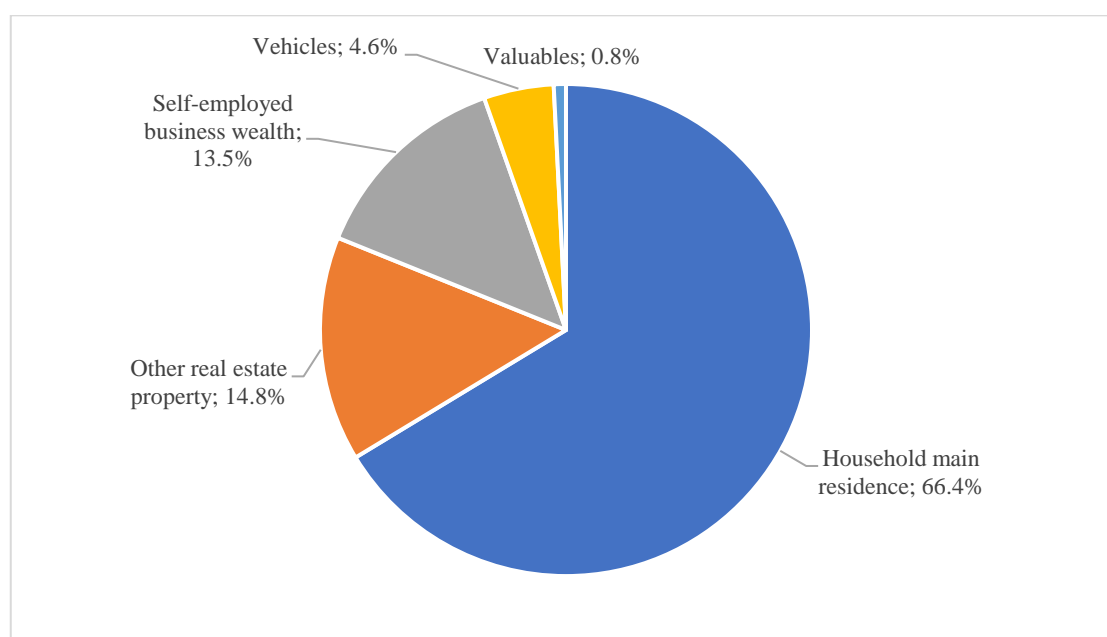
In Slovenia, a large majority of households (94 percent) possess real assets, which is slightly higher than the Eurozone average of 91 percent (Eurosysteem Household Finance and Consumption Network, 2013a). Even more households in Slovenia (95.2 percent) hold financial assets, with the percentage being lower than the average for the Eurozone (97.7 percent) (Eurosysteem Household Finance and Consumption Network, 2013a). The composition of household assets in Slovenia will be analysed in this chapter, including both real and financial assets.

4.1.1 Real assets

Real assets are often divided into five different categories within the literature; the household main residence, other real estate property, vehicles, valuables (jewellery, antiques or art) and self-employment businesses (Eurosysteem Household Finance and Consumption Network, 2013a).

According to the third wave of the Household Finance and Consumption Survey (hereinafter: HFCS) conducted in 2017 and published in 2020 by the European Central Bank (ECB, 2020a), real estate holds the largest share of household real assets in Slovenia, with 66.4 percent representing the main residence and 14.8 percent representing other real estate. Vehicles account for 4.6 percent of the total value of household real assets, while valuables make up 0.8 percent. Additionally, self-employment business wealth accounts for 13.5 percent of total household asset wealth.

Figure 3: Structure of household real assets in Slovenia, [%], 2017



Source: ECB (2020a).

It is notable that a significant proportion of Slovenian households, 76.3 percent, own their primary residence, while 28.1 percent have additional real estate (ECB, 2020a).

4.1.2 Financial assets

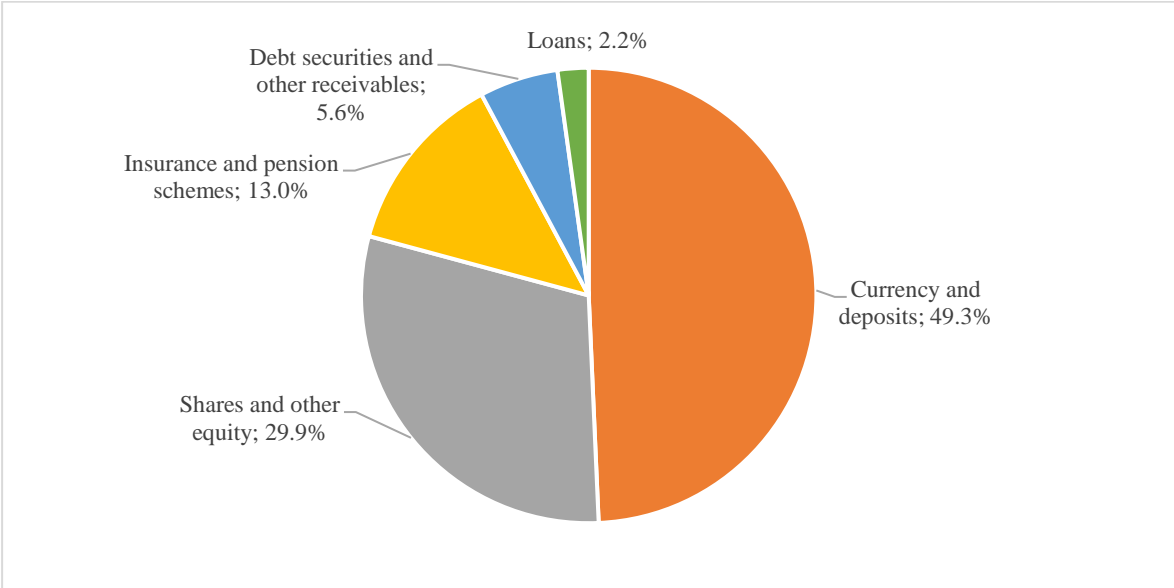
Financial assets, except for those used for transaction purposes, are usually the result of portfolio creation decisions. Financial assets carry diverse risk profiles and incur different transaction costs, some being more widely recognised by the public than others. According to the Eurosystem Household Finance and Consumption Network (2013a), financial assets can be categorised into three groups: traditional banking products such as deposits, financial investment products like bonds, shares, and mutual funds, and insurance-like products which include insurance and pension plans (Eurosystem Household Finance and Consumption Network, 2013a).

The value of net financial assets (difference between assets and liabilities) of Slovenian households reached a peak at the end of 2020, amounting to 48.2 billion Euro, or 102.8 percent of GDP. This represents a 12-percent increase from the previous year (SURS, 2021c). This trend aligns with the high household savings rate observed in 2020, as households opted to accumulate more financial assets during these uncertain times.

According to SURS (2021c), the composition of household financial assets has not significantly changed in comparison to previous years. As illustrated in Figure 4, the highest share of these assets consists of deposits and cash (49.3 percent), followed by shares and

equity (29.9 percent), insurance and pension schemes (13.1 percent), debt securities and other receivables (5.6 percent) and loans (2.2 percent) (SURS, 2021c).

Figure 4: Structure of household financial assets in Slovenia [%], 2020



Source: SURS (2021c).

The structure of financial assets in Slovenian households suggests a preference for safe, secure investments, as deposits and cash make up nearly half of their total financial assets. This indicates a risk-averse approach to savings and investment among Slovenian investors, as the portion of riskier investments remains relatively small (SURS, 2021c).

On the other hand, Slovenia has been ranked as the top nation for its favourable stance towards cryptocurrency and blockchain technology, with some experts even calling it the most crypto-friendly country globally. A recent survey reveals that approximately 18 percent of the Slovenian population has invested in cryptocurrency in some form. Conversely, only 22 percent of Slovenians invest in traditional assets such as stocks, bonds and funds (Fontana, 2023).

4.2 Socio-demographic characteristics

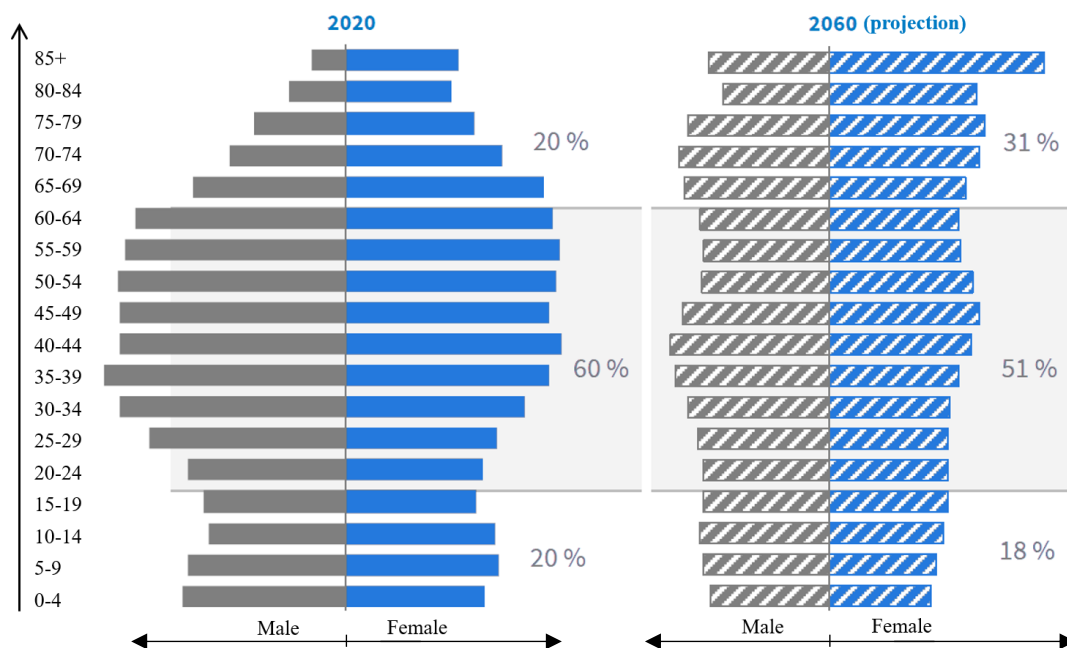
The aim of this chapter is to examine the personal socio-demographic characteristics of the Slovenian population and compare them to the average data of the OECD, where possible. This will serve as a foundation for further analysis and understanding of these characteristics, particularly with regards to the student population, which will be explored in a later chapter.

a) Age distribution

The population of Slovenia is 2.1 million people. The total fertility rate is 1.58 and is close to the OECD average of 1.59 (OECD, 2020a). Since 1991, the population of Slovenia has increased by 107,000 inhabitants, with 80 percent of the growth due to net migration (European Parliament, 2018).

With an increasing average life expectancy, particularly for women (83.39 years) and men (77.81 years) (SURs, 2021d), the demographic structure of Slovenia is becoming increasingly older. Figure 5 demonstrates that one fifth of the Slovenian population is now over the age of 65 and it is expected that by 2060, one third of the population will be in this age group of over 65 (NIJZ, 2020). This demographic shift presents a challenge for Slovenia, as well as for many other developed economies, because the older population leads to a smaller and older workforce, while the number of pensioners and the burden to the pension system subsequently increase. The current pension system is likely to face significant pressure to support this demographic shift (OECD, 2022a; NIJZ, 2020), which represents a concern for current students, as it is uncertain what the future of the Slovenian pension system will look like and whether students will be provided for when they reach retirement age.

Figure 5: Age distribution of the Slovenian population in 2020 and the 2060 projection



Source: NIJZ (2020).

b) Gender

The gender distribution in Slovenia is shifting, with more men present than women since 2019. This trend is particularly pronounced in the 20-44 age group. On the other hand, there

are a significantly greater number of women in the 65+ age group (NIJZ, 2020). In 2021, the share of the female population among Slovenian citizens was 51.1 percent though this proportion has been gradually decreasing in recent years. Meanwhile, among foreign citizens in Slovenia, women made up only 34.2 percent of the population in 2021 (SURS, 2021e).

c) Education

The education system in Slovenia consists of three levels, including primary/basic education (for ages 6 to 11), secondary education (for ages 12 to 18), and tertiary education (for ages 19 to 23). Basic education is mandatory in Slovenia (Republic of Slovenia, 2020a). In 2020, government expenditure on formal education was 5.4 percent of GDP (SURS, 2021f), which is slightly above the EU average of 5 percent of GDP (Eurostat, 2022a), but slightly below the OECD average of 5.8 percent of GDP. The countries that spend the most on early childhood, primary, secondary, and tertiary education are Israel, Norway, and Iceland, with all three spending approximately 7.5 percent of GDP in 2019 (OECD, 2022c).

In the context of educational attainment, the Slovenian population exhibits high levels of education. Table 2 depicts, that in 2020, approximately 24.5 percent of the Slovenian population held a tertiary level of education. Amongst the employed population, the percentage of individuals with completed tertiary education stood at around 35 percent, with those possessing secondary level education accounting for 60 percent. The remaining 8 percent of the employed population held only a primary level or lower level of education (SURS, 2020b).

Table 2: Number of people (aged 15+), by education and gender in Slovenia, 2020

	Male	Female	Total	Male (%)	Female (%)	Total (%)
Primary or less	165,039	238,531	403,570	18.6	26.8	22.7
Secondary	542,364	398,236	940,600	61.0	44.7	52.8
Tertiary	181,023	254,866	435,889	20.4	28.6	24.5

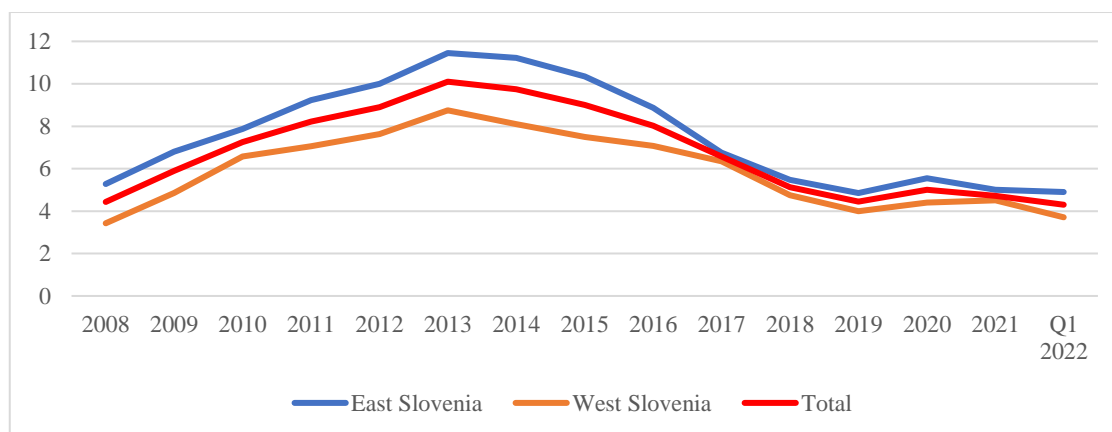
Source: SURS (2020b).

d) (Un)employment and wealth

The Slovenian labour market is strong, as demonstrated by its economic recovery since 2014, which has been characterised by a decreasing trend in unemployment levels. The government's successful efforts to counter the rise in unemployment during the COVID-19 pandemic have led to the return of unemployment levels to pre-pandemic levels. In the first quarter of 2022, the unemployment rate reached its all-time low of 4.3 percent of the active

labour population (SURs, 2022e). As depicted in Figure 6, there is a significant difference between Eastern and Western Slovenia¹ in terms of unemployment levels. Western Slovenia tends to continuously outperform the East in unemployment levels.

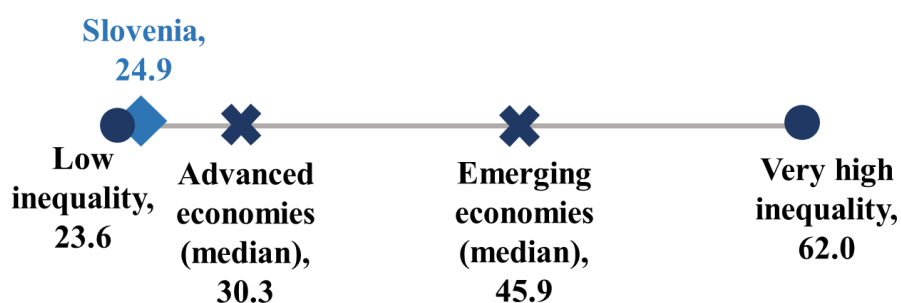
Figure 6: Unemployment as a percentage of the labour force in Slovenia [%], 2008-2022Q1



Source: SURS (2022e).

Income inequality in Slovenia is lower compared to other advanced economies, as shown in Figure 7. As reported by the OECD, the Gini coefficient for Slovenia is 24.9, which is lower than the median for advanced economies of 30.3 (OECD, 2022a).

Figure 7: Gini coefficient of income inequality in Slovenia compared to other economies, 2022



Source: SURS (2022e).

¹ Slovenia is divided into two cohesion regions (NUTS 2): Western and Eastern Slovenia. The Western part represents roughly 47 percent of total population, while the Eastern part represents 53 percent (European Parliament, 2018).

According to the study conducted by the Income and Living Conditions (SILC), 12 percent of the Slovenian population, or 243 thousand individuals, were at risk of poverty in 2020. The Eastern region in Slovenia shows a higher rate of poverty compared to the Western region (SURS, 2020c).

e) Economic state of Slovenia

In 2004, Slovenia became a member of the European Union and three years later, in 2007, it joined the euro area. Slovenia has a developed economy and a high level of economic stability, with GDP per capita by purchasing power parity of 92 percent of the EU-27 average, according to data from 2022 (SURS, 2023).

f) Smoking & alcohol consumption

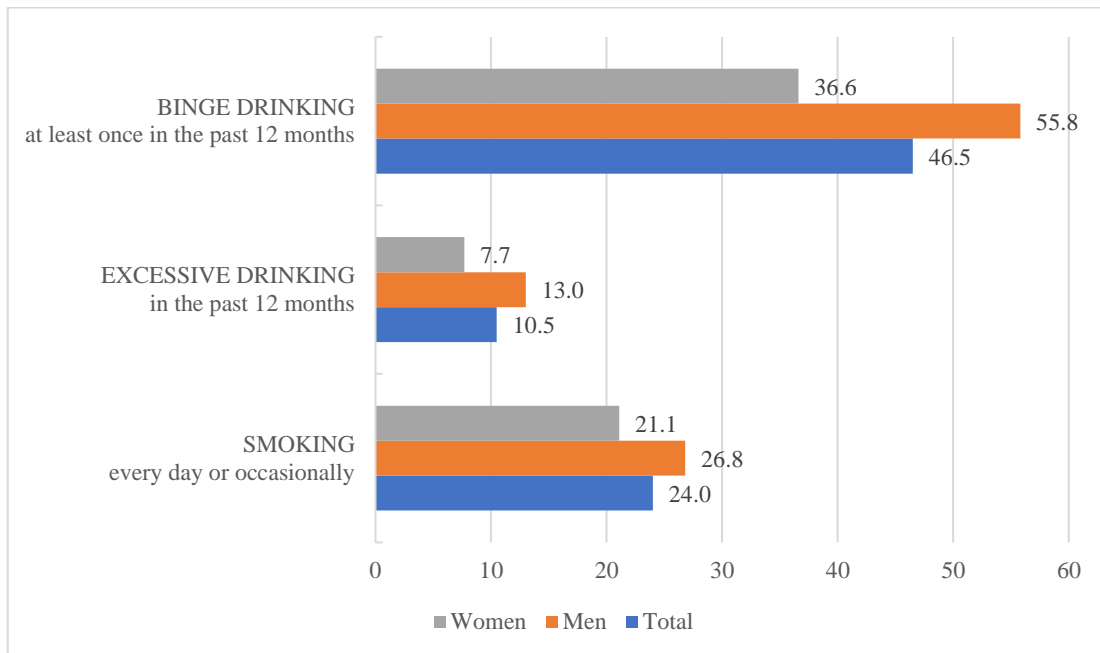
According to the National Institute of Public Health (NIJZ), both tobacco consumption and alcohol are commonly used among the Slovenian population (NIJZ, 2021a). In 2021, 17.4 percent of individuals aged 15 or older identified themselves as regular smokers. This number has seen a decline over the past 20 years, with a decrease of 5 percentage points recorded since 2001 (OECD, 2022b).

The reduction in tobacco consumption has been especially notable among the youth as a result of continuous efforts aimed at achieving the long-term goal of Slovenia becoming tobacco-free by 2040 (NIJZ, 2021a). Despite the decrease in consumption, the tobacco usage rate in Slovenia is still higher than the OECD average of 16.5 percent of individuals aged 15 or older (OECD, 2021a).

According to Koprivnikar, Zorko, Hovnik & Drev (2015), alcohol consumption is a major public health concern in Slovenia, with 10 percent of the population drinking excessively and half engaging in binge drinking² at least once in the previous year. In 2019, the average yearly alcohol consumption in Slovenia was 11.1 litres, which is higher than the OECD average of 8.7 litres per capita. Over the past decade, alcohol consumption in Slovenia has increased by 0.6 litres per capita, while the OECD average has decreased by 0.4 litres (OECD, 2021b). Moreover, excessive drinking and smoking are found to be more common amongst men than women (Figure 8).

² Binge drinking means consuming six units of alcohol or more and four units or more for women, on one occasion (Koprivnikar, Zorko, Hovnik & Drev, 2015).

Figure 8: Percentage of Slovenian residents (15-64 years) engaging in smoking and drinking [%], by gender, 2015



Source: Koprivnikar et al. (2015).

4.3 Pension system and retirement planning in Slovenia

This chapter examines the structure and sustainability of the Slovenian pension system in a global context, and further explores the life, work, and educational experiences of Slovenian students based on past research and current educational programmes.

4.3.1 Brief overview of the Slovenian pension system

A pension is defined as a regular monthly payment designed primarily to provide financial and social security during old age, disability, or following the death of an insured individual. The eligibility for receiving a pension is contingent upon meeting specific criteria as outlined by the relevant authority or organization (ZPIZ, 2020a).

The Slovenian pension system is based on a three-pillar system. The first, so called “public pillar”, plays the dominant role and is mandatory by default. The first pillar is operated by ZPIZ (sl. Zavod za pokojninsko in invalidsko zavarovanje). The system operates on a pay-as-you-go (PAYG) basis and is funded through contributions made by employees. It is based on the principles of solidarity; meaning that the working population contributes for the elderly (ZPIZ, 2020a; Motoh, 2021).

Under the compulsory pension, you can qualify for an old-age pension, early retirement benefit, a widow's or widower's or survivor's pension or a disability pension (ZPIZ, 2020a). For the purposes of this master's thesis, we will be focusing only on old-age pensions.

In order to be eligible for an old-age pension, one must meet the following conditions:

- Attainment of the statutory age.
- Completion of a certain number of years of pensionable service.
- Termination of compulsory insurance (ZPIZ, 2020b).

In general, this means, 60 years old and 40 years' pensionable service or 65 years and a minimum 15-year insurance period (ZPIZ, 2020b). The assessment of old-age pensions depends on the pension base, calculated using the monthly average from the most favorable 24 consecutive years of insurance coverage since 1970. This period is characterized by the payment of obligatory pension and disability insurance premiums. The calculation takes into account the base, which is derived after deducting taxes and contributions paid on earnings at the average rate in Slovenia. ZPIZ holds the legal responsibility to compute all possible monthly averages of insurance bases from these 24 consecutive years of coverage, starting from January 1, 1970. The most favorable average determined from this process is then used as the pension base to calculate the pension awarded to an insured individual (ZPIZ, 2020b).

Besides the pension base, the amount of the old-age pension is also influenced by the assessment percentage, which varies according to the attained retirement age. For determining the old-age pension, a minimum assessment percentage is set for a pensionable period of 15 years, but there is no specified upper limit in terms of the highest possible percentage. It's notable that the transition period, which saw a gradual increase in the assessment scale for men, concluded on 31 December 2022 (ZPIZ, 2023a).

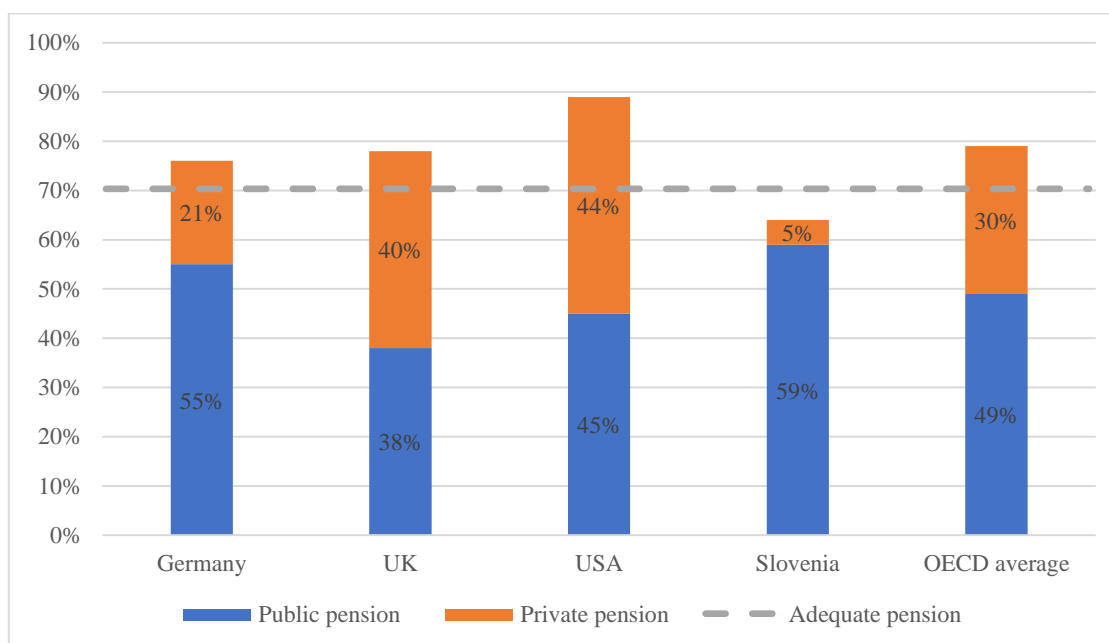
Starting from 1 January 2023, the calculation scale for the old-age pension is identical for both men and women. With 15 years of insurance, the pension base is assessed at 29.5 percent, and for a full 40 years of pensionable service, it stands at 63.5 percent. Each additional year beyond the 40-year period increases the percentage by 1.36 percent. In cases where the extended pension period is less than a full year but at least six months, the rate increases by 0.68 percent for that period (ZPIZ, 2023a). In comparison, the second pillar (voluntary occupational pension plan) and the third (investment life insurance) play a less significant role to other developed countries (Motoh, 2021). The second pillar or voluntary occupational pension plan consists of pension funds mostly financed by employers and supported by the state with tax incentives (Pokojninska družba A, 2019).

The voluntary occupational pension plan represents a way of preparing for retirement, in which either the insured individual or the employer contributes through regular monthly or annual premiums. When reaching the retirement age, the accumulated funds in the account are used to purchase a life insurance policy that provides a lifetime annuity. Such a policy ensures that an extra monthly pension is paid to the insured individual throughout their

retirement (Motoh, 2021; Pokojninska družba A, 2019). As mentioned, the new pension law stipulates that the ratio of pension to salary is set at 63.5 percent for a completed pension period (ZPIZ, 2023a). Subsequently, as a result of demographic shifts, the public pension is expected to gradually decrease to 50 percent of the net salary in the future, a level that is not deemed adequate for a comfortable retirement (Pokojninska družba A, 2019).

For a median earner, the net replacement rate of public pensions in OECD countries is, on average, 49 percent of the net salary earned before retirement. However, when this is combined with an additional 30 percent net replacement rate from private pension insurance, such as a company pension scheme, the average employee is projected to receive pension benefits that account for 79 percent of their net salary. This percentage exceeds the commonly accepted threshold of 70 percent replacement rate that is typically considered an appropriate measure of a sufficient pension (Pokojninska družba A, 2019).

Figure 9: Pension as a percentage of salary before retirement [%], 2019



Source: Pokojninska družba A (2019).

Figure 9 illustrates that in 2019, the average net replacement rate for public pensions in Slovenia was at 59 percent. This rate falls short of the OECD's recommended 70 percent, which is considered necessary for an adequate pension. The sluggish progress in developing the second pillar has meant that private pensions contribute, on average, only an additional 5 percent to the public pension. There is also a growing disparity between employees whose companies have been part of occupational pension plans since their inception in 2001, and those who have not. On average, an employee who has been part of an occupational pension plan since 2001 and is planning to retire in 2019 can expect a pension that is 15 percent higher than that of an employee who has not participated in such a plan. As of 2018, over

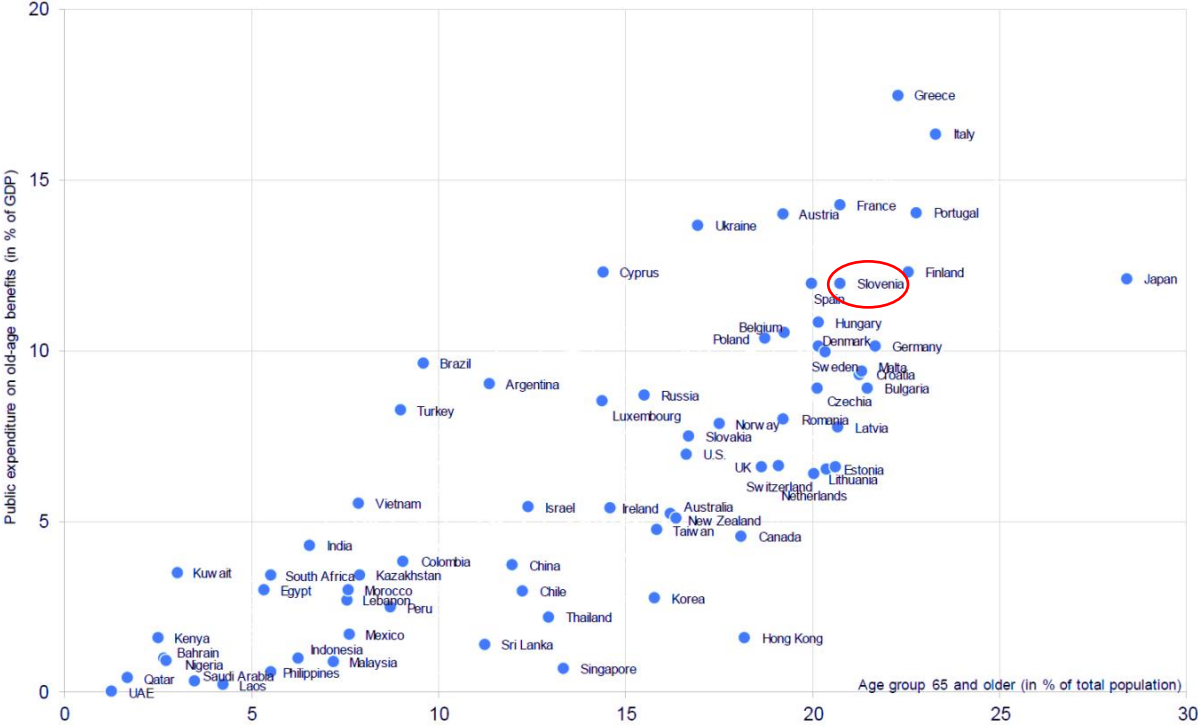
530,000 employees have joined the second pension pillar, as reported by Pokojninska družba A (2019).

4.3.2 Slovenian pension system in comparison to the world’s top performers

The percentage of GDP that societies devote to honour what the elderly have contributed to economic development throughout their working lives differs between countries. Present and future financial capabilities are determined based on demographic trends and the levels of general government gross debt and expenditures on old-age benefits. The higher the amounts are to the GDP, the lower the future financial capabilities and consequently more unbalanced intergenerational distribution due to ageing (Allianz, 2020).

Most pension systems are based on the PAYG scheme, therefore old-age benefits positively correlate with the share of seniors in the population. Even more so in countries where the first, public pillar, is the main source of retirement income (Allianz, 2020). Based on the latest ILO (International Labour Organization) data, the contributions extend between 17.5 percent of GDP in Greece to 0.2 percent in Laos. As depicted in Figure 10, in addition to Japan, mainly EU member states like Greece, Italy, Portugal and Austria record expenditures significantly above 10 percent of GDP. In Slovenia, public expenditures on old-age benefits account for 12.5 percent of GDP (Allianz, 2020).

