Lisbon School of Economics & Management
Universidade de Lisboa

MASTER

FINANCE

MASTER´S FINAL WORK

DISSERTATION

HOW DOES FINANCIAL LITERACY AFFECT GREEN INVESTMENT DECISIONS?

IDÁLIO ALEXANDRE DA SILVA CÂMARA

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SUPERVISION:
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ISEG
Lisbon School
of Economics
& Management
Universidade de Lisboa

GLOSSARY

AI- Artificial Intelligence

CFPB- U.S. Consumer Financial Protection Bureau

EUROSIF- European Sustainable Investment Forum

ESG- Environment, Social, Government

INFE- International Network on Financial Education

JEL- Journal of Economic Literature

NGFS- Network for Greening the Financial System

OECD- Organization for Economic Co-operation and Development

SRI- Sustainable Responsible Investment

VIF- Variance Internal Factor

ABSTRACT, KEYWORDS AND JEL CODES

The need for investment is everyday growing, and with it the complexity of the financial markets. Sustainable Responsible Investments supply and demand is growing by the day, and knowing how, when, and why to invest in said investments is turning more and more essential with it. We aim to know if knowing more about the market means knowing what needs to be done and where to invest to assure a future.

We created a questionnaire with the objective to measure young people's Financial Literacy and their proneness to Sustainable Responsible Investment. This questionnaire was targeted at Portuguese under 30 years old, since the goal was to understand how the young and educated generation understand financial system.

The results were unconclusive when trying to answer the main question, but we found positive relation with risk appetite, and shorter investments. This can be translated to the possibility that people still, wrongfully, see Sustainable Responsible Investments as riskier.

In regard to the reason why the results were inconclusive to test our hypothesis it might be because the present educational system already shows the importance of sustainability to the students.

Keywords: Financial Literacy, Education, Sustainable Finance, Risk Perception

JEL CODES: G11; G51; G53; Q56

RESUMO

A necessidade de investimento está a crescer diariamente, assim como a complexidade dos mercados financeiros. A oferta e procura por Investimentos Sustentáveis e Responsáveis aumentam a cada dia, e saber como, quando e por que investir nesses tipos de investimentos está a tornar-se cada vez mais essencial. O nosso objetivo é perceber se conhecer mais sobre o mercado significa saber o que deve ser feito e onde investir para garantir um futuro.

Criámos um questionário com o objetivo de medir a Literacia Financeira dos jovens e a sua predisposição para Investimentos Sustentáveis e Responsáveis. Este questionário foi direcionado a portugueses com menos de 30 anos, uma vez que o objetivo era compreender como a geração jovem e educada entende o sistema financeiro.

Os resultados foram inconclusivos ao tentar responder à questão principal, mas encontrámos uma relação positiva com o apetite pelo risco e com a propenção a investimentos de curto prazo. Isto pode ser traduzido na possibilidade de que as pessoas ainda, erroneamente, veem os Investimentos Sustentáveis e Responsáveis como mais arriscados.

Relativamente à razão pela qual os resultados foram inconclusivos para testar a nossa hipótese, poderá dever-se ao facto de o sistema educativo atual já evidenciar a importância da sustentabilidade para os estudantes.

Palavras-Chave: Literacia Financeira, Educação, Finanças Sustentáveis, Percepção de Risco

Códigos JEL: G11; G51; G53; Q56

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DISCLAIMER

This master thesis was developed with strict adherence to the academic integrity policies and guidelines set forth by ISEG, Universidade de Lisboa. The work presented herein is the result of my own research, analysis, and writing, unless otherwise cited. In the interest of transparency, I provide the following disclosure regarding the use of artificial intelligence (AI) tools in the creation of this dissertation:

I disclose that AI tools were employed during the development of this dissertation as follows:

1. Elicit.com, an AI-based research tool used solely to assist in finding literature linked with this dissertation topic for literature review.
2. ChatGPT.com, AI-powered software was utilized solely to assist in coding for data analysis and visualization.

Nonetheless, I have ensured that the use of AI tools did not compromise the originality and integrity of my work. All sources of information, whether traditional or AI-assisted, have been appropriately cited in accordance with academic standards. The ethical use of AI in research and writing has been a guiding principle throughout the preparation of this dissertation.

