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COURSE	Accounting and Finance
DISSERTATION TOPIC	Is finance literacy linked to working-class people's money expenditure and savings behaviour?
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WORD COUNT	7096
DUE DATE	26/11/2022

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ABSTRACT

The study aimed to determine whether financial literacy affects how working-class people spend and save their money. The primary objective was to establish how important it is to have a fundamental knowledge of finance in order to make better financial decisions and, as a result, more readily improve living conditions.

In order to conduct the study, 93 randomly selected participants from various nationalities and backgrounds were given survey questions. The sole requirement for participation was that participants must be covered by a current work contract in order for the responses about the balance of their income and expenses to be more accurate. Along with basic questions like age and income, they were asked about their money spending, income balance, history of financial education, inflation knowledge, investment attitude, and investment risk perception.

The relationship between financial behaviour and education has been found to exist. People who have received financial education often handle their money responsibly, have better investment attitude, and have clear risk assessments when it comes to investment decisions.

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1. INTRODUCTION

1.1. Introduction to the project context

Since my youth, I've been encouraged to save money due to a shortage on family earnings so that I could achieve things - like a study exchange program abroad - which otherwise would be impossible. It made me learn how to focus on what was important to my future rather than focus on what I call today a "momentary luxury" – material¹ or immaterial things people acquire not because they need them but because they want to show it, just like social status or to be within a certain group).

1.2. Objectives of the study

The study aims to understand if the way people deal with their income has any direct link with jobs or formal studies they may have done previously. Do people with experience in financial-related jobs tend to make better use of their money or do even the ones who have got financial education during basic school know how to spend their money wisely? If so, the for the financial freedom is to give people financial education when they are still young?

Another question to be investigated is if people are aware of the effect of inflation on their money over a certain period. Inflation is, in simple words, the decrease of the purchasing power of a certain currency over time. Do these people who manage to save money understand this precept? What do they do to get around this situation?

Many people around the world have low financial literacy, making them keep struggling when it comes to saving money and achieving better things for their future or the family's next generation. Books like "Rich Dad Poor Dad" explain in practical terms the differences between families with a minimum financial plan and families with no idea what to do with their salaries, sometimes - or most of the time – not even able to save any money.

In theory, people financially literate (people with a background – studying or working – in any field related to finance) tend to have a better understanding when it comes to making better use of their savings but do social contexts (such as financial difficulties) also helps on it?

1.3. Statement of the research objectives

a) A closer look at the term Financial Literacy

How is Financial literacy officially defined? Who can be considered to be financially literate?

b) The importance of financial education in schools.

How important is it to have at least a basic education on financial matters during the basic education years?

c) The profile of the household's expenditure.

How do families deal with their expenditures? What is the average budget and cost of living of families around the world? Is it balanced?

d) What is people's behaviour when it comes to money savings and investment? Do people manage to have some savings after paying their bills?

e) The profile of private investors

What is the background of private investors? How do they manage to have a positive balance on their expenditure/earnings?

1.4. Information gathering & data collection

This primary study will be based on quantitative research with survey interviews to establish a link between financial literacy, the capacity of saving money and small investors. The research will be based on several multiple-choice questions. The questions will be focused on their professional profile, study background, how they manage their money (personal finance), knowledge about inflation and types of investments.

It will be used Google forms to apply and assess the data collected. The sample will be accessed via links shared randomly in virtual groups of the most variety of people's interests as possible to guarantee the research will not be skewed and also it will be answered by people actually working in the area.

1.5. Expected outcomes of the study

It is expected that there will be a direct link between people with any background related to finance and how the income is managed in terms of savings and possibly generating passive income via investing or running a side business.

The outcome could help educational companies understand the profile of those who do not know about investments to offer more exclusive products based on what they need to build a passive income and move towards financial freedom.

Another possible – and even more important – effect this study may cause is that it may give an insight into the importance of the addition of financial education lessons in secondary schools to teach the students how to deal with their income or future income at a

basic level. That would help to avoid financial complications inherent in not knowing what to do when it comes to money expenditure.

1.6. Chapter-by-chapter overview

1.6.1. Chapter 1 – Introduction

This chapter presents the Introduction to this project as well as the objective of the study in detail. The research questions are presented here together with Information gathering & data collection.

1.6.2. Chapter 2 – Literature review

The five research objectives are presented as an in-depth study of the research subject. An overview of the definition and history of the term "financial literacy," the significance of financial education in schools, how families make ends meet with their income, how individuals behave when it comes to saving and investing money, and the characteristics of investing.

1.6.3. Chapter 3 - Methodology

The methodological approach, the philosophy used, the basis for the method's adoption, the sampling procedure, the method's analysis, and the ethical portion are all thoroughly explained in this chapter.

1.6.4. Chapter 4 - Empirical findings

The conclusions from the research and the empirical evidence are presented in this chapter with detailed data according to each research question.

1.6.5. Chapter 5 - Analysis and discussion findings

The study's analysis, findings, limitations, and suggestions for additional research are all included in this chapter.

2. LITERATURE REVIEW

2.1. A closer look at the term Financial Literacy

2.1.1. What is financial literacy?

Defining what financial literacy means in practical terms is not as easy as it may look at a first glance. Depending on the author or entity it may be defined in different ways according to their point of view. This kind of discrepancy is commonly found in areas of study making it an arduous task to find a consensus.

One of the definitions is that financial literacy has to do with the concepts of someone's ability to understand and apply financial concepts to make decisions related to their personal finance. (Lucey, et al., 2015). Another definition of financial literacy is "that financial literacy has been variably defined as (a) a specific form of knowledge, (b) the ability or skills to apply that knowledge, (c) perceived knowledge, (d) good financial behaviour, and even (e) financial experiences." (Hung, et al., 2009)

For this study purpose, it will be used the definition used by the US Department of Treasury in its 2020 report on the National Strategy for Financial Literacy (U.S. Financial Literacy and Education Commission, 2020): "Financial literacy describes the skills, knowledge and tools that equip people to make individual financial decisions and actions to attain their goals". In other words, a financial literate is a person who can make financial decisions based on previous knowledge.

2.1.2. Who can be considered to be financially literate?

In order to classify the groups of financial literate and non-financial literate, the study will consider the financial background - in terms of studies or job experience – as enough "skills, knowledge and tools" to give someone the definitions of financial literate.

2.1.3. Financial literacy around the world

Lusardi & Mitchell (2011), studied financial literacy around the world. One of the findings was that well-developed markets do not have a direct link to their population's behaviour on financial questions. Countries like Germany, Sweden, Japan USA and other developed countries face low levels of financial literacy.

Another interesting finding of this study (Lusardi & Mitchell, 2011) is that people from countries that have recently faced inflation issues tend to be more aware of inflation questions

whereas people from countries where there is a history of deflation tend to not have much knowledge on inflation matters.

In any case, this study found that financial literacy tends to be lower no matter where the country is or how developed its market is.