Figure 10: Public expenditures on old-age benefits [% of GDP], 202



Source: Allianz (2020).

4.3.3 Sustainability and challenges of the Slovenian pension system

For several decades, the academic research community has been issuing cautionary messages through demographic projections regarding imminent and significant demographic shifts. However, these warnings did not attract widespread public attention until these developments began directly affecting present generations, leading to challenges related to the long-term viability of the public finance system (Sambt & Čok, 2007).

Sambt & Čok (2007) explain, that the primary pressure on public spending originates from three sources: healthcare, long-term care and the pension system. For the purposes of this master's thesis, we will focus on the latter. The problems of the Slovenian pension system are directly related to negative demographic changes and trends that are already occurring and will continue to do so in the future. The ability of a pension system to adapt to future demographic changes is crucial for its long-term sustainability (Allianz, 2020). In this aspect, the Slovenian pension system faces many burning challenges.

Life expectancy continues to increase as a result of medical advancements and improved standards of living. Despite the improvements, governments are reluctant to change the statutory retirement age (Motoh, 2021). In recent decades, developed countries, including Slovenia, have experienced a strong trend towards population ageing due to increased life expectancy and a decrease in fertility rates, resulting in a drastically different demographic profile (Motoh, 2021; Allianz, 2020).

According to projections by the European Union, the median age of the population is expected to increase from 44.4 years in 2022 to 48.2 years by 2050 (Eurostat, 2023a). By that year, it is anticipated that there will be fewer than two individuals of working age (20 to 64 years) for every person aged 65 and older (Eurostat, 2023a; World Economic Forum, 2022). This demographic shift is likely to lead to a significant strain on pension systems that operate on the principle of solidarity, as outlined by ZPIZ (2020a).

Normally, the computation of mandatory pension and disability insurance benefits consists of a combination of factors, including the proportion of active workers to retirees as well as salary growth. As this ratio diminishes, it places a burden on the country to bridge the growing pension deficit. In Slovenia, this ratio stands at about 1.37 active workers for every retiree (Ministry of Labour, Family, and Social Affairs, 2016). The OECD (2022a) suggests that, in order to maintain the sustainability of a pension system, the ratio should be at least 2 active workers for every retiree.

However, this ratio is becoming a major problem in all developed countries with this type of pension system. According to the OECD (2022a), in Slovenia, this ratio will continue to decrease, and by 2050 or 2060, it is expected to fall to 1:1 or even lower. Put simply, fewer people will be contributing to the mandatory pension fund and more people will be drawing from it. According to the European Commission (2021), it is anticipated that pension expenditure in Slovenia will experience a substantial increase. It is projected to surge from

10.0 percent to 15.7 percent of the GDP between 2019 and 2050. Such an increase of 5.7 percentage points presents the most significant increase among European Union member states, with the exception of Romania.

This poor demographic situation is reflected in the reduction of benefits from the first pillar. Currently, it amounts to 63.5 percent of net salary for 40 years of work (ZPIZ, 2023a), which is insufficient for a decent life in retirement. The OECD (2022a) suggests a person's pension in old age should be 70 percent of their net salary, in order to have a decent life. Therefore, the income gap from the first pillar must be compensated somewhere, and the best option for this is the other two pension pillars, which are frequently neglected and lack sufficient public promotion.

In light of these circumstances, it is necessary to implement some changes. Because of the financial constraints of the first pension pillar, a transition to an alternative pension system is unfeasible. Consequently, the only option is to strengthen investment savings in the second and third pension pillars. However, a problem arises in Slovenia as compared to other countries when it comes to investment savings. (OECD, 2022a).

The report issued by the Ministry of Labour, Family, and Social Affairs (2016) (hereinafter: MDDSZ) highlights three critical issues. The first one is that the previous generations have been overrelying on the first pillar to provide a sufficiently high pension compared to the average salary earned during their employment, without considering the potential for a weaker pension system in the future, which has become a concern in today's pension landscape. Additionally, Slovenia faces the challenge of inadequate awareness regarding the current pension situation and future prospects. MDDSZ also reports a general lack of financial literacy among Slovenians (Ministry of Labour, Family, and Social Affairs, 2016).

If there is no change in the mindset, those who expect to retire around 2050 or 2060 will receive a pension of only around 50 percent of the average net salary, which does not provide for a dignified life (Ministry of Labour, Family, and Social Affairs, 2016; OECD, 2022a).

4.4 Slovenian students

As discussed in the previous chapter, the aging of the Slovenian population is expected to put increased pressures on the pension system. Therefore, it will be crucial for future generations to be able to make informed financial decisions to ensure their financial security and stability. In this chapter, a general overview of the Slovenian student population is provided.

4.4.1 General information

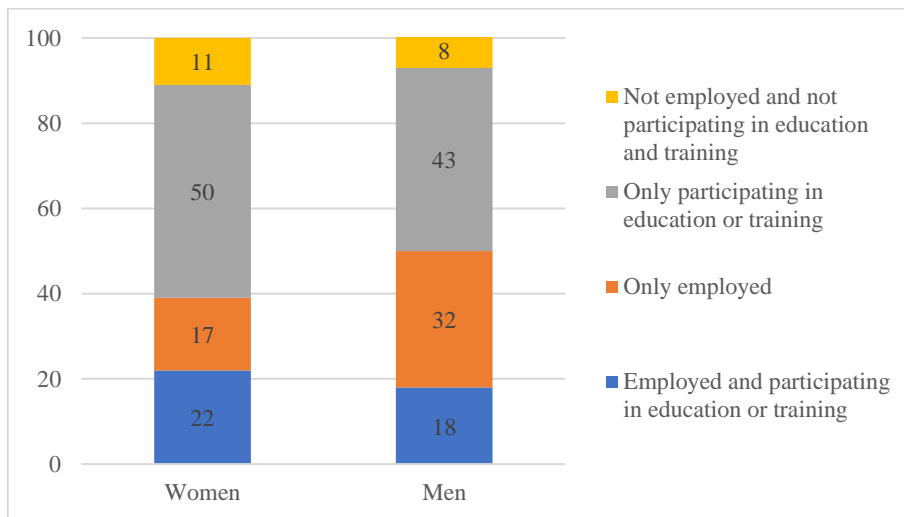
In the school year 2021/2022, there were 81,715 registered students in Slovenia, representing a decrease of 1.2 percent from the previous year. Out of these students, 64 percent were

enrolled in undergraduate programmes, 31 percent in master's programmes, and 5 percent were pursuing doctoral degrees. The student body was comprised of more women (57.7 percent) and full-time students (75.6 percent) according to data from the Slovenian Statistical Office (SURS, 2022a). Out of the total, 7,604 students were from abroad, accounting for 9 percent of the student population.

As depicted in Figure 11, nearly half (48.6 percent) of the 18-24 age group have a student status. Approximately 25 percent of them are employed full-time, while 20 percent engage in both work and studying. The remaining individuals are neither studying nor working (Eurostat, 2020a).

Slovenia is among the EU countries with the highest proportion of 20-24-year-olds actively participating in tertiary education, with Greece and Slovenia being the only two EU nations that had over 40 percent of this age group in full-time tertiary education during the 2018/2019 academic year (SURS, 2021a).

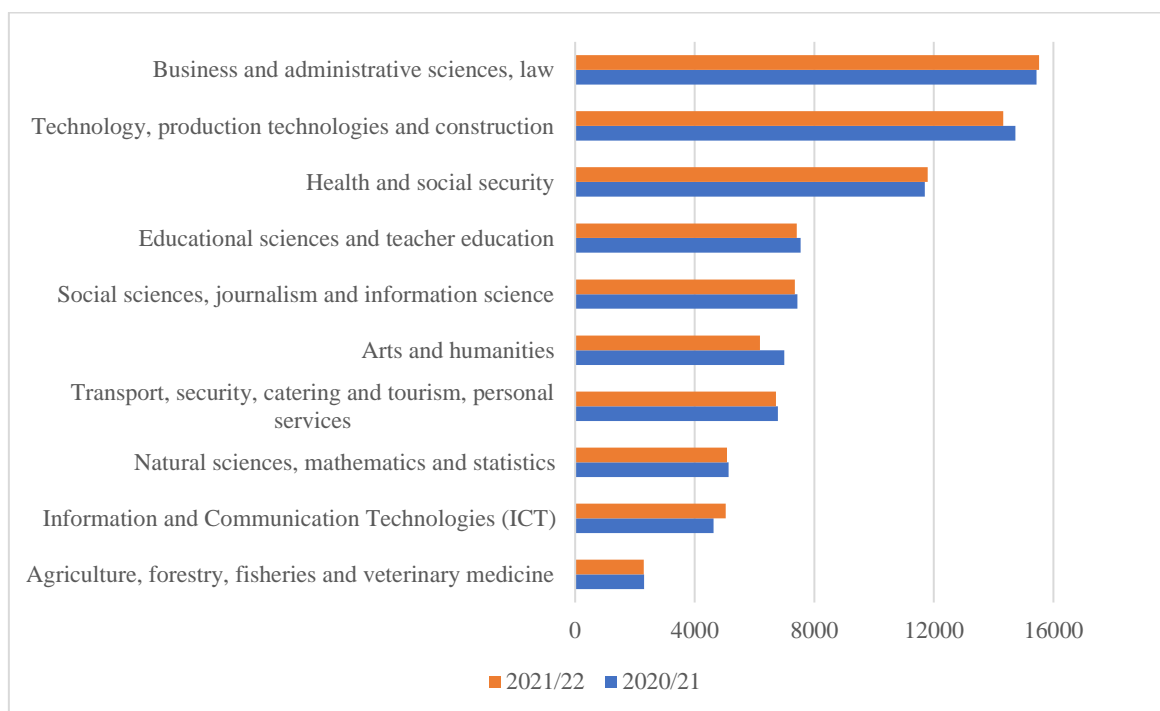
Figure 11: Education and employment status of young adults (18-24), by sex, 2019 [%]



Source: Eurostat (2020a).

According to data illustrated in Figure 12, the most popular fields of study among students in Slovenia are business, economics, and law, followed by construction and engineering.

Figure 12: Number of students in tertiary education by their field of study (KLASIUS-P-16), Slovenia



Source: SURS (2022a).

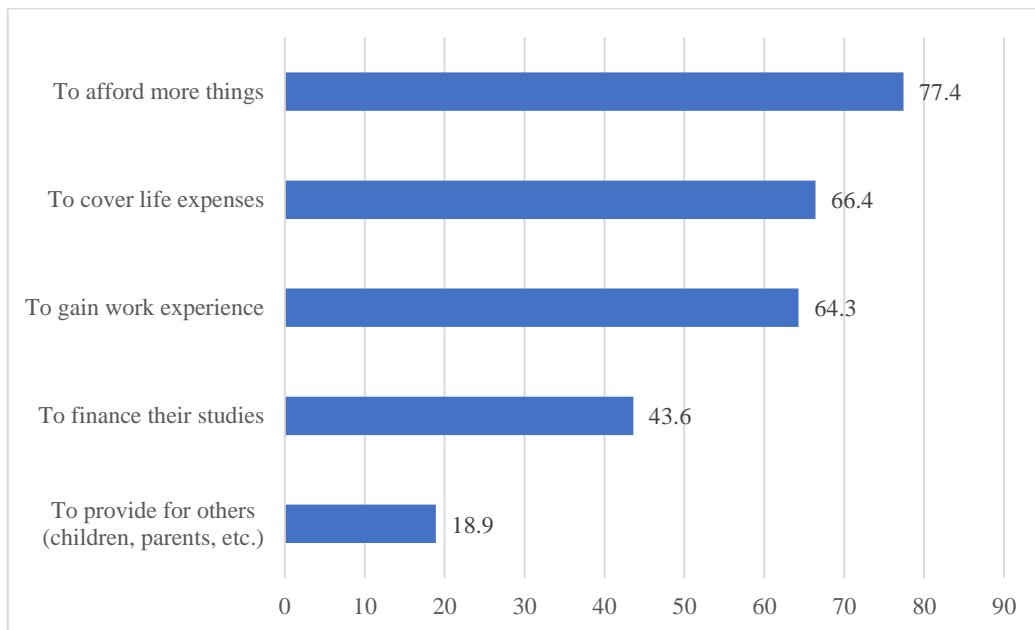
4.4.2 Student work

In Slovenia, student work is regulated by the Student Service (sl. Študentski servis).

According to data from the school year 2018/2019, students in Slovenia spent an average of 35 hours per week on education-related activities, such as studying, completing assignments, and attending lectures. They also dedicated an additional 16 hours to student work. During the non-exam period of the semester, almost two-thirds of students worked, with 38.6 percent working regularly and 26.5 percent occasionally (SURS, 2021a).

A study conducted in 2021 found that the main reasons for students in Slovenia to work while studying are to cover their daily expenses and to gain work experience, with 66.3 percent of respondents citing these reasons. Additionally, as depicted in Figure 13, 43.6 percent of students reported that they wouldn't be able to afford their studies without working (Gril, 2021; SURS, 2021a).

Figure 13: Reasons for working while studying [%], 2019



Source: SURS (2021a).

Moreover, the Slovenian population is generally above average in terms of life satisfaction, with the satisfaction of the student group ranking even above the average of the population. In 2020, the average score measuring life satisfaction of students on a scale from 0 (not satisfied) to 10 (extremely satisfied) was 8.2, while the score for the entire Slovenian population was 7.4. The score slightly decreased compared to the previous years (SURS, 2021a).

4.4.3 Overview of programmes addressing financial literacy in Slovenia

According to the European Commission and the OECD, financial literacy along with reading and numerical literacy remain one of the key competencies of modern society. Therefore, the Republic of Slovenia introduced the National Financial Education Programme (hereinafter: NFEP) (sl. Nacionalni program finančnega izobraževanja) in 2010 (Republic of Slovenia, 2021a). The main goal of the programme is to create financially capable individuals.

Financial literacy is recognized as just one aspect of the broader concept of financial capability, which the government seeks to enhance through the National Financial Education Programme. To be considered financially capable, an individual needs to have the ability to manage their personal or family finances effectively. This includes the capacity to plan ahead, make informed decisions regarding financial products or services, and stay abreast of developments and innovations in the financial market that are relevant to their needs (Republic of Slovenia, 2021a; Republic of Slovenia, 2010).

As mentioned previously, Slovenia devotes roughly 5 percent of GDP to formal education (SURS, 2021f). Pupils learn about basic financial literacy concepts already in primary school during the household economics course (“gospodinjstvo”). Household economics is an obligatory subject in the 5th and 6th grade for all students though a fairly low number of hours per year is devoted to this subject. As seen in Table 3, the share of Household economics in Slovenia is significantly lower in comparison with other countries included.

Table 3: Country comparison of household economics curriculum

Country	Household economics as part of primary education	Nr of hours devoted during primary education	Share of household economics to all subjects [%]
Bulgaria	Obligatory	102 hours	2.80
Denmark	Obligatory	390 hours	5.70
Finland	Obligatory	105 hours	4.30
Norway	Obligatory	266 hours	2.80
Slovenia	Obligatory	87 hours	1.10
Sweden	Obligatory	118 hours	1.90

Source: Simčič (2016).

There have been some suggestions to expand the scope of the household economics subject, so all pupils could grasp the concepts of financial knowledge though it has not been acted upon. Moreover, pupils also cover basic economic principles during the society course and later during the ethics course and mathematics. Economics topics are also briefly included within history, geography, and some other courses (Republic of Slovenia, 2021a).

In secondary school (aside from specialised vocational schools), students only encounter economic principles if they choose the optional matura subject: Economics. We can claim that there is a lack of obligatory financial education at the secondary school level (Republic of Slovenia, 2021a).

Besides the NFEP, in March of 2023, the Ministry of Finance adopted the Strategy for the development of capital markets in Slovenia. The main purpose of the strategy is to bring financing opportunities on the capital market closer to the economy and make the general population aware of the possibilities of investing saved funds. According to the Ministry of Finance, all future activities in the area of financial education will therefore be aligned to the strategy (Ministrstvo za finance, 2023a).

Namely, encouraging financial education has become one of the three main pillars of the strategy, with the main goal of familiarising the wider economy with different options of participating on the capital market as well as increasing the awareness of the general population about the possibilities of investing their savings in the capital market. The

strategy addresses various activities related to financial education. They highlight that improving financial literacy in the economy and understanding the advantages and disadvantages of various forms of financing, as well as transferring basic financial knowledge to the population, can significantly contribute to the development of the capital market. (Ministrstvo za finance, 2023a). Among other things, there will be a renovation or a new NPFI, expected in the first quarter of 2024.

Moreover, since there has been no update on the NFEP available on the internet, we reached out to the Ministry of Finance to find out more about the developments of improving financial literacy in Slovenia. The Ministry of Finance has been tasked with preparing reports on the status of the NFEP and ongoing activities.

The last report from 2022 highlights the current ongoing activities and programmes in Slovenia. The main findings are summarised in Table 4. Such a side-by-side comparison of the most notable programmes focusing on financial literacy allows for an easy review of common points and areas that need to be explored in the future.

Out of nine significant contractors, five are putting a special focus on the young generation, targeting primary and secondary schools as well as young adults though we have not noticed any programmes targeting specific demographic groups that seem to have a lower financial literacy as seen from the literature, such as women, the elderly, those from lower income families, etc.

The listed contractors cover a wide part of financial literacy topics and try to introduce innovative approaches to bring the topic closer to youngsters. While progress has been made, there remains room for improvement, especially in introducing more financial topics into the school curriculum.

Addressing gaps in financial education, expanding outreach to underserved demographics, and continually assessing programme effectiveness are essential steps towards cultivating a financially literate society in Slovenia. The upcoming renovation or replacement of the NFEP in early 2024 presents an opportunity to refine financial education efforts. Collaborative efforts with the Ministry of Finance to monitor and report on financial literacy initiatives will play a crucial role in shaping the future of financial education in Slovenia.

Table 4: Overview of active improvement programmes addressing financial literacy in Slovenia, 2022

Contractor	Main contributions	Area of education	Target group
Association of Companies for the Management of Investment Funds (ZDU-GIZ)	<ol style="list-style-type: none"> 1. Initiated Valicon survey about financial literacy 2. Free webinars about participating in the capital markets 3. Linked-In posts related to investment advice for old age 4. Organising seminars, trainings, etc. 5. Flyers: "Vlaganje za boljšo prihodnost" 	- Where and how to invest for old age	- General population
The Bank Association of Slovenia (ZBS)	<ol style="list-style-type: none"> 1. Running an educational centre, ZBS, that focuses on providing specialist knowledge education in the area of banking and the financial sector. 2. Organising: <ol style="list-style-type: none"> A) European Money Week - B) European Money Quiz - primary and secondary level C) International Week about Fraud 3. Plan to issue the 2nd edition of the book Banking Management 	- General financial knowledge	- Focus on primary schools, secondary schools, library employees and teachers
Securities Market Agency (ATVP)	<ol style="list-style-type: none"> 1. Informative and regularly updated webpage for investors = ATVP follows and will follow the proposals of the Capital Markets Union in educational content aimed at ensuring that retail investors can take full advantage of the capital markets. The investor must be provided with adequate protection, impartial advice and fair treatment, open markets with various competitive and cost-effective services and products, and transparent, comparable, and comprehensible information about the products. 2. Present also on social media to target the young population. 	- Capital markets and associated risks	<ul style="list-style-type: none"> - Focus on potential and existing investors - Also trying to educate the youth by being present on social media
Ljubljana Stock Exchange (LJSE)	<ol style="list-style-type: none"> 1. Let's participate in the stock market initiative (sl. Gremo na borzo), focusing on improving financial literacy of primary school pupils to university students 2. Developed their own board game in 2019 related to stock market activities 3. Participating in various events aimed at improving financial literacy 	<ul style="list-style-type: none"> - The basics of personal finance, - Investment options, - An introduction to securities and securities market infrastructure, the stock market and its role, and the trading process. 	- All age groups.

continues

Table 4: Overview of active improvement programmes addressing financial literacy in Slovenia, 2022 (cont.)

Contractor	Main contributions	Area of education	Target group
Bank of Slovenia (BS)	<ol style="list-style-type: none"> 1. Bank of Slovenia Educational days (since 2017); presenting the role of Central Banks, Eurosystem. (mainly for secondary schools) 2. Job shadowing (since 2022) for secondary schools 3. Summer days for primary school pupils (since 2022); learning about financial concepts through fun and play. 4. Hosting the contest: Euro Generation (since 2011), for secondary schools, organised by the ECB 5. Developing didactic games (memory for kindergarten and more complex games for older children) 6. BS has been preparing their own educational materials and exercises since 2019 7. Developing their own web educational platform (scheduled for 2023) for the youth 8. Art contests related to financial topics. 9. Producing an educational youth show on Slovenian national TV (RTV) in 2021, covering different financial terms (inflation, cash, credit loans, interest rates, digitalisation of banking services, etc.) 10. Educational programmes for adults 11. Call centre available for resolving any financial questions people have 12. Education of teachers and librarians 	<ul style="list-style-type: none"> - Role of the central bank, its main tasks, involvement in the Eurosystem and lectures from the central bank, - Banking system, numismatics, payments and gold, inflation, cash, credit, interest rates, digitisation of banking services 	<ul style="list-style-type: none"> - Main focus on primary schools, secondary schools and young adults - Also, some programs for the older generations
Slovenian Insurance Association (SZZ)	<ol style="list-style-type: none"> 1. Participating with educational articles. 2. Educational comics for the young generation. 3. In 2019, SZZ carried out extensive financial literacy research based on OECD methodology. Based on the results (poor knowledge score in 18-25 category), they started a project "Lajf je igra Tveganja"; LIT 4. LIT project is present on social media and has a great reach 5. Organising LIT hekaton = challenge for students with a monetary prize 6. Organising webinars 	<ul style="list-style-type: none"> - Insurance - General financial literacy 	<ul style="list-style-type: none"> - Education of the general public about different insurance types and improving general financial literacy knowledge - special focus put on young adults

continues

Table 4: Overview of active improvement programmes addressing financial literacy in Slovenia, 2022 (cont.)

Contractor	Main contribution	Area of education	Target group
National and University Library (NUK)	1. 2018 - 2021 part of the project: Financial Literacy Through Public Libraries – FINLIT - developed 12 educational modules for older generations covering different topics in the area of banking, insurance, retirement and andragogics, offering two levels; basic and advanced.	<ul style="list-style-type: none"> - Financial planning and personal budgeting, - the financial system, - credit and loans, insurance and consumer protection and their rights, - online banking, online shopping, online financial security, - savings and investments, inheritance, and retirement income. 	- Educating librarians and library users
Slovenian Sovereign Holding (SDH)	1. SDH believes knowledge must be constantly renewed and upgraded, so as a good practice, they regularly conduct training for supervisors of state-owned companies and other decision-makers in companies. For this purpose, SDH has created a special website: SDH - Education of supervisors.	Analysis of balance sheets and financial situation, financial statements, evaluation of financial investments, control of the company's financial information	- Supervisors in state-owned companies and other supervisors.
Financial administration of the Republic of Slovenia (FURS)	1. Organising tax literacy projects for young adults since 2014. The main goal of the entire project has remained unchanged in all these years, i.e., to make young people of different age groups aware that the taxes paid affect the common good of the entire society and also build their better future.	- Everything related to taxes	- Primary and secondary school students.

Source: Ministrstvo za finance (2023b)

5 MEASURING FINANCIAL LITERACY

This chapter is about understanding the challenges related to financial literacy measurements. It presents a solution – the OECD Toolkit for Measuring Financial Literacy and Financial Inclusion, which is used to tackle three main challenges of measurement: concept definition, content standardisation and instrument interpretation. Moreover, the results from past measurements of the OECD (2020) and Valicon (2019) are highlighted.

5.1 Challenges related to measuring financial literacy

Measuring financial literacy is crucial for understanding the decision-making processes of individuals, particularly in times of crisis and unpredictability in financial markets. Additionally, assessing financial literacy can provide an insight into the state of financial education in different countries and regions, serving as a foundation for the development of financial education programmes in early education. One of the major challenges when researching financial literacy is the lack of a standardised definition (Hung et al., 2009). As we have noticed in the examined literature, some of the researchers don't even have the term defined - in some, it is possible to infer it from the text, but in other studies the reader is left to conceptualise it from how financial literacy was measured.

To identify the problems of defining and measuring literacy, Huston (2010) conducted a study of seventy-one individual financial literacy studies drawn from fifty-two different datasets. The aim was to standardise the procedures used in the examined literature. The study identified three fundamental issues that needed to be resolved: definition, content standardisation, and instrument interpretation.

a) Definition

Huston (2010) points out a significant issue in the field of financial literacy research: the frequent interchangeability of terms such as financial education, literacy, and knowledge. This lack of standardization in terminology hinders the development of a unified approach to measuring financial literacy. The review by Huston indicates that a majority of the studies (72 percent) did not provide a clear definition of financial literacy. Additionally, in nearly half (47 percent) of the analyzed studies, the terms 'financial literacy' and 'financial knowledge' are used interchangeably, further complicating the clarity and precision in this area of research (Huston, 2010).

b) Content standardisation

Huston (2010) also identifies a second challenge in standardizing financial literacy research, which relates to the content areas commonly investigated. These areas are broadly categorized into four distinct groups: money basics (encompassing concepts like the time value of money, purchasing power, and accounting principles), borrowing (including the use

of credit cards, consumer loans, or mortgages), investing (such as savings accounts, stocks, bonds, and mutual funds), and protecting resources (covering insurance products and other risk management strategies). A critical issue noted by Huston is that the majority of research projects fail to adequately detail the constructs they use, leading to a lack of clarity and consistency in the field (Huston, 2010).

c) Instrument interpretation

The third problem Huston (2010) highlights in standardizing financial literacy research is related to the interpretation of instruments used in studies. Remarkably, 90 percent of the reviewed studies did not include any indicator to determine whether a respondent was financially literate. The remaining studies were divided equally between two approaches: some used a specific threshold to classify respondents as financially literate, while others employed a grading system to interpret the results derived from their measurements. This lack of a consistent approach in determining financial literacy further complicates the ability to compare and synthesize research findings in this field (Huston, 2010).

5.2 OECD/INFE Toolkit for measuring financial literacy and financial inclusion

To tackle these challenges, the OECD introduced the Toolkit for Measuring Financial Literacy and Financial Inclusion. This toolkit is designed to establish a standardized methodology for measuring and defining financial literacy. Its development was an iterative process, incorporating insights from various working papers, national surveys, international research, and expert consultations. The OECD suggests that financial literacy is a vital life skill, pivotal in influencing individuals' life outcomes, opportunities, and achievements. It is viewed as a cornerstone for personal well-being, entrepreneurship, social mobility, and inclusive economic growth (OECD, 2018b).

a) Definition

Firstly, the OECD has agreed on a common definition of financial literacy that would bring a common understanding of different national researches worldwide: “Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing” (OECD, 2018a).

b) Content standardisation

Secondly, the toolkit solves the problem of content standardisation as national researchers are encouraged to use the same kind of survey, which divides the survey into three parts: financial knowledge, financial behaviour and financial attitude. This design provides comparative data across countries and allows countries to benchmark themselves against other countries with similar characteristics (OECD, 2018a).

1) Financial knowledge

Financial knowledge is recognized as a key element of financial literacy, vital for activities like keeping abreast of economic and financial news, and understanding financial products and services. This knowledge is essential for making informed financial decisions. The OECD (2017) measures financial knowledge by assessing the ability to apply numerical skills within a financial context. This capability is crucial for enabling consumers to independently manage their financial affairs and to respond effectively to news and events that might impact their financial well-being. The assessment of financial knowledge typically involves evaluating the understanding of concepts such as inflation, interest rates, budgeting, pension planning, and similar terms.

2) Financial behaviour

Financial behavior is assessed using scenario-based questions that look into consumers' habits in areas like budgeting, borrowing, saving, and purchasing. This aspect of financial literacy reflects the actions taken by consumers which influence their financial status and well-being in both the short and long term. The OECD (2017) designs these questions to gauge the capacity to apply numerical skills in financial contexts. The aim is to determine whether individuals are capable of managing their financial affairs independently and responding appropriately to news and events that could affect their financial well-being. This approach helps in understanding how well individuals can translate their financial knowledge into practical actions.

3) Financial attitude

The OECD/INFE's definition of financial literacy acknowledges the significant role of attitude in financial decision-making. Even when an individual possesses adequate knowledge and the ability to act in a certain financial context, their attitude ultimately influences whether they choose to take action. To measure financial attitude, various statements are used, focusing on short-term preferences, attitudes towards “living for today”, and spending habits. This approach, as outlined by the OECD (2017), highlights how personal attitudes towards finance can impact financial behavior and choices, emphasizing the importance of not just knowledge and skills, but also the mindset with which individuals approach their financial matters.

c) Instrument interpretation

The toolkit also addresses the issue of instrument interpretation by providing a methodology for combining responses to various questions to produce financial literacy scores and a financial inclusion score. The Financial Index Score has a maximum of 21 points and is a combination of the above-mentioned parts. The financial knowledge score ranges from 0 to 7, the financial behaviour score ranges from 0 to 9, and the financial attitude score ranges from 1 to 5 (OECD, 2018a). Scoring the maximum of 21 points effectively means that an

individual has acquired a basic level of understanding of financial concepts and applies some prudent principles in their financial dealings (OECD, 2020).

5.3 Results of past measurements

5.3.1 G20/OECD report on adult financial literacy in the G20 countries (2020)

The OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion was employed in a survey encompassing 26 countries and economies, which included 12 OECD member countries spanning Asia, Europe, and Latin America. The survey involved interviewing a total of 125,787 adults aged 18 and older. All participants were asked the same core set of questions.

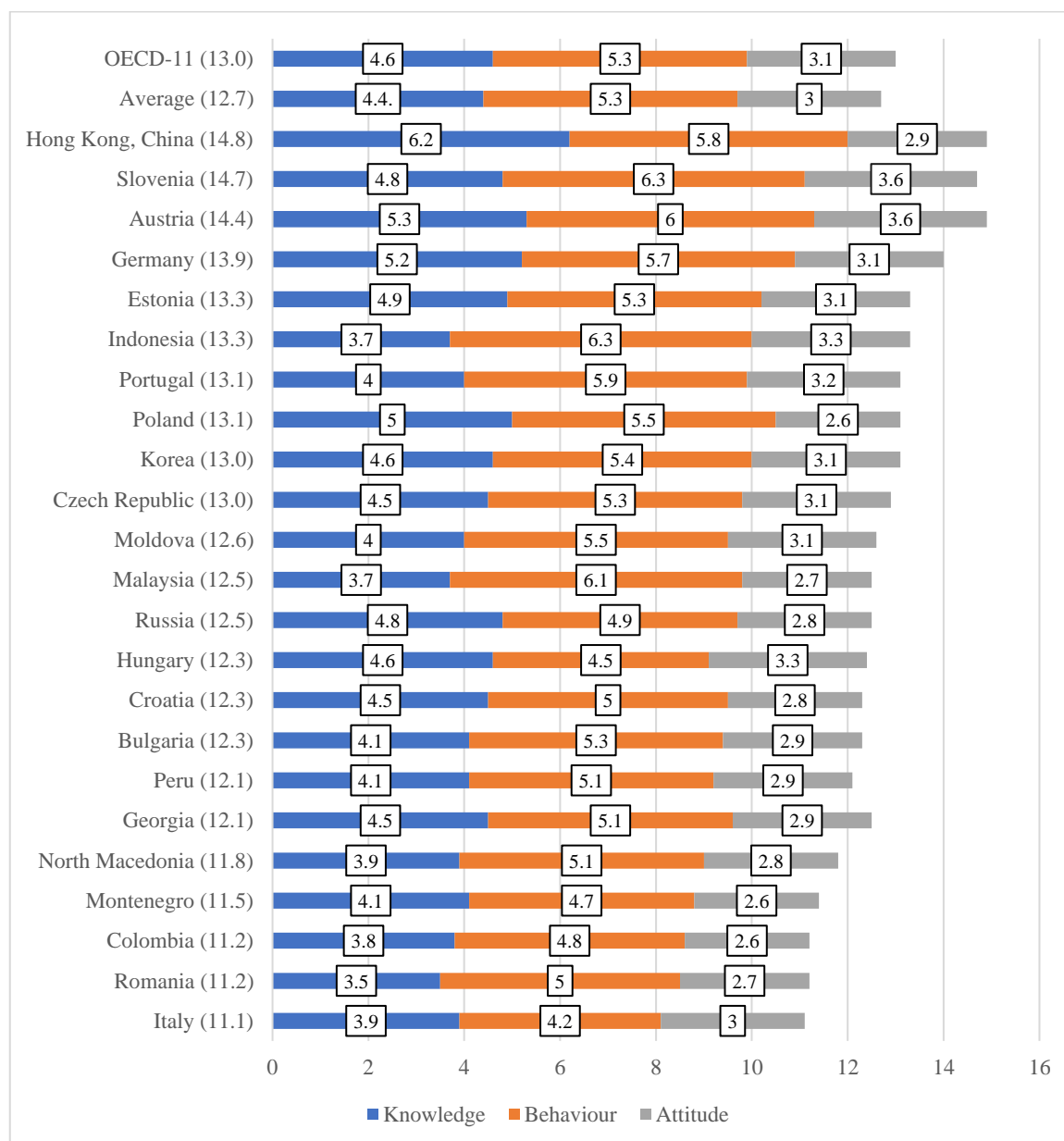
The outcomes of this survey were reported as overall financial literacy scores (Figure 14). These scores were calculated in accordance with the OECD/INFE methodology and definition. The reported results not only encompassed the overall financial literacy scores but also detailed the specific elements of financial literacy: knowledge, behavior, and attitudes of the individuals surveyed.