I understand the importance of maintaining academic integrity and take full responsibility for the content and originality of this work.

Idálio Alexandre da Silva Câmara, 15/10/2024

1. INTRODUCTION

"*Alone we can do so little, together we do so much*" - Hellen Keller.

Everyday more news come out about climate change, climate regulations, natural disasters and it is irrefutable that the world and its climate is changing. Having this in mind it is important to understand how financial markets can contribute towards fight against climate change impacts, since climate change has been recognised as cause of financial risks, and hence as a cause of future economic losses. (NGFS, 2023)

Since we humans were the cause of these changes in the environment, we have the obligation to revert, or at help revert said changes. One of the ways that we can is through Sustainable Responsible Investments and to do said investments we need to know how to invest in the first place.

Nicolli and Cude, 2022, argue that "basic economic-financial knowledge – normally called financial literacy – is highly relevant to essential choices in various aspects/moments of the individuals' life cycle, from youth to seniority", these essential choices vary from individual to individual and from generation to generation, since the priorities of each are different.

As such, the main objective of this dissertation is to understand if there is any relationship between Financial Literacy and Sustainable Responsible Investments, also known as Green Investments or Sustainable Investments. This dissertation tries to analyse if having more financial literacy implies a higher appetite for investing greener. And if so, then it becomes clear that introducing financial literacy in early stages of the education system, can contribute towards a future more resilient economy due to higher investments in sustainable/green funds.

There are already studies done on this subject, but our objective is to assess the level of Financial Literacy and proneness to Sustainable Responsible Investment in young people (18-30).

The following chapters present a literature review about existing research about this subject, proceeded by an explanation of our dissertation question and hypothesis development. Afterwards we explain the data, how it was obtained, how it was treated

and why, proceeded by the results. Lastly, we have conclusions of the data obtained, possible explanations for it aswell and possible future research suggestions.

2. LITERATURE REVIEW

When we try to define Financial Literacy we come across many studies, all with different definitions but all revolving around the same idea. One of the oldest, and among the most used, definitions we can find is from Jump$tart Coalition, which says that it is "The ability to use knowledge and skills to manage one's financial resources effectively for a lifetime financial security" (Jump$tart Coalition, 1997). According with Hung et. al. (2009) financial literacy is defined as the "Knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources effectively for a lifetime of financial wellbeing". More recently, Organization for Economic Co-operation and Development (OECD) has defined financial literacy as the "Knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial context, to improve the financial well-being of individuals and society, and to enable participation in economic life" (OECD, 2014).

According with Nicolini and Cude (2022) Financial Literacy is a multidimensional concept, which can be composed by the following components:

- Financial Knowledge: A component common to everyone trying to define Financial Literacy, being a term mostly used interchangeably in many papers and media. For this dissertation we will use the definition that it is knowledge about financial planning, wealth accumulation, debt and pensions. (Lusardi and Mitchell's, 2014)
- Financial Skills: Which can be defined as the "action component of financial capability – the skills to put financial knowledge to use" CFPB (2018)
- Financial Attitudes and Behaviours: (OECD, 2020) Defined Financial Attitudes as spending and saving preferences of individuals, and their short-term or long-term view of life, while Financial Behaviours was defined as saving and long-term planning, making considered purchases, and keeping track of cash flows. We will also include in this component people's self-confidence in their Financial Knowledge.

The above definitions are important, since a wide range of literature argues that most people take bad financial decisions putting their future well-being at risk. (Lusardi and Mitchel, 2011; Klapper et.al., 2015). Having this in mind and that the objective of this dissertation is to find a relationship between Financial Literacy and Sustainable Responsible Investments, we want to improve knowledge in this topic in order to help improve future investments.

Stella et. Al. (2020) created a questionnaire in order to able to evaluate Financial Literacy, by defining what was comprehended as Financial Literacy and various how it has been studied through the passing of this last 30 years. This questionnaire measures Financial Knowledge, Financial Skills, Financial Attitude and Subjective Financial Satisfaction and Knowledge.