A study performed in Brazil found that “young adults from families with higher incomes had higher levels of financial education, which was also noted with young adults from families with fewer members.” (Silva, et al., 2017, p. 300)

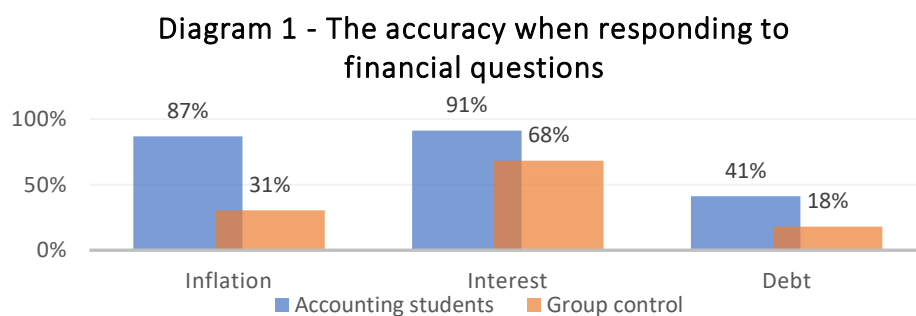
2.1.4. Comparing literate and non-literate groups: previous studies

Comparing one group with specific traits with a control group is an interesting way of understanding the behaviour and the difference between the main group and society in general.

In a Turkish study (YATBAZ & ÇATIKKAŞ, 2019), the researchers tried to find out if Accounting and Finance students (from my perspective according to my definition, would be considered financially literate) were able to answer financial-specific questions with more accuracy than the control group (people not related to accounting and finance studies). They asked a bunch of financial questions with themes related to the day-to-day life of any person.

Among the questions, the ones with more relevance for this project were the questions about interest, inflation and debt, as seen below on the chart:

Figure 1: Accounting students and non-literate group: knowledge about finance questions.



YATBAZ & ÇATIKKAŞ, 2019

It is worth noting that differences in knowledge when it comes to financial-specific questions are expected once those questions are part of the study plan of the finance and accounting students.

The difference between those groups in the questions related to “Debt” and “Interest” remains constant at 13 percentage points. The “Inflation” subject presents a way higher difference though: 56 percentage points.

The lack of knowledge of inflation is expected for non-literate people and this is one of the main issues when it comes to saving money as some of them tend to keep their money in a way that does not cover the cost of the inflation over time.

2.1.5. Critical analysis

The definition given by the National Strategy for Financial Literacy (USA), will be used as a reference for people with enough knowledge and tools to make important financial decisions. Authors who have studied the incidence of finance literate people around the world discovered that in general, it is low independent of the country or financial situation. But it may change when there is some kind of formal financial education.

2.2. The importance of financial education in schools

2.2.1. Financial education – a general perspective

Financial education has become an important matter that has been discussed among policymakers around the world. The population is continuously more stand in need of making financial decisions due to the increase of the integration of the economy and also due to the recent crisis some countries have faced recently. (Becchetti, et al., 2011)

Yet according to Becchetti, et al (Becchetti, et al., 2011, p. 2), “the lack of financial education may produce several negative effects on individual and aggregate well-being”. When individuals do not have enough knowledge to make the right financial decisions they may be led to go into an indebted situation where sometimes is hard to get out on their own.

Another consequence of not being able to understand how money works properly is that it may cause a huge difference in knowledge between the borrower and the financial advisor and it may lead to a conflict of interest making the individual get into financial traps. (Becchetti, et al., 2011)

2.2.2. Financial education in schools

It is crescent the concern with financial education in schools but up until a few years in the past, this financial education program was focused on “corrective” or “compensatory” in adults, but it was giving them weak effects on their financial behaviours. But in contrast, these

programs, when applied to children and teenagers yet in schools, tend to have better effects once they are more malleable due to being yet in cognitive development. (Frisancho, 2018)

In Brazil, students do not recognize the school as a source of knowledge when it comes to financial matters, instead, they tend to have their financial advice from their parents at home and their parents usually are not financially educated. All of this leads to a lack of financial literacy in the population in general causing high levels of indebtedness among adults. (Silva, et al., 2017)

A study was driven in Italy intending to find out the effects of a 16-hour course in financial education on high school students. The students were divided into two groups and both were interviewed while only one received the course. The comparison between those two groups allowed the researchers to find out that “a 16-hour course of financial education significantly affects students’ financial literacy, their propensity to read (and capacity to understand) economic articles in newspapers, and their virtual investment attitudes”. (Becchetti, et al., 2011, p. 20)

2.2.3. The financial education on investment attitudes

Investments are widely known as one of the most popular ways of generating passive income. The savings when properly invested in the most varied sorts of products may have the desired effect of beating the cost of inflation and still generate yield enough to give the investor a good return.

The already cited study made in Italy (Becchetti, et al., 2011) also showed that students that had the 16-hour course had changes in their investment attitudes while the students without the course did not have any significant change. In order to measure these changes, they simulated investments with both groups and found that the students that received the course tended to hold less cash trying to make better use of their money.

2.2.4. Critical review

Authors have agreed that formal financial education is vital when it comes to financial literacy. And when they have to decide where to invest, those financially literate tend to accept more risky investments due to their understanding of the investing concepts.

2.3. The profile of the household's expenditure

2.3.1. Family budgets

The equilibrium of a family's income and expenditure is vital for the well-being of the individuals who are part of the household. Expending less than their income is the basis for a healthy life in financial terms so that individuals can meet their needs without entering into debt.

One of the most important rules to start investing is not having major debts, so the income surplus can be allocated and the investment kept for an adequate time to the product chosen. Only having some sort of surplus after meeting all the basic expenses an individual can think of starting investing once the return from his portfolio may not exceed the interest paid from their debts causing a negative balance between the earnings from the investment and the expenses with the interest from the debts.

A study carried out in the USA showed that "42% of families living in cities and 30% of families residing in rural areas fall short of basic family budget thresholds" (Allegretto, 2006, p. 44)

2.3.2. Cost of living and CPI

The measurement of the cost of living is important to understand the quality of life of householders and it is directly linked to inflation in products and services. One of the most used techniques is the Consumer Price Index, CPI, where the final price for the consumer is compiled from time to time and shows the changes in the cost of living in certain regions and also it helps to compare it against other regions. (Boskin, et al., 1998)

The CPI has the objective of measuring the price variation of certain basic products and services that are consumed by basic working families. (Alchian, et al., 2018)

2.3.3. Cost of living in Ireland

The cost of living of holders in Ireland is also directly linked to inflation rates. Ireland also uses CPI as a measurement of the change in the cost of families over time. It is calculated over 53,000 prices of products and services and the results are released on a monthly basis. (Central Statistics Office - CSO, 2022)

According to the Central Statistics Office of Ireland (2022), the inflation rate has risen by 7% in the year to April 2022. The items which change have mostly influenced the inflation rise were Housing, water, electricity and gas with a change of 17.1% and transport changing as high as 18.9%. (Central Statistics Office - CSO, 2022)

2.3.4. Critical review

It is a consensus that one way to get rid of debts is to have income higher than expenses. According to some studies, roughly 35% of American families live under basic family thresholds. The cost of living is increasing. In Ireland, the inflation for the last 12 months is about 7%, so is getting more important to financial education so that families can get around the increase in the cost of living.

2.4. What is people's behaviour when it comes to money savings and investment?

2.4.1. Savings behaviour

In daily life is possible to observe that some people could save more money than others. But what makes them so different in something so essential in modern society?