The report reveals that the average financial literacy score among the surveyed sample was 12.7, which is roughly 61 percent of the maximum possible score of 21 points. This score represents a fundamental understanding of key knowledge concepts, along with prudent financial behaviors and attitudes (OECD, 2020). Among the participating OECD member countries, the average score was slightly higher, standing at 13.0, or 62 percent of the maximum score. The highest scores were recorded in China (14.8), Slovenia (14.7), and Austria (14.4), while Italy had the lowest score at 11.1 (Figure 14).

The report also highlights considerable variability in financial literacy components across different economies. Certain countries, like Georgia, Poland, and Russia, achieved relatively high scores in basic financial knowledge. However, their overall financial literacy scores were only average, affected by lower scores in financial behavior and attitudes.

In contrast, countries like Thailand, which had the highest attitude score in the sample, along with Indonesia and Malaysia (ranking highest and third highest in behavior scores, respectively), might need to focus more on enhancing financial knowledge. This approach would ensure that their populations not only engage in positive financial behaviors and attitudes but also understand the underlying principles, enabling them to become more effective and informed money managers (OECD, 2020).

Figure 14: Financial literacy scores across three dimensions in the G20 countries, OECD research, 2020



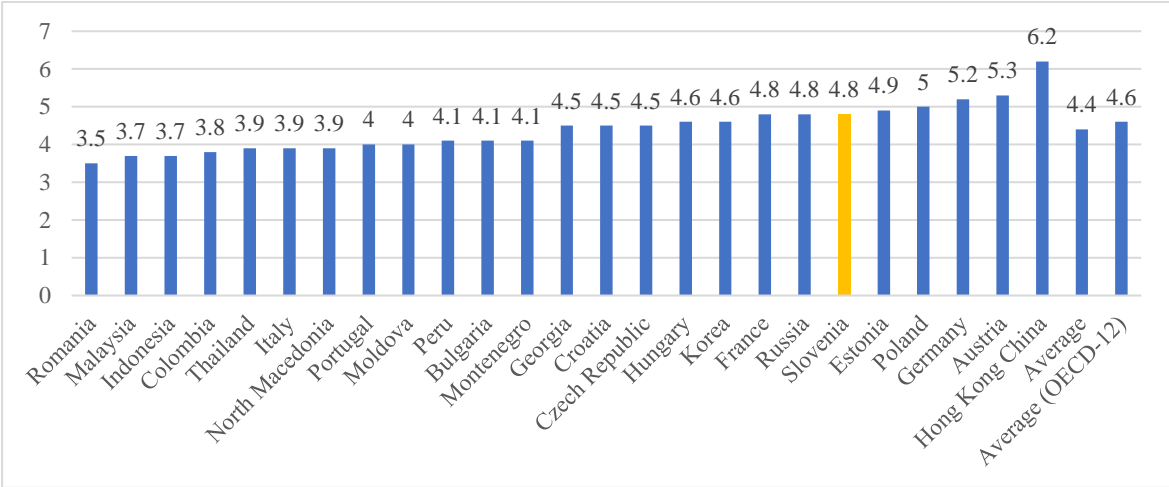
Source: OECD (2020).

a) Financial knowledge scores

Regarding the specific assessment of financial knowledge, the survey evaluated basic knowledge through seven questions designed to test various aspects deemed essential for individuals in making financial decisions. The scoring method was straightforward, with one point awarded for each correct response. Therefore, the maximum possible score an individual could attain in this section was seven points (OECD, 2020). This approach aimed to quantify the level of understanding that individuals have regarding crucial financial concepts and their ability to apply this understanding in practical decision-making scenarios.

To answer the questions accurately in the survey, respondents needed a basic understanding of key financial concepts such as inflation (which involves the time value of money), simple interest (regarded as the price of money over time), cumulative interest (highlighting the advantages of long-term saving or investing), and risk (related to the cost of financial return). The average score across the participating countries in this aspect of the survey was 4.4 (Figure 15). This score falls below the minimum target score, which would be 70 percent of the maximum 7 points available, indicating a general need for improvement in the understanding of these fundamental financial concepts among the surveyed populations (OECD, 2020).

Figure 15: Financial knowledge score (1-7) in the G20 countries, OECD research, 2020



Source: OECD (2020).

The understanding of simple interest charged was the question most widely answered correctly (with 84.4 percent correct answers). Understanding both simple and compound interest, however, has proven to be a very challenging concept with only less than one-third of the respondents being able to show understanding of both (OECD, 2020). Around 80 percent of adults identified the correct meaning of inflation, but only 59.9 percent on average were able to apply this definition when identifying the value of money across time. And lastly, concepts of risk and uncertainty were explored through two different questions. Surveyed adults coped much better with giving correct answers to the question on risk and return (77 percent correct answers), where fewer gave a correct answer to the second question on risk and diversification (OECD, 2020).

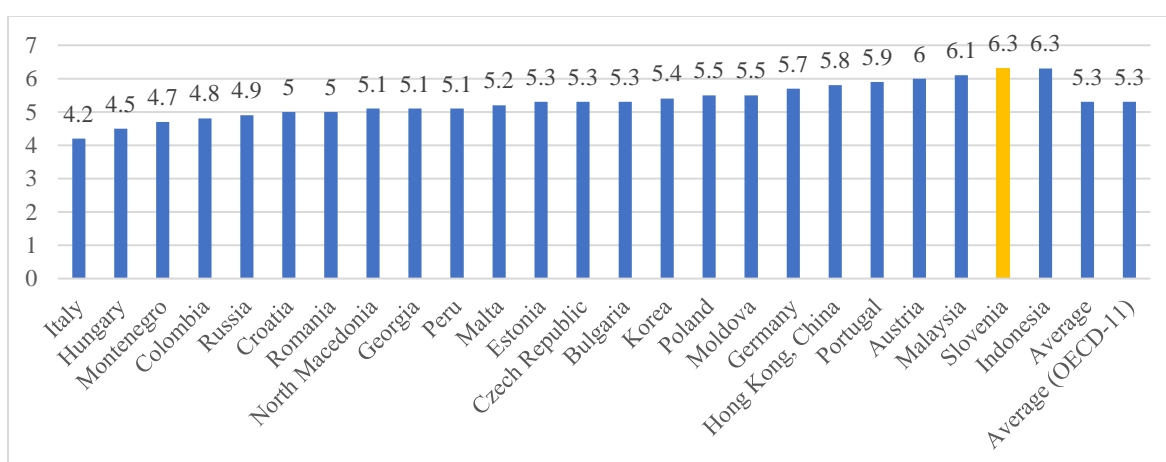
b) Financial behaviour scores

The OECD/INFE Toolkit measures financial behaviour by incorporating a variety of questions to find out about three prudent financial behaviours (OECD, 2020): saving and long-term planning (looking to understand individuals’ active saving and borrowing habits), making considered purchases (exploring to what degree do individuals seek independent

information when considering making a purchase) and keeping track of cash flows (seeking to understand, if individuals keep a watch of financial affairs and whether they pay their bills on time).

As can be seen in Figure 16, within the entire sample of OECD member countries, adults attained an average behavior score of approximately 5.3 out of a maximum possible score of 9. The highest behavior scores, surpassing 6, were attained by adults in Indonesia (6.3), Slovenia (6.3), Malaysia (6.1), and Austria (6.0). Conversely, the lowest scores, hovering around 5, were observed in Russia (4.9), Colombia (4.8), Montenegro (4.7), Hungary (4.5), and Italy (4.2) (OECD, 2020).

Figure 16: Financial behaviour score (1-9) in G20 countries, OECD research, 2020



Source: OECD (2020).

The target minimum score of 6 or higher (on a scale 1-9) was, on average, met by nearly 49 percent of all adults. Furthermore, there was a significant variation in the proportion of adults achieving this minimum score across different economies. For instance, 73.3 percent of adults in Slovenia scored 6 or above in financial behavior, while only 26.3 percent achieved this in Italy, and 29.7 percent did so in Hungary (OECD, 2020).

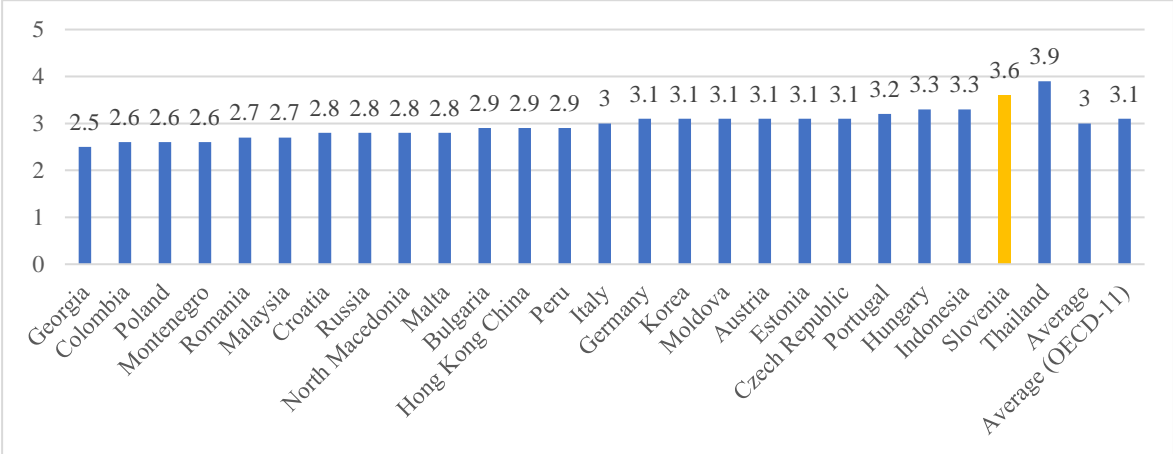
c) Financial attitude scores

The definition of financial literacy by OECD/INFE acknowledges that an individual's capacity to make financially sound decisions, even when possessing adequate knowledge and skills, can be influenced by their personal attitudes (OECD, 2020).

Within the OECD/INFE Toolkit, there are three statements designed to check respondents' attitudes concerning money and their inclination to plan for the future. Individuals demonstrating more favorable attitudes toward long-term considerations and saving receive a higher score. Each of these statements specifically addresses preferences related to short-term priorities, such as a focus on "living for today" and spending money (OECD, 2020).

In the countries included in the survey, the average score for adults was 3.0 out of a possible 5 points (Figure 17). Merely 24.5 percent of adults managed to attain the minimum target score of exceeding 3. Thailand (3.9) and Slovenia (3.6) attained the highest scores, whereas the lowest scores were recorded in Georgia (2.5) and a tie between Colombia, Poland, and Montenegro (2.6) (OECD, 2020).

Figure 17: Financial attitude score (1-9) in the G20 countries, OECD research, 2020



Source: OECD (2020).

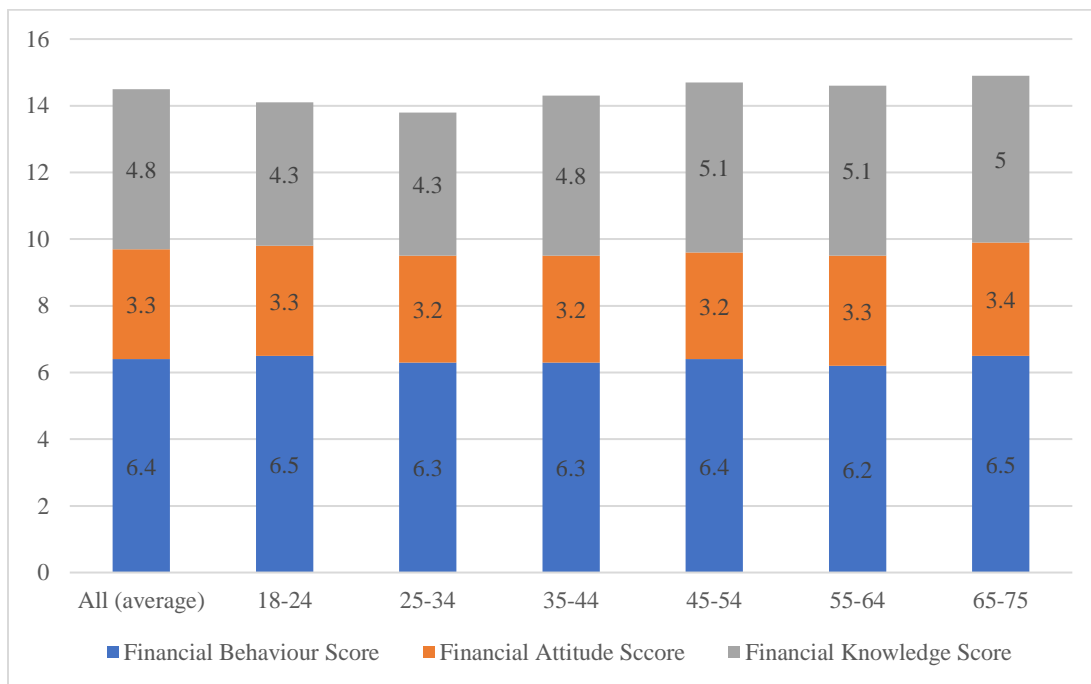
5.3.2 Financial literacy research in Slovenia

In April 2019, the Slovenian Insurance Association conducted a research project in collaboration with Valicon, a marketing and consulting company based in Slovenia. The primary objective of this project was to present the findings as a catalyst for the development of a National Programme of Financial Literacy (Valicon, 2019). The survey employed the OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion as its foundation, incorporating insurance-specific questions and making necessary adjustments to align with the financial products and services available in Slovenia (Valicon, 2019). Furthermore, the survey results played a role in the preparation of the G20/OECD Report on Adult Financial Literacy in the G20 Countries (2020) (Valicon, 2019). It should be noted that there were slight disparities in the results due to differing interpretations of the data by the OECD.

Within the context of this study, financial literacy is characterized as the "integration of awareness, knowledge, skills, attitude, and behavior essential for making informed financial choices and ultimately attaining individual financial welfare" (Valicon, 2019). The research was carried out on a representative sample of Slovenian citizens aged 15 to 75, with a total sample size of 1,019 respondents. The survey and its methodological guidelines were designed to evaluate the fundamental aspects of financial literacy outlined in the definition, specifically behavior, knowledge, and attitude (Valicon, 2019).

The average score on the Financial Literacy Index (N=1.019) was 14.5 out of 21. The highest index score was 15.0 for age groups between 65-75 years, as demonstrated in Figure 18. The lowest score was observed within the age group between 25-34 (young working population) with a score of 13.9. The age group between 18-24 (students) had a Financial Literacy Index of 14.3, which is a bit below the average (Valicon, 2019). Overall, it was concluded that monthly income is an important factor when it comes to financial literacy levels. The respondents with a net monthly income of above € 1100 have the highest average overall financial scores and also through all three dimensions.

Figure 18: Financial literacy dimensions by age, Valicon research, 2019



Source: Valicon (2019).

Dividing the Financial Literacy Index into behaviour (1-9), attitude (1-5) and knowledge scores (1-7) shows additional insights.

a) Financial knowledge scores

The overall average financial knowledge score was 4.8 out of 7, which is 0.4 points higher than the average of countries which participated in the OECD’s research in 2020. The highest knowledge score was achieved by respondents aged between 45-64 years (5.1). As the data shows, there is a large discrepancy between different age groups. The young “working” population, aged 25-34 had a score of 4.3, which is also below the average, presented in the OECD’s research. Moreover, there seems to be a positive correlation between personal income and financial knowledge score. Respondents with a net monthly income of more than € 1100 had a considerably higher score (5.2) than those with a net monthly income of less than € 365 (4.5).

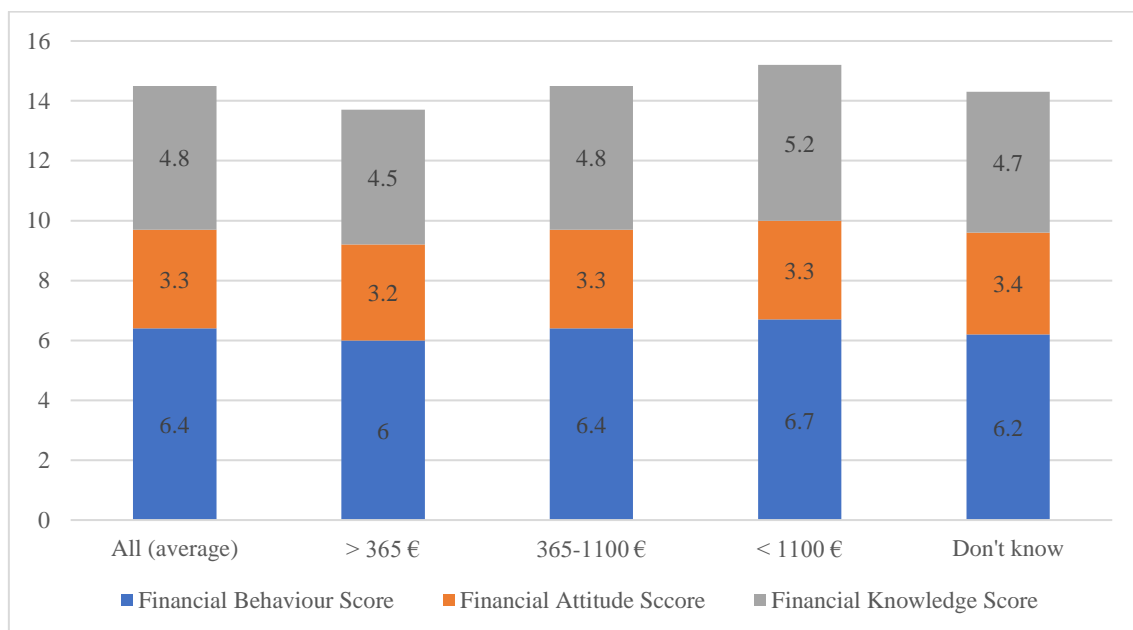
b) Financial behaviour scores

In the Valicon research conducted in Slovenia, the average financial behavior score among the respondents stood at 6.4 out of a total of 9, surpassing the OECD's average score of 5.3. Interestingly, the age groups 18-24, 35-44, and 65-75 achieved the highest scores, suggesting that age does not play a pivotal role in determining behaviors related to savings, long-term planning, prudent spending, and cash flow management. Additionally, the study underscored the significance of monthly income as a key determinant of financial behavior among the participants. Individuals with higher incomes (net monthly income exceeding €1100) obtained a score of 6.7, whereas those with lower incomes scored 6.0.

c) Financial attitude scores

The financial attitude score was determined by averaging responses on a scale of 1 to 5, with a possible range of scores from 1 to 5. The average score for respondents in Slovenia was 3.3, which is above the average reported by the OECD (3.1) (Figure 19).

Figure 19: Financial Literacy dimensions by personal net income, Valicon research, 2019



Source: Valicon (2019).

There were minimal discrepancies between different age groups in the sample, with the highest score being achieved by respondents aged 65-75 (3.4) and the lowest by the age groups 25-34 and 45-54 (3.2). This suggests that age is not a significant factor in determining financial attitudes in Slovenia. However, there was a positive correlation between financial attitude score and monthly income. Respondents who did not know or did not indicate their monthly income achieved the highest score (3.4). Moreover, scores decreased as monthly income decreased (from 3.3 for high earners to 3.2 for those earning less than € 365 net per month).

6 RESEARCH DESIGN FOR ANALYSING FINANCIAL LITERACY AMONG SLOVENIAN STUDENTS

This chapter presents the research questions, research hypotheses and methodology.

6.1 Research questions

At the very beginning of our research, we set ourselves 10 research questions, which were tested with the use of our financial literacy survey.

RQ1: How financially literate are Slovenian students compared to previous research?

RQ2: What are the determinants of financial literacy among Slovenian students?

RQ3: What is the attitude towards money and investing among Slovenian students?

RQ4: How risk averse are Slovenian students when it comes to investing their money?

RQ5: Does financial literacy influence the investment habits of Slovenian students?

RQ6: What are the most popular financial asset investment options among Slovenian students?

RQ7: Which information sources influence the decision for financial products?

RQ8: How are Slovenian students planning to fund their retirement?

RQ9: What are the most important financial goals among Slovenian students and how do they achieve them?

RQ10: Do Slovenian students overestimate their financial literacy?

6.2 Research hypotheses

Based on the literature review and previously conducted financial literacy research, we formulated hypotheses³ to test the abovementioned research questions.

According to the research conducted by Valicon (2019), the average score of Financial Literacy Index (N=1.019) was 14.5 out of 21 – behaviour score (6.4), attitude score (3.3) and knowledge score (4.5). The age group, which is the closest to our sample of students in the Valicon research (aged 18-24) had 14.3 – consisting of 6.5 (behaviour score), 3.3 (attitude score) and 4.5 (knowledge score). Based on the comparison between the scores

³ Hypotheses H7 and H9 are not a part of hypotheses testing, due to the nature RQ7 and RQ9.

done on whole population (Valicon, 2019) and age group (18-24), we set the following hypotheses in order to test the similarities between their sample and ours.

H1a: The average financial literacy score is lower than 14.5 points.

H1b: The average financial behaviour score is greater than 6.4 points.

H1c: The average financial attitude score is different than 3.3 points.

H1d: The average financial knowledge score is different than 4.5 points.

According to the research conducted by Boisclair et al. (2015), Brown & Graf (2013), Shaari et al. (2013) and Gok & Ozkale (2019) financial literacy is positively correlated with age. The main reason for this observation is the shift in financial life cycle that slowly starts shifting from purely consumption to investment, saving and borrowing (Shaari et al., 2013).

H2a: Age is positively correlated with higher financial literacy levels of Slovenian students.

Furthermore, there were some discrepancies in the previously conducted research of gender discrepancies when it comes to financial literacy levels. The research from Boisclair et al. (2015) and the OECD (2017) has shown that men are more likely to be financially literate than women, while on the other hand research from Shaari et al. (2013) and Gok & Ozkale (2019) showed no statistical difference between genders.

H2b: There is a statistically significant difference between the levels of financial literacy between male and female students in Slovenia.

The researchers have also found that education is a strong factor impacting financial literacy levels. According to Boisclair et al. (2015) there is a positive correlation between higher levels of educational achievement and increased financial literacy among individuals. Furthermore, their research indicates that the frequency of respondents opting for “do not know” option also decreases as educational attainment rises.

H2c: Higher education level is positively correlated with higher financial literacy levels.

Connected to the abovementioned research is also the research conducted by Shaari et al. (2013), which reports a significant relationship between financial literacy level and the respondents' business major and non-business major, since students enrolled in business majors are exposed more to knowledge related to finance, compared to non-business major students.

H2d: Students with a business major have, on average, statistically higher financial literacy scores than students with a non-business major.

A similar observation was also confirmed by Gok & Ozkale (2019), where students with social sciences backgrounds had higher levels of financial literacy scores, compared to natural and health sciences, compared both among first-year students and senior students.

H2e: Students from a social science background have, on average, higher financial literacy scores compared to students from natural science faculties.

Moreover, as the research conducted by the OECD (2015) has found, students' financial literacy is strongly correlated to their socio-economic status. The higher-status group mainly includes the children of managers, professionals, etc. As socio-economic status is highly related to income, we will test the following:

H2f: Students' financial literacy is positively correlated with households' net income.

H2g: Students' financial literacy is positively correlated with individuals' personal income.

Firli (2017) and the OECD (2014) studies have similarly identified the economic condition of a country and the geographical location of individuals as pivotal factors. Discrepancies in the size and population density of communities can lead to variations in educational opportunities, with larger communities offering students exposure to a broader spectrum of both basic and intricate financial products compared to smaller communities. This distinction is exemplified by the data from Slovenia, where Western Slovenia consistently exhibits superior performance in terms of employment rates and certain other economic indicators when compared to the Eastern region (OECD, 2022e).

H2h: There is a statistically significant difference between the average financial literacy scores between the Eastern and Western parts of Slovenia.

Research conducted in the USA (Rahim et al., 2021) and Japan (Watanapongvanich et al., 2021) has demonstrated that individuals possessing financial literacy and having received financial education tend to exhibit greater awareness, leading to more rational decision-making, including decisions related to smoking behavior. These studies have revealed a notable and statistically significant inverse relationship between financial literacy and smoking behavior, signifying that individuals with higher financial literacy are less inclined to engage in smoking.

H2i: There is a statistically significant difference between the average financial literacy scores between smokers and non-smokers.

Even though the recent studies from Watanapongvanich et al. (2021) have not been able to prove the correlation between drinking and financial literacy, the increased level of alcohol consumption in Slovenia in the past few years (OECD, 2021b) shows short-term orientation among the population. As such, we have agreed to test the following hypothesis.

H2j: Financial literacy scores are negatively correlated with weekly alcohol consumption.

As the analysis from SURS (2021c) shows, the Slovenian population is prone to a risk-averse approach to savings and investment decisions as deposits and cash make up nearly half of their total financial assets.

H3: Slovenian students would rather save their money than spend it.

H4: Slovenian students are not prone to taking risky decisions when it comes to investing their money.

In various studies, financial literacy has been proven to be a crucial tool for informed investment decisions. For instance, less financially literate individuals display lower participation rates in the stock market (van Rooij et al., 2011).

H5: Less financially literate students tend to invest less than students with higher financial literacy levels.

Furthermore, the research from Fontana (2023) reveals that 18 percent of the Slovenian population has invested in cryptocurrency in some form, making it one of the most crypto-friendly nations in the world.

H6a: Among various investment options, cryptocurrencies are the most used.

Moreover, according to SURS (2021c), the highest share of financial assets consists of deposits and cash (49.3 percent), followed by shares and equity (29.9 percent), insurance and pension schemes (13.1 percent), debt securities and other receivables (5.6 percent) and loans (2.2 percent) (SURS, 2021c).

H6b: Among various savings options, deposits and cash are the most commonly held long-term assets by Slovenian students.

MDDSZ (2016a) reports that individuals are generally accustomed to the notion that the first pillar provides a sufficiently high pension compared to the average salary earned during their employment, without considering the potential for a weaker future, therefore over relying on the government pension and neglecting alternative options. The ratio between the working population and retired people in Slovenia is around 1.37:1 (Ministry of Labour, Family, and Social Affairs, 2016), making the system very unsustainable in the long term, putting more burden on individuals to take care of their own 3rd life-cycle financial situation. Therefore, we'd like to check the extent to which Slovenian students rely on receiving a state pension:

H8: Slovenian students rely most on drawing a government pension to fund their retirement.

One of the main challenges of financial literacy, that the European Commission has identified, is that individuals often overestimate their understanding of financial services and concepts (European Commission, 2007a).

H10a: Perceived financial knowledge is negatively correlated with actual financial knowledge score.

H10b: Perceived financial knowledge is negatively correlated with financial literacy score.

6.3 Research methodology

In order to conduct the empirical part of our analysis, we have prepared an online survey, which was based on the OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion (2018) with some minor adjustments, mainly due to the lack of some financial instruments, which are not available in Slovenia. The main purpose of using the toolkit was largely the ability to compare our data with already conducted financial literacy analysis and to tackle the issues of measuring financial literacy which were presented in chapter 5.1: Challenges related to measuring financial literacy. The main advantage of using the toolkit is the Financial Index Score. It has a maximum of 21 points and is a combination of financial knowledge score (ranges from 0 to 7), the financial behaviour score (ranges from 0 to 9), and the financial attitudes score (ranges from 1 to 5) (OECD, 2018a).

We have agreed to use the 1KA online survey tool and spread it to students through social media, e-mail, and SMS. The only condition we have set for our survey was a student status at the time being, which is why we have filtered out all the respondents who did not fit this criterion during our pre-processing phase of analysis. The main part of data gathered was collected from 17th September to 26th October 2022. The survey was conducted in the Slovenian language and consisted of 53 questions, divided into 4 main categories.

The first part (Q1-Q17) was mainly focused on the behavioural part of the index score. The questions are focused on students' day-to-day financial behaviour, spending, saving and investing over the short and long term.

The second part (Q18-Q19) consists of questions, which research the students' attitude towards money in general. This part is especially focused on the short/long-term perspective surveyed individuals have, with statements such as "Money is to be spent" etc.

The third part (Q20-Q32) consists of financial knowledge questions, which test the understanding of terms such as interest rates, inflation, and diversification. Lastly, to test out our hypothesis, which were based on the examined literature, we have included questions to gain information about students' demographics (Q32-Q52).

A data cleaning process was performed in the KNIME analytics platform and was later exported into MS Excel, where basic descriptive statistics was conducted. The statistical part, which was needed to test our predefined hypothesis, was conducted in R Studio.

In the statistical analyses presented in this thesis, we heavily relied on the Central Limit Theorem (CLT). Based on this foundational statistical principle, we opted to employ t-tests

for our primary analyses. We acknowledge the limitations and assumptions of parametric tests, and to ensure the robustness of our findings, we also conducted complementary non-parametric tests. It is reassuring to note that the results and conclusions derived from both parametric and non-parametric analyses were consistent, lending further credence to the validity of our research findings.

7 RESEARCH RESULTS FROM CONDUCTING FINANCIAL LITERACY SURVEY

In this chapter, we dig into the practical part of our study, explaining the demographics of the sample we investigated. We provide a detailed look at our results, which are used to calculate the three abovementioned dimensions of financial literacy score. This careful breakdown helps pave the way for a clear understanding of how we tested our hypotheses in chapter 7.3: Hypotheses testing.

7.1 Description of the sample

The final sample consisted of 124 valid responses. The total number of respondents surveyed was 309, out of which we have filtered out unfinished and invalid surveys. The final completion rate was 40.1 percent, which is quite high considering the length of our research with an approximate time of 14.4 minutes. Our sample of 124 students consisted of 57 (46 percent) men and 67 (54 percent) women. The age distribution was especially dense around 21-26-year-olds, which accounted for 90 percent of our sample as can be observed from Table 5. The remaining 10 percent were divided among first-year university students and doctoral students, who also participated in this study.

Table 5: Frequency table for age groups

Age	N	Percentage of total
19	3	2%
20	6	5%
21	19	15%
22	13	10%
23	13	10%
24	39	31%
25	9	7%
26	19	15%
27	2	2%
28	1	1%

Source: Own work.

The sample consists mainly of two groups when it comes to highest attained educational levels. Table 6 shows that 58 students (47 percent) have completed their bachelor's degree, while 40 (32 percent) completed secondary school education. The rest of our sample is divided into different higher/lower educational levels, all from vocational schools (III. level) to doctoral students (VIII/2. level).

Table 6: Frequency table for highest attained education

Highest attained education	N	Percentage of total
III. level	1	1%
V. level	40	32%
VI/1. level	6	5%
VI/2. level	58	47%
VII. level	16	13%
VIII./1. level	2	2%
VIII/2. level	1	1%

Source: Own work.

To get an insight into students' households, we asked them to assess their primary household net income level without them. Table 7 shows that based on the average net household income (€ 21,000/year) – 11 percent of our sample falls into the category of below average households in Slovenia. Another 11 percent of our sample falls into the average net household income Slovenian category, while the rest of our sample lies in the above-average household category with a yearly net household income above € 24,000. The biggest net income group (N=47) was above € 3,000 monthly net income, which accounted for 38 percent of the whole sample.

Table 7: Frequency table for primary household monthly net income level

Net income (primary household)	N	Percentage of total
up to € 1000	3	2%
€ 1000-1500	11	9%
€ 1500-2000	14	11%
€ 2000-2500	17	14%
€ 2500-3000	32	26%
above € 3000	47	38%

Source: Own work.

Lastly, 98 percent of our respondents earn some sort of personal income (Table 8) – either through student jobs, scholarships, or parents' allowances. The biggest group earning € 250-500 per month, accounts for 25 percent of all respondents. Interestingly, quite a high

percentage of our respondents falls into the category of above € 1,000/month (29 percent), which exceeds the € 3,500 net yearly income for a dependent family member, which is the general income tax relief, and even exceeds the level for an independent family member’s tax relief, which is up to € 13,716.33 net income.

Table 8: Frequency table for personal monthly net income level

Personal net income	N	Percentage of total
I have no personal income	3	2%
up to € 100	3	2%
€ 100-250	20	16%
€ 250-500	31	25%
€ 500-750	19	15%
€ 750-1000	12	10%
€ 1000-1500	19	15%
€ 1500-2000	11	9%
above € 2000	6	5%

Source: Own work.

7.2 Analysis of the survey results

This chapter includes the descriptive analysis of financial literacy results from the perspective of its three components: financial behaviour, financial attitude and financial knowledge as well as other descriptive findings.

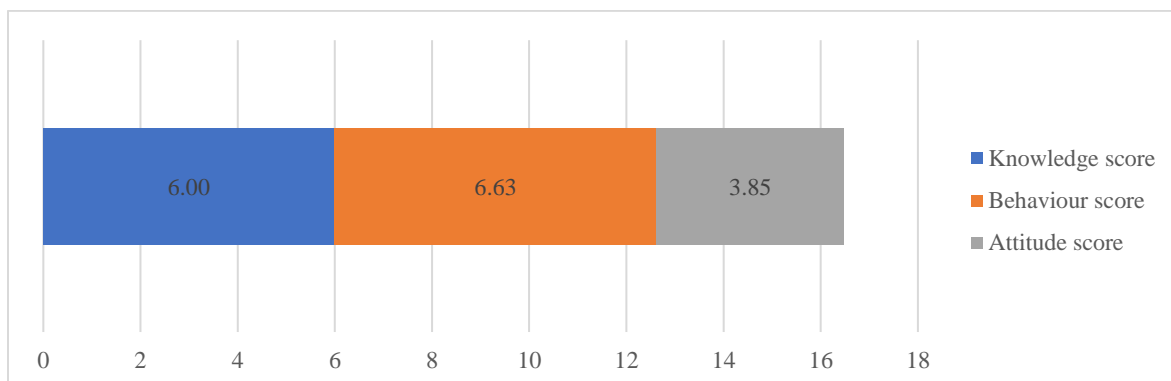
7.2.1 Financial literacy score

Based on the results of our survey, we have calculated the mean financial literacy score of our sample. Our sample received 16.48 points on average, which represents 78 percent of the total 21 points possible. 56 percent of our sample scored above average results. As depicted in Figure 20, respondents scored 6.00 (out of 7) on the knowledge component, 6.63 (out of 9) on the behaviour component, and 3.85 (out of 5) on the attitude component, on average. It seems that there is the most room for improvement in the segment of financial behaviour.

Compared to the Valicon (2019) research (mean financial literacy 14.5), our research outperformed the Valicon sample by 13.7 percent on average, with the biggest difference being especially in the financial knowledge score, where our sample (6.00) scored 25.0 percent higher than Valicon (4.8).

Moreover, comparing our results to the OECD (2020) research, our sample of students performed 29.8 percent better than the average of all countries that were included in their sample and 12.1 percent better than Slovenia's average in the same OECD research (14.7).

Figure 20: Financial literacy score, (n=124)



Source: Own work.

7.2.1.1 Financial behaviour score

The average financial behaviour score of our sample was 6.63 out of a total of 9 points, suggesting 73.67 percent of correct answers, on average, in the financial behaviour score segment.

We have divided the questions into 8 key areas that are included within the financial behaviour score: budgeting, active saving, approach taken to making ends meet, choosing products/information source, keeping a watch on financial affairs, striving to achieve goals, making considered purchases and paying bills on time.

a) Budgeting

Firstly, in the area of budgeting, 92 percent of respondents answered they are the ones who make the day-to-day decisions about their own money. A lot fewer respondents answered they are responsible for the whole household, which is connected to the fact that 55 percent of our respondents live with their parents.

Moreover, in terms of keeping track of money, 23 percent of students are not doing any of the listed options, while 30 percent only chose one of the answers. The rest (48 percent) chose 2 or more. As depicted in Table 9, 46 percent of respondents are keeping track of their money by making a plan to manage income and expenses. Other forms are less common. What is more, those who have ticked »yes« at any of the six ways of tracking money have scored higher on a behaviour score on average, compared to the ones who did not.

Table 9: Summary of financial behaviour score results, Budgeting, (n=124)

Financial behaviour concept	Question description	Interpretation	Behaviour score alignment ⁴
Budgeting	Do you make day-to-day decisions about your own money?	You are the one who makes the decisions	92%
	And who is responsible for making day-to-day decisions about money in your household?	You or you and someone else equally	56%
	Do you do any of the following for yourself or your household?	Make a plan to manage your income and expenses	46%
		Arrange automatic payments for regular outgoings	19%
		Make a note of upcoming bills to make sure you don't miss them	24%
		Use a banking app or money management tool to keep track of your outgoings	34%
		Keep money for bills separate from day-to-day spending money	12%
		Keep a note of your spending	30%

Source: Own work.

b) Active saving

Secondly, in terms of active saving, 97.5 percent of our sample identified at least one out of the range of ways in which they are exhibiting saving behaviours, while 56.5 percent exhibited 2 or more.

As depicted in Table 10, our sample most often saves cash at home or in their wallet, which does not increase its value. Moreover, only 29.8 percent of respondents claimed they use a deposit account, which suggests poor financial knowledge of what a deposit is.

⁴ Out of all respondents, how many people chose an answer that contributes to the behaviour score.

Table 10: Summary of financial behaviour score results, Active saving, (n=124)

Question description	Financial behaviour concept	Interpretation	Behaviour score alignment
Active saving	In the past 12 months have you been saving money in any of the following ways, whether or not you still have the money?	Saving cash at home or in your wallet	46.8%
		Giving money to family to save on your behalf	8.9%
		Investing in stocks and shares	23.4%
		Paying money into a savings/deposit account	29.8%
		Investing in crypto-assets or ICOs	27.4%
		Buying bonds	0.8%
		Saving or investing in some other way, other than a pension fund	26.6%

Source: Own work.

c) Approach to making ends meet

Thirdly, in terms of the approach to making ends meet, 60 percent of our respondents have not encountered such a problem yet, probably due to the beforementioned fact, that a large part of our sample still lives with their parents though the ones that did stumble upon such an issue relied mostly on their savings account (59 percent) and cutting back on spending (51 percent). Table 11 presents other ways of making ends meet.

Table 11: Summary of financial behaviour score results, Approach to making ends meet, (n=124)

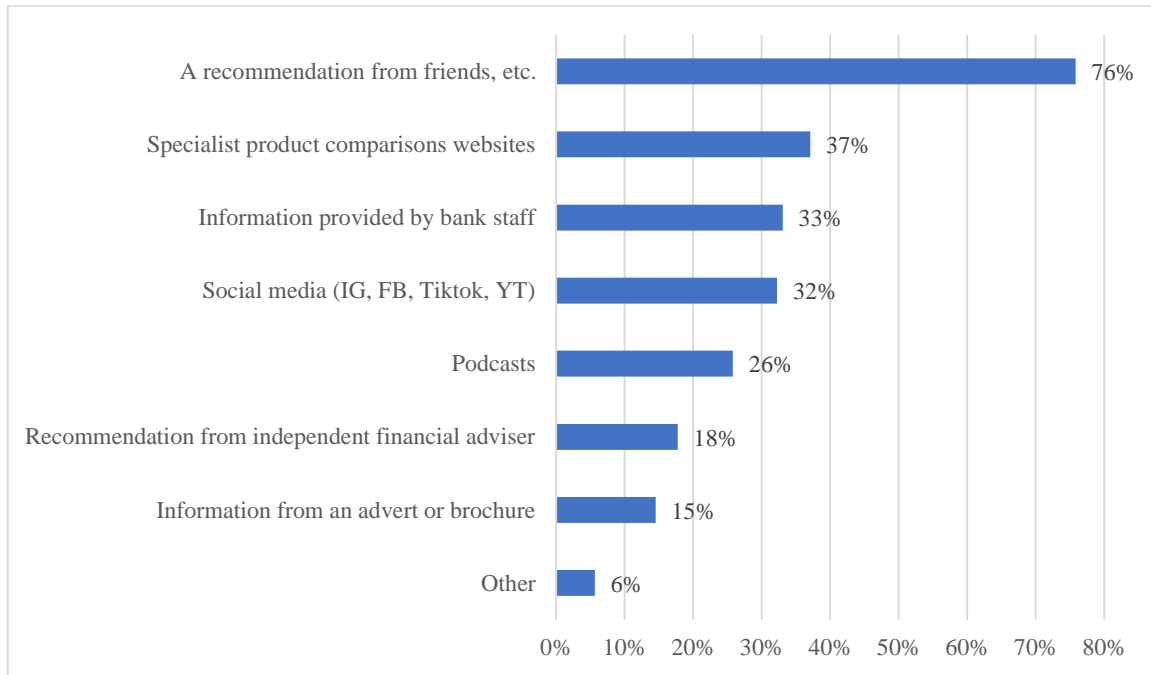
Question description	Financial behaviour concept	Interpretation	Behaviour score alignment
Approach taken to making ends meet (avoid borrowing)	What did you do to make ends meet the last time your income did not cover your life expenses?	Cut back on spending, spend less, do without, delay a planned expense	51%
		Pay bills late; miss payments	10%
		Work overtime, take an extra job, earn extra money	27%
		Borrow from family, friends or the community	33%
		Claim support from the government	2%
		Take out a personal loan from a financial service provider (including a bank, credit union or microfinance)	0%
		Draw money out of savings or transfer savings into a current account	4%
		Draw money out of savings or transfer savings into a current account	59%
		Borrow from employer/salary advance	0%

Source: Own work.

d) Choosing products and information sources

When choosing financial products, 83 percent of our respondents considered several options from different companies or they looked around but there were no other options to consider, therefore suggesting that a large majority does put some thought into making a decision.

Figure 21: Sources of information that had the biggest influence on financial product decision, (n=124)



Source: Own work.

Conversely, the biggest influence on purchase decisions comes from friends and family (31 percent), followed by specialist product comparison websites (such as consumers’ associations, official bank and mutual fund web pages, etc.), as illustrated in Figure 21.

e) Other

Lastly, only 61 percent of respondents set long-term financial goals and then strive to achieve them, which represents a huge potential area for improvement (Table 12).

Table 12: Summary of financial behaviour score results, Other, (n=124)

Financial behaviour concept	Statement	Behaviour score alignment
Keeping a watch on financial affairs	I keep a close personal watch on my financial affairs	78%
Striving to achieve goals	I set long term financial goals and strive to achieve them	61%
Making considered purchases	Before I buy something I carefully consider whether I can afford it	77%
Paying bills on time	I pay my bills on time	93%

Source: Own work.

7.2.1.2 Financial attitude score

The average financial attitude score of our sample was 3.85 out of a total of 5 points, indicating 77 percent of correct answers, on average, in the financial attitude score segment.

As depicted in Table 13, three statements covered attitudes towards money and planning for the future. Each was evaluated on a five-point Likert scale, where 5 was least likely and 1 was most likely to agree.

Table 13: Summary of financial attitude score results, (n=124)

Statement	Average score (on a scale 1-5)
Money is there to be spent	3.7
I find it more satisfying to spend money than to save it for the long term	3.3
I tend to live for today and let tomorrow take care of itself	3.1

Source: Own work.

Out of the three statements, our respondents agreed the least with the first statement; that money is there to be spent, indicating that there is a tendency towards saving money. Moreover, on two questions related to planning for the future our sample also tends to disagree, suggesting that future planning is somewhat of a priority when it comes to students.

7.2.1.3 Financial knowledge score

As stated, the mean Financial Knowledge Score of our sample was 6.00 out of 7.00, meaning our respondents gave accurate answers in 86 percent of cases.

To gain a deeper understanding of the financial knowledge of our respondents, we further broke down the knowledge dimension according to specific categories included in the knowledge score calculation (Table 14).

Table 14: Summary of financial knowledge score results, (n=124)

Question description	Financial knowledge concept	Knowledge score alignment
Imagine that five brothers are given a gift of € 1,000 in total. The brothers have to share the money equally and inflation stays at 1.4% percent. In one year's time, will they be able to buy:	Impact of inflation on spending power	83%
You lend \$25 to a friend/acquaintance one evening and he gives you \$25 back the next day. How much interest has he paid on this loan?	Interest on loan	94%
Imagine that someone puts \$100 into a (no fee, tax free) savings account with a guaranteed interest rate of 2% per year. They don't make any further payments into this account and they don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?	Simple interest calculation	90%
How much would be in the account at the end of five years [add if necessary: remembering there are no fees or tax deductions]? Would it be:	Compound interest	81%
An investment with a high return is likely to be high risk	Risk and reward	77%
High inflation means that the cost of living is increasing rapidly	Definition of inflation	90%
It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares	Risk diversification	85%

Source: Own work.

As depicted in Table 14, the results showed that respondents had a relatively high success rate across most categories, with the highest success rate observed in the interest on loan category (94 percent). Other areas where respondents demonstrated a high level of financial knowledge include simple interest calculation (90 percent), definition of inflation (90 percent), and risk diversification (85 percent).

However, respondents demonstrated a relatively lower success rate in the risk and reward category (77 percent) and the compound interest category (81 percent). These results suggest

that there may be specific areas where respondents could benefit from further education and support to improve their financial knowledge.

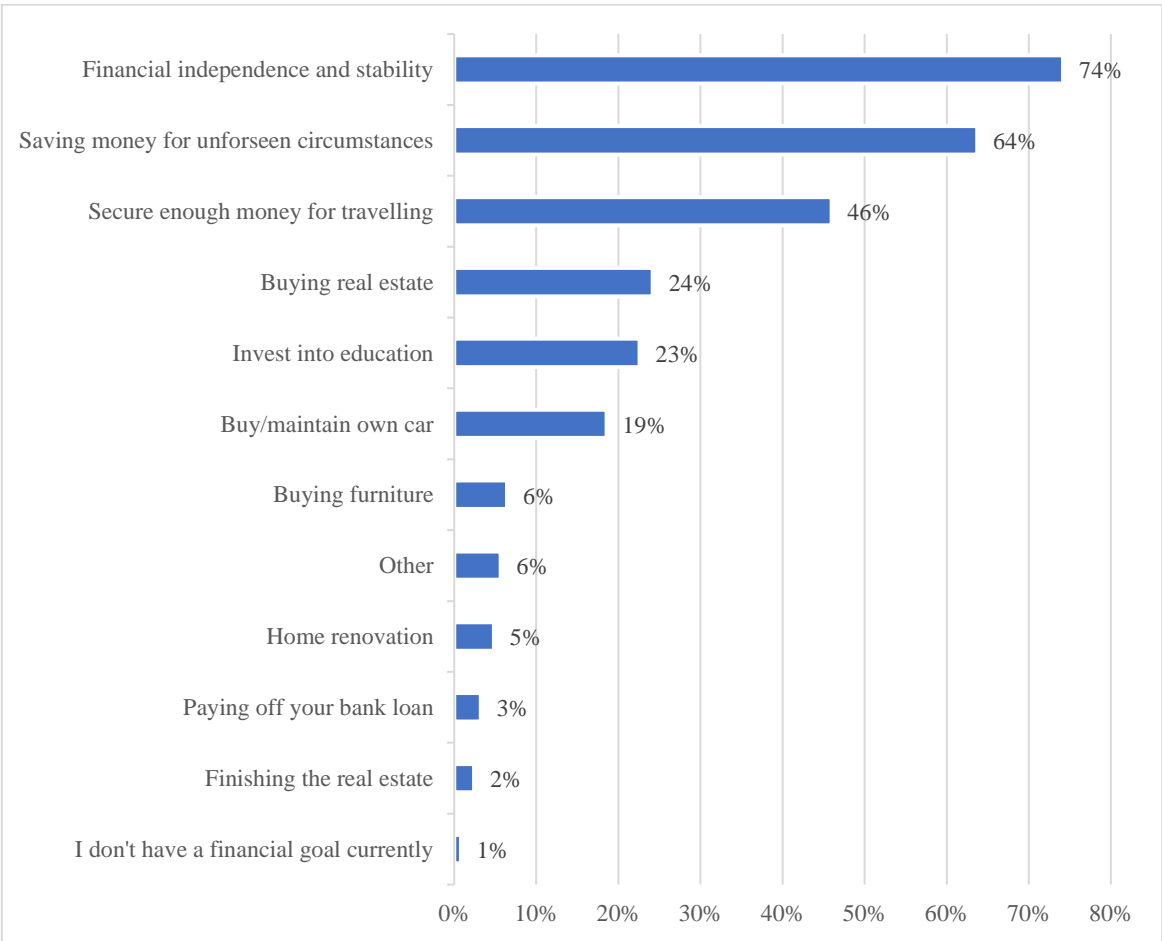
Interestingly, we also found that many of our respondents invest in cryptocurrencies. This finding is significant because it suggests that respondents may not fully understand the risks associated with investing in cryptocurrencies, which are often highly volatile and speculative in nature. This lack of understanding of risk and reward may explain why our respondents are attracted to cryptocurrencies, despite the fact that they may not fully understand the potential risks and rewards associated with this type of investment.

7.2.2 Other findings

Financial goals of Slovenian students and ways they achieve them

Figure 22 shows that financial independence and stability (74 percent) and saving money for unforeseen circumstances (64 percent) are two of the most important financial goals for Slovenian students, since more than half of the respondents listed them as their main goals.

Figure 22: Financial goals of Slovenian students [%], (n=124)

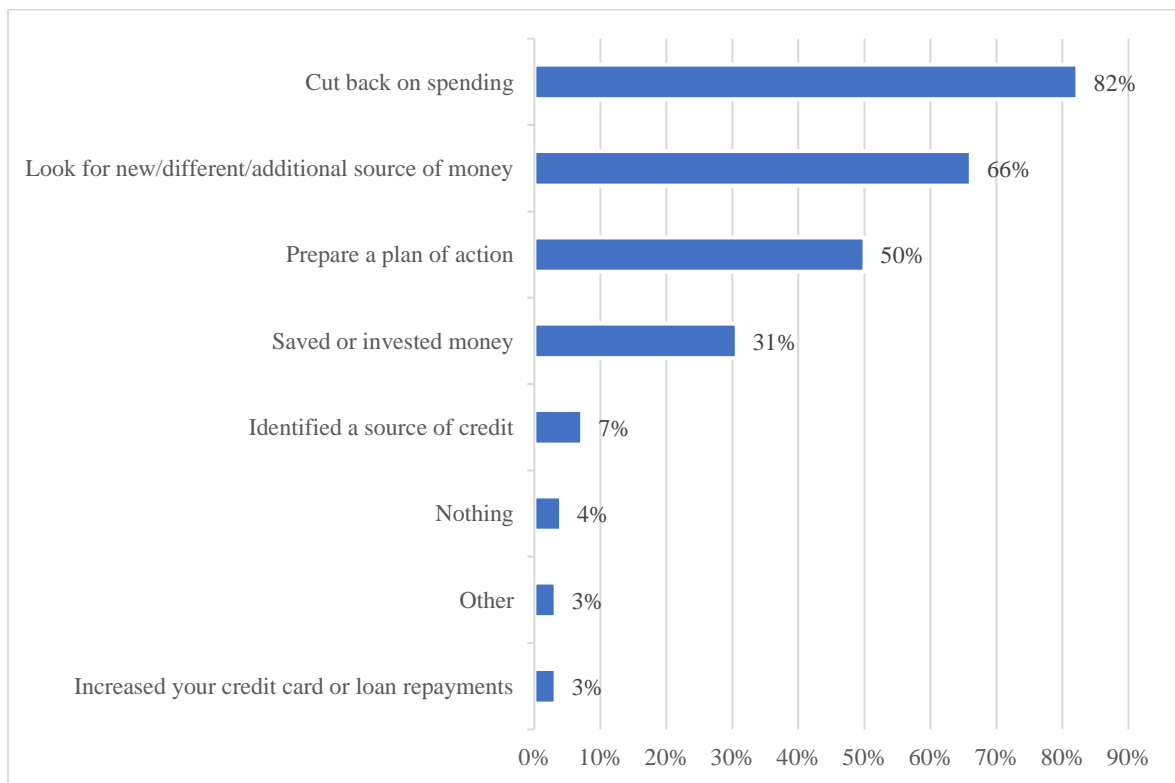


Source: Own work.

Securing enough money to afford travel (46 percent) is also perceived as important. Less than 1 percent of people claimed that they do not have any financial goals, which indicates the planning tendency of our respondents. Moreover, when asked how students are pursuing their financial goals, the most common answer was, as indicated in Figure 23, that respondents cut back on spending (82 percent). A large majority of them also look for additional sources of money (66 percent) and more than half prepare a plan of action to achieve their desired result (50 percent).

The lowest amount of respondents resort to taking some form of credit (7 percent) to achieve their desired goal and among those who do, we recorded below average financial literacy scores in comparison to results from students who indicated other actions taken to achieve desired financial goals.

Figure 23: Most common actions taken to achieve desired financial goals by Slovenian students [%], (n=124)



Source: Own work.

7.3 Hypotheses testing

To test our 22 hypotheses, different methods of statistical analysis were conducted in R Studio (detailed procedures can be found in Appendix 4: Hypothesis testing).

H1a: The average financial literacy score is lower than 14.5 points.

Based on the results of the one-sample t-test, we fail to find any evidence to support the hypothesis that the average financial literacy score is lower than 14.5 points. With a t-value of 8.0918 and degrees of freedom (df) of 123, the p-value is 1. Since the p-value is greater than 0.05 (Figure A.1), we fail to reject the null hypothesis that the true mean is equal to or greater than 14.5. The sample mean of 16.48118 and the 95% confidence interval, which ranges from negative infinity to 16.88696, further suggest that the average financial literacy score is not lower than 14.5 points.

H1b: The average financial behaviour score is greater than 6.4 points.

Based on the results of the one-sample t-test, we find evidence to support the hypothesis that the average financial behaviour score is greater than 6.4 points. With a t-value of 1.6876 and degrees of freedom (df) of 123, the p-value is calculated to be 0.04702. Since the p-value is less than 0.05 (Figure A.2), we can reject the null hypothesis that the true mean is equal to or less than 6.4. The sample mean of 6.629032 and the 95% confidence interval, which ranges from 6.404101 to positive infinity, further suggest that the average financial behaviour score is greater than 6.4 points.

H1c: The average financial attitude score is different than 3.3 points.

Based on the results of the one-sample t-test, we find evidence to reject the null hypothesis that the average financial attitude score is equal to 3.3 points. With a t-value of 8.2923 and degrees of freedom (df) of 123, the p-value is calculated to be 1.63e-13, which is extremely small and less than 0.05 (Figure A.3). This indicates a statistically significant difference between the sample mean and the hypothesised value of 3.3. The sample mean of 3.852151 and the 95% confidence interval, ranging from 3.720348 to 3.983953, further suggest that the average financial attitude score is not equal to 3.3 points.

H1d: The average financial knowledge score is different than 4.5 points.

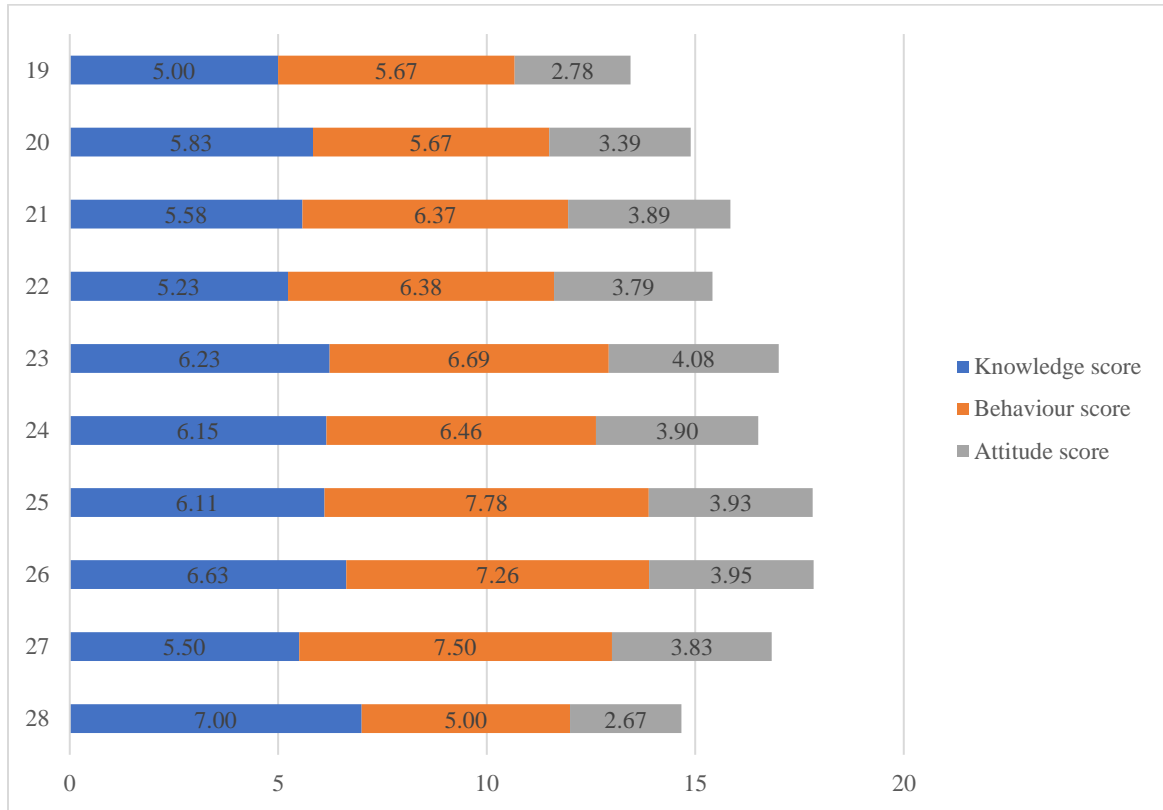
Based on the results of the one-sample t-test, we find strong evidence to reject the null hypothesis that the average financial knowledge score is equal to 4.5 points. With a t-value of 12.215 and degrees of freedom (df) of 123, the p-value is less than 2.2e-16, which is extremely small and far less than 0.05 (Figure A.4). This indicates a statistically significant difference between the sample mean and the hypothesised value of 4.5. The sample mean of 6 and the 95% confidence interval, ranging from 5.756924 to 6.243076, further suggests that the average financial knowledge score is not equal to 4.5 points.

H2a: Age is positively correlated with higher financial literacy levels of Slovenian students.

The correlation coefficient (ρ) is 0.3225517 (Figure A.5), indicating a moderate positive relationship. This result suggests that as age increases, financial literacy levels also tend to increase. As the p-value is less than 0.05 (0.0002586), we reject the null hypothesis that there is no correlation between age and financial literacy levels. Therefore, this provides support

for the alternative hypothesis (H2a) that age is positively correlated with higher financial literacy levels of Slovenian students (Figure 24).

Figure 24: Financial literacy scores of Slovenian students by age, (n=124)



Source: Own work.

H2b: There is a statistically significant difference between the levels of financial literacy between male and female students in Slovenia.

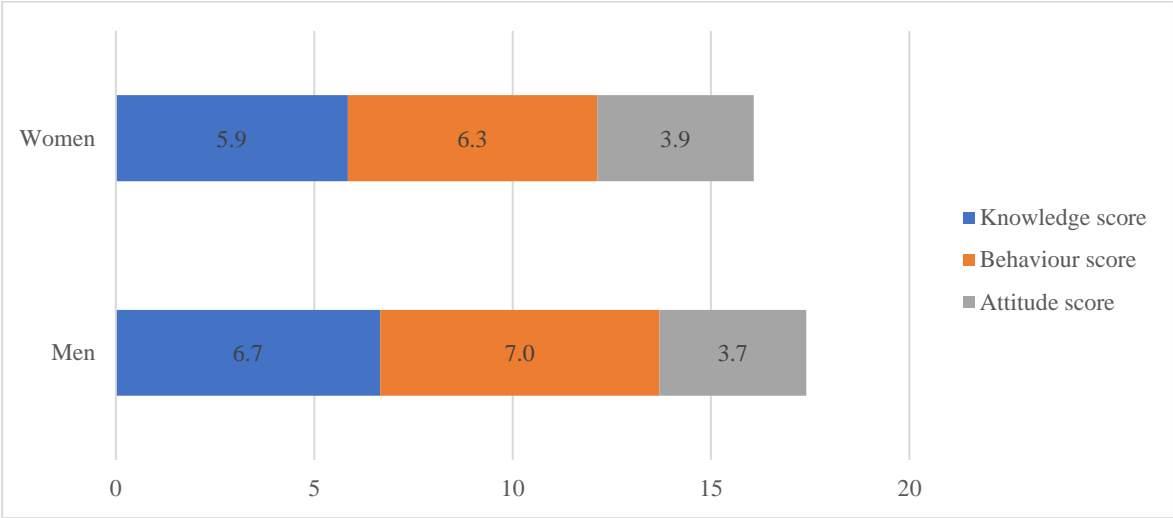
Next, based on the results of the Welch Two Sample t-test, we have proven that there is a statistically significant difference between the levels of financial literacy between male (average = 17.43275) and female (average = 15.67164) students in Slovenia (Figure 25). With a t-value of 3.885 and degrees of freedom (df) of 116.97 - the p-value was calculated (p=0.0001701). Since the p-value is less than 0.05 (Figure A.6), we can reject the null hypothesis that there is no difference in the mean financial literacy levels between male and female students in Slovenia. This provides support for the alternative hypothesis.

For the knowledge score, the Welch Two Sample t-test results show a statistically significant difference between men (average = 6.596491) and women (average = 5.492537) with a t-value of 5.1311, df = 98.354, and p-value = 1.45e-06.

For the behaviour score, the Welch Two Sample t-test results show a statistically significant difference between men (average = 7.035088) and women (average = 6.283582) with a t-value of 2.8359, df = 118.56, and p-value = 0.005375.

For the attitude score, the Welch Two Sample t-test results show no statistically significant difference between men (average = 3.801170) and women (average = 3.895522) with a t-value of -0.71377, df = 122, and p-value = 0.4767. In this case, we fail to reject the null hypothesis for the attitude score.