They used both Exploratory Factor Analysis, used to discover the factor structure in a dataset without needing to impose any initial structure to the outcome, and Confirmatory Factor Analysis, used to test if the data fits a factor structure or not, to test the questionnaire validity, getting favourable results in said tests. So, we chose this questionnaire, to use in our evaluation of Financial Literacy.

We also have to note the importance of Behavioural Finance in Sustainable Responsible Investments. Behavioural Finance can be defined as "the application of psychology to financial decision making and financial markets" (Shefrin, 2010), which is our target, understanding how financial decision works and how to make it be more sustainable. The 3 main Behaviours that might affect SRIs are:

- Risk Aversion: There is a tendency of investors to avoid losses, instead of seeking gains, if Sustainable Responsible Investments are seen as risky by these investors, they will avoid them. Research shows that this can happen in investments in sustainable ventures, specifically to those not familiar with the sustainability landscape. (Barberis & Thaler, 2002)
- Overconfidence: This happens when investors overestimate their ability to predict the market and their knowledge about investing. Investors with overconfidence might not invest sustainably just by believing that they can outperform those investments with traditional ones. Studies show that

overconfidence leads to suboptimal investment choices, which reduces the probability of investing in sustainable options. (Odean, 1998)

- Social Preferences: We have to consider that social and environmental affect how someone makes decisions, even investment decisions. Social preferences can, or not, instigate someone to invest sustainably. Research proves that individuals with strong social preferences will engage in sustainable responsible investing more often. (Bénabou & Tirole, 2009)

Investors in general, specially in Western Europe and USA, have an increasing interest in investing with environmental and social consideration in mind, responding to the challenges brought by global industrialization (Eurosif, 2008). This type of investments has been growing in European market, and in 2008 about 17,6 euros in every 100 euros invested were in either ethical or SRI funds (Eurosif, 2008).

It is also important to have in mind that SRI funds have increased attention from both investors and companies, Kiymaz (2019) analysed how do SRI perform compared to certain defined benchmarks, Barclays US Aggregated Bond, Russell 1000, MSCI World Russell 2000 and S&P 500, having the SRI funds outperformed 2 out of the 5.

According to Urwin and Watson (2010) "there are significant investment opportunities for those that focus their attention on 'sustainable investing" and we also know that "sustainable finance has arisen as a key driver of change as global economies struggle with urgent concerns, including climate change, global warming, pandemic, social inequality, and corporate governance" (Yucel et. Al., 2023), but how do we define what is Sustainable Responsible Investment?

A Sustainable Responsible Investment can be defined as "investment strategies and philosophies that attempt to incorporate environmental, social and governance (ESG) concerns into investment decision-making" (Abor, 2023) or, simply put, "the practice of incorporating social and environmental goals into decisions." (Camilleri, 2017).

So having both of these definitions in mind and also that Financial Literacy's importance in learning to help improve sustainable futures through Sustainable Responsible Investments has been proven by Zulfikri (2024), specially "By integrating climate-related concepts and case studies into financial literacy curricula, educators can provide learners with a holistic understanding of the implications of climate change on

financial markets, investment decisions, and personal finances.” (Zulfikri, 2024). We will try to see if this relationship still stands.

3. RESEARCH QUESTION AND HYPOTHESIS

The objective of this dissertation is to try to understand if there is any connection between young people Financial Literacy and how prone they are to invest in sustainable responsible investments. As stated in the previous chapter, previous literature comes to prove that Financial Literacy has an almost direct contribution to sustainable responsible investments, but since these studies were applied to people already inserted in the work market, our objective will be to see how the new generations are affected by it.

So, the main question that we will try to answer is: How much does Financial Literacy affect young people proneness to investing in a sustainably responsible manner? Furthermore, since we are studying one possible cause to invest sustainably, we will aswell study demographic characteristics that might influence said investments.

So, our first hypothesis is:

H0: Financial Literacy affects sustainable responsible investments in young people

Opposed to:

H1: Financial Literacy does not affect sustainable responsible investments in young people

4. DATA AND METHODOLOGY

4.1. Data Acquisition

Our data was collected via online survey, done through google forms. The survey was available between the 18th of August and the 3rd of October of 2024, the average response time was 12 minutes and was shared to students at different Portuguese universities.