Research from 2015 tries to understand the origins of individual savings behaviour by studying identical twins. It has been found that "an individual's savings behaviour is governed by both innate genetic predispositions, social transmission of behaviour from parents to their children, and gene-environment interplay where the environment moderates genetic influences.". Among these three characteristics that shape someone's attitude when it comes to savings, "individual-specific experiences turn out to be a very important explanation for behaviour in the savings domain, and most intensely so in urban communities." (Cronqvist & Siegel†, 2015, p. 31)

Another study suggests that previous studies on this matter state that savings behaviour may be directly proportional to their income. In other words, individuals who have higher incomes are more likely to save more money. But according to this same study, "augmenting saving in society could probably be achieved more indirectly by influencing individuals' positive perceptions of his/her financial situation." (Maisonl, et al., 2019, p. 11)

Adult savings and investments have direct effects on variable factors such as parental social status, occupational qualifications and educational qualifications. But the most factors that may influence adults' savings and investments are "their personal subjective financial assessment followed by educational qualifications and current occupational prestige".

(Furnham & Cheng, 2019, p. 2)

2.4.2. Investment behaviour

Some people manage to save money but just a few, for the lack of financial education, invest it trying to gain some return and/or to guarantee a tranquil retirement. But in the case of those who invest, what are the factors that influence or incentive them to keep saving their income so they can invest it and generate passive income?

A study made in the United Arab Emirates (UAE) found that the main factors that led investors to start or to choose how and where to invest are: “expected corporate earnings, get rich quick, stock marketability, past performance of the firm’s stock, government holdings and the creation of the organized financial markets.” The same study also pointed out the factors that are less important to investors when it comes to investment: “expected losses in other local investments, minimizing risk, expected losses in international financial markets, family member opinions and gut feeling on the economy”. (Al-Tamimi, 2006, p. 2)

2.4.3. What stops people from investing their savings?

Not everybody who manages to save at least a little from their income knows what to do with it and even fewer of them know how to start investing. But what keeps them away from starting investing?

Part of this problem has already been explained before in this article. The lack of knowledge when it comes to financial education is something present everywhere around the world, no matter if the country is developed or if the market is strong. People tend to not even know about the possibilities that investing may provide for their future. But when families realize it, there may be some factors that stop them from starting investing.

To have as an example it is pointed out that in Thailand individuals tend to not get into some financial instruments because the initial investment is too high. Another possible issue is that the lack of knowledge in investment principles leads savers to not try investing because they find it too risky for their savings preferring instead to keep their money in regular savings accounting even knowing that it results in a lower return. (Suppakitjarak & Krishnamra, 2015)

2.4.4. Critical review

Authors have stated that the behaviour of individuals when it comes to savings may be genetic but also might be socially influenced according to their family situation and the

economic situation of the country they live in. This also impacts the way the investment is seen, creating barriers between the individuals and investments.

2.5. The profile of investors

2.5.1. Why do people invest?

Investors around the world might have numerous reasons and motivations to start investing as well as objectives and targets. Some investors look for more secure and stable products such as some government bonds, others might tend to take more risk trying to get higher returns such as stocks of growing companies and yet another class of investors prefer to invest in companies where they can have constant passive income through dividends paid consistently to shareholders. There are yet other individuals that aim to generate a return by looking into the future to provide education to their children or even trying to guarantee a comfortable retirement.

2.5.2. The choice of the investment portfolio

The choice of a strategy or portfolio is linked directly to the risk perception of the investor. (Arena & Zenginb, 2016) But there are also other reasons to follow a specific strategy to reach the goals the investor is aiming for.

Personality traits are not as vital as it is financial literacy when choosing where to invest. The less literate the investor is the more risk-averse products they prefer while “investors with a high propensity to take risks prefer respectively foreign exchange, equity and portfolio.” (Arena & Zenginb, 2016)

2.5.3. Risk perception

As seen above, the choice of an investment product or portfolio may also be affected by risk perception. This perception is usually linked to financial literacy and even to the investor’s gender. (Arena & Zenginb, 2016)

Some studies link the risk perception of the individual to emotional factors such as worry. (Olsen, 1997) It is also linked to the wealthy professional status where non-professionals tend to be more sensitive to more risky options – financial literacy has a vital role in investment choice. (MacGregor, et al., 1999)

Another study shows a wider range of categories or dimensions: “distrust of the product

and/or provider; the seriousness of adverse consequences; volatility of return; poor knowledge and/or observability; and failure of regulation.” (Diacon & Ennew, 2001, p. 389)

2.5.4. Critical review

It is well established that the risk perception of investors is highly influenced by the previous knowledge they have acquired up to that point. The more knowledgeable the more risk they are willing to take in order to generate more returns.

3. METHODOLOGY

3.1. Research Methodology

The research methodology to be used will be mainly focused on understanding some historic patterns such as previous experiences, and previous studies. The data collected to study these topics will be mostly quantitative. Following the principles that the data collected will be mainly quantitative as it is aimed to understand society in the context of financial literacy and also the fact that the theory of the direct influence of financial literacy on individuals' behaviours in the context of money-saving and investments. The methodology that best fits these objectives is positivism.

But because the nature of the study is human behaviour, a small part of the questionnaire will be qualitative. Part of the problem is rounded by social phenomena such as what people think about a topic and opinions/points of view will also be asked. This kind of question is more related to interpretivism.

3.2. Research Approach

The main focus of the study is to understand some patterns of people's money expenditure. For this part of the study, a deductive approach will be used through a survey with closed questions to collect quantitative data.

Another part of the study will be focused on peoples' behaviour using inductive research. For this session, open-ended questions will be done through questionnaires allowing the responders to give their opinion/points of view.

3.3. Justification for the adoption of the method

In research terminology, the method is the tool used to collect primary data for further analysis. The quantitative method means that the primary research will be based on survey cartoon tests and word completion and will be translated into tables and charts for numerical analysis. The qualitative method is used for interview research, observations, opinions questions, etc.

The method chosen for the collection of the primary data will be a survey covering all research questions. This quantitative method has been chosen due to the sample being vast in terms of geographical distribution and due to the different backgrounds of the responders. Because the idea is to understand tendencies, this quantitative method will help to detect patterns in a big database collected from a vast sample from different locations and backgrounds. The downside of this method is that the answers will not get deep into the people's thoughts on the subject and also de answers might be misunderstood by the responders.

3.4. Sampling

The research will be focused on people actively working (people who are employed and receiving salaries/wages as usual). Will be also included professionals from related areas such as finance, accounting and economy professionals or any other.

The survey will focus on people with regular income because they are the decision-makers in their household when it comes to expenditure (it will be another question to be asked: if they have the last word on where the money goes in their home).

The idea here is to compare if a minimum background in the economy changes anything when it comes to saving or investing money.

There is no code-specific code to differentiate responders with or without a financial background. Those will be discriminated against through one of the questions asking if they have a related background.

The sampling size is based on 100 responders divided between 20% with professionals linked to financial services and 80% other working people not related to the above-mentioned field.

3.5. Ethical considerations

In order to guarantee the most reliable outcome of the study, the research was mindful of all ethical considerations related to this study. The questionnaire was carefully designed to guarantee that the outcome is free of any possible bias from the research.

The responders were totally free to stop answering at any time as the completion of the survey was not mandatory in any instance. No personal data was collected so it is not possible to track and link any answers to any participant.

The language used to design the questions was as simple as possible to guarantee that the topics were easy to be understood independently of the background of the responder.

4. EMPIRICAL FINDINGS

4.1. Introduction

This chapter will present the findings of the research carried out on 93 randomly employed people from different nationalities who responded to a 14-questions survey about the five themes previously described in this work.