Figure 25: Financial literacy scores of Slovenian students by gender, (n=124)

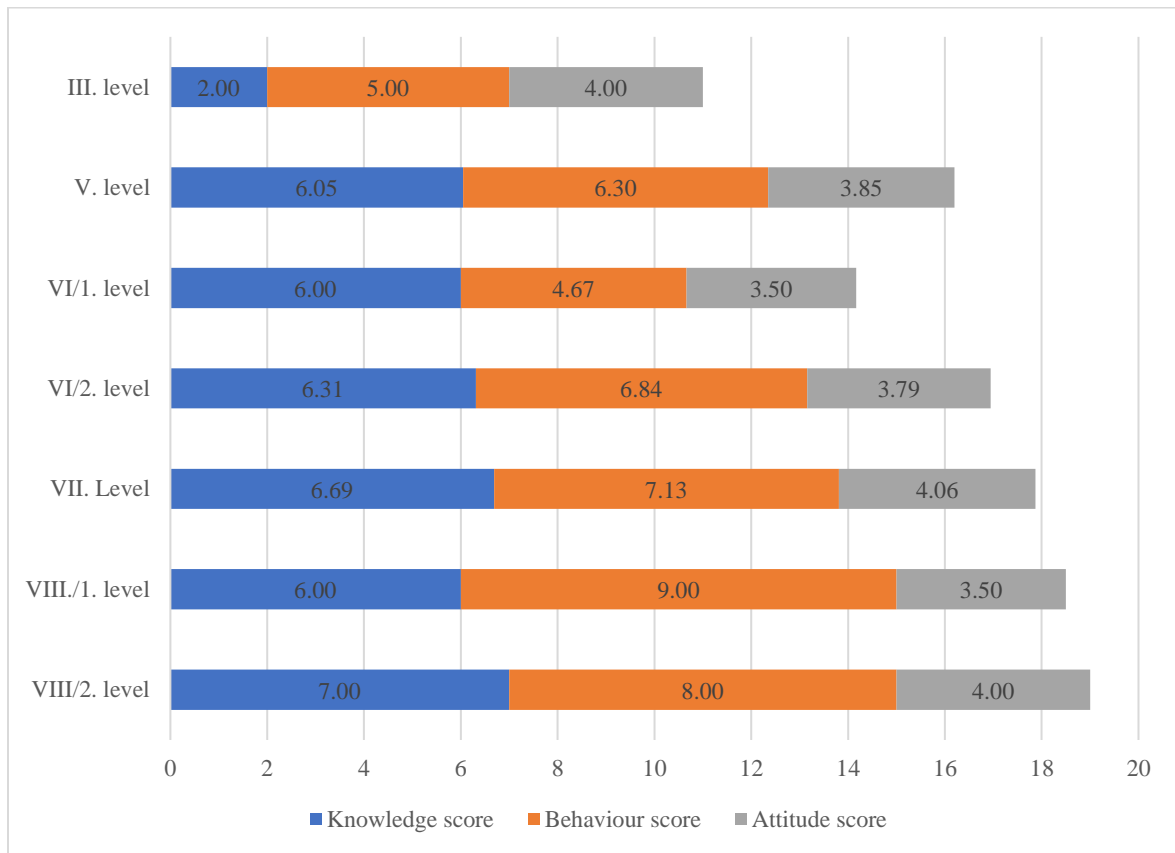


Source: Own work.

H2c: Higher education level is positively correlated with higher financial literacy levels.

Based on the outcomes of Spearman's rank correlation test, a statistically significant positive correlation between education levels and students' financial literacy is evident (Figure 26). The correlation coefficient (rho) is 0.331 (Figure A.7), which represents a weak to moderate positive relationship. This implies that students' financial literacy tends to increase as their education level rises. Since the p-value is less than 0.05 (p-value = 0.0001732), we reject the null hypothesis of no correlation between education and financial literacy levels. Thus, this outcome lends support to the alternative hypothesis.

Figure 26: Financial literacy of Slovenian students by highest attained education level, (n=124)

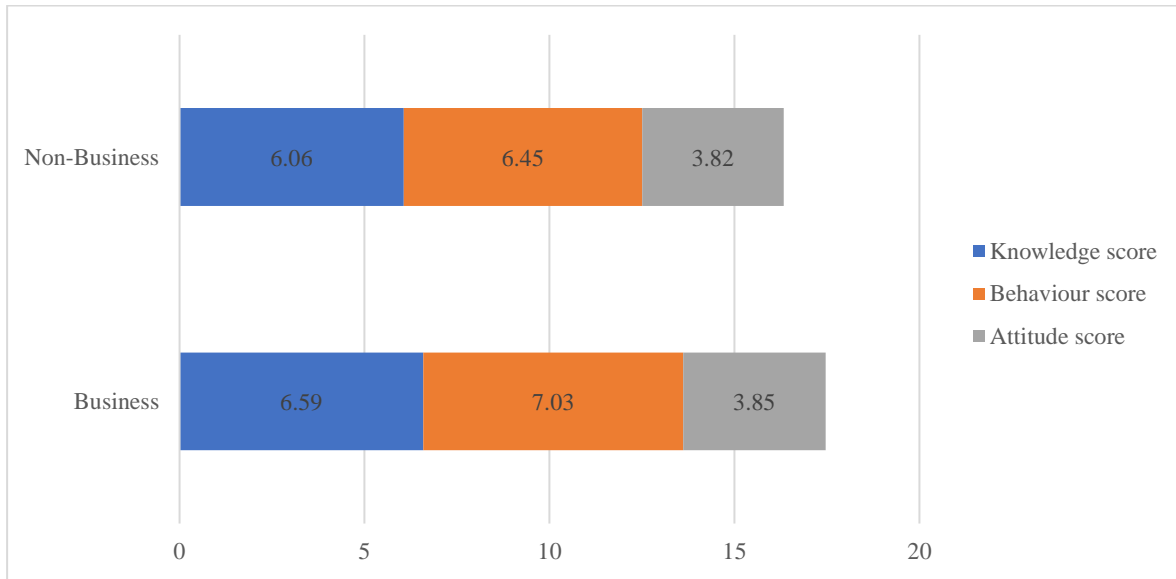


Source: Own work.

H2d: Students with a business major have, on average, statistically higher financial literacy scores than students with a non-business major.

Based on the results of the Welch Two Sample t-test, we have proven that there is a statistically significant difference between the financial literacy levels of students with a business major (average = 17.49573) and those with a non-business major (average = 16.01569) in Slovenia (Figure 27). With a t-value of 3.32 and degrees of freedom (df) of 104.51, the p-value was calculated (p=0.0006201). Since the p-value is less than 0.05 (Figure A.8), we can reject the null hypothesis that there is no difference in the mean financial literacy levels between students with a business major and those with a non-business major. This provides support for the alternative hypothesis.

Figure 27: Financial literacy of Slovenian students, business major vs. non-business major, (n=124)



Source: Own work.

H2e: Students from a social science background have, on average, higher financial literacy scores compared to students from natural science faculties.

To test this hypothesis, we filtered out all students attending business universities (tested in the previous hypothesis) and those for whom we couldn't assess with 100% certainty whether they were attending social or natural science universities to omit the bias. Furthermore, based on the results of the Welch Two Sample t-test (n=74), we have not found evidence to support a statistically significant difference between the financial literacy levels of students from a social science background (average = 15.31008) and those from natural science faculties (average = 16.61290) in Slovenia. With a t-value of -1.995 and degrees of freedom (df) of 71.945, the p-value was calculated, which is 0.9751. Since the p-value is greater than 0.05 (Figure A.9), we fail to provide any evidence for the alternative hypothesis that students from a social science background have, on average, higher financial literacy scores compared to students from natural science faculties.

H2f: Students' financial literacy is positively correlated with households' net income.

As the assumption of normality for household net income distribution was not met, we have used a Spearman's rank correlation test. The test's results indicate a statistically significant positive correlation between students' financial literacy and households' net income. The correlation coefficient (rho) is 0.247, indicating a weak positive relationship. This finding suggests that as the households' net income increases, there is a tendency for the students' financial literacy levels to also increase. Since the p-value is less than 0.05 (0.005676), we reject the null hypothesis that there is no correlation between students' financial literacy and

households' net income (Figure A.10). This provides support for the alternative hypothesis that the students' financial literacy is positively correlated with households' net income.

H2g: Students' financial literacy is positively correlated with individuals' personal income.

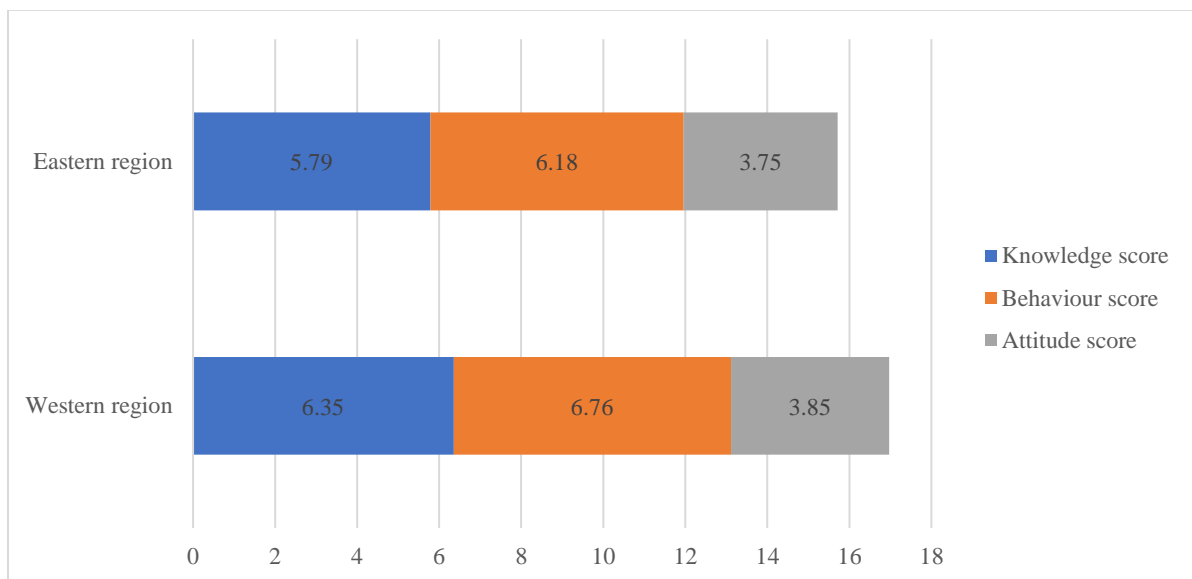
Given the failure of the normality assumption for individuals' net income distribution, we have used a Spearman's correlation test for Hypothesis H3g, which proposes a positive correlation between students' financial literacy and individuals' personal income. Based on the Spearman's rank correlation test, we have found a statistically significant positive correlation between these two variables.

The rho value was found to be 0.2501, indicating a weak but positive association between students' financial literacy and individuals' personal income. This suggests that students' financial literacy levels might increase as individuals' personal income rises. The p-value was calculated to be 0.00509, which is less than the threshold of 0.05 (Figure A.11). Therefore, we can reject the null hypothesis of no correlation and lend support to our alternative hypothesis – that students' financial literacy is positively associated with individuals' personal income.

H2h: There is a statistically significant difference between the average financial literacy scores between the Eastern and Western parts of Slovenia.

The results of the Welch Two Sample t-test demonstrate a statistically significant difference in average financial literacy scores between the Eastern (mean = 15.35714) and Western (mean = 16.80903) parts of Slovenia (Figure 28).

Figure 28: Financial literacy of Slovenian students by region, (n=124)



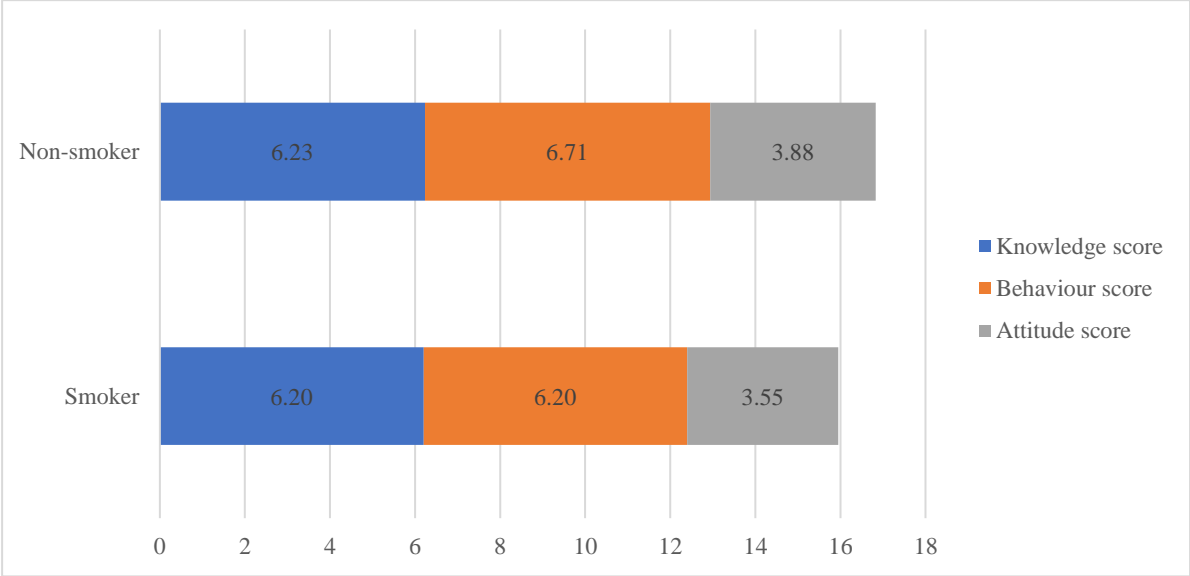
Source: Own work.

The p-value of the test is 0.01937. Since this p-value is less than 0.05 (Figure A.12), we reject the null hypothesis that there is no difference in the mean financial literacy scores between the Eastern and Western regions of Slovenia. This provides evidence in support of the alternative hypothesis that there is a significant difference in financial literacy scores between the two regions. Therefore, these results suggest that region is an important factor in financial literacy levels in Slovenia.

H2i: There is a statistically significant difference between the average financial literacy scores between smokers and non-smokers.

Furthermore, based on the results of the Welch Two Sample t-test, we have not found any evidence to support a statistically significant difference between the average financial literacy scores between smokers (average = 15.73333) and non-smokers (average = 16.62500) in Slovenia (Figure 29). With a t-value of -1.1286 and degrees of freedom (df) of 23.552, the p-value was calculated, which is 0.2704 (Figure A.13). Since the p-value is greater than 0.05, we fail to reject the null hypothesis that there is no difference in the mean financial literacy levels between smokers and non-smokers. This does not provide support for the alternative hypothesis.

Figure 29: Financial literacy of Slovenian students, smokers vs. non-smokers, (n=124)



Source: Own work.

H2j: Financial literacy scores are negatively correlated with weekly alcohol consumption.

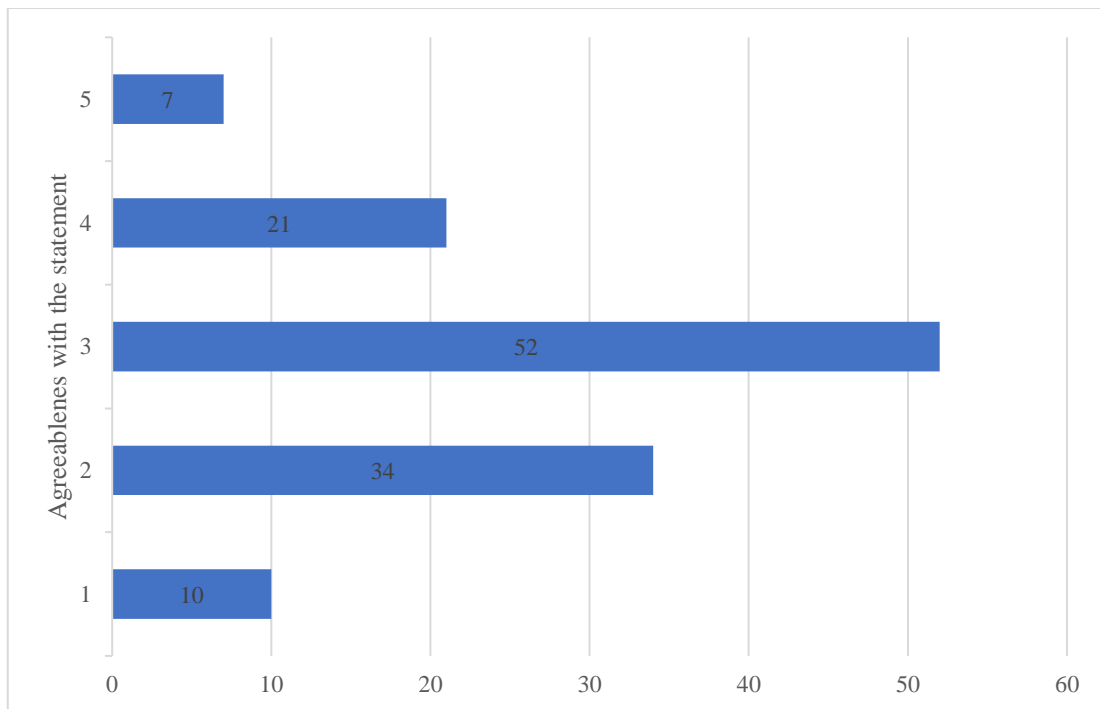
Because the assumption of normality for alcohol consumption was not met, we used a Spearman's rank correlation test to examine the relationship between students' financial literacy levels and their alcohol consumption. According to the test results, we observed a negative correlation between these two variables, but it wasn't statistically significant. The correlation coefficient (rho) is -0.1516, indicating a weak negative relationship. This implies

that higher alcohol consumption could be associated with lower financial literacy levels among students. However, the calculated p-value of 0.09279 is greater than the threshold of 0.05 (Figure A.14), suggesting that this correlation is not statistically significant. Therefore, we can't reject the null hypothesis that there is no correlation between students' financial literacy and their alcohol consumption.

H3: Slovenian students would rather save their money than spend it.

A one-sample t-test was performed to determine the mean score of Slovenian students' agreement with the statement "Money is there to be spent. The Likert scale ranged from 1 (I do not agree) to 5 (I totally agree). The results of the t-test show a t-value of -1.7268 and a p-value of 0.04336. Since the p-value is less than the common 0.05 (Figure A.15), we can reject the null hypothesis that the true mean is greater than or equal to 3. The alternative hypothesis tested is that the true mean is less than 3, which suggests that the students' average response tends to be on the disagreement side. This indicates that, on average, Slovenian students tend to disagree with the statement "Money is there to be spent" (Figure 30).

Figure 30: Survey question: Money is there to be spent (Likert scale 1-5 (1=I do not agree, 5=I totally agree)), (n=124)

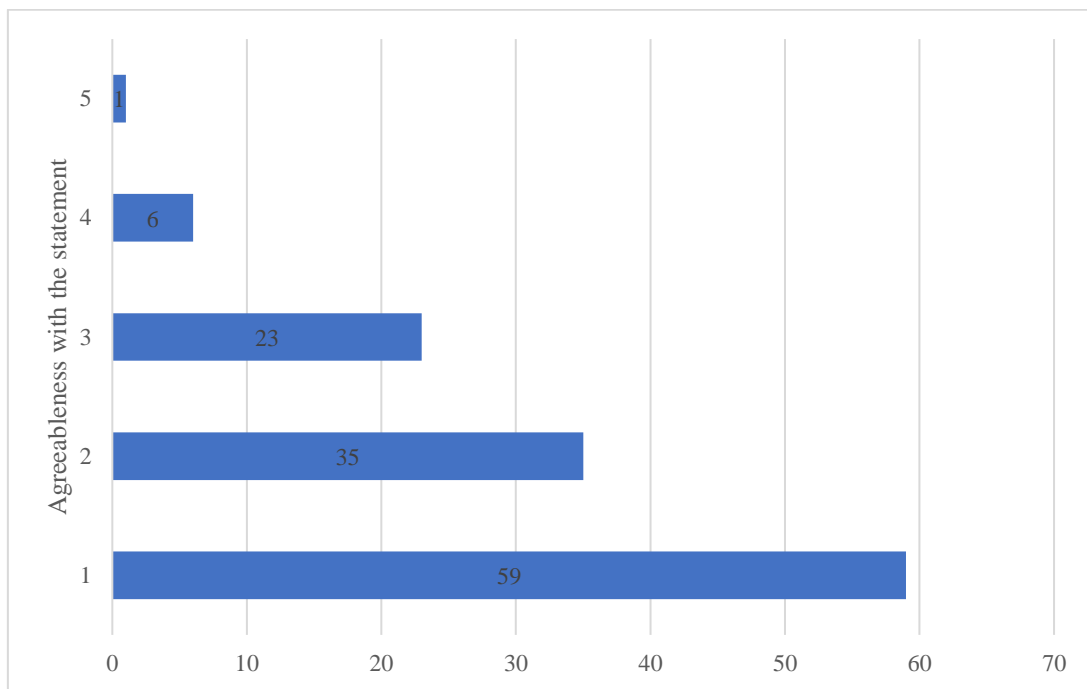


Source: Own work.

Moreover, connected to the same hypothesis, a one-sample t-test was performed to determine whether the mean score of Slovenian students' agreement with the statement "I find it more satisfying to spend money than to save it for the long term" is significantly different from the neutral value of 3. The Likert scale ranged from 1 (I do not agree) to 5 (I

totally agree). The results of the t-test show a t-value of -13.68 and a p-value of $< 2.2e-16$, which is smaller than 0.05 (Figure A.16). This allows us to reject the null hypothesis that the true mean is equal to or greater than 3. The alternative hypothesis tested is that the true mean is less than 3, which suggests that the students' average response tends to be on the disagreement side. This indicates that, on average, Slovenian students tend to strongly disagree with the statement "I find it more satisfying to spend money than to save it for the long term" (Figure 31).

Figure 31: Survey question: *I find it more satisfying to spend money than to save it for the long term (Likert scale 1-5 (1=I do not agree, 5 =I totally agree)), (n=124)*

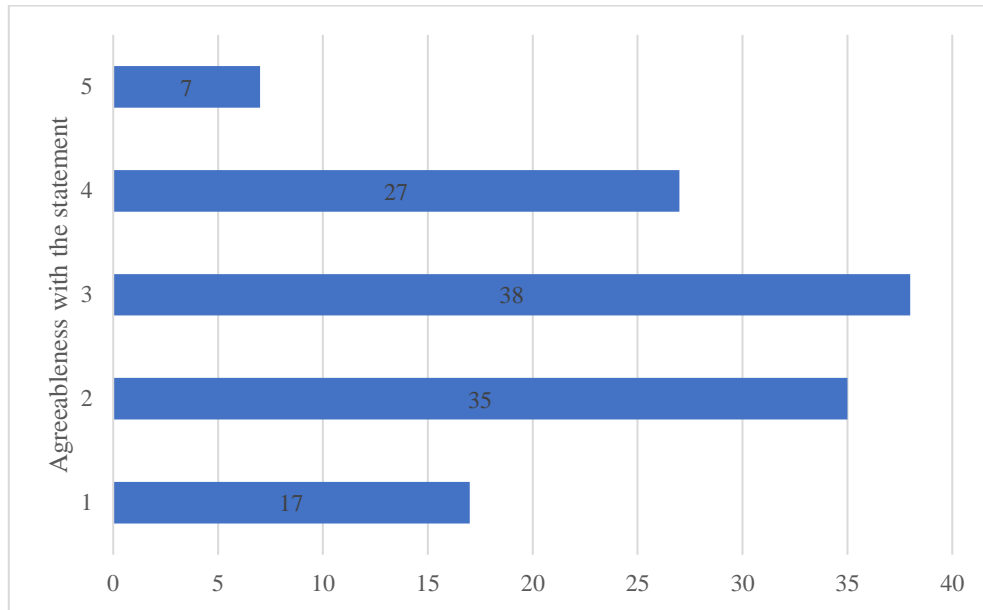


Source: Own work.

H4: Slovenian students are not prone to taking risky decisions when it comes to investing their money.

A one-sample t-test was performed to determine whether the mean score of Slovenian students' agreement with the statement "When thinking about saving and investing my money, I'm willing to risk" is significantly different from the neutral value of 3. The Likert scale ranged from 1 (I do not agree) to 5 (I totally agree). The results of the t-test show a t-value of -2.2643 and a p-value of 0.01265. Since the p-value is less than the commonly used significance level of 0.05 (Figure A.17), we can reject the null hypothesis that the true mean is equal to 3. The alternative hypothesis tested is that the true mean is less than 3, which suggests that the students' average response tends to be on the disagreement side. This indicates that, on average, Slovenian students tend to disagree with the statement "When thinking about saving and investing my money, I'm willing to risk" (Figure 32).

Figure 32: Survey question: When I decide to save or invest my money, I am willing to take risks (Likert scale 1-5 (1=I do not agree, 5=I totally agree), (n=124)



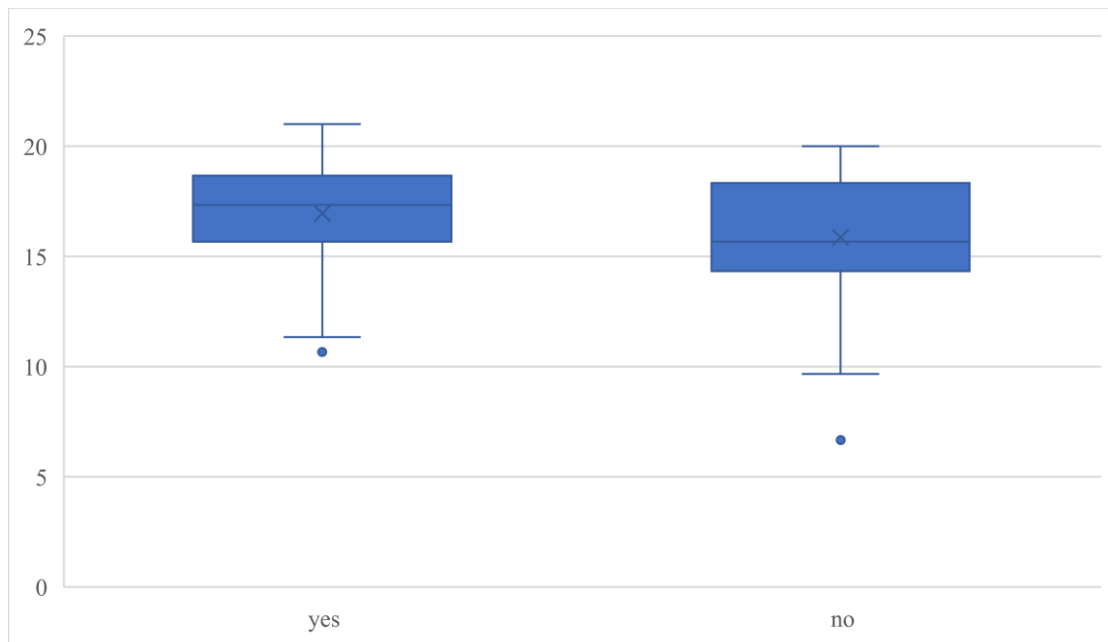
Source: Own work.

H5: Less financially literate students tend to invest less than students with higher financial literacy levels.

Based on the hypothesis that individuals with lower financial literacy levels are less inclined to invest compared to their more financially literate counterparts, we divided our sample into two distinct groups. The first group consists of individuals actively engaged in stock or crypto markets, while the second group includes those who have abstained from those markets both presently and over the past 12 months. To discern the potential difference in 'Financial literacy scores' between these two groups, we conducted a Welch Two Sample t-test. The results revealed a statistically significant difference in mean financial literacy scores between our groups, with a p-value of 0.01467, less than the standard significance threshold of 0.05 (Figure A.18).

The negative t-value of -2.2078 further confirms this disparity, suggesting that those not participating in the stock/crypto markets have a significantly lower mean financial literacy score compared to their actively participating counterparts. On examining the sample estimates, we found that the mean financial literacy score for the non-participating group was 15.86164, while for the active participants, it was noticeably higher at 16.94366 (Figure 33).

Figure 33: Investment habits among different levels of financial literacy scores



Source: Own work.

H6a: Among various investment options, cryptocurrencies are the most used.

To test this hypothesis, we have asked students to choose which financial products they have been using in the past 2 years (or are actively using). Out of the total 124 respondents, 38% have used cryptocurrencies in the past two years, making it the most popular investment product among the options provided. Other investment products used by the respondents include consumer loans (4%), life insurance with savings (10%), mutual funds (13%), and stocks or bonds (17%). This also coincides with the research from Fontana (2023), revealing that 18% of the Slovenian population has invested in cryptocurrencies in some form, exceeding the number by 20 percentage points. Therefore, we can confirm this hypothesis.

H6b: Among various savings options, deposits and cash are the most commonly held long-term assets by Slovenian students.

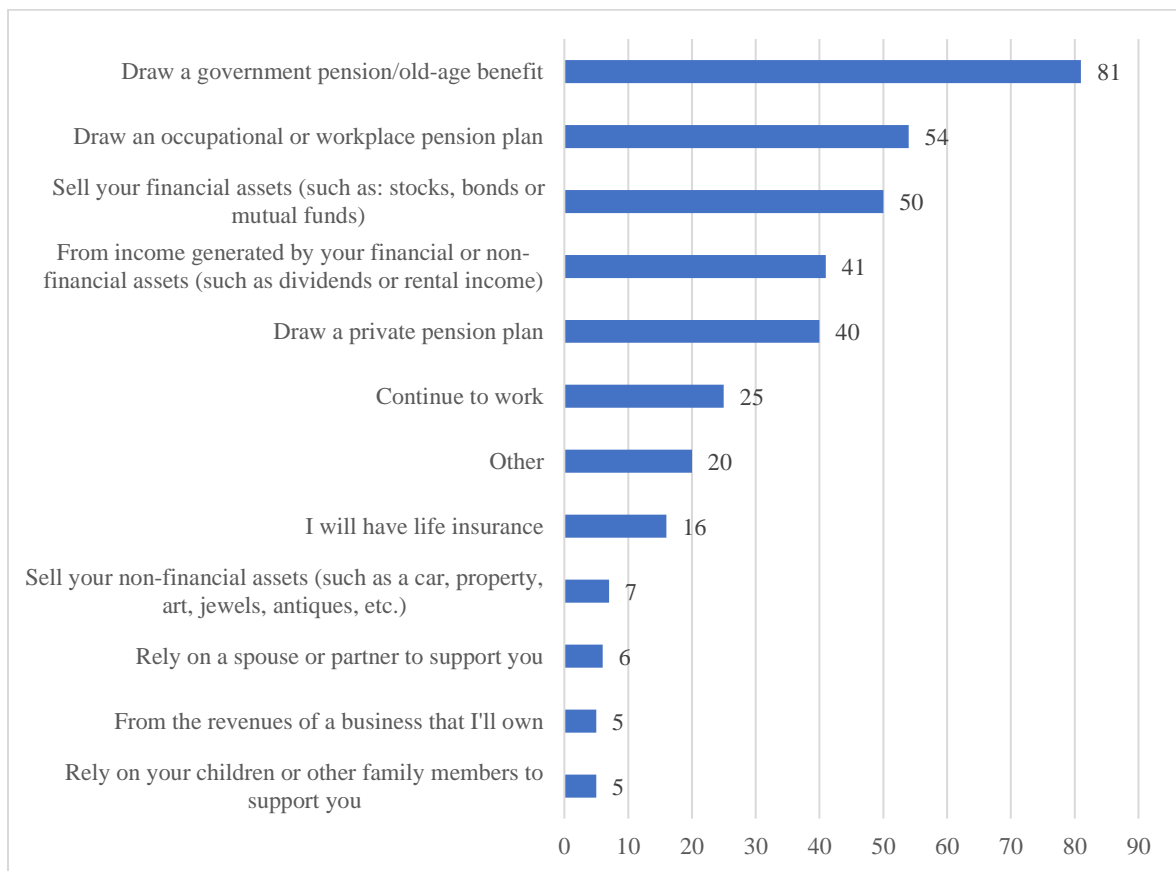
Out of the total respondents, 47% saved and kept their money at home, making it the most popular savings option among the surveyed students. Other savings options used by the respondents include investing in cryptocurrencies (27%), investing in funds and stocks (23%), entrusting their money for savings purposes to a partner or family member (9%), not saving at all (5%), and investing in bonds (1%). Therefore, we can confirm this hypothesis.

H8: Slovenian students rely the most on drawing a government pension to fund their retirement.

Out of the total 124 respondents, 81 (65.3%) indicated that they rely on drawing a government pension to fund their retirement. This makes relying on a government pension

the most common retirement funding option among the surveyed students. Other retirement funding options chosen by the respondents include employer-contributed pension funds (54 students), drawing from financial assets such as stocks and funds (50 students), income from real estate rentals (41 students), self-contributed pension funds (40 students), continuing to work (25 students), and various other sources. Based on these results (see also Figure 34), it can be concluded that the majority of Slovenian students (65.3%) rely on drawing a government pension to fund their retirement.

Figure 34: Survey question: How do you plan to take care of your pension? (Multiple answers possible)



Source: Own work.

H10a: Perceived financial knowledge is negatively correlated with actual financial knowledge score.

As the assumption of homoscedasticity for the perception of financial knowledge distribution wasn't met, we have used a Spearman's rank correlation test. The correlation coefficient (ρ) from the test is 0.5009607 (Figure A.19), which indicates a moderate positive relationship, contrary to our hypothesis of a negative correlation. This result suggests that as students' perception of their financial knowledge increases, their actual financial literacy levels also tend to increase.

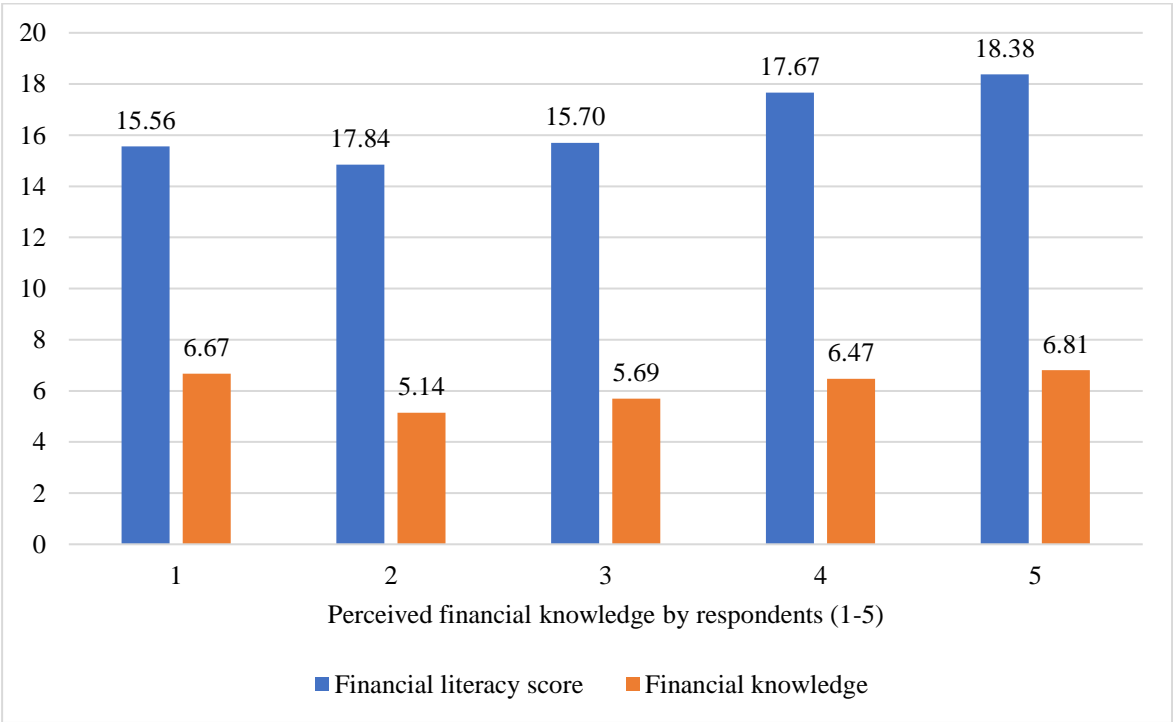
The p-value is significantly less than 0.05 (p-value = 3.111e-09), allowing us to reject the null hypothesis of no correlation between students' financial literacy and their perception of financial knowledge. Consequently, this provides strong evidence against our initial hypothesis H6a, favouring the alternative that students' financial literacy is positively correlated with their perceived financial knowledge.

In conclusion, contrary to our initial hypothesis, the findings suggest that perceived financial knowledge and actual financial literacy among students are positively correlated. This might indicate that students who perceive themselves as more financially knowledgeable indeed tend to demonstrate higher financial literacy scores.

H10b: Perceived financial knowledge is negatively correlated with financial literacy score.

The calculated correlation coefficient (rho) using Spearman's correlation is 0.4081014, suggesting a moderate positive relationship. This indicates that as students' perceived financial knowledge increases (Figure A.20), their financial literacy scores also increase, contradicting our original hypothesis. With a p-value significantly less than 0.05 (p-value = 2.54e-06), we reject the null hypothesis of no correlation between students' financial literacy scores and their perception of financial knowledge (Figure 35). This provides substantial evidence against hypothesis H6b, instead supporting the alternative that students' financial literacy scores and perceived financial knowledge are positively correlated.

Figure 35: Financial literacy and knowledge vs knowledge perception



Source: Own work.

Table 15 summarises the main hypothesis findings:

Table 15: Summary of hypothesis findings

Nr.	Hypothesis	Findings
H1a	The average financial literacy score is lower than 14.5 points.	Not supported
H1b	The average financial behaviour score is greater than 6.4 points.	Supported
H1c	The average financial attitude score is different than 3.3 points.	Supported
H1d	The average financial knowledge score is different than 4.5 points.	Supported
H2a	Age is positively correlated with higher financial literacy levels of Slovenian students.	Supported
H2b	There is a statistically significant difference between the levels of financial literacy between male and female students in Slovenia.	Supported
H2c	Higher education level is positively correlated with higher financial literacy levels.	Supported
H2d	Students with a business major have, on average, statistically higher financial literacy scores than students with a non-business major.	Supported
H2e	Students from a social science background have, on average, higher financial literacy scores compared to students from natural science faculties.	Not supported
H2f	Students' financial literacy is positively correlated with households' net income.	Supported
H2g	Students' financial literacy is positively correlated with individuals' personal income.	Supported
H2h	There is a statistically significant difference between the average financial literacy scores for the Eastern and Western parts of Slovenia.	Supported
H2i	There is a statistically significant difference between the average financial literacy scores between smokers and non-smokers.	Not supported
H2j	Financial literacy scores are negatively correlated with weekly alcohol consumption.	Not supported

continues

Table 15: Summary of hypothesis findings (cont.)

Nr.	Hypothesis	Findings
H3	Slovenian students would rather save their money than spend it.	Supported
H4	Slovenian students are not prone to taking risky decisions when it comes to investing their money.	Supported
H5	Less financially literate students tend to invest less than students with higher financial literacy levels.	Supported
H6a	Among various investment options, cryptocurrencies are the most used.	Supported
H6b	Among various savings options, deposits and cash are the most held long-term assets by Slovenian students.	Supported
H8	Slovenian students rely most on drawing a government pension to fund their retirement.	Supported
H10a	Perceived financial knowledge is negatively correlated with actual financial knowledge score.	Not supported
H10b	Perceived financial knowledge is negatively correlated with financial literacy score.	Not supported

Source: Own work.

7.4 Discussion

This chapter presents a comparison of empirical findings and the literature for each of 10 research questions.

RQ1: How financially literate are Slovenian students compared to previous research?

The results of the survey revealed that the average financial literacy score of Slovenian students was 16.48 points, being above the G20/OECD countries' sample average of 12.7 (2020). Moreover, our sample outperformed the G20/OECD one in all three financial literacy dimensions. Slovenian students scored 6.63 points in financial behaviour, 3.85 in financial attitude and 6.00 in financial knowledge, while the G20/OECD scores were 5.3, 3.1 and 4.6, respectively.

These findings are in line with the literature, as according to the G20/OECD Report on Adult Financial Literacy in the G20 Countries, Slovenians outperformed the OECD average in all three dimensions.

These findings are in line with the research, as according to the research conducted by Valicon (2019), the average score of Financial Literacy Index (N=1.019) was 14.5 out of 21 – behaviour score (6.4), attitude score (3.3) and knowledge score (4.5). The age group, which is the closest to our sample of students in the Valicon research (aged 18-24), scored 14.3 in overall financial literacy– consisting of 6.5 (behaviour score), 3.3 (attitude score) and 4.5 (knowledge score), respectively.

RQ2: What are the determinants of financial literacy among Slovenian students?

Our analysis proved that age is positively correlated with higher financial literacy levels, there are significant differences between financial literacy levels between males and females (Figure 25) and there is a statistically positive correlation between education levels and financial literacy (Figure 24).

We also proved that there is a difference between business and non-business majors (Figure 27), there is a correlation between students' financial literacy and households' net income as well as personal income, and there are differences in financial literacy levels between the Eastern and Western parts of Slovenia (Figure 28).

We could not prove that there is a statistically significant difference between smokers and non-smokers (Figure 29) and we couldn't prove that there is a negative correlation between financial literacy and alcohol consumption, though.

These findings are mainly in line with the conducted literature review: The research from Boisclair et al. (2015) and the OECD (2017) has shown that men are more likely to be financially literate than women, Boisclair et al (2015) also reports that individuals with greater educational attainment displayed a higher level of financial literacy, Shaari et al. (2013) reports a significant relationship between financial literacy level and the respondents' business major and non-business major. A similar observation was also confirmed by Gok & Ozkale (2019), where students with social sciences backgrounds had higher levels of financial literacy scores, compared to natural and health sciences, compared both among first-year students and senior students.

Moreover, as the research conducted by the OECD (2015) has found, students' financial literacy is strongly correlated to their socio-economic status. Firli (2017) and the OECD (2014) research have also found that the economic state of the country and location where people live are crucial factors. As the data from Slovenia shows, Western Slovenia tends to continuously outperform the East in terms of unemployment levels and some other economic factors (OECD, 2022e).

Studies in the USA (Rahim et al., 2021) and Japan (Watanapongvanich et al., 2021) have both shown that respondents with financial literacy and financial education will be more conscious in making rational decisions such as smoking. The studies have shown that the relationship between financial literacy and smoking behaviour is significantly negative,

meaning that financially literate people are less likely to be smokers though we couldn't confirm this connection.

Even though the recent studies from Watanapongvanich et al. (2021) have not been able to prove the correlation between drinking and financial literacy, the increased level of alcohol consumption in Slovenia in the past few years (OECD, 2021b) shows short-term orientation among the population.

RQ3: What is the attitude towards money and investing among Slovenian students?

The results of the survey showed that Slovenian students tend to disagree with the statement "Money is there to be spent" (Figure 30). Moreover, on average, students tend to be on the disagreement side with the statement "I would rather spend my money than invest or save it for the long term" (Figure 31). We can conclude that Slovenian students are oriented towards saving money.

Such an attitude towards money is consistent with the literature, as SURS (2021b) suggests, that due to the uncertain period of the COVID-19 pandemic, households demonstrated a strengthened sense of caution in their spending habits. This caution is reflected in the record-high gross household savings rate, which exceeded the average for the European Union. In 2020, the household savings rate peaked at 25.1 percent, representing a significant increase of 11.7 percentage points compared to the previous year (SURS, 2021b).

RQ4: How risk averse are Slovenian students when it comes to investing their money?

The results of the survey indicate that Slovenian students tend to be risk averse when investing their money (Figure 32). Namely, the students' average response tends to be on the disagreement side, meaning that students generally disagree with the statement "When thinking about saving and investing my money, I'm willing to risk".

This is consistent with the literature as the data from SURS (2021c) indicates that the Slovenian population tends to exhibit a cautious attitude towards savings and investment decisions, displaying a preference for low-risk options. This is evident from the fact that approximately 50 percent of their overall financial assets are allocated to deposits and cash.

RQ5: Does financial literacy influence the investment habits of Slovenian students?

Based on the survey, we found that less financially literate individuals do invest less than students with higher financial literacy levels (Figure 33). We found that those not participating in the stock/crypto markets have a significantly lower mean financial literacy score compared to their actively participating counterparts.

This is in line with the theory as various studies prove that financial literacy is a crucial tool for informed investment decisions. For instance, less financially literate individuals display lower participation rates in the stock market (van Rooij et al., 2011).

RQ6: What are the most popular financial asset investment options among Slovenian students?

According to the survey results, out of the total 124 respondents, 38 percent have used cryptocurrencies in the past two years, making it the most popular investment product among the options provided. Other investment products used by the respondents include consumer loans (4 percent), life insurance with savings (10 percent), mutual funds (13 percent), and stocks or bonds (17 percent).

Out of the total respondents in the last 12 months, 47 percent saved and kept their money at home, making it the most popular savings option among the surveyed students. Other savings options used by the respondents include investing in cryptocurrencies (27 percent), investing in funds and stocks (23 percent), entrusting their money for saving purposes to a partner or family member (9 percent), not saving at all (5 percent), and investing in bonds (1 percent). Therefore, we can confirm this hypothesis.

This also coincides with the research from Fontana (2023) which reveals that 18 percent of the Slovenian population has invested in cryptocurrency in some form, making it one of the most crypto-friendly nations in the world. Moreover, according to SURS (2021c), the highest share of financial assets consists of deposits and cash (49.3 percent), followed by shares and equity (29.9 percent), insurance and pension schemes (13.1 percent), debt securities and other receivables (5.6 percent) and loans (2.2 percent) (SURS, 2021c).

RQ7: Which information sources influence the decision for financial products?

When choosing financial products, 83 percent of our respondents considered several options from different companies or they looked around but there were no other options to consider, therefore suggesting that a large majority of them do put in some effort when choosing to buy financial products.

Conversely, the biggest influence on purchase decisions comes from friends and family (31 percent), followed by specialist product comparison websites (Consumers associations, official bank websites, official fund websites, etc.) (Figure 21).

The empirical research is in line with Kim, Maurer & Mitchell (2021) research in which they suggest that the demand for professional financial advice is greater for people with more wealth and older persons.

RQ8: How are Slovenian students planning to fund their retirement?

Based on our survey results, out of the total 124 respondents, 81 (65.3 percent) indicated that they rely on drawing a government pension to fund their retirement. This makes relying on a government pension the most common retirement funding option among the surveyed students. Other retirement funding options chosen by the respondents include employer-

contributed pension funds (54 students), drawing from financial assets such as stocks and funds (50 students), income from real estate rentals (41 students), self-contributed pension funds (40 students), continuing to work (25 students), and various other sources (Figure 34). We can conclude that the majority of Slovenian students rely on drawing a government pension to fund their retirement.

This is in line with the theory as MDDSZ (2016a) reports that individuals are generally accustomed to the notion that the first pillar provides a sufficiently high pension compared to the average salary earned during their employment, without considering the potential for a weaker future.

RQ9: What are the most important financial goals among Slovenian students and how do they achieve them?

Based on the survey results, we can conclude that financial independence and stability (74 percent) and saving money for unforeseen circumstances (64 percent) are two of the most important financial goals for Slovenian students, since more than half of the respondents listed them as their main goals. Moreover, securing enough money to afford travel (46 percent) is also perceived as important. Less than 1 percent of people claimed that they do not have any financial goals, which indicates the planning tendency of our respondents (Figure 22).

As highlighted by Falahati and Paim (2011), university students typically begin their educational journey without bearing exclusive responsibility for their personal finances. Over the course of their college years, they gradually gain a degree of financial autonomy and initiate the management of their expenditures independently for the first time, making the transition from financial dependence to financial independence. Consequently, it is logical that financial independence is identified as the most prevalent financial objective among Slovenian students.

Moreover, when asked how students are pursuing their financial goals, the majority answered that they cut back on spending (82 percent). A large majority of them also look for additional sources of money (66 percent) and more than half prepare a plan of action to achieve their desired result (50 percent) (Figure 23).

The lowest amount of respondents resort to taking some form of credit (7 percent) to achieve their desired goal and for those who do, we recorded below average financial literacy scores in comparison to results from other actions taken to achieve desired financial goals.

In accordance with the discoveries made by Gumbo, Margaret & Chagwasha (2021), one of the most crucial practices in financial management is the act of saving or reducing expenditure. Through the act of cutting back on spending, households and individuals acquire the capacity to effectively address unforeseen emergencies, accumulate funds for

future financial requirements, and take the initial step toward realizing their financial objectives or investment aspirations.

RQ10: Do Slovenian students overestimate their financial literacy?

Survey results revealed that perceived financial knowledge is moderately positively correlated with actual knowledge, contrary to our hypothesis. This result suggests that as students' perception of their financial knowledge increases, their actual financial literacy levels also tend to increase. This might indicate that students who perceive themselves as more financially knowledgeable indeed tend to demonstrate higher financial literacy scores (Figure 35).

This finding is not in line with the literature, as the European Commission (2007a) reports that individuals often overestimate their understanding of financial services and concepts.

7.5 Research limitations and suggestions for future research

Due to the complexity of the researched concepts, we have faced a few difficulties, which should be addressed if one were to do any further research based on our findings.

As we have mentioned in chapter 3: Challenges related to measuring financial literacy, most of the previously conducted research faces three main challenges (lack of clear definition, content standardisation and instrument interpretation), which were tackled with the use of the OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion. It helped us to understand our results in light of research conducted by Valicon (2019) and the OECD (2020), which helped us gain a perspective on our results and enabled us to make a comparison.

However, using such a comprehensive tool for measuring financial literacy also proved to be a disadvantage, because of the survey length (approx. time spent solving was 14min 36s), which translated into a low finalised survey rate (40 percent) in the end. This has also largely impacted on our hypothesis testing as some groups were underrepresented and we needed to exclude some of our findings. This not only compromised the power of our statistical tests, but also raised concerns about the representativeness of our findings and the risk of Type II errors, whereby a potentially significant effect was missed due to a lack of statistical power.

Moreover, this imbalance in group sizes may have introduced bias, thereby affecting the generalisability of our results to a broader population. Furthermore, the underrepresentation of some groups limited our ability to examine potential interactions between different variables within these groups. This implies that there could be important relationships that we were unable to detect due to a lack of sufficient data. In future studies, it would be beneficial to ensure more balanced sample sizes across groups to avoid such limitations.

Furthermore, it is important to mention that the toolkit was not meant to be tested on students – but should have been sampled across the whole population. Therefore, some questions in the survey needed to be adjusted. Due to this fact, none of the past researchers used this survey to analyse financial literacy on students, but have rather used/made some other measurements, mainly focusing on financial knowledge. This meant that the comparisons we have conducted were limited to the relationship between students and population. Nevertheless, we do believe that in order to get an overview of the state of financial literacy of students across the world, standardisation of measurement should take place. Therefore, we hope that both our thorough theoretical and empirical analysis will become the basis for future research conducted in other countries (with the adjustments for investment instruments, fitting the specific researched markets).

As for opportunities for further research, by having a larger sample, future research projects could also conduct clustering to uncover distinct subgroups within our student sample based on three financial literacy components. This could help uncover different segments of students with different needs and provide insights for tailoring financial literacy interventions to specific groups, improving the effectiveness of programmes.

Moreover, one of our findings was that cryptocurrencies present the most desirable investment option for Slovenian students. With the rapid development of digital technologies, we would suggest that researchers explore and focus on the digital financial literacy of students and their attitudes towards FinTech solutions and digital money. Such research could provide an interesting angle and useful insights both for policy makers and businesses within the financial sector.

8 CONCLUSION

In this master's thesis we examined the financial literacy of Slovenian students and their investment habits, in light of the strong trend towards population ageing due to increased life expectancy and a decrease in the size of generations. This will ultimately lead to significant weakening of pension systems that are based on the principle of solidarity.

Though there are many papers examining financial literacy, very few cover the relationship between financial literacy, investment habits and retirement planning. Moreover, we noticed the lack of a standardised financial literacy definition. As a result, we opted for the G20/OECD financial literacy definition, which defines financial literacy as a composite of three dimensions - financial attitudes, financial behaviour and financial knowledge.

Our empirical findings are based on 124 responses, which were collected via an online tool, 1KA, between 17th September and 26th October 2022, focusing on Slovenian students.

It was revealed that the average financial literacy score of Slovenian students exceeds the G20/OECD countries' sample average, which supports the literature that Slovenians

generally outperform the OECD average in financial literacy. This shows that Slovenian students have a strong foundation in financial literacy.

The empirical findings from this research present a clear linkage between specific demographic factors and levels of financial literacy among Slovenian students. Notably, the data demonstrates that students of an older age group, male students, and those possessing higher levels of education consistently exhibit greater levels of financial literacy.

Additionally, our research found that students who have pursued business education or who come from families with a more affluent economic background are more likely to have a better understanding of financial concepts and principles. Geographically, the data revealed a distinct regional pattern, with students from the Western part of Slovenia scoring higher in terms of financial literacy. These results underscore the potential influence of age, gender, education level, socio-economic background, geographical location, and field of study on an individual's financial literacy. This understanding can guide future educational initiatives and policy-making, aiming at fostering financial literacy among all student demographics.

Furthermore, Slovenian students exhibit a conservative attitude towards money and investing, demonstrating tendencies to save rather than spend. They also show risk-averse behaviour when it comes to investing their money. This is consistent with the literature, which suggests that Slovenian households prefer low-risk options when making financial decisions.

Interestingly, it was found that students with higher financial literacy are more likely to participate in investment activities. This aligns with the literature that suggests financially literate individuals have higher participation rates in the stock market. It suggests that improving financial literacy could lead to more active participation in various financial markets.

Regarding retirement, the majority of Slovenian students are relying on government pensions, which mirrors the general trend seen in Slovenia. The majority of Slovenian students also expressed that their primary financial goals were to achieve financial independence and stability, and they are achieving these goals primarily by reducing spending.

Lastly, the study did not find evidence that Slovenian students overestimate their financial literacy, which contrasts with previous studies suggesting that individuals often overestimate their understanding of financial services and concepts.

This research has important implications for the development of financial literacy education and initiatives in Slovenia. Understanding the factors that influence financial literacy among students can inform targeted educational programmes to improve their financial decision-making abilities. Furthermore, knowing the attitudes and behaviours of students towards money and investing can guide the design of financial products and services tailored to their needs.

In conclusion, this study underscores the importance of financial literacy for Slovenian students and the need for continuous efforts to enhance their financial skills and knowledge. While the results show encouraging signs, there is still room for improvement, especially in terms of influencing behaviour towards riskier investments and encouraging diversification of retirement funding options. Future research could further delve into these areas, as well as continue tracking the development of financial literacy among Slovenian students.

REFERENCE LIST

1. Abreu, M. & Mendes, V. (2010). Financial Literacy and Portfolio Diversification. *Quantitative Finance*, 10(5), 515–528. <https://doi.org/10.1080/14697680902878105>
2. Alessie, R., van Rooij, M. & Lusardi, A. (2011). Financial Literacy, Retirement Preparation and Pension Expectations in the Netherlands. *Journal of Pension Economics and Finance*, 10(4). <https://doi.org/10.3386/w17109>
3. Allianz. (2020). *Allianz Pension Report 2020*. https://www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/economic-research/publications/specials/en/2020/mai/Allianz_Global_Pension_Report_2020.pdf
4. Anderloni, L., Braga, M. D. & Caluccio, E. M., (2007). *New Frontiers in Banking Services: Emerging Needs and Tailored Products for Untapped Markets*. Springer. https://www.researchgate.net/publication/261721663_New_Frontiers_in_Banking_Services_Emerging_Needs_and_Tailored_Products_for_Untapped_Markets
5. Batsaikhan, U. & Demertzis, M. (2018). Financial literacy and inclusive growth in the European Union. *Bruegel Policy Contribution*, (8).
6. Behrman, J., Mitchell, S.O., Soo, C. & Bravo, D. (2010). Financial Literacy, Schooling, and Wealth Accumulation. *American Economic Review P&P*, 102(3), 300–304. <https://doi.org/10.3386/w16452>
7. Boisclair, D., Lusardi, A. & Michaud, P. (2015). Financial literacy and retirement planning in Canada. *Journal of Pension, Economics & Finance*, 16, 277-296. <https://doi.org/10.3386/w20297>
8. Brown, M. & Graf, R. (2013). *Financial Literacy and Retirement Planning in Switzerland*. <https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=1133&context=numeracy#:~:text=We%20measure%20retirement%20planning%20by,on%20the%20PISA%20mathematical%20scales.>
9. Bucher-Koenen, T. & Lusardi, A. (2011). Financial Literacy and Retirement Planning in Germany. *Journal of Pension Economics and Finance*, 10(4). <https://doi.org/10.3386/w17110>
10. Bucher-Koenen, T. & Ziegelmeyer, M. (2011). Who Lost the Most? Financial Literacy, Cognitive Abilities, and the Financial Crisis. *MEA Discussion Paper*, 234(11). <https://dx.doi.org/10.2139/ssrn.1738368>

11. Calvet, L. E., Campbell, J. Y. & Sodini, P. (2009). Measuring the Financial Sophistication of Households. *American Economic Review, American Economic Association*, 99(2), 393-98. <https://doi.org/10.3386/w14699>
12. Crossan, D., Feslier, D. & Hurnard, R. (2011). Financial Literacy and Retirement Planning in New Zealand. *Journal of Pension Economics and Finance*, 10(4). <https://www.cambridge.org/core/journals/journal-of-pension-economics-and-finance/article/abs/financial-literacy-and-retirement-planning-in-new-zealand/9379154539A4F1B28E5AB5670313DD98>
13. Cwynar, A., Cwynar, W., Patena, W. & Sibanda, W. (2020). Young adults' financial literacy and overconfidence bias in debt markets. *International Journal of Business Performance Management*, 21, 95–113. <https://doi.org/10.1504/IJBPM.2020.106117>
14. EBRD. (2021). Country Assessments: Slovenia. *EBRD Transition report 2020-2021*. <http://www.ebrd.com/publications/transition-report-202021-slovenia>
15. ECB. (2016a). Savings and investment behaviour in the euro area. *ECB Occasional Paper Series* No 167. <https://www.ecb.europa.eu/pub/pdf/scpops/ecbop167.en.pdf>
16. ECB. (2020a). The Household Finance and Consumption Survey: Results from the 2017 wave. *ECB Statistics Paper Series* No 36. <https://www.ecb.europa.eu/pub/pdf/scpsps/ecb.sps36~0245ed80c7.en.pdf?bd73411fbeb0a33928ce4c5ef2c5e872>
17. European Commission. (2007a). Financial Education. Communication from the Commission of the European Communities, Brussels. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0808:FIN:EN:PDF>
18. European Commission. (2021). The 2021 Ageing Report. *Publications Office of the European Union*. <https://op.europa.eu/en/publication-detail/-/publication/8b1015a6-ead6-11eb-93a8-01aa75ed71a1/language-en>
19. European Parliament. (2018). *Economic, social and territorial situation of Slovenia*. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/617462/IPOL_BRI\(2018\)617462_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/617462/IPOL_BRI(2018)617462_EN.pdf)
20. Eurostat. (2020a). *Demografske spremembe v Evropi — informativni pregledi po državah: Slovenija*. <https://ec.europa.eu/eurostat/documents/10186/10990320/SI-SL.pdf>
21. Eurostat. (2022a). *Government expenditure on education*. Retrieved August 20, 2022 from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_education#Large_differences_between_countries_in_the_importance_of_expenditure_on_education
22. Eurostat. (2023a). *Half of EU's population older than 44.4 years in 2022*. <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/DDN-20230222-1>
23. Eurosystem Household Finance and Consumption Network. (2013a). The Eurosystem household finance and consumption survey. *ECB Statistics paper series* No 2. <https://www.ecb.europa.eu/pub/pdf/other/ecbsp2en.pdf?2180f869d12ccc366869c9419b3da32e>
24. Falahati, L. & Paim, L. (2011). Gender Differences in Financial Well-Being Among College Students. *Australian Journal of Basic and Applied Sciences*, 5(9), 1765–1776.

- https://www.researchgate.net/publication/286595609_Gender_differences_in_financial_well-being_among_college_students
25. Financial Conduct Authority. (2021). *Financial Lives 2020 survey: The impact of coronavirus*. <https://www.fca.org.uk/publication/research/financial-lives-survey-2020.pdf>
 26. FINRA (2003). *NASD investor literacy research: Executive summary*. <http://www.finrafoundation.org/surveyexecsum.pdf>.
 27. Firli, A. (2017). *Factors that Influence Financial Literacy: A Conceptual Framework*. <https://iopscience.iop.org/article/10.1088/1757-899X/180/1/012254>.
 28. Fontana, G. (2023). *Ranked: Crypto Popularity Across European Union Nations*. Retrieved April, 25th 2023 from <https://www.visualcapitalist.com/cp/crypto-popularity-n-europeans-union-nations/>
 29. Fornero, E. & Monticone, C. (2011). Financial Literacy and Pension Plan Participation in Italy. *Journal of Pension Economics and Finance*, 10(4), 547-564. <https://doi.org/10.1017/S1474747211000473>
 30. Grigion, P. & Mendes, V. (2016). Development of a financial literacy model for university students. *Management Research Review* 39(3): 356-376.
 31. Gril, A. (2021). *Evroštudent VII – Socialni in ekonomski pogoji življenja študentov v Evropi*. <https://www.pei.si/raziskovalna-dejavnost/projekti/evrostudent-vii/>
 32. Gumbo, L., Mutengezanwa, M. & Chagwasha, M. (2021). Personal Financial Management Skills of University Students and Their Financial Experiences During the Covid-19 Pandemic. *International Journal of Financial Accounting, and Management*, 4(2), 129-143. <https://doi.org/10.35912/ijfam.v4i2.835>
 33. Hastings, J. & Mitchell, O. S. (2018). How Financial Literacy and Impatience Shape Retirement Wealth and Investment Behaviours. *Journal of Pension Economics & Finance*, 19(1), 1-20. <https://doi.org/10.1017/S1474747218000227>
 34. Hilgert, M., Hogarth, J. & Beverley, S. (2003). Household financial management: The connection between knowledge and behaviour. *Technical report #309-322*. Federal Reserve Bulletin.
 35. Hung, A., Parker, A. M. & Yoong, J. (2009). Defining and Measuring Financial Literacy. *RAND Working Paper Series WR-708*. <https://dx.doi.org/10.2139/ssrn.1498674>
 36. Huston, J. S. (2010). *Measuring Financial Literacy*. <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1745-6606.2010.01170.x>
 37. Kempson, E., Atkinson, A. & McKay, S. (2006). Levels of Financial Capability in the UK: Results of a baseline survey. *Financial Services Authority*. <https://doi.org/10.1111/j.1467-9302.2007.00552.x>
 38. Kim, H. H., Maurer, R. & Mitchell S. O. (2021). *How Financial Literacy Shapes the Demand for Financial Advice at Older Ages*. <https://doi.org/10.1016/j.jeoa.2021.100329>
 39. Kim, K. T., Hanna, D. S. & Sunwoo, T. L. (2022). *Investment Literacy, Overconfidence and Cryptocurrency Investment*. <https://dx.doi.org/10.2139/ssrn.3953242>

40. Koprivnikar, H., Zorko, M., Hovnik Keršmanc, M. & Drev, A. (2015). *Tobacco, alcohol and illicit drug use in the Slovenian population and inequalities and combinations of use*. Ljubljana: National Institute of Public Health. https://www.nijz.si/sites/www.nijz.si/files/publikacije-datoteke/tobacco_alcohol_and_illicit_drug_use_slovenia_p.pdf
41. Lusardi, A. & Tufano, P. (2008). Debt literacy, financial experiences, and overindebtedness. *Dartmouth Working Paper*.
42. Lusardi, A. (2008). Household saving behaviour: The role of financial literacy, information, and financial education programs. *NBER, Working Paper 13824*. <https://doi.org/10.3386/w13824>
43. Lusardi, A. (2011). Financial Literacy: An Essential Tool for Informed Consumer Choice? *SSRN Electronic Journal*. <https://doi.org/10.3386/w14084>
44. Lusardi, A., & Mitchell, O.S. (2007a). Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics*, 54, 205-224.
45. Lusardi, A., Mitchell, S.O. & Curto, V. (2009). Financial Literacy Among the Young: Evidence and Implications for Consumer Policy. *National Bureau of Economic Research Working Paper Series No. 15352*. <https://doi.org/10.3386/w15352>
46. Lusardi, A., Olivia S. & Mitchell, S.O. (2011b). Financial Literacy and Retirement Planning in the United States. *Journal of Pension Economics and Finance*, 10(4). <https://doi.org/10.3386/w17108>
47. Mandell, L. (2004). "Financial Literacy: Are We Improving?". JumpStart Coalition for Personal Financial Literacy.
48. Mason, C., & Wilson, R. (2000). Conceptualising financial literacy. *Business School Research Series*, 7(1), 1-41. https://www.researchgate.net/publication/28576413_Conceptualising_Financial_Literacy
49. Mejía, S. H., Garcia, S. A. & Moreno, G. A. (2022). Financial literacy and its relationship with socio-demographic variables. *Economics and Sociology Journal*, 15(1), 40-55. <https://doi.org/10.14254/2071-789X.2022/15-1/3>
50. Merkle, C. (2017). Financial overconfidence over time: Foresight, hindsight, and insight of investors. *Journal of Banking and Finance*, 84, 68-87. <https://doi.org/10.1016/j.jbankfin.2017.07.009>
51. Ministrstvo za finance. (2023a). *Vlada sprejela strategijo razvoja trga kapitala v Sloveniji*. <https://www.gov.si/novice/2023-03-02-vlada-sprejela-strategijo-razvoja-trga-kapitala-v-sloveniji/>
52. Ministrstvo za finance. (2023b). Poročilo o izvedenih dejavnostih pri uresničevanju ciljev nacionalnega programa finančnega izobraževanja (NPMFI) za koledarski leti 2021 in 2022 [Publication].
53. Ministry of Labour, Family, and Social Affairs. (2016). *Ključne ugotovitve bele knjige o pokojninah*. https://www.iusinfo.si/download/razno/Povzetek_-_kljucne_ugotovitve_Bele_knjige_o_pokojninah_130416.pdf

54. Mitchell W. J. & Abusheva E. M. (2016). The actual challenges of financial literacy. *SHS Web of Conferences* 28, 01134. <https://doi.org/10.1051/shsconf/20162801134>
55. Moore, D. (2003). Survey of Financial Literacy in Washington State: Knowledge, Behaviour, Attitudes, and Experiences. *Technical Report n. 03-39, Social and Economic Sciences Research Center, Washington State University.*
56. Motoh, H. (2021). Slovenia social briefing: Pension System in Slovenia. *Weekly Briefing*, 41(3). <https://china-cee.eu/2021/06/30/slovenia-social-briefing-pension-system-in-slovenia/>
57. National Council for Economic Education (NCEE). (2005). *What American teens & adults know about economics.* http://www.ncee.net/cel/WhatAmericansKnowAboutEconomics_042605-3.pdf
58. NIJZ. (2020). *Zdravstveni statistični letopis Slovenije 2020.* Ljubljana: National Institute of Public Health. <https://www.nijz.si/sl/publikacije/zdravstveni-statisticni-letopis-2020>
59. NIJZ. (2021a). *Public Health Achievements in Slovenia.* Ljubljana: National Institute of Public Health. https://www.nijz.si/sites/www.nijz.si/files/publikacije-datoteke/e-publication_public_health_eng.pdf
60. Noctor, M., Stoney, S. & Strandling, R. (1992). Financial literacy: a discussion of concepts and competences of financial literacy and opportunities for its introduction into young people's learning. *National Foundation for Educational Research.*
61. OECD. (2014). *Relationship between Financial Literacy and Student Background, in PISA 2012 Results: Students and Money (Volume VI): Financial Literacy Skills for the 21st Century.* Retrieved June 22, 2022 from <https://www.oecd-ilibrary.org/docserver/9789264208094-7en.pdf?expires=1668070192&id=id&accname=guest&checksum=52F4B5AEC504619A38528AC3CDD5B991>
62. OECD. (2017). *G20/OECD Report on Adult Financial Literacy in G20 Countries.* <https://www.oecd.org/finance/g20-oecd-infe-report-adult-financial-literacy-in-g20-countries.htm>
63. OECD. (2018). *OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion.* <https://www.oecd.org/financial/education/2018-INFE-FinLit-Measurement-Toolkit.pdf>
64. OECD. (2020). *OECD/INFE 2020 International Survey of Adult Financial Literacy.* <https://www.oecd.org/financial/education/launchoftheoecdinfe-global-financial-literacy-survey-report.htm>
65. OECD. (2020a). *Fertility rates.* Retrieved July 07, 2022 from <https://data.oecd.org/pop/fertility-rates.htm>
66. OECD. (2021a). *Smoking among adults.* Retrieved September 16, 2022 from <https://www.oecd-ilibrary.org/sites/611b5b35-en/index.html?itemId=/content/component/611b5b35-en>
67. OECD. (2021b). *Alcohol consumption among adults.* Retrieved September 16, 2022 from <https://www.oecd-ilibrary.org/sites/33f1adad-en/index.html?itemId=/content/component/33f1adad-en>

68. OECD. (2022a). *OECD Reviews of Pension Systems: Slovenia*. Retrieved July 07, 2022 from <https://www.oecd-ilibrary.org/sites/b35000d0-en/index.html?itemId=/content/component/b35000d0-en>
69. OECD. (2022a). *Slovenia Economic Snapshot*. Retrieved July 07, 2022 from <https://www.oecd.org/economy/slovenia-economic-snapshot/>
70. OECD. (2022b). *Daily smokers*. Retrieved July 07, 2022 from <https://data.oecd.org/healthrisk/daily-smokers.htm>
71. OECD. (2022c). *Education spending*. Retrieved July 07, 2022 from <https://data.oecd.org/eduresource/education-spending.htm#indicator-chart>
72. Parker, A. M., De Bruin, W. B., Yoong, J. & Willis, R. (2012). Inappropriate confidence and retirement planning: Four studies with a national sample. *Journal of Behavioural Decision Making*, 25, 382–389. <https://doi.org/10.1002/bdm.745>
73. Pokojninska družba A. (2019). *Slovene pension system and Pokojninska družba A, d.d. pension fund overview*. https://www.pokojninskad-a.si/datoteke/razno/Occupational_pension_plan_INFO_and_PDA_company_presentation.pdf
74. Pongpat, P., Watanapongvanich, S., Khan, M. S. R. & Kadoya, Y. (2021). Financial Literacy and Alcohol Drinking Behaviour: Evidence from Japan. *Sustainability*, 13(16). <https://doi.org/10.3390/su13168858>
75. Rahim K., Mostafa S., Pongpat P., Watanapongvanich, S. Yuktadatta, P., Uddin, M.A. & Kadoya, Y. (2021). Do Financial Literacy and Financial Education Influence Smoking Behaviour in the United States? *International Journal of Environmental Research and Public Health*, 18(5). <https://doi.org/10.3390/ijerph18052579>
76. Răzvan, I. (2021). Financial Literacy in the Digital Age. *Revista Strategia Organizational*, 10(2), 1-16. <https://doi.org/10.22490/25392786.4958>
77. Republic of Slovenia. (2010). *Nacionalni program finančnega izobraževanja*. <https://www.gov.si/assets/ministrstva/MF/Financni-sistem/DOKUMENTI/Financno-izobrazevanje/NPFI.pdf>
78. Republic of Slovenia. (2020a). *Slovenian education system and Slovenian Qualifications Framework*. Retrieved August 11, 2022 from <https://www.gov.si/en/topics/slovenski-solski-sistem-in-slovensko-ogrodje-kvalifikacij/>
79. Republic of Slovenia. (2021a). *Finančno izobraževanje*. Retrieved August 11, 2022 from <https://www.gov.si teme/financno-izobrazevanje/>
80. Reserve Bank of New Zealand. (2007). Financial literacy and its role in promoting a sound financial system. *Reserve Bank of New Zealand: Bulletin*, 70(2), 37-48. <https://www.rbnz.govt.nz/-/media/project/sites/rbnz/files/publications/bulletins/2007/2007jun70-2.pdf#page=37>
81. Schagen, S. (1997). The Evaluation of NatWest Face 2 Face with Finance. *National Foundation for Educational Research*.
82. Sekita, S. (2011). Financial Literacy and Retirement Planning in Japan. *Journal of Pension Economics and Finance*, 10(4). <https://doi.org/10.2139/ssrn.1809681>

83. Shaari, N., Azizah, N. A. H., Ramesh, K., Moona, H. M. & Ahmad., J.M. (2013). *Financial literacy: a study among the university students*. Retrieved from <https://www.semanticscholar.org/paper/FINANCIAL-LITERACY%3A-A-STUDY-AMONG-THE-UNIVERSITY-Shaari-Hasan/79a63aa9e312ded01b65e1f23fe32f5d107443c3>
84. Simčič, I. (2016). *Finančna pismenost in finančno izobraževanje*. <https://www.zrss.si/kupm2016/wp-content/uploads/irena-s-kupm-2016-brdo-17-11-2016.pdf>
85. SURS. (2020a). *Kaj se je v Sloveniji spremenilo v zadnjem času?* Retrieved June 12, 2022 from <https://www.stat.si/statweb/News/Index/8871>
86. SURS. (2020b). *V 2020 delež prebivalcev Slovenije s terciarno izobrazbo za 0,3 odstotne točke višji kot leta 2019*. Retrieved June 12, 2022 from <https://www.stat.si/StatWeb/news/Index/9263>
87. SURS. (2020c). *In 2019 lower at-risk-of-poverty rate (12.0%) and at-risk-of-poverty or social exclusion rate (14.4%)*. Retrieved June 12, 2022 from <https://www.stat.si/StatWeb/en/News/Index/8895>
88. SURS. (2021a). *Lani je na mednarodni dan študentov diplomiralo 32 študentov*. Retrieved June 22, 2022 from <https://www.stat.si/StatWeb/news/Index/9951>
89. SURS. (2021b). *In 2020, households in Slovenia sharply reduced their consumption and saved the most so far*. Retrieved June 22, 2022 from <https://www.stat.si/StatWeb/en/News/Index/9582>
90. SURS. (2021c). *In 2020, gross household saving rate in Slovenia the highest so far*. Retrieved June 22, 2022 from <https://www.stat.si/StatWeb/en/news/Index/9917>
91. SURS. (2021d). *Cilj 3. Poskrbeti za zdravo življenje in spodbujati splošno dobro počutje v vseh življenjskih obdobjih*. Retrieved June 23, 2022 from <https://www.stat.si/Pages/cilji/cilj-3.-poskrbeti-za-zdravo-%C5%BEivljenje-in-spodbujati-splo%C5%A1no-dobro-po%C4%8Dutje-v-vseh-%C5%BEivljenjskih-obdobjih/3.1-pri%C4%8Dakovano-trajanje-%C5%BEivljenja-ob-rojstvu>
92. SURS. (2021e). *1. januarja 2021 v Sloveniji 2.108.977 prebivalcev ali 0,6 % več kot eno leto prej*. Retrieved June 23, 2022 from <https://www.stat.si/StatWeb/news/Index/9212>
93. SURS. (2021f). *Total expenditure on formal education in 2020 6.6% higher than in 2019 representing 5.4% of GDP*. Retrieved June 23, 2022 from <https://www.stat.si/StatWeb/en/news/Index/10012>
94. SURS. (2022a). *V terciarno izobraževanje vpisanih manj študentov*. Retrieved June 16, 2022 from <https://www.stat.si/StatWeb/news/Index/10277>
95. SURS. (2022b). *Cene življenjskih potrebščin naraščajo: v aprilu letna rast 6,9 %, mesečna 2,6 %*. Retrieved June 16, 2022 from <https://www.stat.si/StatWeb/News/Index/10293>
96. SURS. (2022c). *Indeksi cen življenjskih potrebščin po klasifikaciji ECOICOP, Slovenija, mesečno*. Retrieved June 16, 2022 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data-/0400600S.px>

97. SURS. (2022d). *Bruto domači proizvod, Slovenija, letno*. Retrieved June 16, 2022 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/0301910S.px>
98. SURS. (2022e). *Working age population by activity and activity rates, age groups, sex and cohesion regions, Slovenia, quarterly*. Retrieved June 16, 2022 from <https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0762003S.px/>
99. SURS. (2022f). *Prebivalstvo, staro 15 ali več let, po starosti, spolu in zakonskem stanu, kohezijski regiji, Slovenija, letno*. Retrieved June 16, 2022 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/05E2002S.px>
100. SURS. (2022g). *Osnovni podatki o sklenitvah zakonskih zvez, Slovenija, letno*. Retrieved June 16, 2022 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/05M1002S.px>
101. SURS. (2023). *The prices of food and non-alcoholic beverages in Slovenia the same as in Croatia*. Retrieved September 22, 2023 from <https://www.stat.si/statweb/en/News/Index/11178>
102. Tajinder, D. (2023). A study on the relationship between financial literacy and cryptocurrency investor behaviour. *International Journal of Creative Research Thoughts*, 11(3). <https://ijert.org/papers/IJCRT2303588.pdf>
103. Valicon. (2019). *Raziskava finančne pismenosti med odraslimi v Sloveniji*. <https://www.valicon.net/sl/2019/06/raziskava-financna-pismenost-med-odraslimi-v-sloveniji/>
104. van Rooij, M., Lusardi, A. & Alessie, R. (2011). Financial Literacy and Stock Market Participation. *Journal of Financial Economics*, 101(2), 449-472. <https://doi.org/10.3386/w13565>
105. Vitt, L., Anderson, C., Kent, J., Lyter, D. M. & Ward, J. (2000). Personal Finance and the Rush To Competence: Financial Literacy Education in the U.S. *Personal Finance*, 1-234.
106. Volpe, R. P., Chen, H. & Liu, S. (2006). An Analysis of the Importance of Personal Finance Topics and the Level of Knowledge Possessed by Working Adults. *Financial Services Review*, 15(1), 81–99.
107. Watanaponhvanich, S., Khan M.S.R., Putthinun, P., Ono, S. & Kadoya, Y. (2021). Financial Literacy, Financial Education, and Smoking Behaviour: Evidence from Japan. *Front Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.612976>
108. World Economic Forum. (2022). *Here's what the EU population could look like by 2100*. <https://www.weforum.org/agenda/2022/09/visualizing-the-european-union-s-aging-population-by-2100/>
109. Gok, I. Y. & Ozkale, A. (2019). Testing the Influence of College Education on the Financial Literacy Level of University Students in Turkey. *E-Journal of Business Education and Scholarship of Teaching*, 13(1), 46-58.
110. Zhao, H. & Zhang, L. (2021). Financial literacy or investment experience: which is more influential in cryptocurrency investment? *International Journal of Bank Marketing*, 39(7), 1208-1226. <https://doi.org/10.1108/IJBM-11-2020-0552>
111. ZPIZ. (2020a). *Pensions*. <https://www.zpiz.si/content2020en/pensions#x1>

112. ZPIZ. (2020b). *When can I retire?* <https://www.zpiz.si/content2020en/when-can-i-retire#x1>
113. ZPIZ. (2023a). *Odmerni odstotek.* <https://www.zpiz.si/content2019/odmerni-odstotek>

APPENDICES

Appendix 1: Summary in Slovenian

Preučevanje finančne pismenosti je zaradi vsesplošne širše dostopnosti do kreditov in rastoče zapletenosti finančnih trgov v zadnjih letih še dodatno pridobilo na pomembnosti. Precenjevanje razumevanja finančnih storitev in konceptov vodi do neprimernih finančnih odločitev, kar povečuje tveganje za dolgove in finančne težave posameznikov. Razvoj finančne pismenosti ima poglobljen pomen pri izboljšanju upravljanja osebnih financ, finančnega načrtovanja in pri izbiri primernih finančnih produktov.

Magistrsko delo raziskuje finančno pismenost, odnos do denarja in naložbene navade med slovenskimi študenti. Osredotočenost na študente izhaja iz dejstva, da se demografska slika Slovenije močno spreminja; opazen je trend staranja prebivalstva, ki bo imel znaten vpliv na dodatno oslabitev pokojninskega sistema. Trenutni sistem prvega pokojninskega stebra bo zaradi demografskih sprememb na dolgi rok nevzdržen. Posledično bodo mladi primorani poskrbeti za svojo finančno varnost in stabilnost v tretjem življenjskem ciklu.

Na podlagi 10 zastavljenih raziskovalnih vprašanj, so v delu predstavljene naslednje ugotovitve:

RV1: Anketa je pokazala, da so slovenski študenti v povprečju finančno bolj pismeni od povprečja držav G20/OECD. Ugotovitev je v skladu z literaturo, ki kaže, da Slovenija presega OECD povprečje v vseh treh dimenzijah finančne pismenosti (vedenje, znanje in odnos).

RV2: Ugotovila sva, da sta starost in izobrazba pozitivno povezani z višjo stopnjo finančne pismenosti, pri čemer moški izkazujejo višjo stopnjo finančne pismenosti kot ženske.

RV3: Slovenski študenti se bolj nagibajo k varčevanju denarja, kar je v skladu z literaturo, ki kaže, da se gospodinjstva zaradi pandemije COVID-19 bolj previdno odločajo o porabi.

RV4: Študenti so previdni pri naložbah svojega denarja, kar je v skladu s podatki, ki kažejo, da se slovensko prebivalstvo odloča za naložbe z nizkim tveganjem.

RV5: Manj finančno pismeni posamezniki manj vlagajo kot tisti z višjo stopnjo finančne pismenosti. To je skladno z literaturo.

RV6: Kriptovalute so najbolj priljubljena naložbena možnost med slovenskimi študenti. To je skladno z raziskavami, ki kažejo, da je Slovenija ena izmed najbolj kripto-prijaznih držav, kar pa je sicer kontradiktorno z izsledki iz RV4.

RV7: Pri izbiri finančnih produktov se študenti najpogosteje zanašajo na prijatelje in družino ter na specializirane spletne strani za primerjavo izdelkov.

RV8: Večina slovenskih študentov se zanaša na pokojnino iz prvega stebra kot glavni vir financiranja upokojitve, kar je v skladu z literaturo.

RV9: Finančna neodvisnost in varčevanje za nepredvidene okoliščine sta med najpomembnejšimi finančnimi cilji slovenskih študentov. Večina jih za doseganje teh ciljev zmanjšuje porabo.

RV10: Rezultati ankete kažejo, da samoocena finančnega znanja srednje pozitivno korelira z dejanskim znanjem, kar je v nasprotju z literaturo, ki trdi, da ljudje pogosto precenjujejo svoje razumevanje finančnih storitev in konceptov.

Delo v zaključku izpostavlja dejstvo, da kljub relativno pozitivnim rezultatom, ki nakazujejo na precej visoko raven finančne pismenosti študentov, določene demografske značilnosti kot so geografska lega, prihodek in izobrazba družinskih članov, negativno vplivajo na raven finančne pismenosti posameznikov. Temu primerno avtorja meniva, da bi se iniciative za izboljšanje finančne pismenosti morale prvenstveno osredotočiti na le-te, s čimer bi pozitivno vplivali tudi na širše družbeno okolje.

Appendix 2: Online questionnaire in Slovenian

Spoštovani/a študent/ka!

Hvala, da si se odzval/a na najin poziv k reševanju ankete, skozi katero želiva pridobiti uvid v finančno pismenost med slovenskimi študenti. V kolikor te zanimajo rezultati, nama lahko v okencu ob zaključku ankete pušiš naslov svoje spletne pošte, midva pa ti bova najkasneje v 3 mesecih posredovala rezultat ankete. Predstavitve rezultatov bo v najini magistrski nalogi anonimizirana, tvojega individualnega rezultata in spletne pošte ne bova delila z nikomer.

V anketi je pojem gospodinjstvo razumljen kot skupnost prebivalcev, ki skupaj stanujejo in skupaj porabljajo sredstva za zadovoljevanje osnovnih življenjskih potreb, ki se tičejo celotnega gospodinjstva (stanovanjski stroški, lahko tudi hrana in druge nujne življenjske potrebščine) oziroma prebivalec, ki živi sam. Primarno gospodinjstvo pa je razumljeno kot tisto, kjer ste odraščali oziroma vaš primarni dom.

Skupaj lahko osvojiš 21 točk!

Krištof Kuzman in Taja Novak Levstek

Q1 - Ali sami sprejemate vsakodnevne odločitve glede svojega denarja?

- Da
- Ne
- Ne želim odgovoriti
- Ne vem

Q2 - Prosim, označite vaš tip gospodinjstva.

V anketi je pojem gospodinjstvo razumljen kot skupnost prebivalcev, ki skupaj stanujejo in skupaj porabljajo sredstva za zadovoljevanje osnovnih življenjskih potreb, ki se tičejo celotnega gospodinjstva (stanovanjski stroški, lahko tudi hrana in druge nujne življenjske potrebščine) oziroma prebivalec, ki živi sam.

Primer: V kolikor večji del časa preživite v stanovanju s cimri, se to smatra kot vaše gospodinjstvo.

- Živim pri starših/skrbnikih
- Živim sam
- Živim s partnerjem
- Živim v stanovanju s cimri
- Živim v študentskem domu
- Drugo

Q3 - Kdo v vašem gospodinjstvu je odgovoren za vsakodnevne finančne odločitve, ki se tičejo celotnega gospodinjstva?

- Jaz
- Jaz in drugi, enakovredno
- Drugi (npr. starši, skrbnik, itd.)

Q4 - Ali ste v vašem vašem gospodinjstvu vi tisti, ki skrbite za katero od navedenih področij upravljanja s financami?

Možnih je več odgovorov

- Imam pregled nad prihodki in stroški.
- Imam urejene trajnike za redne mesečne stroške.
- Zabeležim si račune, ki jih še pričakujem, da ne spregledam kakšnega stroška.
- Uporabljam online orodje za upravljanje osebnih financ za spremljanje stroškov.
- Denar za plačevanje računov hranim ločeno od denarja za dnevno porabo.
- Sproti si zapisujem vse stroške.
- Ne počnem nič od zgoraj naštetega.

Q5 - Ste v zadnjih 12 mesecih varčevali denar na katerega od navedenih načinov?

Možnih je več odgovorov

- Varčujem in hranim denar doma.
- Svoj denar za namen varčevanja zaupam partnerju/družinskemu članu.
- Vlagam v sklade in delnice.
- Vlagam v depozite (npr. varčevalni račun).
- Investiram v kripto valute.
- Vlagam v obveznice.
- Varčujem kako drugače (kar ne vključuje varčevanja za pokojnino).
- Ne varčujem.

Q6 - Če se ta trenutek pojavi velik strošek v višini vašega mesečnega prihodka, bi ga lahko poravnali brez izposoje denarja ali finančne pomoči družine ali prijateljev?

- Da
- Ne
- Ne vem

Q7 - Nam lahko zaupate, kateri trije so trenutno vaši najpomembnejši finančni cilji?

Izberite tri odgovore

- nakup nepremičnine
- avto
- poplačilo kredita
- obnova nepremičnine
- varčevanje

- finančna stabilnost/neodvisnost
- šolanje
- izgradnja/dokončanje nepremičnine
- potovanje, počitnice
- notranja oprema
- drugo
- trenutno nimam finančnega cilja

Q8 - Kaj vse vi osebno naredite, da izpolnite svoje finančne cilje?

Možnih je več odgovorov

- Zmanjšam stroške
- Pripravim plan varčevanja
- Poiščem nov vir prihodkov
- Poizvem za možnosti najema kredita
- Investiram
- Povečam limit na osebnem računu ali kreditni kartici
- Drugo
- Ne naredim ničesar

Q9 - Kako dobro se vam zdi, da ste do tega trenutka poskrbeli za svojo finančno varnost po upokojitvi?

- Zelo dobro
- Dobro
- Srednje
- Slabo
- Zelo slabo

Q10 - Kako načrtujete, da bo poskrbljeno za vašo pokojnino?

Možnih je več odgovorov

- Računam na državno pokojnino.
- Moj delodajalec bo vplačeval v pokojninski sklad.
- Nadaljeval/a bom z delom.
- Imel/a bom sklenjeno življenjsko zavarovanje z rentnim izplačilom ob upokojitvi.
- Sam/a bom vplačeval/a v pokojninski sklad.
- Črpal/a bom iz finančnih sredstev (npr. delnic, skladov...).
- Načrtujem prihodke iz oddaje nepremičnin.
- Zanašam se na finančno skrb partnerja.
- Prodal/a bom svoje imetje (npr. stanovanje, avto, nakit, umetnine ...).
- Zanašam se na finančno skrb otrok ali drugih družinskih članov.
- Računam na prihodke iz podjetja, ki ga imam oziroma bom imel v lasti.
- Drugo

Q11 - Včasih se zgodi, da ljudem njihov prihodek ne zadostuje za pokritje osnovnih življenjskih stroškov. Se je vam osebno to zgodilo v zadnjih 12 mesecih?

- Da
- Ne
- Ne želim odgovoriti

Q12 - Kaj ste storili, da ste finančno pokrili preživetje, ko se vam je nazadnje zgodilo, da ste ostali brez finančnih sredstev?

Možnih je več odgovorov

- To se mi nikoli ni zgodilo.
- Zmanjšal/a sem stroške, počakal/a z načrtovanimi nakupi.
- Račune sem plačal/a z zamudo.
- Koristil/a sem limit na svojem osebnem računu.
- Denar sem vzel/a od prihrankov.
- Za pomoč sem prosil/a družino ali prijatelje.
- Vzel/a sem dodatno delo ali delal/a nadure.
- Sposodil/a sem si denar od družine ali prijateljev.
- Uporabil/a sem kartico z odloženim plačilom.
- Prodal/a sem kakšno svojo stvar.
- Zaposil/a sem za socialno pomoč.
- Vzel/a sem kredit pri banki.
- Sposodil/a sem si denar drugje.
- Prekinil/a sem dolgoročno varčevanje in dvignil/a denar.
- Uredil premostitveno posojilo pri svojem delodajalcu.
- Zastavil/a sem svoje premoženje.
- Drugo

Q13 - Če izgubite svoj glavni vir prihodkov, kako dolgo bi lahko še samostojno krili svoje življenjske stroške z lastnimi prihranki?

- Manj kot en teden
- Vsaj en teden, a ne cel mesec
- Vsaj en mesec, a manj kot tri mesece
- Vsaj tri mesece, a manj kot pol leta
- Pol leta ali več
- Ne vem

Q14 - Ali ste že slišali za katerega od navedenih finančnih produktov?

Možnih je več odgovorov

- Lizing
- Stanovanjski kredit
- Delnice ali obveznice
- Potrošniški kredit
- Kripto valute

- Vzajemni skladi
- Življenjsko zavarovanje z varčevanjem
- Depozit
- Nisem še slišal/a za nobenega od zgoraj navedenih finančnih produktov.

IF (1) Q14 != [Q14i]

Q15 - Katere od produktov ste koristili v zadnjih dveh letih (tudi, če jih trenutno ne koristite)?

	Uporabnik trenutno	Uporabnik v zadnjih 2 letih	Neuporabnik
Kripto valute			
Potrošniški kredit			
Življenjsko zav. z varčevanjem			
Lizing			
Stanovanjski kredit			
Depozit			
Vzajemni skladi			
Delnice ali obveznice			

Q16 - Katera trditev najbolje opiše način, kako ste se odločali za finančne produkte?

- Pregledal/a sem različne ponudbe in ponudnike.
- Pregledal/a sem različne ponudbe pri enem ponudniku.
- Izbral/a sem eno ponudbo in nisem pregledoval/a ostalih ponudb.
- Poizvedoval/a sem za različnimi ponudbami, a ni bilo nič primernega oz. primerljivega.

Q17 - Kateri vsi viri informacij so vplivali na vašo odločitev za finančne produkte, ki jih trenutno koristite?

Možnih je več odgovorov

- Informacije od zaposlenih v banki, na zavarovalnici ...
- Priporočilo družinskega člana, partnerja, prijatelja ali znanca
- Informacije na promocijskih materialih (letakih, brošurah ...)
- Primerjave produktov na specialističnih spletnih straneh oz. portalih (npr. Zveza potrošnikov, uradne spletne strani bank, skladov ipd. ...)

- Nasvet neodvisnega finančnega strokovnjaka
- Družbena omrežja (Instagram, Facebook, Tiktok, Youtube)
- Radijske oddaje (podcast)
- Drugo

Q18 - Prosimo ocenite, v kakšni meri za vas veljajo naslednje trditve. (Kjer je 1 - najmanj drži in 5 - najbolj drži).

	1	2	3	4	5
Če si izposodim denar, čutim dolžnost, da ga vrnem.					
Pozorno spremljam svoje finančno stanje.					
Postavim si dolgoročne finančne cilje in stremim k izpolnitvi.					
Moja finančna situacija me omejuje, da bi delal/a stvari, ki so pomembne zame in me veselijo.					
Denar je zato, da se porabi.					
Zadovoljen/a sem s svojo trenutno finančno situacijo.					
Ko se odločam za varčevanje ali investiranje svojega denarja, sem pripravljen/a tvegati.					
Trenutno sem prezadolžen/a.					
Raje sproti trošim denar, kot da bi ga varčeval za dolgoročne načrte.					

Q19 - Kako pogosto veljajo za vas naslednje trditve? (Kjer je 1 - zelo redko in 5 - zelo pogosto)

	1	2	3	4	5
Račune plačujem redno in pravočasno.					
Preden kaj kupim, pazljivo preverim, če si to lahko privoščim.					
Moje finance usmerjajo moje življenje.					

Na koncu meseca mi običajno ostane nekaj denarja.					
Pogosto me skrbi glede plačila življenjskih stroškov.					
Skrbi me, da ne bom imel/a dovolj denarja.					
Odkrito govorim o svoji finančni situaciji z ljudmi, ki jih dobro poznam.					
Občutek imam, da zaradi svoje finančne situacije nikoli ne bom imel/a v življenju tega, kar si zares želim.					
V finančnem smislu se prebijam iz meseca v mesec.					
Zaupam finančnim organizacijam, da me obravnavajo pravično.					
Menim, da je bolj pomembno za investitorje, da izbirajo podjetja z dobičkom, kot podjetja, ki minimizirajo ekološki vpliv na okolje.					
Večinoma ne prebiram drobnega tiska, ko se odločam za finančne ali zavarovalniške produkte, razen, če gre kaj narobe.					
Včasih, ko nimam dovolj denarja, kupim srečko za loterijo					
Če bi mi prodajalec vrnil več, kot bi moral, bi verjetno obdržal/a drobiž.					
Živim za danes in ne skrbim kaj bo prinesel jutrišnji dan.					

Q20 - Prosim ocenite svoje splošno znanje iz področja financ v primerjavi z ostalimi študenti v Sloveniji.

- Zelo visoko
- Visoko
- Povprečno
- Nizko
- Zelo nizko

Q21 - Predstavljajte si, da pet bratov dobi v dar 1.000 EUR. Denar si želijo razdeliti enakovredno, za kar morajo počakati eno leto, inflacija pa je 1,4 % . Bodo lahko čez eno leto:

- Za svoj del denarja kupili več, kot bi kupili danes.
- Kupili enako kot danes.
- Kupili manj kot danes.
- Odvisno, kakšne stvari kupijo.

Q22 - Svojemu prijatelju posodite 25 EUR in naslednji dan vam vrne enako vsoto denarja. Koliko obresti je plačal za to posojilo?

- 25 €
- 1 %
- 3 %
- 0 %

Q23 - Predstavljajte si, da nekdo položi 100 EUR na varčevalni račun (neobdavčen in brez provizij) z letno obrestno mero 2 % . Na ta račun ne položi nobenega dodatnega denarja. Koliko EUR bi imel na varčevalnem računu po koncu prvega leta, po pripisu obresti (vpiši samo številko)? _____

Q24 - Koliko denarja bi imel na tem varčevalnem računu po petih letih, po pripisu obresti, če se obresti shranijo na računu ob koncu vsakega leta?

- Več kot 110 EUR.
- Točno 110 EUR.
- Manj kot 100 EUR.

Q25 - Investicija z visokimi donosi je zelo verjetno tvegana investicija.

- Drži
- Ne drži
- Ne vem

Q26 - Visoka inflacija pomeni, da življenjski stroški hitro naraščajo.

- Drži
- Ne drži
- Ne vem

Q27 - Če varčuješ svoj denar na različne načine je manj verjetno, da ga boš izgubil.

- Drži
- Ne drži
- Ne vem

Q28 - Pred vami je še zadnji del vprašalnika. Predstavljajte si, da imate možnost dobiti denarni znesek v različnih prihodnjih obdobjih, ob predpostavki normalne ravni rasti cen. Označite, katerega bi izbrali. Za nadaljevanje pritisnite "Naslednja stran".

Q29 - Prva kombinacija: 15 EUR takoj ali 30 EUR čez dva meseca?

- 15 EUR takoj
- 30 EUR čez dva meseca

Q30 - Druga kombinacija: 60 EUR čez eno leto, ali 100 EUR čez 3 leta?

- 60 EUR čez eno leto
- 100 EUR čez 3 leta

Q31 - Tretja kombinacija: 500 EUR takoj ali 1.000 EUR čez 1 leto?

- 500 EUR takoj
- 1.000 EUR čez 1 leto

Q32 - Četrta kombinacija: 500 EUR čez 5 let ali 1.000 EUR čez 6 let?

- 500 EUR čez 5 let
- 1.000 EUR čez 6 let

Q33 - Prosim, vpišite vašo starost v letih. _____

Q34 - Prosim, označite vaš spol.

- Moški
- Ženska
- Drugo

Q35 - Prosim, označite iz katere regije prihajate.

- goriška
- gorenjska
- osrednjeslovenska
- obalno-kraška
- primorsko-notranjska
- jugovzhodna Slovenija
- zasavska
- posavska
- savinjska
- koroška
- podravska
- pomurska

Q36 - Prosim, označite vaš tip študija.

- Izredni študij
- Redni študij
- Nimam statusa

Q37 - Prosim, vpišite vašo najvišjo pridobljeno stopnjo izobrazbe.

- Nižje poklicno izobraževanje (2 letno) - III. stopnja
- Srednje poklicno izobraževanje (3 letno) - IV. stopnja
- Gimnazijsko, srednje poklicno -tehniško izobraževanje, srednje tehniško oz. drugo strokovno izobraževanje - V. stopnja
- Višješolski program (do 1994), višješolski strokovni program - VI/1. stopnja
- Univerzitetni program (1. bol. st) in Specializacija po višješolskem programu, visokošolski strokovni programi oziroma visokošolski strokovni (pred bolonjsko reformo) - VI/2. stopnja
- Magisterij stroke (2. bol. st.) oziroma Specializacija po visokošolskem strokovnem programu, univerzitetni program (pred bolonjsko reformo) - VII. stopnja
- Specializacija po univerzitetnem programu, magisterij znanosti (pred bolonjsko reformo) - VIII./1. stopnja
- Doktorat znanosti stopnja oziroma doktorat znanosti (3. bol. st.) - VIII/2.

Q38 - Prosim, označite univerzo, v katero ste vpisani.

- Univerza v Ljubljani
- Univerza v Mariboru
- Univerza na Primorskem
- Univerza v Novi Gorici
- Samostojni visokošolski zavodi
- Drugo

IF (2) Q38 = [1]

Q39 - Prosim, označite univerzo, v katero ste vpisani (Univerza v Ljubljani)

- Akademija za glasbo (UL AG)
- Akademija za gledališče, radio, film in televizijo (UL AGFRT)
- Akademija za likovno umetnost in oblikovanje (UL ALUO)
- Biotehniška fakulteta (UL BF)
- Ekonomska fakulteta (UL EF)
- Fakulteta za arhitekturo (UL FA)
- Fakulteta za družbene vede (UL FDV)
- Fakulteta za elektrotehniko (UL FE)
- Fakulteta za farmacijo (UL FFA)
- Fakulteta za gradbeništvo in geodezijo (UL FGG)
- Fakulteta za kemijo in kemijsko tehnologijo (UL FKKT)
- Fakulteta za matematiko in fiziko (UL FMF)
- Fakulteta za pomorstvo in promet (UL FPP)
- Fakulteta za računalništvo in informatiko (UL FRI)
- Fakulteta za matematiko in fiziko (UL FMF)

Fakulteta za socialno delo (UL FSD)
Fakulteta za strojništvo (UL FS)
Fakulteta za šport (UL FŠ)
Fakulteta za upravo (UL FU)
Filozofska fakulteta (UL FF)
Medicinska fakulteta (UL MF)
Naravoslovnotehniška fakulteta (UL NTF)
Pedagoška fakulteta (ULPeF)
Pravna fakulteta (UL PF)
Veterinarska fakulteta (UL VF)
Teološka fakulteta (UL TEOF)
Veterinarska fakulteta (UL VF)
Zdravstvena fakulteta (UL ZF)
Drugo: _____

IF (3) Q38 = [2]

Q40 - Prosim, označite univerzo, v katero ste vpisani (Univerza v Mariboru)

Ekonomsko-poslovna fakulteta (UM EPF)
Fakulteta za elektrotehniko, računalništvo in informatiko (UM FERI)
Fakulteta za energetiko (UM FE)
Fakulteta za gradbeništvo (UM FG)
Fakulteta za kemijo in kemijsko tehnologijo (UM FKKT)
Fakulteta za kmetijstvo in biosistemske vede (UM FKBV)
Fakulteta za logistiko (UM FL)
Fakulteta za naravoslovje in matematiko (UM FNM)
Fakulteta za organizacijske vede (UM FOV)
Fakulteta za strojništvo (UM FS)
Fakulteta za turizem (UM FT)
Fakulteta za varnostne vede (UM FVV)
Fakulteta za zdravstvene vede (UM FZV)
Filozofska fakulteta (UM FF)
Medicinska fakulteta (UM MF)
Pedagoška fakulteta (UM PeF)
Pravna fakulteta (UM PF)
Drugo:

IF (4) Q38 = [3]

Q41 - Prosim, označite univerzo, v katero ste vpisani (Univerza na Primorskem)

Fakulteta za humanistične študije Koper (UP FHŠ)
Fakulteta za management Koper (UP FM)
Fakulteta za turistične študije Portorož – turistica (UP FTŠ- turistica)
Fakulteta za matematiko, naravoslovje in informacijske tehnologije (UP FAMNIT)
Pedagoška fakulteta Koper (UP PEF)
Fakulteta za vede o zdravju Izola (UP VŠZ)
Drugo:

IF (5) Q38 = [4]

Q42 - Prosim, označite univerzo, v katero ste vpisani (Univerza v Novi Gorici)

Fakulteta za humanistiko (UNG FH)
Fakulteta za znanosti o okolju (UNG FZO)
Poslovno–tehniška fakulteta (UNG PTF)
Visoka šola za vinogradništvo in vinarstvo (UNG VŠVV)
Drugo:

IF (6) Q38 = [5]

Q43 - Prosim, označite univerzo, v katero ste vpisani (Samostojni Visokošolski zavodi)

Evropska pravna fakulteta v Novi Gorici (EVRO – PF)
Fakulteta za državne in evropske študije (FDŠ)
Fakulteta za informacijske študije v Novem Mestu (FIŠ)
Fakulteta za uporabne družbene študije v Novi Gorici (FUDŠ)
Gea college – fakulteta za podjetništvo (GEA COLLEGE – FP)
Mednarodna fakulteta za družbene in poslovne študije (MFDPSŠ)
Visoka šola za dizajn v Ljubljani (VŠD)
Visoka šola za tehnologije in sisteme (VITES)
Visoka šola za tehnologijo polimerov (VŠTP)
Visoka šola za upravljanje in poslovanje Novo Mesto (VŠUP)
Visoka šola za varstvo okolja (VŠVO)
Visoka šola za zdravstveno nego Jesenice (VŠZNJ)
Visoka šola za zdravstvo Novo Mesto (VŠZNM)
Drugo:

Q44 - Prosim, označite kakšen je bil v zadnjih šestih mesecih vaš zaposlitveni status ob študiju.

- Opravljal/a sem študentsko delo.
- Bil/a sem redno zaposlen/a.
- Imel/a sem odprt s.p.
- Nisem opravljal/a nobenega dela.
- Drugo:

Q45 - Prosim, ocenite kolikšen je vaš osebni povprečni mesečni neto prihodek (vključene štipendije, študentski zaslužek, žepnine itd.)

- Nimam prihodkov
- do 100 €
- do 250 €
- do 500 €
- do 750 €
- do 1000 €
- do 1500 €
- do 2000 €

nad 2000 €

Q46 - Prosim, označite število članov vašega primarnega gospodinjstva (vključno z vami).

Primarno gospodinjstvo je v anketi razumljeno kot tisto, kjer ste odraščali oziroma vaš primarni dom.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9+

Q47 - Prosim, ocenite kolikšen je povprečni mesečni neto prihodek gospodinjstva, iz katerega prihajate (brez vas).

- do 1000 €
- do 1500 €
- do 2000 €
- do 2500 €
- do 3000 €
- nad 3500 €

Q48 - Ali ste kadarkoli prejeli žepnino?

- Da
- Ne

Q49 - Živim brez redne finančne pomoči svojih staršev.

- Da
- Ne

Q50 - Ali ste trenutno v dolgoročni partnerski zvezi?

- Da
- Ne

Q51 - Ali se definirate kot kadilca?

- Da
- Ne

Q52 - Kolikšna je vaša povprečna tedenska poraba alkohola v mericah alkohola (1 merica = 1 dl vina/ 0,3 dl žgane pijače / 2,5 dl piva)?

- Ne pijem alkohola
- do 1 merica alkohola
- Do 3 merice alkohola
- Do 7 meric alkohola
- Do 10 meric alkohola
- Do 15 meric alkohola
- Nad 15 meric alkohola

Q53 - V kolikor si želite pridobiti vpogled v svoj rezultat, lahko napišete svoj naslov spletne pošte.

Appendix 3: Online questionnaire in English

Q1 - Do you make your own day-to-day decisions about your money?

- Yes
- No
- I don't want to answer
- I do not know

Q2 - Please indicate your household type.

In the survey, the term household is understood as a community of residents who live together and spend resources together to meet the basic needs of the entire household (housing expenses, food and other necessities) or a resident who lives alone.

Example: If you spend most of your time in an apartment with roommates, this is considered your household.

- I live with my parents/guardians
- I live alone
- I live with my partner
- I live in an apartment with roommates
- I live in a student dormitory
- Other

Q3 - Who in your household is responsible for the day-to-day financial decisions affecting the entire household?

- Me
- Me and others, equally
- Others (e.g. parents, guardian, etc.)

Q4 - In your household, are you the one who takes care of any of the listed areas of financial management?

Several answers are possible

- I have an overview of income and expenses.
- I have arranged perennials for regular monthly expenses.
- I make a note of the invoices that I'm still expecting so that I don't miss any expenses.
- I use an online personal finance management tool to track expenses.
- I keep the money for paying bills separate from the money for daily spending.
- I keep a record of all expenses.
- I do none of the above.

Q5 - Have you saved money in any of the following ways in the last 12 months?

Several answers are possible

- I save and keep money at home.
- I trust my partner/family member with my money for saving purposes.
- I invest in funds and shares.
- I invest in deposits (e.g. a savings account).
- I invest in cryptocurrencies.
- I invest in bonds.
- I save in other ways (which does not include saving for retirement).
- I don't save.

Q6 - If a large expense of your monthly income were to come up right now, would you be able to pay it off without borrowing money or financial help from family or friends?

- Yes
- No
- I do not know

Q7 – You can trust us. Which three are your most important financial goals right now?

Choose three answers

- purchase of real estate
- car
- loan repayment
- renovation of real estate
- savings
- financial stability/independence
- schooling
- construction/completion of real estate
- travel, vacation
- furnishings
- other
- I don't have a financial goal right now

Q8 - What do you personally do to meet your financial goals?

Several answers are possible

- I cut costs
- I prepare a savings plan
- I look for a new source of income
- I'm inquire about the possibilities of taking a loan
- I invest
- I increase the limit on my personal account or credit card
- Other
- I don't do anything

Q9 - How well do you feel you have taken care of your financial security after retirement up to this point?

- Very good
- Good
- Medium
- Bad

Very poor

Q10 - How do you plan to take care of your pension?

Several answers are possible

- I am counting on the state pension.
- My employer will pay into the pension fund.
- I will continue working.
- I will have a life insurance policy with an annuity payment upon retirement.
- I will pay into the pension fund myself.
- I will draw from financial assets (e.g. shares, funds, etc.).
- I am planning income from renting out real estate.
- I rely on the financial care of my partner.
- I will sell my possessions (e.g. apartment, car, jewelery, works of art, etc.).
- I rely on the financial care of children or other family members.
- I am counting on the income from the company I own or will own.
- Other

Q11 - Sometimes it happens that people's income is not enough to cover their basic living expenses. Has this happened to you personally in the last 12 months?

- Yes
- No
- I don't want to answer

Q12 - What did you do to make ends meet the last time you ran out of money?

Several answers are possible

- This has never happened to me.
- I reduced expenses, waited with planned purchases.
- I paid my bills late.
- I used the limit on my personal account.
- I took the money from my savings.
- I asked family or friends for help.
- I took on extra work or worked overtime.
- I borrowed money from family or friends.
- I used a deferred payment card.
- I sold some of my things.
- I applied for social assistance.
- I took a loan from the bank.
- I borrowed money elsewhere.
- I stopped long-term savings and withdrew money.
- I arranged a bridging loan with my employer.
- I pledged my property.
- Other

Q13 - If you lose your main source of income, how long would you be able to independently cover your living expenses with your own savings?

- Less than a week
- At least a week, but not a whole month

- At least one month, but less than three months
- At least three months, but less than half a year
- Half a year or more
- I do not know

Q14 - Have you ever heard of any of the listed financial products?

Several answers are possible

- Leasing
- Home loan
- Stocks or bonds
- Consumer credit
- Crypto currencies
- Mutual funds
- Life insurance with savings
- Deposit
- I have not heard of any of the financial products listed above.

IF (1) Q14 != [Q14i]

Q15 - Which of the products have you used in the last two years (even if you are not currently using them)?

	User currently	User in the last 2 years	Non user
Crypto currencies			
Consumer credit			
Life insurance with savings			
Leasing			
Home loan			
Deposit			
Mutual funds			
Stocks or bonds			

Q16 - Which statement best describes the way you chose financial products?

- I reviewed various offers and providers.
- I reviewed various offers from one provider.
- I chose one offer and did not review the other offers.
- I inquired about various offers, but there was nothing suitable or comparable.

Q17 - Which sources of information influenced your decision for the financial products you currently use?

Several answers are possible

- Information from a bank, insurance company employees, etc.
- Recommendation from a family member, partner, friend or acquaintance
- Information on promotional materials (leaflets, brochures, etc.)
- Product comparisons on specialist websites or portals (e.g. Consumers' Association, official websites of banks, funds, etc.)
- Advice from an independent financial expert
- Social networks (Instagram, Facebook, Tiktok, Youtube)
- Radio shows (podcast)
- Other

Q18 - Please rate the extent to which the following statements apply to you. (Where 1 is the least true and 5 is the most true).

	1	2	3	4	5
If I borrow money, I feel obliged to pay it back.					
I keep a close eye on my financial situation.					
I set long-term financial goals and strive to achieve them.					
My financial situation restricts me from doing things that are important to me and make me happy.					
Money is there to be spent.					
I am satisfied with my current financial situation.					
When I decide to save or invest my money, I am willing to take risks.					
I'm too busy right now.					
I'd rather spend money on the fly than save it for long-term plans.					

Q19 - How often do the following statements apply to you? (Where 1 is very rare and 5 is very common)

	1	2	3	4	5
I pay my bills regularly and on time.					

Before I buy something, I carefully check if I can afford it.					
My finances direct my life.					
I usually have some money left over at the end of the month.					
I often worry about paying living expenses.					
I'm worried that I won't have enough money.					
I am open about my financial situation with people I know well.					
I feel like I will never have what I really want in life because of my financial situation.					
Financially, I'm getting by from month to month.					
I trust financial organisations to treat me fairly.					
I believe that it is more important for investors to choose companies with a profit than companies that minimise the ecological impact on the environment.					
I generally don't read the fine print when making financial or insurance product decisions, unless something goes wrong.					
Sometimes when I don't have enough money, I buy a lottery ticket.					
If the seller gave me back more than I should have, I'd probably keep the change.					
I live for today and don't worry about what tomorrow will bring.					

Q20 - Please rate your general knowledge of finance in comparison to other students in Slovenia.

- Very high
- High
- Average

- Low
- Very low

Q21 - Imagine that five brothers receive a gift of 1,000 EUR. They want to divide the money equally, for which they have to wait a year, and inflation is 1.4%. In one year, they will be able to:

- Buy more for their part of the money than they would buy today.
- Buy the same as today.
- Buy less than today.
- It depends on what kind of things they buy.

Q22 - You lend 25 EUR to your friend and the next day he returns the same amount of money. How much interest did he pay on this loan?

- €25
- 1%
- 3%
- 0%

Q23 - Imagine that someone deposits 100 EUR in a savings account (tax-free and fee-free) with an annual interest rate of 2%. They do not deposit any additional money into this account. How many EUR would you have in your savings account after the end of the first year, after adding interest (just enter the number)? _____

Q24 - How much money would you have in this savings account after five years, after adding interest, if the interest is saved in the account at the end of each year?

- More than 110 EUR.
- Exactly 110 EUR.
- Less than 100 EUR.

Q25 - An investment with high returns is very likely a risky investment.

- Hold on
- It's not true
- I do not know

Q26 - High inflation means that the cost of living is rising rapidly.

- Hold on
- It's not true
- I do not know

Q27 - If you save your money in different ways, you are less likely to lose it.

- Hold on
- It's not true
- I do not know

Q28 - You have the last part of the questionnaire in front of you. Imagine that you have the opportunity to receive a sum of money at various future periods, assuming a normal

level of price growth. Mark which one you would choose. Press "Next Page" to continue.

Q29 - First combination: 15 EUR immediately or 30 EUR after two months?

- 15 EUR immediately
- 30 EUR after two months

Q30 - Another combination: 60 EUR in one year, or 100 EUR in 3 years?

- 60 EUR after one year
- 100 EUR in 3 years

Q31 - Third combination: 500 EUR immediately or 1,000 EUR in 1 year?

- 500 EUR immediately
- 1,000 EUR in 1 year

Q32 - Fourth combination: 500 EUR in 5 years or 1,000 EUR in 6 years?

- 500 EUR in 5 years
- 1,000 EUR in 6 years

Q33 - Please enter your age in years. _____

Q34 - Please indicate your gender.

- Male
- Female
- Other

Q35 - Please indicate which region you come from.

- Goriška
- Gorenjska
- Central Slovenia
- Coastal karst
- Coastal and inland
- Southeast Slovenia
- Zasavska
- Posavina
- Savinja
- Carinthia
- Podravska
- Pomurska

Q36 - Please indicate your type of study.

- Part-time study
- Regular study
- I have no status

Q37 - Please enter your highest level of education obtained.

- Lower vocational education (2 years) - III. rate
- Secondary vocational education (3 years) - IV. rate
- Gymnasium, secondary vocational-technical education, secondary technical or other professional education - V. level
- Higher education programme (until 1994), higher education professional programme - VI/1. rate
- University programme (1st bol. st) and Specialisation after higher education programme, higher education professional programmes or higher education professional programmes (before the Bologna reform) - VI/2. rate
- Master's degree in the profession (2nd degree in medicine) or specialisation in a higher education professional programme, university programme (before the Bologna reform) - VII. rate
- Specialisation according to the university programme, Master of Science (before the Bologna reform) - VIII./1. rate
- Doctorate of Science degree or Doctorate of Science (3rd degree) - VIII/2.

Q38 - Please indicate the university you are enrolled in.

- University of Ljubljana
- University of Maribor
- University of Primorska
- University of Nova Gorica
- Independent higher education institutions
- Other

IF (2) Q38 = [1]

Q39 - Please indicate the faculty you are enrolled in (University of Ljubljana)

- Academy of Music (UL AG)
- Academy for Theatre, Radio, Film and Television (UL AGFRT)
- Academy of Fine Arts and Design (UL ALUO)
- Faculty of Biotechnology (UL BF)
- Faculty of Economics (UL EF)
- Faculty of Architecture (UL FA)
- Faculty of Social Sciences (UL FDV)
- Faculty of Electrical Engineering (UL FE)
- Faculty of Pharmacy (UL FFA)
- Faculty of Civil Engineering and Geodesy (UL FGG)
- Faculty of Chemistry and Chemical Technology (UL FKKT)
- Faculty of Mathematics and Physics (UL FMF)
- Faculty of Maritime Affairs and Transport (UL FPP)
- Faculty of Computer Science and Informatics (UL FRI)
- Faculty of Mathematics and Physics (UL FMF)
- Faculty of Social Work (UL FSD)
- Faculty of Mechanical Engineering (UL FS)
- Faculty of Sports (UL FŠ)
- Faculty of Administration (UL FU)
- Faculty of Arts (UL FF)
- Faculty of Medicine (UL MF)
- Faculty of Science and Technology (UL NTF)
- Faculty of Education (ULPeF)

Faculty of Law (UL PF)
Faculty of Veterinary Medicine (UL VF)
Faculty of Theology (UL TEOF)
Faculty of Veterinary Medicine (UL VF)
Faculty of Health (UL ZF)
Other: _____
IF (3) Q38 = [2]

Q40 - Please indicate the you are enrolled in (University of Maribor)

Faculty of Economics and Business (UM EPF)
Faculty of Electrical Engineering, Computer Science and Informatics (UM FERI)
Faculty of Energy (UM FE)
Faculty of Civil Engineering (UM FG)
Faculty of Chemistry and Chemical Technology (UM FKKT)
Faculty of Agriculture and Biosystem Sciences (UM FKBV)
Faculty of Logistics (UM FL)
Faculty of Science and Mathematics (UM FNM)
Faculty of Organizational Sciences (UM FOV)
Faculty of Mechanical Engineering (UM FS)
Faculty of Tourism (UM FT)
Faculty of Security Sciences (UM FVV)
Faculty of Health Sciences (UM FZV)
Faculty of Arts (UM FF)
Faculty of Medicine (UM MF)
Faculty of Education (UM PeF)
Faculty of Law (UM PF)
Other:
IF (4) Q38 = [3]

Q41 - Please indicate the faculty you are enrolled in (University of Primorska)

Faculty of Humanities, Koper (UP FHŠ)
Faculty of Management, Koper (UP FM)
Faculty of Tourism Studies, Portorož - Tourism (UP FTŠ - Tourism)
Faculty of Mathematics, Natural Sciences and Information Technologies (UP FAMNIT)
Faculty of Education, Koper (UP PEF)
Faculty of Health Sciences, Izola (UP VŠZ)
Other:
IF (5) Q38 = [4]

Q42 - Please indicate the faculty you are enrolled in (University of Nova Gorica)

Faculty of Humanities (UNG FH)
Faculty of Environmental Sciences (UNG FZO)
Faculty of Business and Technology (UNG PTF)
College of Viticulture and Winemaking (UNG VŠVV)
Other:
IF (6) Q38 = [5]

Q43 - Please indicate the faculty you are enrolled in (Independent Higher Education Institutions)

European Faculty of Law in Nova Gorica (EVRO – PF)
Faculty of State and European Studies (FDŠ)
Faculty of Information Studies in Novo mesto (FIŠ)
Faculty of Applied Social Studies in Nova Gorica (FUDŠ)
Gea College – Faculty of Entrepreneurship (GEA COLLEGE – FP)
International Faculty of Social and Business Studies (MFDPSŠ)
College of Design in Ljubljana (VŠD)
College of Technologies and Systems (VITES)
College of Polymer Technology (VŠTP)
Novo mesto College of Management and Business (VŠUP)
College of Environmental Protection (VŠVO)
Jesenice College of Nursing (VŠZNJ)
Novo mesto College of Health (VŠZNM)
Other:

Q44 - Please indicate what your employment status was during your studies in the last six months.

- I did student work.
- I was employed regularly.
- I had an open sp
- I didn't do any work.
- Other:

Q45 - Please estimate what your personal average monthly net income is (including bursaries, student allowance, pocket money, etc.)

- I have no income
- up to €100
- up to €250
- up to €500
- up to €750
- up to €1,000
- up to €1,500
- up to €2,000
- over €2,000

Q46 - Please indicate the number of members of your primary household (including yourself).

In the survey, a primary household is understood as the place where you grew up or your primary home.

- 1
- 2
- 3
- 4
- 5
- 6

7

8

9+

Q47 - Please estimate what the average monthly net income of the household you come from is (excluding yourself).

up to €1,000

up to €1,500

up to €2,000

up to €2,500

up to €3,000

over €3,500

Q48 - Have you ever received pocket money?

Yes

No

Q49 - I live without regular financial support from my parents.

Yes

No

Q50 - Are you currently in a long-term partnership?

Yes

No

Q51 - Do you define yourself as a smoker?

Yes

No

Q52 - What is your average weekly alcohol consumption in alcohol measures (1 measure = 1 dl of wine/ 0.3 dl of spirits / 2.5 dl of beer)?

I don't drink alcohol

up to 1 measure of alcohol

Up to 3 measures of alcohol

Up to 7 measures of alcohol

Up to 10 measures of alcohol

Up to 15 measures of alcohol

Over 15 measures of alcohol

Q53 - If you want to get an insight into your result, you can write down your e-mail address.

Appendix 4: Hypotheses testing

H1a: The average financial literacy score is lower than 14.5 points.

Figure A.1: H1a hypothesis testing – One Sample t-test results

```
One Sample t-test

data:  data$`Financial literacy score`
t = 8.0918, df = 123, p-value = 1
alternative hypothesis: true mean is less than 14.5
95 percent confidence interval:
 -Inf 16.88696
sample estimates:
mean of x
 16.48118
```

Source: Own work.

H1b: The average financial behaviour score is greater than 6.4 points.

Figure A.2: H1b hypothesis testing – One Sample t-test results

```
One Sample t-test

data:  data$`Behaviour score`
t = 1.6876, df = 123, p-value = 0.04702
alternative hypothesis: true mean is greater than 6.4
95 percent confidence interval:
 6.404101      Inf
sample estimates:
mean of x
 6.629032
```

Source: Own work.

H1c: The average financial attitude score is different than 3.3 points.

Figure A.3: H1c hypothesis testing – One Sample t-test results

```
One Sample t-test

data:  data$`Attitude score`
t = 8.2923, df = 123, p-value = 1.63e-13
alternative hypothesis: true mean is not equal to 3.3
95 percent confidence interval:
 3.720348 3.983953
sample estimates:
mean of x
 3.852151
```

Source: Own work.

H1d: The average financial knowledge score is different than 4.5 points.

Figure A.4: H1d hypothesis testing – One Sample t-test results

```
One Sample t-test

data: data$`Knowledge score`
t = 12.215, df = 123, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 4.5
95 percent confidence interval:
 5.756924 6.243076
sample estimates:
mean of x
      6
```

Source: Own work.

H2a: Age is positively correlated with higher financial literacy levels of Slovenian students.

Figure A.5: H2a hypothesis testing – Spearman's rank correlation

```
Spearman's rank correlation rho

data: age and financial_literacy
S = 215259, p-value = 0.0002586
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.3225517
```

Source: Own work.

H2b: There is a statistically significant difference between the levels of financial literacy between male and female students in Slovenia.

Figure A.6: H2b hypothesis testing – Welch Two Sample t-test

```
Welch Two Sample t-test

data: data$`Financial literacy score` by data$Q34
t = 3.885, df = 116.97, p-value = 0.0001701
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 0.8633474 2.6588661
sample estimates:
mean in group 1 mean in group 2
 17.43275      15.67164
```

Source: Own work.

H2c: Higher education level is positively correlated with higher financial literacy levels.

Figure A.7: H2c hypothesis testing – Spearman's rank correlation

```
Spearman's rank correlation rho

data: Q37 and financial_literacy
S = 212568, p-value = 0.0001732
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.3310197
```

Source: Own work.

H2d: Students with a business major have, on average, statistically higher financial literacy scores than students with a non-business major.

Figure A.8: H2d hypothesis testing – Welch Two Sample t-test

```
Welch Two Sample t-test

data: data$`Financial literacy score` by data$Ekonomska_fakulteta
t = 3.32, df = 104.51, p-value = 0.0006201
alternative hypothesis: true difference in means is greater than 0
95 percent confidence interval:
 0.7402137      Inf
sample estimates:
mean in group DA mean in group NE
 17.49573         16.01569
```

Source: Own work.

H2e: Students from a social science background have, on average, higher financial literacy scores compared to students from natural science faculties.

Figure A.9: H2e hypothesis testing – Welch Two Sample t-test (n=113)

```
Welch Two Sample t-test

data: filtered_data$`Financial literacy score` by filtered_data$Klasifikacije_fakultete
t = -1.995, df = 71.945, p-value = 0.9751
alternative hypothesis: true difference in means is greater than 0
95 percent confidence interval:
-2.391015      Inf
sample estimates:
mean in group družboslovne vede mean in group naravoslovne vede
 15.31008                          16.61290
```

Source: Own work.

H2f: Students' financial literacy is positively correlated with households' net income.

Figure A.10: H2f hypothesis testing – Spearman's rank correlation

```
Spearman's rank correlation rho

data:  data$`Financial literacy score` and data$Q47
S = 239257, p-value = 0.005676
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.2470288
```

Source: Own work.

H2g: Students' financial literacy is positively correlated with individuals' personal income.

Figure A.11: H2g hypothesis testing – Spearman's rank correlation

```
Spearman's rank correlation rho

data:  Q45 and financial_literacy
S = 238286, p-value = 0.00509
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.2500833
```

Source: Own work.

H2h: There is a statistically significant difference between the average financial literacy scores of the Eastern and Western parts of Slovenia.

Figure A.12: H2h hypothesis testing – Welch Two-sample t test

```
Welch Two Sample t-test

data:  data$`Financial literacy score` by data$region
t = -2.4328, df = 41.563, p-value = 0.01937
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -2.6566560 -0.2471138
sample estimates:
mean in group vzhodna regija mean in group zahodna regija
      15.35714                16.80903
```

Source: Own work.

H2i: There is a statistically significant difference between the average financial literacy scores between smokers and non-smokers.

Figure A.13: H2i hypothesis testing – Welch Two-sample t test

```
Welch Two Sample t-test

data: data$`Financial literacy score` by data$Q51
t = -1.1286, df = 23.552, p-value = 0.2704
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -2.5239737  0.7406404
sample estimates:
mean in group 1 mean in group 2
      15.73333      16.62500
```

Source: Own work.

H2j: Financial literacy scores are negatively correlated with weekly alcohol consumption.

Figure A.14: H2j hypothesis testing – Spearman's rank correlation

```
Spearman's rank correlation rho

data: Q52 and financial_literacy
S = 365923, p-value = 0.09279
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
-0.1516055
```

Source: Own work.

H3: Slovenian students would rather save their money than spend it.

Figure A.15: H3 hypothesis testing One Sample t-test

```
One Sample t-test

data: Denar_je_zato_da_se_porabi
t = -1.7268, df = 123, p-value = 0.04336
alternative hypothesis: true mean is less than 3
95 percent confidence interval:
 -Inf 2.993835
sample estimates:
mean of x
 2.846774
```

Source: Own work.

Figure A.16: H3 hypothesis testing One Sample t-test

```
One Sample t-test

data:  Raje_sproti_trosim_kot_varcujem
t = -13.68, df = 123, p-value < 2.2e-16
alternative hypothesis: true mean is less than 3
95 percent confidence interval:
  -Inf 1.972314
sample estimates:
mean of x
 1.830645
```

Source: Own work.

H4: Slovenian students are not prone to taking risky decisions when it comes to investing their money.

Figure A.17: H4 hypothesis testing One Sample t-test

```
One Sample t-test

data:  Pri_investiranju_sem_pripravljen_tvegati
t = -2.2643, df = 123, p-value = 0.01265
alternative hypothesis: true mean is less than 3
95 percent confidence interval:
  -Inf 2.939469
sample estimates:
mean of x
 2.774194
```

Source: Own work.

H5: Less financially literate students tend to invest less than students with higher financial literacy levels.

Figure A.18: H5 hypothesis testing Welch Two-sample t test

```
Welch Two Sample t-test

data:  data$`Financial literacy score` by data$active_participation
t = -2.2078, df = 109.63, p-value = 0.01467
alternative hypothesis: true difference in means is less than 0
95 percent confidence interval:
  -Inf -0.2690269
sample estimates:
 mean in group no mean in group yes
 15.86164          16.94366
```

Source: Own work.

H10a: Perceived financial knowledge is negatively correlated with actual financial knowledge score.

Figure A.19: H10a hypothesis testing Spearman's rank correlation

```
Spearman's rank correlation rho

data:  Q20 and financial_literacy
S = 158570, p-value = 3.111e-09
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.5009607
```

Source: Own work.

H10b: Perceived financial knowledge is negatively correlated with financial literacy score.

Figure A.20: H10b hypothesis testing Spearman's rank correlation

```
Spearman's rank correlation rho

data:  Q20 and financial_knowledge
S = 188076, p-value = 2.54e-06
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.4081014
```

Source: Own work