The survey includes an initial demographic and clustering part, with common questions such as Age, gender but we also ask about what they studied in high school, what their present study field is and where they did their high school (Portuguese District), although the answers for these last 2 questions were grouped in order to be easier to process the information.

Afterwards we have some investing interest questions for us to be able to distinguish between who have already invested or not, and risk appetite.

Then we proceed to have the financial literacy evaluation questions, which all questions were taken and adapted from Stella et al., (2020). The questions taken were from the financial knowledge, financial attitude and subjective financial satisfaction and knowledge. This particular study also includes financial skills, which were not included in the survey. The adaptations done were to the range in the financial attitude part, where it originally was from 1-7, and was change from 1-5 so it would be easier to respondents to identify better what each number is on scale.

The last part of the survey is to evaluate the proneness to invest in sustainable responsible investments, which was adapted from Johnston (2022). These slight adaptations were done to better fit our target demographic. We obtained a total of 86 answers to the survey, but 4 had to be discarded since they were from respondents with 31 or more years. So, we ended with 82 answers for analysis purposes.

4.2 Data Demographics

In terms of demographics, we got 12,2% of answers from people between 18 and 20 years old, the majority, 78%, with ages between 21 and 25 years and 9.8% within the range of 26 to 30 . In terms of gender division, we have 49 answers identifying as female, 59.8%, 32 as Male, 39%, and 1 as other, 1.2%. Because we only have one as other, we will group it with the female group for statistical purposes.

In terms of where they did high school, we had every Portuguese district and outside of Portugal as options, we grouped up as shown: Algarve, Alentejo, Greater Lisbon, West and Tejo's Valley, Center, North, Madeira, Azores and Outside of Portugal.

The studies done in Highschool were divided by: Sciences and Technologies (45.1%), Economics (23.2%), Human sciences (8.5%) and Vocational Courses (7.3%). And for the higher education fields we have: Economics (48.8%), Health (17.1%), Social and Human Sciences (13.4%), Applied Sciences and Technologies, e.g.: Engineering, (7.3%), no data, so might not have done a higher education, (6.1%), Exact Sciences (4.9%) and Art (2.4%).

Location-wise we aggregated, as said above, the answers according to Portuguese regions, we obtained the following results: 46.4% for Greater Lisbon, 24.4% Outside of Portugal, 8.5% for both Portuguese Center and West and Tejo's Valley regions, 4.9% North, 3.7% Madeira, 2.4% Azores and 1.2% Algarve.

The average value of Financial Literacy, (Financial Knowledge + Financial Attitude) / 2), respondents obtained was 68.6%, with the highest value being 100% and the lowest 29%. In term of Proneness to Sustainable Responsible Investment the average is 48.4%, being the highest value 88% and the lowest 0%.

4.3. Methodology

We will be building a Beta-Regression model because our dependent variable, Proneness for Sustainable Responsible Investment takes values between 0 and 1 (0% and 100%). The model and statistical analysis was done using the coding platform Google Colab.

The model will be:

(1) $\text{SRI Proneness} = \alpha + \beta_1 \text{ Age} + \beta_2 \text{ Gender} + \beta_3 \text{ Study Field} + \beta_4 \text{ Highschool Region} + \beta_5 \text{ Highschool Study Field} + \beta_6 \text{ Investor} + \beta_7 \text{ Holding Time} + \beta_8 \text{ Risk Appetite} + \beta_9 \text{ Financial Literacy}$

It is important to note that Age, Gender, Study Field, Highschool Region, Highschool Study Field, Investor, Holding Time and Risk Appetite will be turned into dummies according to their own answers, this will be considered in the regression analysis, but it wasn't in writing the model for simplicities sake. The hidden dummy (so if the dummies

are all "0") for each is: Age- 18-20, Gender- Female and Other, Study Field- Art, Highschool Region- Alentejo, Highschool Study Field- Art, Investor- No, but thought about investing, Holding Time- From 1 to 5 years, Risk Appetite- 1.