The majority of the responders were from Brazil, corresponding to 30% of the total, but most of them – 85% - were living in Ireland at the moment of the survey. There were 14 different nationalities living in 5 different countries.

Diagram 2 – Residency countries

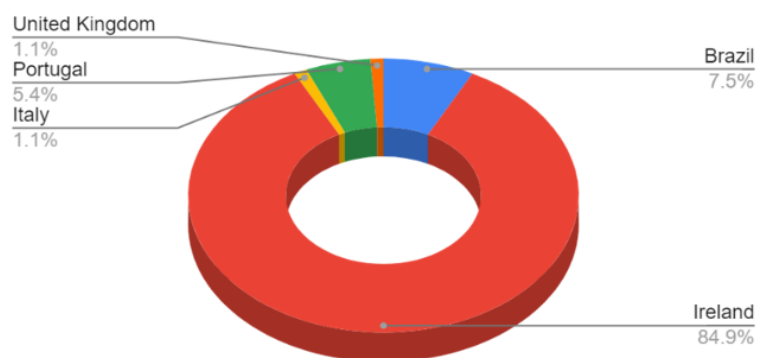
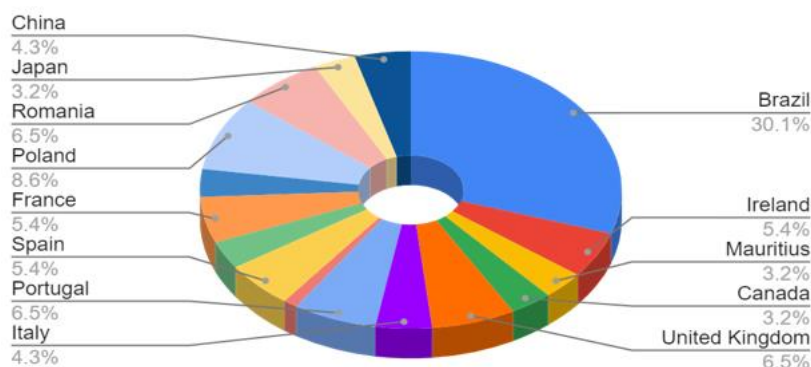


Diagram 3 - Nationalities



The five major themes of the research served as the foundation for the questionnaire and the interviews. The analysis and findings will be shown below.

4.2. Data analysis

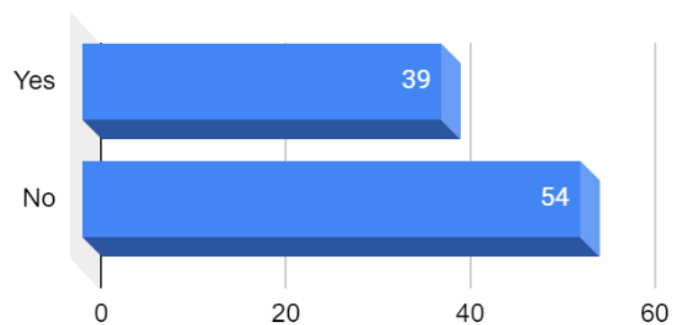
The core of this work was a quantitative research and interpretivism paradigm, For that matter, the data analysis will be concentrated on analysing the data collected crossing the information with the literature review.

Each research question is linked with related questions from the survey. Some survey questions can be linked with more than one research question as the questionnaire was designed to be as simple as possible and yet be enough to cover as much of the literature research as possible.

4.2.1. Getting deeper into financial literacy

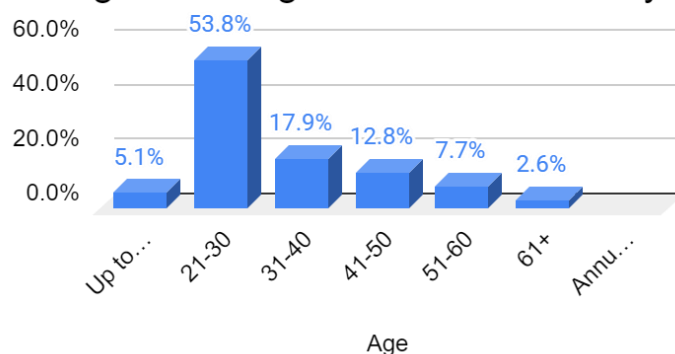
One of the criteria for one person to be considered financially literate is “that financial literacy has been variably defined as (a) a specific form of knowledge, (b) the ability or skills to apply that knowledge, (c) perceived knowledge, (d) good financial behaviour, and even (e) financial experiences.” (Hung, et al., 2009). One of the questions was if the person had any previous working experience in any field related to finance.

Diagram 4 – Do you or have you ever worked in any area related to finance?



From the total of 93 answers gathered, 39 (42%) answered to have some sort of finance-related experience while 54 (58%) do not have any. What is very interesting is that more than half of the financially literate responders are aged between 21-30 years. Also, the data shows that the higher the age range is the lower the frequency of financially literate people is.

Diagram 5 - Age vs financial literacy



Only 5% of the people aged up to 20 years are financially literate. This is particularly a reason for concern once the tendency was the increase of financially literate people up until 21-30 years. Further investigation into the motives for such a low frequency should be carried out. It is valid to highlight that this age range corresponds to only 7.5% of the total responders so any further research should try to gather a higher frequency of this age group.

The following table presents a comparison between the salary and the age group of the responders.

Interestingly the salary range tends to be higher among those with some sort of experience in finance. This is not conclusive, though, because the annual salary range €32,001-€43,000 concentrates more than the double of the

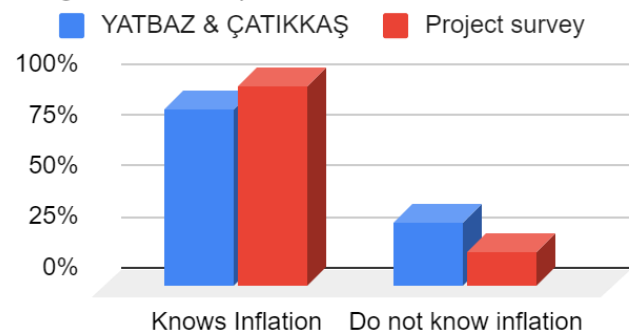
Annual salary	Previous experience in finance-related areas	
	Yes	No
I prefer not to say	2.2%	2.2%
Up to €22,000	4.3%	8.6%
€22,001 - €32,000	12.9%	25.8%
€32,001 - €43,000	8.6%	19.4%
€43,001 - €53,000	6.5%	0.0%
More than €53,001	7.5%	2.2%

frequency “No” compared to the ones with some financial experience. Any further research should try to add more ranges in order to understand where exactly financially literate people start to be the majority.

But, in fact, the table shows a tendency of financially literate people to have higher salaries when compared to the opposite group.

YATBAZ & ÇATIKKAŞ (2019) in their study found that 87% of the finance students interviewed had knowledge about inflation while only 31% of the control group proved to have some knowledge of it. For this project was asked if they considered themselves financially literate and, in another question if they had any knowledge about inflation. As it is being shown on the graph beside, the outcome was quite in line with the Turkish study, but with even a higher difference in knowledge about inflation between financial and non-financial literate responders.

Diagram 6 - Comparative between studies



4.2.2. Financial education in schools

According to Becchetti (2011), the term is having a crescent importance in discussions among policymakers as it is vital for the financial health of the population once the lack of it may produce negative effects on the population's well-being. Frisancho (2018) carried out a study that showed that financial education programs are more effective in children than in adults.

In order to compare a study carried out by Becchetti (2011) where it was found that a short financial course affected positively the students making them have a higher tendency to read more about the subject in a newspaper or any other source and also to change their investment attitudes.

This project tried to triangulate the history of financial education in schools and the knowledge about inflation and investment attitudes.

About 48% of the respondents said to have some kind of investment. Analysing only the investors, 64% of them confirmed that they have some sort of

financial education back in school. Also isolating those who know about inflation, 56% had financial education in schools. It confirms what was found in the above-mentioned study where the history of financial education can change their investment attitudes and improve their knowledge of finance-related matters.

Table 2 – History of financial education vs Number of investors and knowledge about inflation		
History of financial education?	Yes	No
Invest?	64%	36%
Know about inflation?	56%	44%

4.2.3. The profile of the household's expenditure

A study carried out by Allegretto (2006) found that a significant amount of families fall short of a basic family budget. The study was based in the USA, where they discovered that about 30% of the families living in the cities don't always manage to have a positive balance of their income

For the purpose of this study, a question asking how their income is, in terms of the balance between their earnings and their expenditure was done.

The majority of the respondents – 38% - said that their income is "Slightly higher than my basic expenditure - I can spend some money on personal". When combined with the respondents who said they always had a positive income balance, they came to about 67%. On the other hand, only about 6.5% of them said to usually or always have a negative balance, a significantly lower result compared to the study carried out in the USA.

Table 3 - Your Income is	
Always higher than my basic expenditure - I can always save money and/or spend it on whatever I want	29.03%
Just enough only for paying my basic expenditure (bills/debts)	26.88%
Slightly higher than my basic expenditure - I can spend some money on personal things	37.63%

Usually slightly lower than my basic expenditure - I'm at risk of getting into debt	5.38%
Always lower than my basic expenditure - I'm in debt	1.08%

One intriguing finding from this research was that none of the respondents who said that they typically or always had a negative income balance had received any formal financial instruction in school. Conversely, 80% of those who claimed to always have a positive income balance claimed to have had some form of financial instruction in school.

4.2.4. Savings behaviour and Investment attitudes

- **Savings behaviour**

Individual-specific experiences seem to be a major component of the explanation for savings-related behaviour, according to Cronqvist & Siegel's (2015) study on people's behaviour in terms of the origin of their savings. Another study (Maisonl, et al., 2019, p. 11) figured out that people with higher income tend to have better behaviour when it comes to saving money.

In order to check if this behaviour can also be found in Europe, the answer to the questions about income was cross-checked with their income balance, not considering the ones from people from outside Europe.

About 12% of the respondents said to have a salary equal to or higher than €43,001 per annum. From this small group, 91% said to always have a positive income balance.

Table 4 – Income vs Income balance

	Always lower than my basic expenditure	Usually slightly lower than my basic expenditure	Just enough only for paying my basic expenditure	Slightly higher than my basic expenditure	Always higher than my basic expenditure
I prefer not to say	0	1	2	0	1
Up to €22,000	1	1	4	3	1
€22,001 - €32,000	0	3	10	16	6
€32,001 - €43,000	0	0	8	12	6
€43,001 - €53,000	0	0	0	0	6
More than €53,001	0	0	0	1	4

It is clear that none of the people who make more than €32,000 a year experience any

difficulties in maintaining a positive income balance.

- **Investment attitude**

In a study by Suppakitjarak & Krishnamra (2015) pointed out that some of the reasons that make people not invest are: a lack of knowledge, and finding it too risky. One question regarding it was asked with a few options:

When analysing the table below, it is possible to see that there is a frequency of investment in every income range, being the most frequent among the ones earning €22,000-€43,000 per annum. Another interesting fact is that the frequency of those who do not invest for reasons related to lack of knowledge, think it is too risky do not see the point of investing or think it is only for rich people is very low between the ones with higher income (+€43,000)

Table 5 - Income vs investment risk perception

	I invest	I already invest/ I'm planning to start investing in the near future	I think it is too risky - I'm afraid of losing my money	Lack of knowledge - I don't know how to do it	I don't see the point of investing - not interested	My income is not higher than my expenses so I do not have any savings	Investment is only for rich people
I prefer not to say	0	3	1	0	0	0	0
Up to €22,000	0	5	1	3	1	1	1
€22,001 - €32,000	1	17	7	6	0	2	3
€32,001 - €43,000	0	11	4	4	5	0	2
€43,001 - €53,000	0	6	0	0	0	0	0
More than €53,001	0	7	1	1	0	0	0

4.2.5. The profile of investors

Arena & Zenginb (2016) states that the choice of investment strategy is directly linked to the investor's risk perception. Also, the less literate the person is, the more averse to risk he/she is. MacGregor (1999) found out in his study that the choice of the portfolio is also linked to professional status. When the individual is professional, he/she tends to be more sensitive to more risky options.

It was put to the test by questioning participants in the study about their risk tolerance and the types of financial products they use.

The graph above shows the investment products utilized by persons with financial experience vs those without financial experience. According to prior research, individuals with finance experience choose more sophisticated financial items such as equities, mutual funds, and cryptocurrencies. Those with less expertise choose to select items from their bank, where they may receive some assistance.

Diagram 7 – Financial experience vs investment strategy

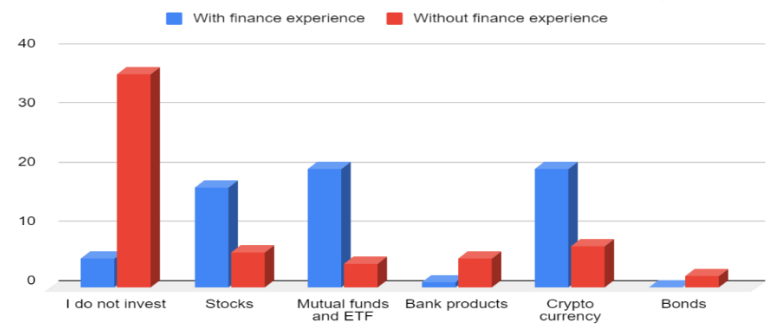
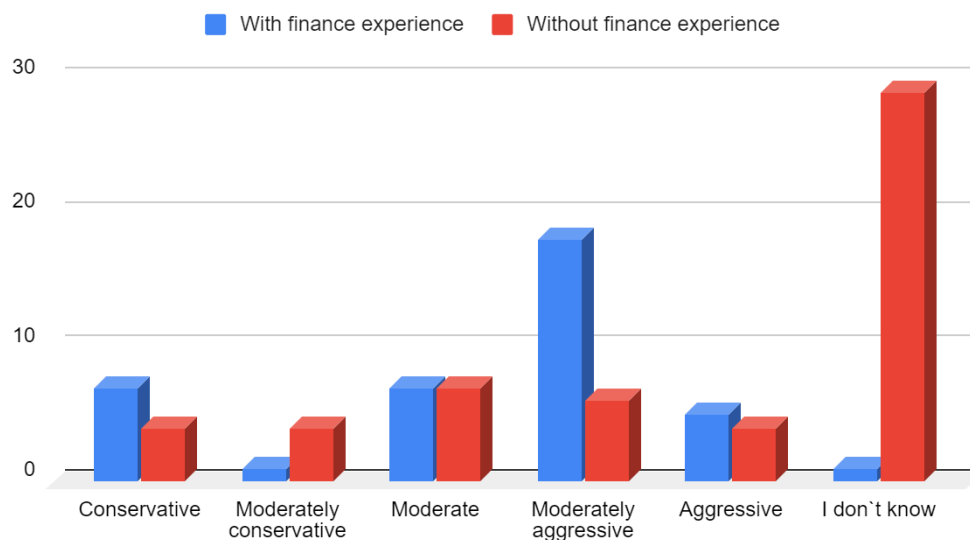


Diagram 8 – Financial experience vs risk perception



The graph above shows the risk perception among those with financial experience and those who have not. The professionals are more concentrated in the aggressive and moderately aggressive groups while the non-professionals tend to be moderately conservative. The conservative group is dominated by professionals. This is not in line with the tendency of the other answers therefore further investigations should be done on it.

5. ANALYSIS AND DISCUSSION FINDINGS

The study, in general, was in line with the literature review findings.

People who are financially knowledgeable tend to be between the ages of 21 and 30. The youngest age group in the study revealed a tendency to be financially illiterate, with just

5% having any awareness of financial problems. Another intriguing discovery is that persons who are financially knowledgeable earn more than those who are not. They dominate the higher salary category, and the average salary is more likely to be with people who are not financially knowledgeable.

Financially knowledgeable persons often have better wages than the other group and are more likely to be between the ages of 21 and 30.

When it comes to analysing financial knowledge, the findings are likewise consistent with previous studies. The group that received financial education invested more and was more aware of inflation. This is critical because if people recognize that depositing their money in one location with no return may have negative long-term consequences, they may change how they handle their finances.

When it comes to salary range, it was found that workers with higher salaries tended to have more control over their personal finance. This group also has the propensity to downplay the importance of the issue or to think that investing is not too risky.

Another intriguing conclusion is that, compared to the group without any financial expertise, people who have some experience tend to invest in more sophisticated sorts of investments. Additionally, it was discovered that the group with the most financial expertise invests far more frequently than the group with the least financial experience, which only contains a limited number of investors.

Finally, it was observed that the more experience a person has in financial matters, the more risk person accepts. The group with less financial understanding, however, has a tendency to be more risk-conservative. Despite this, the majority of the conservative group consisted of financially competent people, which goes against the trend discovered in this study.

6. CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1. Conclusion

This study aimed to understand how important it is to have financial knowledge in the day to day life and how it could be advantageous when it comes to financial decisions such as investments or even how the person leads with their income.

After analysing the survey responses and cross-referencing the information with what was discovered in the literature review, it was discovered that there is a significant change in people's perceptions and financial attitudes, such as the choice of investing savings or keeping the money somewhere with no yield; selecting an investment strategy; and making it easier to

have a positive income balance.

As previously said, financial education is critical for making better judgments about how to spend money and handle finances. Financial education in schools for young people has the potential to make those youngsters more financially literate adults, supporting them in building a more prudent financial life and avoiding issues associated with money spending.

Therefore, if there is one lesson to be learned from this research, it is that receiving a good financial education in school is essential for both personal achievement and, why not, national success.

6.2. Limitations and recommendations

The survey was mostly focused on transnational individuals, the majority of whom reside in Dublin. This is a constraint because, although coming from various regions of the world, they are living in the same society and earning far more money than they did before. It is proposed that more research be conducted that takes into account not only nationality but also residence. It is important to highlight that this was attempted for this study, but owing to difficulties in obtaining more varied participants, it ended up with a substantial concentration of Irish domiciliated responders.

Another suggestion is to go further into the causes of particular frequencies, such as young individuals with poor financial literacy. If a salary range were to be included in the research, it would be advised that a tighter range be used in order to more clearly identify higher and lower incomes.

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APPENDICES

Appendix I - Informed Letter of Consent Plain Language Statement.

Electronic consent: *

Click on "Agree" if you

- Have read the description above
- Agree to participate voluntarily
- Is actively working and receiving salary/wages
- Is at least 18 years of age

☐ Agree

☐ Disagree

Appendix II - Sample Questionnaire

Where are you from?*

Choose

Where do you currently live?*

Choose

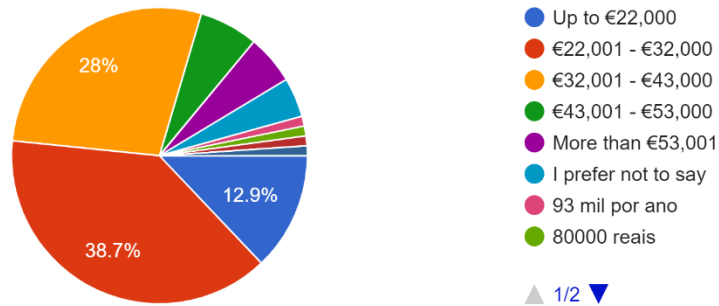
What is your annual Income (Euro)? *

If you do not earn in Euro you may add your annual income in the "Other" field together with your currency.

- Up to €22,000
- €22,001 - €32,000
- €32,001 - €43,000
- €43,001 - €53,000
- More than €53,001
- I prefer not to say
- Other:
-

What is your annual Income (Euro)? If you do not earn in Euro you may add your annual income in the "Other" field together with your currency.

93 responses

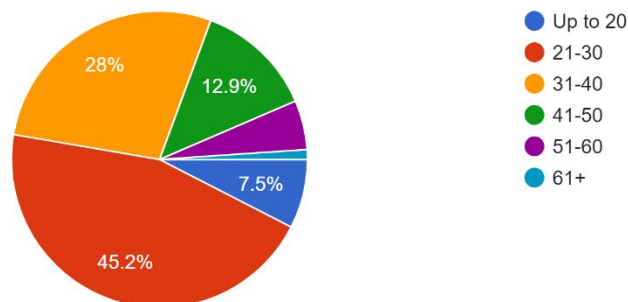


What is your age range ?*

- Up to 20
- 21-30
- 31-40
- 41-50
- 51-60
- 61+

What is your age range ?

93 responses

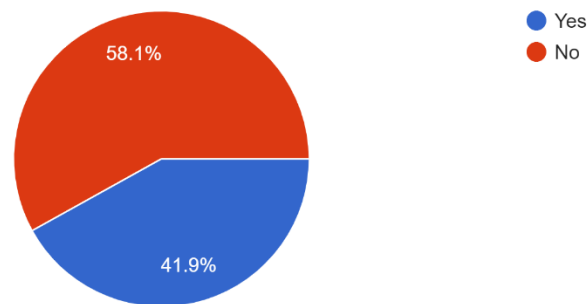


Do you or have you ever worked in any area related to finance?*

- Yes
- No

Do you or have you ever worked in any area related to finance?

93 responses

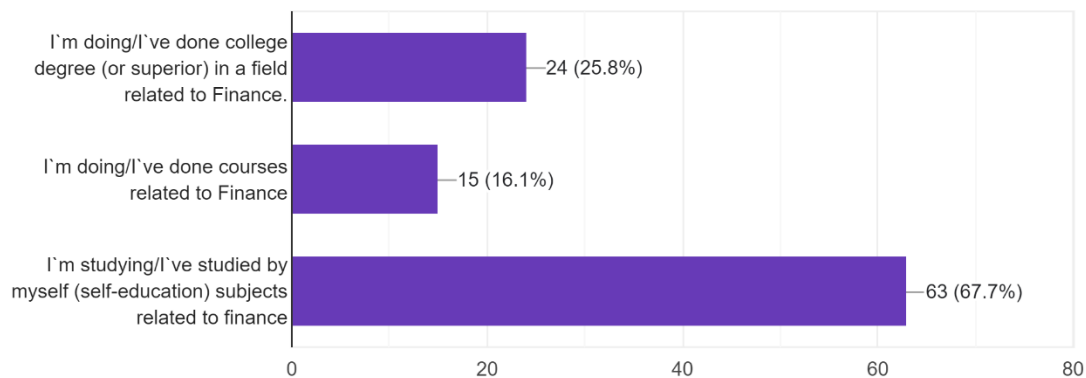


Have you ever studied anything related to finance?*

- I'm doing/I've done a college degree (or superior) in a field related to Finance.
- I'm doing/I've done courses related to Finance
- I'm studying/I've studied by myself (self-education) subjects related to finance

Have you ever studied anything related to finance?

93 responses



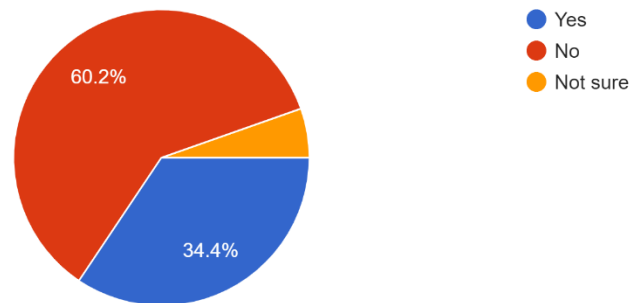
Did you have any formal financial education (eg. personal finance) during your school period? *

-> Primary or secondary school

- Yes
- No
- Not sure

Did you have any formal financial education (eg. personal finance) during your school period? ->
Primary or secondary school

93 responses

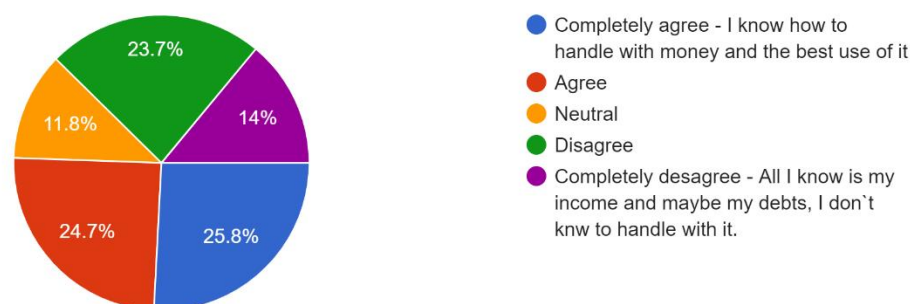


Do you consider yourself financially literate?*

- Completely agree - I know how to handle money and the best use of it
- Agree
- Neutral
- Disagree
- Completely disagree - All I know is my income and maybe my debts, and I don't know to handle it.

Do you consider yourself financial literate?

93 responses



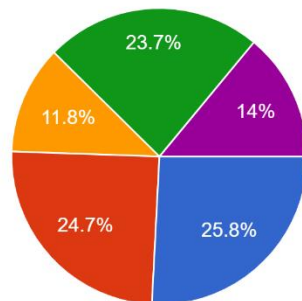
Do you consider yourself aware of what Inflation is and how it impacts the way you expend your income?*

- Yes, that's not new for me
- No, I don't know how it can impact my life
- Other:



Do you consider yourself financial literate?

93 responses



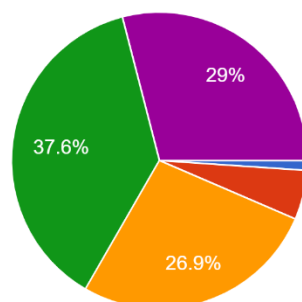
- Completely agree - I know how to handle with money and the best use of it
- Agree
- Neutral
- Disagree
- Completely disagree - All I know is my income and maybe my debts, I don't know to handle with it.

Your income is:*

- Always lower than my basic expenditure - I'm in debt
- Usually slightly lower than my basic expenditure - I'm at risk of getting into debt
- Just enough only for paying my basic expenditure (bills/debts)
- Slightly higher than my basic expenditure - I can spend some money on personal things
- Always higher than my basic expenditure - I can always save money and/or spend it on whatever I want

Your income is:

93 responses



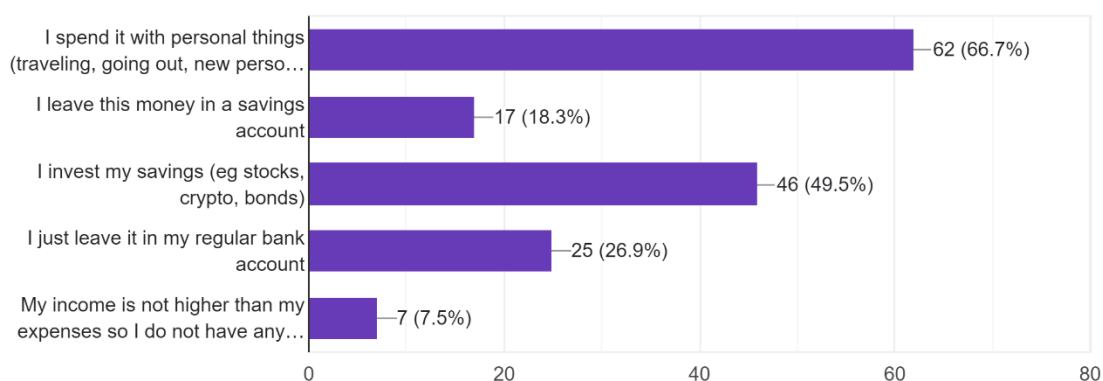
- Always lower than my basic expenditure - I'm in debt
- Usually slightly lower than my basic expenditure - I'm at risk of getting into...
- Just enough only for paying my basic expenditure (bills/debts)
- Slightly higher than my basic expenditure - I can spend some money...
- Always higher than my basic expenditure - I can always save money...

If your income is higher than your expenditure, chose the answer that best matches your reality. *

- More than one answer allowed
- I spend it on personal things (travelling, going out, new personal devices/gadgets, etc)
- I leave this money in a savings account
- I invest my savings (eg stocks, crypto, bonds)
- I just leave it in my regular bank account
- My income is not higher than my expenses so I do not have any savings
- Other:
-

If your income is higher than your expenditure, chose the answer that best matches your reality. More than one answer allowed

93 responses

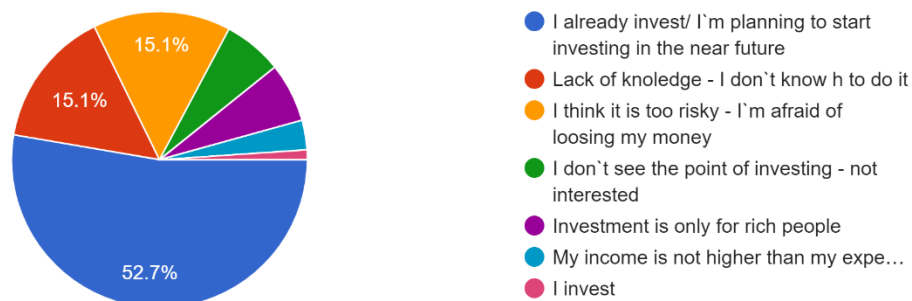


If you don't invest what stops you from investing in stocks, bonds, cryptos or any other form of investment?*

- I already invest/ I'm planning to start investing in the near future
- Lack of knowledge - I don't know h to do it
- I think it is too risky - I'm afraid of losing my money
- I don't see the point of investing - not interested
- Investment is only for rich people
- My income is not higher than my expenses so I do not have any savings
- Other:
-

If you don't invest what stops you from investing in stocks, bonds, cryptos or any other form of investment?

93 responses

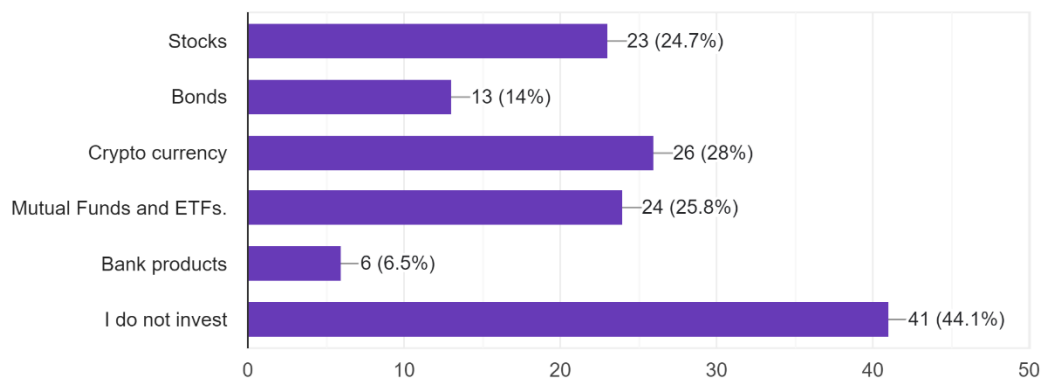


If you invest, what kind of product/investment do you put your money in?*

- Stocks
- Bonds
- Crypto currency
- Mutual Funds and ETFs.
- Bank products
- I do not invest
- Other:
-

If you invest, what kind of product/investment you put your money in?

93 responses

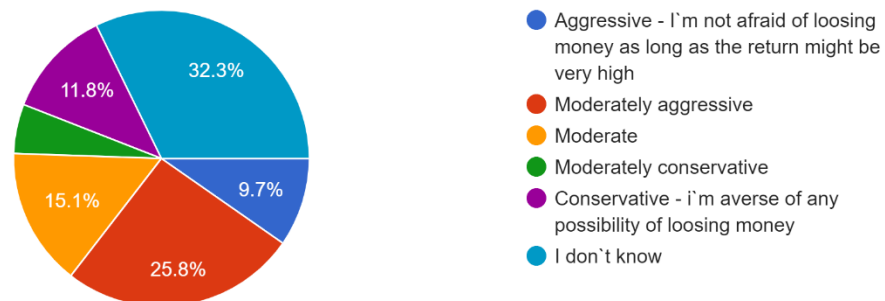


If you invest or are considering starting it, what risk profile most suits you?*

- Aggressive - I'm not afraid of losing money as long as the return might be very high
- Moderately aggressive
- Moderate
- Moderately conservative
- Conservative - I'm averse to any possibility of losing money
- I don't know

If you invest or are considering starting it, what risk profile most suits you?

93 responses



Appendix III - Copy of Ethical Form A

Form A: Application for Ethical Approval Undergraduate/Taught Postgraduate Research

This form should be submitted to the module leader for the relevant initial proposal and/or the relevant supervisor if the proposal has already been accepted.

Please save this file as **STUDENT NUMBER_AEA_FormA.docx**

Title of Project	Is finance literacy linked to working-class people's money expenditure and savings behaviour?
Name of Learner	Fabio Vieira e Silva
Student Number	51706059
Name of Supervisor/Tutor	Dr.Daniel O'Sullivan

Check the relevant boxes. All questions must be answered before submitting to the relevant lecturer / supervisor. Note: only one box per row should be selected.

Item	Question	Yes	No	NA
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Will you tell participants that their participation is voluntary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Item	Question	Yes	No	NA
3	Will you obtain written consent for participation (through a signed or 'ticked' consent form)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4	If the research is observational, will you ask participants for their consent to being observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	Will you give participants the option of not answering any question they do not want to answer?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Will you ensure that participant data will be treated with full confidentiality and anonymity and, if published, will not be identifiable as any individual or group?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	Will you debrief participants at the end of their participation (i.e., give them a brief explanation of the study)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	If your study involves people between 16 and 18 years, will you ensure that passive consent is obtained from parents/guardians, with active consent obtained from both the child and their school/organisation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	If your study involves people less than 16 years, will you ensure that <u>active</u> consent is obtained from parents/guardians <u>and</u> that a parent/guardian or their nominee (such as a teacher) will be present throughout the data collection period?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	If your study requires evaluation by an ethics committee/board at an external agency, will you wait until you have approval from both the Independent College Dublin and the external ethics committee before starting data collection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	If you are in a position of authority over your participants (for example, if you are their instructor/tutor/manager/examiner etc.) will you inform participants in writing that their grades and/or evaluation will be in no way affected by their participation (or lack thereof) in your research?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	If you are in a position of authority over your participants (for example, if you are their instructor/tutor/manager/examiner etc.), does your study involve asking participants about their academic or professional achievements, motivations, abilities or philosophies? (please note that this does not apply to QA1 or QA3 forms, or questionnaires limited to market research, that do not require ethical approval from the IREC)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Will your project involve deliberately misleading participants in any way?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
15	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
16	Does your project involve work with animals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Item	Question	Yes	No	NA
17	Do you plan to give individual feedback to participants regarding their scores on any task or scale?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does your study examine any sensitive topics (such as, but not limited to, religion, sexuality, alcohol, crime, drugs, mental health, physical health, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
19	Is your study designed to change the mental state of participants in any negative way (such as inducing aggression, frustration, etc?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
20	Does your study involve an external agency (e.g. for recruitment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21	Do your participants fall into any of the following special groups?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<i>(except where one or more individuals with such characteristics may naturally occur within a general population, such as a sample of students)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	

If you have ticked any of the shaded boxes above, you should consult with your module leader / supervisor immediately. **You will need to fill in Form B Ethical Approval** and submit it to the Research & Ethics Committee **instead** of this form.

There is an obligation on the researcher to bring to the attention of the Research & Ethics Committee any issues with ethical implications not clearly covered by the above checklist.

I consider that this project has **no** significant ethical implications to be brought before the relevant Research & Ethics Committee. I have read and understood the specific guidelines for completion of Ethics Application Forms. I am familiar with the codes of professional ethics relevant to my discipline (and have discussed them with my supervisor).



Name of Learner Fabio Vieira e Silva

Student Number 51706059

Date 18/05/2022

I have discussed this project with the learner in question, and I agree that it has no significant ethical implications to be brought before the Research & Ethics Committee.



Name of Supervisor/Lecturer Dr.Daniel O'Sullivan

Date 18/05/2022