4.4. Data Analysis

TABLE 1 – BETA REGRESSION ANALYSIS

Name	*Estimate*	*Standard Error*	*z Value*	*Pr(>|z|)*
Intercept	0.309923	0.268485	1.154	0.24836
Financial Literacy	0.155536	0.156802	0.992	0.32123
Age (21-25)	0.049655	0.079382	0.626	0.53163
Age (26-30)	0.092484	0.105037	0.880	0.37879
Gender	0.024537	0.046197	0.531	0.59533
Study Field (Applied Sciences and Technologies)	-0.110622	0.180858	-0.612	0.54077
Study Field (Economics)	-0.031539	0.171950	-0.183	0.85447
Study Field (Exact Sciences)	-0.087823	0.195415	-0.449	0.65313
Study Field (Social and Human Sciences)	-0.026426	0.174644	-0.151	0.87974
Study Field (Health)	-0.100111	0.172205	-0.581	0.56100
Study Field (DK/DA)	-0.021138	0.173760	-0.122	0.90318
Highschool Region (Algarve)	-0.168693	0.171255	-0.985	0.32460
Highschool Region (Azores)	-0.108802	0.165183	-0.659	0.51011
Highschool Region (Center)	-0.144860	0.135062	-1.073	0.28348
Highschool Region (Outside of Portugal)	-0.203129	0.128348	-1.583	0.11350

Highschool Region (Greater Lisbon)	-0.110173	0.107360	-1.026	0.30480
Highschool Region (Madeira)	0.005389	0.137976	0.039	0.96884
Highschool Region (Norte)	-0.136910	0.164311	-0.833	0.40471
Highschool Region (West and Tejo's Valley)	-0.070176	0.119701	-0.586	0.55769
Highschool Study Field (Sciences and Technologies)	-0.436329	0.219254	-1.990	0.04658**
Highschool Study Field (Vocational Course)	-0.588359	0.232036	-2.536	0.01122**
Highschool Study Field (Economics)	-0.685764	0.245811	-2.790	0.00527***
Highschool Study Field (Human Sciences)	-0.484384	0.235765	-2.055	0.03993**
Highschool Study Field (DK/DA)	-0.560603	0.250144	-2.241	0.02502**
Highschool Study Field (Other)	-0.405941	0.216582	-1.874	0.06089*
Investor (No, never thought about it.)	-0.173927	0.077501	-2.244	0.02482**
Investor (Yes, but very little.)	0.029446	0.057759	0.510	0.61018
Investor (Yes, actively.)	0.022833	0.066893	0.341	0.73285
Holding Time (6-10 years)	0.028583	0.062587	0.457	0.64790
Holding Time (More than 10 years)	-0.041108	0.060411	-0.680	0.49620
Holding Time (Less than a year)	0.114204	0.060578	1.885	0.05940*
Risk Appetite (2)	0.253537	0.130101	1.949	0.05132*
Risk Appetite (3)	0.180052	0.117272	1.535	0.12470
Risk Appetite (4)	0.235812	0.136966	1.721	0.08519*

Phi	266.8	219.3	1.217	0.224
Log(nu)	0.3090	0.5593	0.552	0.581

Accepted for a significance level of: * 10%; **5%; ***1%

We can now easily reach some conclusions and analyze the answers obtained.

The Phi coefficient in beta regression models describe the dispersion of the model. In our case, it indicates how the variance of SRI Proneness is distributed in different observations.

Because the P-Value for the Phi coefficient, the value of significance in the statistical model, is not significant to any of the common acceptance levels, 0.224 > 0.1, we know that the dispersion (precision) of this model is not particularly strong.

The Exceedance Parameter (nu) in a regression model measures situations where the data exceeds the boundaries of said standard distributions (Beta distribution in our case, we need values from 0 to 1). If this value is significant, we should consider an Extended-Support Beta Regression Model to be able to have more flexibility when modeling outcomes.

Because we have an Exceedance Parameter (nu) that is not significant, 0.581 > 0.1, so we have no benefit to try and do an Extended-Support Beta Regression Model.

Given that we have a relatively high number of variables; after estimating the model it would be essential to check for multicollinearity, so if 2 or more independent variables are highly correlated with each other. This parameter, usually, is investigated through the calculation of the VIF (Variance Internal Factor).

The Variance Internal Factor is a measure that quantifies how much variance of a regression coefficient of one independent variable is inflated because of another independent variable being present in the model. However, the VIF considers all variables as separate and independent, which is not the case in our context, because most of our variables in the model are Dummy Variables. Consequently, performing this calculation would yield extremely high values. Therefore, we proceeded with the construction of a correlation matrix to assist us in identifying potential correlations between Independent Variable not part of the same dummy group (In appendix).

Having in mind that our objective was to test if Financial Literacy affected Sustainable Responsible Investment, because in this model Financial Literacy has a P-value of 0.32123, which is bigger than 0.1, we know that for this data set and model Financial Literacy is not statistically significant, which goes against previous literature.

Having this in mind there are still variables that can be considered, for example according to regression:

- Highschool Study Field has a significant effect on proneness to Sustainable Responsible Investment,
- People who haven't invested aswell,
- People who intend or invest for less than a year,
- And Risk Appetite has a positive significant effect on how much someone will invest in Sustainable Responsible Investments.

5. CONCLUSION

As referred, the main objective of this study was to test the hypothesis that Financial Literature has a positive effect on Sustainable Responsible Investment, this hypothesis was not proven, since the significance level of the test itself was not enough for us to be able to prove our point.

Possible reasons for such a low significance in this test can be, the fact that we didn't test for Financial Skills, such as suggested in the study of Stella et. Al. 2020. Other possible reason is that, because our study focuses on young people (under 30 years), Financial Literacy might have become "obsolete" in order to show the importance of Sustainable Responsible Investment to people. Other reasons could have to do with the respondents themselves, having more responses would help having a more accurate data set and model, having a bigger diversity of responses would also help having a more realistic data set. Lastly, the way of researching for proneness of Sustainable Responsible Investments might not have been the most effective, using another base survey, or creating our own could have helped having a more systematic approach.

Having all of this in mind, we can still take conclusions with our survey, even if not directly related to our hypothesises, firstly that Highschool Study Field has a good significance level on this model, which can mean that it is something that could be studied in the future, although with a negative coefficient, there might be something that we can change in our teaching system that can help more young people understand the importance of this specific type of investments.

Both Risk Appetite and Holding Time less than one year have a positive coefficient in the model, both are related, since normally holding an investment for a shorter amount of time is seen as less secure (Estrada, 2013) so it makes sense that one is and the other are correlated. We can conclude, about this specific data set, that Sustainable Responsible Investments are still seen as riskier than other investments, even though past literacy, present performance and future tendencies all prove otherwise.

Interesting topics for future research are to apply this survey, or an upgraded version of it, to more people, in different places and with focus on getting the most diverse study field background possible. A topic for future research that can be studied outside of the

scope of finance, is how education is affecting young people perceptions of sustainability, it's importance and of what Sustainable Responsible Investments are, both in terms of definition and in terms of interpretation (it's returns, future perspectives, etc.).

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APPENDICES

Google Colab Python Code Link :

https://colab.research.google.com/drive/1NrRzXi2IFJsvgldyIgE9OTlh7jFVEfoR?usp=sharing

Treated Data Link:

https://docs.google.com/spreadsheets/d/1eh0jDiWB3lMjxjy9xODBT6oDHj4zqUCO/edit?usp=sharing&ouid=110666429452782579902&rtpof=true&sd=true

Questionnaire:

1. In what language do you want to take the quiz? (Em que idioma prefere fazer o questionário?)

Português

English

Presentation and Demographic Questions

Intro: Hello! My name is Idálio Câmara, I'm a Finance Masters Student at ISEG, Universidade de Lisboa. To do my master's final work, I'm doing a quiz for higher education students in all study areas. My objective is to be able to collect data about the student's financial literacy and sustainable investment preferences and see possible connections between said data.

The quiz is confidential, and the data obtained will only be used for academic purposes. It takes around 10/15 minutes to answer and you don't need to do it all at once, you can take a break and come back after some hours by pressing the link again.

By answering this quiz, you consent with the use of the given data to statistical ends. In the future, if you wish you can ask to correct or delete the information given, as stipulated in the General Data Protection Regulation.

Any question that you don't want to answer or that you don't know you can press the option DA/DK (Don't answer/Don't know).

If you have any question and/or feedback you can contact me through my e-mail: l53684@aln.iseg.ulisboa.pt

2. What’s your age?

-18

18-20

21-25

26-30

31+

3. What gender do you better identify with?

Male

Female

Other

Prefer not to Answer

4. What's your area of studies?

Architecture

Art

Science

Law

Farmacy

Human Studies

Medicine

Psychology

Social Sciences

Education

Geography

Agronomy

Economics

Engineering

DK/DA

5. Where did you do your high school?

Azores

Aveiro

Beja

Braga

Bragança

Castelo Branco

Coimbra

Évora

Faro

Guarda

Leiria

Lisboa

Madeira

Portalegre

Porto

Santarém

Setúbal

Viana do Castelo

Vila Real

Viseu

Outside Portugal

6. What did you study in high school?

Visual Arts

Science and Technology

Human Sciences

Socioeconomic Sciences

Professional Qualification Course

Other

DK/DA

7. Do you invest?

Yes, when I'm able to.

Yes, but very little.

No, but I intend to.

No, never thought about it.

DK/DA

8. For how long would you intend to hold an investment?

Less than 1 year

1-5 years

6-10 years

More than 10 years

DK/DA

9. How would you describe your risk appetite? (How much would you accept more risk to have more return)

Range from 1 (Very Low) to 5 (Very High)

Questions to Evaluate Financial Literacy

Intro: When you don't want to answer or don't know, you can click on the DK/DA (I don't know/I don't answer) option.

10. Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years how much do you think you would have in the account if you left the money to grow?

More than $102 (Correct Answer)

Exactly $102

Less than $102

DK/DA

11. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year how much would you be able to buy with the money in this account?

More than today

Exactly the same

Less than today (Correct Answer)

DK/DA

12. Please tell me whether this statement is true or false. “Buying a single company’s stock usually provides a safer return than a stock mutual fund.”

True

False (Correct Answer)

DK/DA

13. Please tell me whether this statement is true or false. “A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest over the life of the loan will be less".

True (Correct Answer)

False

DK/DA

14. If interest rates rise what typically happens to bond prices?

They fall (Correct Answer)

They rise

They stay the same

There is no relationship between bond prices and interest rates

DK/DA

Question to evaluate Financial Attitude

Intro: In the following questions, answer the following statements honestly**.**

15. Before buying something I ask myself if I have paid my necessary expenses.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

16. Before buying something I compare prices.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

17. Before signing a financial contract I carefully read its contents.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

18. I am careful to distinguish between necessary and unnecessary expenses.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

19. Before making a major purchase I make sure that my savings are sufficient to cover any sudden expense.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

20. The first thought I have when I borrow money is that I want to return the money on time.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

21. If I know the costs I will have to incur tomorrow I’ll think about it today.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

22. Before making online payments I concern about the security of my data.

Range from 1 (Completely Disagree) to 5 (Completely Agree)

23. Overall thinking of your assets debts and savings how satisfied are you with your current personal financial condition?

Range from 1(Not Satisfied) to 5 (Completely Satisfied)

24. How would you rate your overall financial knowledge?

Range from 1 (Very Bad) to 5 (Very Good)

Sustainable Interest

Intro: In the following questions, answer the following statements honestly

25. If you have one what is your required rate of return or hurdle rate (%) for investments? (minimum annual return you would accept for any investment)

26. How likely are you to prefer a sustainable investment over a traditional investment?

Range from 1 (Very Unlikely) to 5 (Very Likely)

27. What returns do you expect from a sustainable investment compared to the wider market?

Range from 1 (Much Lower) to 5 (Much Higher)

28. How likely are you to recommend sustainable investments to others?

Range from 1 (Very Unlikely) to 5 (Very Likely)

29. Please Rank your motivations for sustainable investing: (from 1 to 5 being 1 the most important and 5 the least)

Resilience (e.g. reliability of returns)

Environment (e.g. climate change)

Performance (e.g. Outperforming market)

Legacy (e.g. children's futures)

Empowerment (e.g. diversity)

30. From the following values evaluate their importance: (from 1 to 5 being 1 the least important and 5 the most)

Protecting the environment

Social Justice

Equality

Honesty

Loyalty

31. In case you want to receive the dissertation after the presentation please leave your email below

Table of Correlations: