

**Innovation in Financial Institutions' marketing
strategies and its influence on consumers'
investment decisions**

João António Matias Borges

Dissertation presented as partial requirement for obtaining
the Master's degree in Information Management

BOOK SPINE

2021

Innovation in Financial Institutions' marketing strategies and its influence on consumers' investment decisions.

João António Matias Borges

MGI



NOVA Information Management School
Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa

INNOVATION IN FINANCIAL INSTITUTIONS' MARKETING STRATEGIES AND THEIR INFLUENCE ON CONSUMERS' INVESTMENT DECISIONS

by

João António Matias Borges

Dissertation presented as a partial requirement for obtaining the Master's degree in Information Management, with a specialization in Marketing Intelligence.

Advisor: Prof. Teodora Szabo-Douat, Ph.D.

August 2022

ACKNOWLEDGEMENTS

Um agradecimento á minha orientadora, Teodora Szabo-Douat, que foi, para mim, uma fonte de inspiração e orientação devido ao seu vasto conhecimento, fruto do seu admirável percurso académico e profissional.

Um especial agradecimento aos meus pais, António e Anabela, que me apoiaram durante todo este percurso, especialmente nos momentos de maior adversidade.

Agradeço também á minha namorada, Sofia, que me apoiou e motivou incondicionalmente durante a construção deste trabalho.

Gostaria também de agradecer a todos/as que participaram na recolha de dados, nomeadamente na resposta ao questionário publicado neste âmbito.

ABSTRACT

Financial institutions serve a social role in society, which digitalization can greatly benefit such as the reduction of this sector's environmental impact, the reinforcement of anti-fraud/anti-corruption procedures with the added transparency from certain innovations as well as the increased emphasis when placing the customer in the centre of financial institution's business models.

This study aims to understand how perceived risk, trust and financial literacy impact consumers' financial decisions as well as how can financial institutions use innovation to stimulate feelings that may lead consumers to desirable financial choices, specifically by enabling financial institutions to better assist consumers in finding the best investment decisions accordingly to their risk profile as well as take desirable and informed financial decisions and therefore having a more active role in informing and influencing consumers' choices.

Since the disruptive appearance of Fintech Companies, the Traditional Banking Sector was somewhat forced to innovate its business model as well as the technologies used to reach its customers. In this study, it was possible to identify several connections between variables, namely age and Home-Banking use through descriptive statistics.

The study included 108 participants of different ages and academic backgrounds. The results of this research allowed us to identify a relationship between younger individuals and the frequency of Home-Banking Portal's use. Furthermore, the moderator "sustainability" revealed a relevant role, mainly to participants belonging to the age groups 18-24 years old and +50 years old.

KEYWORDS

Marketing; E-Banking; Financial Products; Financial Literacy; Green Banking

INDEX

1. Introduction	8
2. Literature review.....	9
Contribution and Expected Findings.....	9
Financial Products.....	9
2.1.1. Financial Product Definition.....	9
2.1.2. The Role and Historic Evolution of Consumption, Saving and Investment	10
Financial market landscape in Portugal.....	11
2.1.3. Consumer's Definition and Landscape.....	11
2.1.4. Financial Product's Consumption Evolution in Portuguese Consumers.....	12
2.1.5. The Role of Digitalization in Financial Markets.....	13
2.1.6. Environment-Friendly Campaigns in Financial Institutions	13
2.1.7. Green Banking.....	14
3. Methodology.....	15
Data Collection and Collected Sample	16
4. Results and Discussion	17
Results.....	17
4.1.1. Sample Portrayal.....	17
4.1.2. Demographic Questions.....	17
4.1.3. Environmental Relevance Questions	18
4.1.4. Digital Habits Questions.....	19
4.1.5. Financial Habits Questions.....	20
4.1.6. Cross-Table Analysis.....	21
5. Discussion.....	26
5.1.1. Research Question 1 - Do environmental-friendly campaigns positively influence younger consumers to invest?.....	26
5.1.2. Research Question 2 - Are personal finances better managed when there are investing habits?	26
5.1.3. Research Question 3 - Although the existing digital channels, do consumers feel "close" to their banks in case of need?	27
5.1.4. Research Question 4 - Which kind of participants are most influenced by green-securities' campaigns?	28
5.1.5. Hypothesis 1 - Environment-Friendly Marketing Campaigns are preferred by younger customers.	28
5.1.6. Hypothesis 2 - Digital Channels have a higher usage from younger consumers (18y-34y) rather than older ones (+35y).....	29

5.1.7. Hypothesis 3 – There is a higher amount of customers who have never invested in the group of customers without Higher Education than in the group of customers who have completed Higher Education. 30

6. Conclusions	32
7. Limitations and recommendations for future works	34
8. Bibliography	35
9. Annexes	38

List of Tables

Table 1 – Environmental Campaign Participant’s Adherence	18
Table 2 – Sustainability Relevance for Participants regarding Banks/F.I.’s	18
Table 3 - Sustainability Relevance for Participants regarding Financial Products/Services	19
Table 4 – Frequency of Home-Banking App Usage.....	19
Table 5 – Usefulness of Live-Chat Investment Advising	20
Table 6 – Participants’ Budget Frequency	20
Table 7 – Participants’ Saving Frequency	21
Table 8 – Participants’ Saving Percentage (from monthly income)	21
Table 9 – Cross-Table - Q5.1 and Q2.4.....	22
Table 10 - Cross-Table – Q5.1 and Q2.3.....	22
Table 11 - Cross-Table – Q5.1 and Q2.5.....	23
Table 12 - Cross-Table – Q4.1 and Q4.4.....	23
Table 13 - Cross-Table – Q5.1 and Q3.3.....	23
Table 14 - Cross-Table – Q5.3 and Q4.4.....	24
Table 15 - Cross-Table – Q5.3 and Q2.3.....	25
Table 16 – Household’s Saving Rate in Portugal.....	38
Table 17– Private Consumption. Source: Pordata	39
Table 18– Gross Available Income. Source: Pordata	39
Table 19 – Gross Available Income and Household’s Savings in GPD’s % , Source: Pordata	40

LIST OF ABBREVIATIONS AND ACRONYMS

BES: Banco Espírito Santo, S.A.

F.I.: Financial Institution(s)

BdP: Banco de Portugal

HH: Household

RQ: Research Question

PC: Personal Computer

1. INTRODUCTION

According to Óskarsdóttir et al. (2020) around two billion people, representing more than half of the poorer adults, do not have access to formal financial services; this means that there is a substantial amount of people that are excluded from formal financial services, and the most impacted part of the population is the low-income segment that usually has less academic background and less financial literacy. It was also stated by Agnew & Szykman (2005) that the success of investors in financial markets depends strongly (but not exclusively) on financial literacy and academic background. After a quasi-experimental study made in the UK, this finding was also supported by Gray et al. (2021), who referred that consumers that are supplied with the relevant skills (through education) are able to better process information and eventually also make better decisions in several areas, including finance-related decisions, such as retirement planning, portfolio management and household saving.

The first chapter of this paper will provide an overview of the consumer's definition, landscape and the historic evolution of consuming, saving and investment. "The risk tolerance of small investors is a key element in the allocation of their savings." (Augusto & Freire, 2014, p.1), being this a key topic, it is of extreme importance to evaluate how does the perception of risk (and therefore the proportional risk tolerance) of small investors behaves when influenced by Marketing Campaigns and Strategies used by Financial Institutions.

Innovation in Financial Institutions' marketing strategies can affect the risk-taking behaviour of investors as it is also relevant to understand the psychological factors behind the investor's decision-making. Moreover, more targeted campaigns can also be used to sell more to new costumers (regarding financial investment products), thus if this study manages to help creating knowledge about how to better target and convert certain types of financial products' consumers and also help innovating the way that marketing campaigns are designed for the referred consumers, we believe that the objective of creating value from data will be achieved.

To conclude, this study will certainly create knowledge to financial institutions and further academic researchers to help understanding the reaction of consumers when facing particular economic scenarios and feelings, as how can marketing departments improve their strategies to help consumers allocate a higher percentage of their net income to investment products, other than the more traditional saving-accounts and comparable products.

2. LITERATURE REVIEW

CONTRIBUTION AND EXPECTED FINDINGS

In this paper it is intended to be studied what are the main factors that increase consumer's proneness to invest while having in mind the main applicable regulatory protections and financial products' characteristics (mainly regarding its capitalization and potential risk).

With online marketing, while rational decisions may not be very much different, there is the distinction that consumers may have more time and information to rationalize their judgment and compare the various investment alternatives in a reduced amount of time, nevertheless among the advantages of online marketing campaigns, the ones that are most considered are: a higher consumer's engagement, a broader consumer reach, a lower effort to account results and metrics and more attractive financial implications (when comparing with traditional marketing campaigns).

Having in mind that there is a lack of investigation regarding household demand of sustainable financial products, as stated by Bethlendi et al. (2022), this study aims to also contribute to the existent knowledge concerning this matter,

Moreover, Gonzalez et al. (2015) outlines the importance of proximity finance in traditional banking, in order to benefit microfinance. The authors mention the importance of microfinance as a way to leverage inclusion since many of the population, especially in poorer countries still do not have access to formal banking services. It is also said that innovation in communication and information technologies play an important role in the creation of new microfinance business models. This information is also confirmed by Bragoli et al. (2022), which mentions the relevance of proximity between banks and small businesses.

The significance of this study comes also from the few available literature about innovation in financial institutions, namely regarding the increased proximity that banks can achieve with their customers through virtual means, as well as the sustainability factor in finance and financial products, which is also a matter that, according to Bethlendi et al. (2022), is under-investigated as well as could use more awareness from financial institutions. It is therefore sought to investigate the importance of proximity and green finance to customers, namely regarding personal finance's management and consumer's investment in securities.

FINANCIAL PRODUCTS

2.1.1. Financial Product Definition

When consumers make an investment decision, in a simple language, they are giving up resources in the present to receive a higher quantity of resources in the future; this way, the consumer is showing its preference in future consumption over present consumption, as mentioned in the opportunity cost definition by Leininger, W. E. (1977).

Financial Institutions are increasing and diversifying the online available investment products, as such, it is stated by Rodrigues et al. (2019) that consumers are being subjected to more complex financial products without having in mind the actual risk of these financial products nor which one might be more adequate for the consumer's profile.

It is also worth mentioning that there are two main types of assets which investors can apply their resources: Real Assets and Financial Assets. Real Assets can be described mainly as real estate or other type of investments (usually but not necessarily tangible assets) such as production means that can produce a cashflow – this cashflow may have several characteristics such as being constant, variable and even have different maturities as well as more specific characteristics – while Financial Products are instruments that materialize on contracts with the most

diversified characteristics that confer the possession right regarding the previously described assets or the income that they may produce. This distinction is rather relevant as it is the only aim of this study Financial Assets (Source: <https://www.investopedia.com/terms/r/realasset.asp>, consulted on 11/06/2022).

2.1.2. The Role and Historic Evolution of Consumption, Saving and Investment

In order to more accurately frame the aim of the study and raise awareness regarding the three main components of a household budget, it is appropriate to describe these components and its historic evolution in order to contextualize with the appearance of digital means for consumers and investors to manage their budgets among other relevant events such as economic crisis and financial scandals (e.g., the BES/GES collapse).

Consumption, according to the *Corporate Finance Institute*, can be defined as the “the use of goods and services by a household”, although its definition can go as far as “final purpose of an economic activity” by a Neoclassical Approach stated by the same previous source. In Portugal, according to the PORDATA Portal¹¹, consumption has had a sustained growth apart from the economic crisis in 2009 and the COVID-19 Pandemic that also caused an economic crisis in 2020 where the consumption from families suffered a reduction.

Saving, on another hand, may be mathematically defined as the difference between income and consumption, although it has different approaches regarding its definition e.g., Keynesian vs. the classical argument involving the independence of finance (Apergis & Tsoulfidis, 1997). Furthermore, saving can be also distinguished from investment as it has, in general terms, a high liquidity and low risk of loss or market depreciation. As stated in (Alves & Cardoso, 2010), saving has a critical importance regarding consumer’s behavior as in risk mitigation, for its use to prevent the lack of resources concerning the future. It is also stated that the increase of life expectancy and repeated financial crisis and scandals (as well as employment crisis that result from financial crisis) only have shown its importance to both overall macro and microeconomic dimension that is said by the stated article that clearly complement each other. The same article states that a good example for the described complementarity is the “saving-paradox” promoted by Keynes (in which individual actions are not always consistent with the accumulated effects of the economy as a whole). Also, it’s worth to mention a theory that structures the saving rate behavior: The Lifecycle Theory studied by Modigliani and Brumberg (1954) finds that individuals tend to spread their consumption decisions along their lifetime under the premise of not foreseeable and temporary shock events that may condition their present and future income flow, where individuals tend to save less when their income is lower and when their consumption needs are higher e.g., children birth. It is possible to find in Tables 3 and 4 that savings and consumption are intrinsically correlated, and the saving rate tends to grow in all major economic crisis with the consumption fall. It is quite important to consider that in these tables it is being considered as savings the component of Gross Available Income that is not being accounted in HH consumption and participation of HH in Pension Funds (which can also be considered savings), so that it is possible to presume that HH’s investment is accounted in the rubric “Gross Savings”, therefore having in mind that this value represents an average of 10% between 1995 and 2020 (2020 is a provisory value) it is a fairly low amount considering what is stated in the article “*Savings and economic growth in neoclassical theory*”: “(...)Investment has been married to technology (Phelps, 1962, p. 549). The idea was that a higher savings rate leads not only to higher per capita capital endowment, but also to the modernization” of the capital stock.” (Cesaratto, 1999).

The mentioned theories are rather relevant when studying investment when considering investment not only as a part of HH’s periodic budget but as a HH’s saving’s component that has a more specific end that is characterized by being generally managed as a long term application, capable of producing cashflows however with an overall higher

¹ Available in <https://www.pordata.pt/> . Consulted on the 18th of July, 2022.

risk regarding its global value, capability of generating cashflows as well as the amount of the cashflows themselves, as there may be the hypothesis of involving similar patterns in investment behavior.

Historically, according to EUROSTAT data (Table 6), in terms of HH's investment, Portugal has one of the lowest values set in 5,59% in 2020, which represents a -0.22% drop considering the value from 2011 set in 5,81%. It was the 11th biggest drop when comparing 2011 and 2020, being also relevant to mention that the average values regarding the EU (19 countries) were 9,21% in 2011 and 8,56% in 2020.

FINANCIAL MARKET LANDSCAPE IN PORTUGAL

2.1.3. Consumer's Definition and Landscape

Consumer behavior is defined as "Those acts of individuals directly involved in obtaining, using, and disposing of economic goods and services, including the decision processes that precede and determine these acts" - (Engel et al., 1986).

When describing the consumer's landscape in a financial customer's perspective, it is relevant to mention two terms that are widely used, namely financial literacy and financial education. Financial literacy is defined most basically, by Remund in 2010, as a person's expertise to manage money, although the same author, after stating that the concept is not a matter of general agreement among academic and financial experts, has proceeded to, after reviewing research studies dated since 2000, categorize the several theoretical definitions into five classes which originally are: "(1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skill in making appropriate financial decisions and (5) confidence in planning effectively for future financial needs."

As per the financial market consumer's landscape in, Portugal was in last place in the 2020 financial literacy ranking published by the European Central Bank (2021), where was evaluated the knowledge of the participants with questions about risk diversification, inflation, numeracy and compound interest. In this ranking, only 25% of Portuguese participants answered correctly to at least 3 questions, comparing with 65% from the ranking's top score.

This finding was also acknowledged by the 3rd Inquiry to Portuguese Population's Financial Literacy executed by the Portuguese National Council of Financial Supervisors in 2020. In this inquiry, despite the low financial literacy score, Portugal's results were above average concerning financial behaviors and financial resilience; this result is due to low tendency to "impulse-shopping" and default behavior shown by the Portuguese participants. It was also shared, in the 3rd Inquiry to Portuguese Population's Financial Literacy, that only 35,6% of Portuguese participants take note of incoming expenses and 31,2% put money aside for these same expenses and, regarding home-banking channels, only 13,6% of the participants stated to use them.

2.1.4. Financial Product's Consumption Evolution in Portuguese Consumers

Regarding the evolution of Financial Product's Consumption by Portuguese Consumers, it was also acknowledged by the 3rd Inquiry to Portuguese Population's Financial Literacy executed by the Portuguese National Council of Financial Supervisors in the year of 2020 that 65% of Portuguese participants claim have managed to save money during 2020. Also, 9,4% in 2020 of the participants claimed to have invested in securities, which constitutes an increase against 3,9% in 2015.

The investigators discovered that despite there was an increase in the amount of participants that were aware about bonds and investment funds, it was registered a decrease of awareness of all the remaining financial products.

In 2020, the proportion of participants that held a saving account, credit card and investment products increased, where the number of participants with an insurance has decreased from 2015 to 2020, state the investigators. These also found that the number of participants that had no financial product decreased most significantly from 11,1% in 2010, to 6,3% in 2015, which means a variation of -4,8% from 2010 to 2015, having a less substantial variation from 6,3% in 2015 to 4,8% in 2020. Nevertheless, this data shows preliminary evidence of a higher inclusion in the financial system of people that were previously excluded from the same.

From all the financial products, the current account is the most held, having just a +2% variation from 88,9% in 2010 to 90,9% in 2020. In the credit related products, the credit card stands out in the top of this sort of products in all the three years, with an evolution from 28,2% of participants that had a credit card in 2010 to 36,2% in 2020, suggesting a higher preference from customers for revolving credits, among the several credit products, since it usually does not require the customer to supply a collateral to the bank, apart from a regular provision in the account to secure monthly payments.

On the other hand, the investigators mention the decrease of other type of credit, such as personal loans or car loans, being the variation quantified in -2,6% from 15,5% in 2015 to 12,9% in 2020. The phenomenon was even more substantial in overdraft facilities, where the reduction totalized a variation of -15,3%, from 21,6% in 2010 to 6,3% in 2020. - Table II.2.2, page 53 - 3rd Inquiry to Portuguese Population's Financial Literacy

Among products aimed to capture savings and investment, the most popular are saving accounts, which suffered a great increase in use from 26,7% in 2010 to 41,6% in 2020, as well as retirement plans which the increase was not so notorious (13,5% in 2010 to 14,8% in 2020) and treasury bills which suffered a 4,7% increase in the 10 year's interval (3,9% in 2010 to 8,6% in 2020). The least held financial products meant for saving and investment are respectively stocks, investment funds, bonds and crypto assets.

The consumption evolution of these products, according to the investigators, despite having a growth behavior, is not substantial: only 3,3% of participants had stocks in 2010 passing to 5,4% in 2020 – from this we can deduct an increase of roughly 1% every 5 years, which seems very low comparing with e.g. the United States of America, where, according to Gallup Economy and Personal Finance Study, 55% of American population reports owning stock – the same tendency can be verified in literature for the remaining stated financial products, where should also be cited the evolution for these products likewise according to 3rd Inquiry to Portuguese Population's Financial Literacy executed by the Portuguese National Council of Financial Supervisors in the year of 2020: investment funds also grew in the number of participants from 2,3% in 2010 to 4,1% in 2020 with a total grow of 1,8%. Bonds had a slightly higher variation than stocks, with a total variation of 2,6% from 2010 to 2020.

Through these data, it is noticeable that, despite the overall high awareness about these stated financial products, Portuguese participants appear to prefer "low-risk" saving solutions, even if the cashflows from those financial applications are low or inexistant, avoiding largely investment/saving options that carry any higher potential risk.

Additionally, according to the 3rd Inquiry to Portuguese Population's Financial Literacy executed by the Portuguese National Council of Financial Supervisors in 2020, it is relevant to cite that the investigators found that around 40% of the participants searched for alternative products before acquiring a financial product, against 32,8% that did not search nor considered any alternatives before acquiring a financial product. Moreover, the same investigators also found that the sources of advice most often considered by participants keep being the account manager's advice "over-the-counter" and the advice from family or friends, being the ones who most influenced the process of choosing of the inquired participants. The information from internet websites, even if considered by few participants, was the one who most grew in consideration by consumers, according to investigators - (9,5% in 2020 and 6,4% in 2015).

2.1.5. The Role of Digitalization in Financial Markets

According to according to Le Thanh (2022), digitalization and digital transformation have had a positive influence in financial markets and even public institutions, as they have increased the efficiency of financial markets.

Digitalization is defined by *The Oxford English Dictionary*, as cited by Gorenssek (2020), as the increase of the use of digital technology by organizations, industries, countries. Digital Transformation is defined by Brennen and Kreiss (2016) as the number of domains of social life that are restructured around digital communication and media infrastructure.

Since the appearance of Fintech Companies, traditional financial institutions, such as commercial banks are being forced, when confronted by disruptive digitalization, innovation and business models being implemented by these "new actors", as stated by Rühl et al. (2019). The same author also stated that the considerable pressure exerted by Fintech Companies have been sufficient to trigger strategic changes in traditional banking, namely regarding the placement of the customer in the center of the business model as well as the development and implementation of innovative technologies already in use by Fintech Companies. Furthermore, Rühl et al. (2019) mentions the effect of this process in financial markets in the following quote: "This process as a whole favors the democratization of financial services."

Since 2015, says Rühl et al. (2019), the fast emerging of Fintech Companies led to the greatest change of the financial system, specifically in "(...) business models and ways of distribution and provision of financial services." This happened, says the author, mainly due to the disruptive technology that was being employed by fintech companies and that traditional banks had not any implementation of similar technology, thus having in mind the entry barriers that used to exist in banking, these had to change due to the increasing ferocious competition from Fintech companies that contributed to the fall of these barriers, therefore, as stated by Fernández-Torres et al. (2019) cited by Rühl et al. (2019) "Technology and its disruptive application in the financial market leads to an intensive digitization of banking.", favoring the users of these services.

The reputational damage suffered by financial institutions due to past financial crisis and scandals also contributed to the appearance of this disruptive process, which, as Rühl et al. (2019) has also stated in his study, provided technological background to develop advantages to the users, namely in financial analysis and planning, transparency, efficiency and accessibility to banking services in a more democratized financial service.

2.1.6. Environment-Friendly Campaigns in Financial Institutions

As acknowledged by Mishra and Sharma (2010), although human needs are infinite, resources are limited, therefore, an economic perspective is required not only financially but also environmentally, especially in marketing,

as stated by the same author, marketers should be mindful of the important need to spare the excessive use of resources when trying to achieve organizational goals. Mishra and Sharma (2010) reveals the notion of inevitability regarding green marketing, moreover with the fast-growing awareness and concern about environmental issues, namely the climate change.

It was also found by Mishra and Sharma (2010) that there is a change in behavior among people, being the adoption of green practices, by not only individuals but companies also, an imperative need. This way, companies have already listened to the market and sustainable products and services are each day more common in our lives. The mentioned author too remarks the given importance to green marketing in the late 1980's and 1990's in the first workshop that took place about Ecological marketing that was hosted in Austin, Texas (US) in the year of 1975, furthermore, it is stated that green marketing's importance is expanding in the modern market, allowing the opportunity for companies to develop new product lines and even re-branding existent products. Mishra & Sharma (2010) states that this phenomenon is explained as a direct consequence of the growing awareness about environmental causes and the changing consumer priorities when considering acquiring a determined product or service.

Nevertheless, Bethlendi et al. (2022) state in the published literature the observation of a relationship between individuals who most value sustainability in their personal life and a positive behavior of these same individuals regarding sustainable financial products. The same authors also advise that a positive posture by individuals regarding sustainability is not enough to achieve the consumer's choice of a sustainable product, as policies, namely regarding subsidization and pedagogical measures towards financial and ecological literacy, would increase the demand for sustainable financial products.

2.1.7. Green Banking

With the rising concern about environmental sustainability, the concept of Green Banking has been portrayed in literature (Sarma & Roy, 2021). As defined by Fernando & Fernando (2017), the concept of Green Banking refers to a strategic move driven by technological innovations and its implementation mainly in banks. Menon et al. (2017) also share a similar definition about Green Banking, being the ability of banking institutions achieving its business goals with compliance regarding its social and environmental responsibilities.

A given example by Fernando and Fernando (2017) is the introduction of paperless services and digital channels, targeting both existent and new customers. This way, it is promoted an environmentally responsible image of the banking institution.

The term "Green Banking" is also used by banking institutions as a central strategy with the aim of attaining brand placement, where most of the banking services are mostly technological-oriented and tendentially paperless, presenting a green-banking brand to the customer. Is it as well mentioned by the author that through this sort of innovation, banks can not only positively impact the environment but also to collect economic benefits from the reinforced bank reputation (Fernando & Fernando, 2017).

3. METHODOLOGY

With the aim of defining the most adequate methodology to study the chosen topic, there were established research questions, that guide the purpose of this study, as well as hypothesis, which were created from the information gathered on previous studies that relate with this study's aim. Also state that, regarding the research strategy, it was done a survey where participants were exposed to several questions and further data collection which subsequently supplied a data sample that was duly analyzed and revealed in this study.

This research has followed a causal approach to study the impact of virtual proximity between the financial institution and the client in the client's personal finances management, mainly regarding investment in securities. The chosen approach, as an explanatory research design, will be used to investigate cause-and-effect correlations between the stated variables. Also, there were formulated hypotheses from existing literature and knowledge that will be tested with and after the data analysis. This study will be done through a quantitative research method.

The current study focuses on the following research questions:

RQ1 - Do environmental-friendly campaigns positively influence younger consumers to invest?

RQ2 - Are personal finances better managed when there are investing habits?

RQ3 - Although the existing digital channels, do consumers feel "close" to their banks in case of need?

RQ4 - Which kind of participants are most influenced by green-securities' campaigns?

The formulated hypothesis are:

H1- Environment-Friendly Marketing Campaigns are preferred by younger consumers (18y-34y).

H2- Digital Channels have a higher usage from younger consumers (18y-34y) rather than older ones (+35y).

H3- There is a higher amount of customers who have never invested in the group of customers without Higher Education than in the group of customers who have completed Higher Education.

DATA COLLECTION AND COLLECTED SAMPLE

The data collection was done through a survey that was shared through email and, due to the reduced amount of collected answers, it was also used Amazon MTurk.

Although there was the aim to achieve around 150 answers to get a more reliable dataset, it was possible to collect a total of 108 valid answers. Since most of the excluded answers had a progress rate no higher than 50%, these answers were excluded to obtain a more homogeneous and balanced dataset.

The survey made use of an initial set of questions that were intended to assess the influence of a marketing campaign with the main goal of applying digitalization through an environment-friendly strategy in consumers. After this first initial set of questions, related questions were placed to further explore the participant's feelings, such as "Would this kind of initiatives influence your decision to be a client of a certain bank/institution?" and "If you were considering a certain financial product/service, would it be key for you that it had a "green" management policy?". In the survey, it was used multiple choice questions and ration-scale questions. Some multiple-choice questions, due to their potential long list of options, had one open-text box in the multiple-choice list in order to allow the entry of a value that might not be predicted in the list; this happened in questions such as the nationality, academic field of the participants or field of work, where it could not be listed all the potential possible values. The survey was divided in four main blocks, namely: Environmental Preference, Digital Habits, Financial Questions and Demographic Questions.

4. RESULTS AND DISCUSSION

RESULTS

4.1.1. Sample Portrayal

In the published survey it was possible to gather a valid set of answers from 108 participants that were analyzed. The analyzed sample represents most complete answers to the published survey.

The analyzed sample may be referred ahead as “the participants”.

4.1.2. Demographic Questions

In demographic terms, 58,3% of the sample consists in participants aged bellow 35 years as well as 65,7% of the sample represents female participants while the remaining 34,3% represent male participants.

Also, it is relevant to state that 86,11% of the collected sample refers to working participants, where 1,85% are self-employed and 10,19% correspond to participants who both study and are employed.

What is your occupational status?

	N	%
Employed	80	74,07%
Self-Employed	2	1,85%
Unemployed	1	0,93%
Retired	2	1,85%
Student (not working)	12	11,11%
Student and Employed	11	10,19%

Table 3 – Participant’s Occupational Status Distribution

Concerning the level of education of the participants present in the analyzed sample, being a matter of importance when it comes to financial behavior, as supported by Agnew and Szykman (2005) and Gray et al. (2021), it is of bearing to mention that 80,6% of the analyzed sample has a higher education degree (be aware that the Professional/Technical Degree is being considered academically as a high school degree), where 24,1% hold a Master’s Degree and 38,9% of the participants in the analyzed sample have finished their bachelor’s degree as their completed highest degree.

	N	%
9th grade	1	0,9%
Highschool (12th grade)	17	15,7%
Bachelor's Degree	42	38,9%
Master's Degree	26	24,1%
Professional/Technical Degree	3	2,8%
Post-Graduation	19	17,6%

Table 4 - Participant's Education Level Distribution

It is also evident that 34,26% have as their main area of studies an economic background and 38% of the same participants present in the analyzed sample work in business services, leaving a representation of 65,74% regarding the participants that do not have an economic academic background.

	N	%
Health and Medicine	2	1,9%
Arts	1	0,9%
Data Science	6	5,6%
Business Services (accounting, auditing, etc)	41	38,0%
Education	13	12,0%
Communications (advertising, journaling, etc)	3	2,8%
Engeneering	10	9,3%
Languages and Humanities	6	5,6%
Other (not listed)	26	24,1%

Table 5 – Participant's Main Area of Studies

4.1.3. Environmental Relevance Questions

Regarding the questions to which participants were exposed in the survey, it is possible to observe a great adherence to the proposed product in presented campaign where, for each new swap of paper-bank-statement for

Would you consider being part of the shown environmental campaign and pass from paper to eletronic statement?

	N	%
Yes	100	92,6%
No	8	7,4%

Table 1 – Environmental Campaign Participant's Adherence

Would these kind of initiatives influence you decision to be a client of a certain bank/institution?

	N	%
Yes	43	39,8%
No	65	60,2%

Table 2 – Sustainability Relevance for Participants regarding Banks/F.I.'s

digital-bank-statement, the bank donated 1€ for a reforestation project. In this question, the adherence of the participants is quantified in 92,6% of the participants. Although the high adherence to the presented campaign, 60,2% of the participants state that these kind of initiatives would not influence their decision to be a client of a certain bank/financial institution.

Furthermore, when inquired if a “green management policy” would be a decisive criteria when considering a certain financial product or service, most participants – quantified in 56,5% - stated that it would somehow influence their decision. Still, 26,9% of participants stated that a “green management policy” regarding the considered financial product or service would not influence their decision and 16,7% of participants expressed that it would highly influence their decision when considering a financial product or service.

If you were considering a certain financial product/service, would it be key for you that it had a "green" management policy?

	N	%
It would highly influence my decision	18	16,7%
It would somehow influence my decision	61	56,5%
It would not influence my decision	29	26,9%

Table 3 - Sustainability Relevance for Participants regarding Financial Products/Services

4.1.4. Digital Habits Questions

It was also observed, on the subject of digital habits, that 5,6% of participants do not use a home banking app, while among the remaining participants who use a home banking app - quantified in 94,4%-, in terms of preferred channels, 78,7% use the smartphone to access the home banking app while 42,6% use the home banking app in their PC and just 4,6% access it in the tablet. Beware that this may not be interpreted as preference rather as the level of use of each channel. This is justified as the presented question allowed participants who use home banking apps to choose among the 3 described devices (PC, smartphone and tablet), giving the possibility of a participant to choose more than one device and not allowing to measure the preference of one device over another both individually and collectively.

On the subject of frequency of home banking use, 43,5% of participants stated that access the home banking portal daily, 42,6% access it weekly and 8,3% only access their home banking portal monthly.

How often do you use your Homebanking App? - Selected Choice

	N	%
Daily	47	43,5%
Weekly	46	42,6%
Monthly	9	8,3%
No Homebanking use	6	5,6%

Table 4 – Frequency of Home-Banking App Usage

In the presented survey, participants were also confronted with the following question: Would you prefer to schedule a videocall with your account manager instead of visiting a branch? – to this question, 71,3% of participants expressed a preference towards a virtual appointment with their account manager opposed with the alternative of visiting a physical branch of the financial institution. Moreover, 50,9% of participants think that periodically meeting with their account manager would allow to better manage their personal finances, while the remaining 49,1% expressed the opposite opinion.

How useful would you find the possibility to have a live chat with an account manager to help you to better understand financial product's characteristics before making an investment decision?

	N	%
Not at all useful	1	0,9%
Slightly useful	6	5,6%
Moderately useful	46	42,6%
Very useful	42	38,9%
Extremely useful	13	12,0%

Table 5 – Usefulness of Live-Chat Investment Advising

Lastly, the participants were also confronted with a question where was used a Likert Scale to measure their opinion regarding the usefulness of the participant's possibility to have a live chat with their account manager to assist in the comprehension of financial products' characteristics prior to an investment decision, where 12% expressed that it would be extremely useful, 38,9% expressed that it would be very useful, 42,6% stated that it would be moderately useful, 5,6% mentioned that it would be slightly useful and the last 0,9% stated that it would not be useful at all.

4.1.5. Financial Habits Questions

On the topic of participant's financial habits, the results indicate that a majority of participants, quantified in 53,7%, set up a monthly budget, while 5,6% plan their budget weekly, 2,8% plan their budget daily and 8,3% set up a yearly budget. It is also pertinent to mention that 29,3% of participants do not set up any budget.

Do you set up a budget? How Often?

	N	%
Yes, Yearly	9	8,3%
Yes, Monthly	58	53,7%
Yes, Weekly	6	5,6%
Yes, Daily	3	2,8%
I do not set any budget	32	29,6%

Table 6 – Participants' Budget Frequency

Furthermore, it was possible to examine participant's saving habits, where it was observable that the majority of participants (66,7%) manage to set money aside monthly with the end of saving.

How often do you manage to save?

	N	%
Daily	7	6,5%
Weekly	8	7,4%
Monthly	72	66,7%
Everytime I plan my periodic budget	8	7,4%
I do not / cannot manage to save	13	12,0%

Table 7 – Participants' Saving Frequency

With regard to the amount of money saved by the participants, 68,5% of participants only manage to save less than 30% of their monthly income while 21,3% manage to save between 31% and 50% of their monthly income and the remaining 10,2% of participants manage to save more than 50% of their monthly income.

**How much money do you manage to save?
(Percentage of your monthly income)**

	N	%
< 10%	34	31,5%
11% - 30%	40	37,0%
31% - 50%	23	21,3%
51% - 70%	8	7,4%
71% - 90%	3	2,8%

Table 8 – Participants' Saving Percentage (from monthly income)

On the topic of investment, 69,4% of participants state that they never have invested in any type of security, nevertheless, in the 30,6% of participants who stated have already invested in securities, 14,8% stated that their personal finances' management did not improve and the remaining mentioned that their personal finances' management improved after starting to invest in securities.

4.1.6. Cross-Table Analysis

As a great part of the collected variables have certain characteristics that favor the use of cross tables and non-parametric analysis methods, such as the variables being mainly classified as nominal and ordinal as well as all carrying a discrete profile. As such, here will be done the analysis of several cross tables regarding variables that were chosen according to the aim of this study.

The first performed cross-table analysis regards Q5.1 and Q2.4 which, in sum, compares participant's age interval and how would environment-friendly initiatives influence their preference for a certain bank/financial institution. During this analysis, it was possible to notice that in the entire sample, only 40% of the participants mentioned that this kind of initiatives would influence their decision to be a client of a certain financial institution while the remaining 60% stated otherwise. Furthermore, having in mind that the age distribution tends to younger participants (less than 34 years old), it is relevant to perform a careful by-age analysis, as the inferential relevance tends to decrease with the reduced number of answers in certain age intervals as mentioned by Banerjee et al. (2009). Besides it can be observed that, age-wise, participants aged between 18 and 24 years old have reported, on the opposite way of the overall trend, a preference for financial institutions with environment-friendly initiatives with 55% of these participants reporting a higher preference for this sort of initiatives and the remaining 45% of the participants aged between 18 and 24 years old stating that this kind of initiatives would not influence their decision to be a client of a certain financial institution. The age intervals between 25 and 54 years old reflect the same tendency of the overall sample with the participants stating that environment-friendly initiatives would not influence

		Q5.1 How old are you? (Participant's Age)										Total	
		18-24		25-34		35-44		45-54		More than 54			
Q2.4 Would these kind of initiatives influence you decision to be a client of a certain bank/institution?	Yes	16	55%	11	32%	8	33%	2	22%	6	50%	43	40%
	No	13	45%	23	68%	16	67%	7	78%	6	50%	65	60%
Total / 108		29	27%	34	31%	24	22%	9	8%	12	11%	108	100%

Table 9 – Cross-Table - Q5.1 and Q2.4

their choice to choose a certain financial institution. It is also pertinent to mention that although there is an expression of 11% participants with more than 54 years old in the analyzed sample, 50% of these participants stated that they would be influenced by the presented initiatives.

It was also analyzed the distribution between participant's age interval and the impact of the presented bank advertisement, where it was possible to study the participant's choice when a digital service was presented in the

		Q5.1 How old are you? (Participant's Age)										Total	
		18-24		25-34		35-44		45-54		More than 54			
Q2.3 Would you consider being part of the shown environmental campaign and pass from paper to eletronic statement?	Yes	25	86%	32	94%	24	100%	9	100%	10	83%	100	93%
	No	4	14%	2	6%	0	0%	0	0%	2	17%	8	7%
Total / 108		29	27%	34	31%	24	22%	9	8%	12	11%	108	100%

Table 10 - Cross-Table – Q5.1 and Q2.3

context of an environment-friendly and sustainable initiative. Although the presented advertisement offered a financial service and not a financial product, it was possible to observe a total adherence from participants aged between 35 and 54 years old and a 94% acceptance from participants aged 25 to 34 years old. The same answer was obtained by 86% of participants aged between 18 and 24 years old and 83% of participants with more than 54 years old. The overall participant's answer was 93% considering being part of the presented environmental campaign.

The participant's age interval was as well analyzed with the participant's preference for a certain product or service using the environmental responsibility as a moderator for the stated preference. In this analysis it was used a Likert Scale with three possible choices. The overall results point towards a consistent choice for the answer "It would somehow influence my decision" when the participants were inquired if a "green" management policy would be key when considering a certain financial product or service. It is also possible to observe that the least influenced age interval was the one set between 35 and 44 years old.

		Q5.1 How old are you? (Participant's Age)										Total	
		18-24		25-34		35-44		45-54		More than 54			
Q2.5 If you were considering a certain financial product/service, would it be key for you that it had a "green" management policy?	It would higly influence my decision	7	24%	4	12%	2	8%	2	22%	3	25%	18	17%
	It would somehow influence my decision	16	55%	21	62%	11	46%	5	56%	8	67%	61	56%
	It would not influence my decision	6	21%	9	26%	11	46%	2	22%	1	8%	29	27%
Total / 108		29	27%	34	31%	24	22%	9	8%	12	11%	108	100%

Table 11 - Cross-Table – Q5.1 and Q2.5

Furthermore, examining the distribution of the participant's budgeting habits with the question "Have you ever invested in any type of security?", the results show that the higher sum of participants who have already invested in securities lay in the group that sets a monthly budget with 36% of these having already invested,

		Do you set up a budget? How Often?											
		Yes, Yearly		Yes, Monthly		Yes, Weekly		Yes, Daily		I do not set any budget		Total	
Have you ever invested in any type of security?	Yes	2	22%	21	36%	2	33%	0	0%	8	25%	33	31%
	No	7	78%	37	64%	4	67%	3	100%	24	75%	75	69%
Total / 108		9	8%	58	54%	6	6%	3	3%	32	30%	108	100%

Table 12 - Cross-Table – Q4.1 and Q4.4

followed by the group that sets their budget weekly accounted in 33% of the groups size. The groups which have a higher number of participants that have never invested in securities lays in the participants who set their budget daily, with all these 3 participants never having invested in securities and the group who sets a yearly budget, with an expression of 78% of these participants never having invested in securities. The group that stated not setting up any budget has a representation of 75% that has never invested in securities, which comprehends above the value of the answers of all participants.

After analyzing the participant's age with their preference to schedule a videocall with an account manager over physically visiting a branch, the results reveal that there is an consistent preference for the videocall over having to physically visit a branch, where this expression was stronger in older participants, over 45 years old – 78% in the age interval 45 to 54 years and 92% in the age interval over 54 years old -, and had it lowest register in the age interval between 18 and 24 years old, valued in 62% that uttered their preference for the digital option and 38% that expressed their preference otherwise.

		How old are you?										Total	
		18-24		25-34		35-44		45-54		More than 54			
Would you prefer to schedule a videocall with your account manager instead of visiting a branch?	Yes	18	62%	25	74%	16	67%	7	78%	11	92%	77	71%
	No	11	38%	9	26%	8	33%	2	22%	1	8%	31	29%
Total / 108		29	27%	34	31%	24	22%	9	8%	12	11%	108	100%

Table 13 - Cross-Table – Q5.1 and Q3.3

The results from the analysis of the variables representing the participant's education level and the participant's preference for a specific product or service using the environmental responsibility as a moderator for the stated preference shows a consistency in the overall sample that the stated moderator would somehow influence participant's decision when considering a financial product or service, nevertheless this tendency is only not observed in participants whose highest achieved level of education was "post-graduation", where the greater part (47%) of these individuals stated that their decision would not be influenced by the mentioned moderator. 37% of these same participants state that their decision would be somehow influenced by a "green" management policy and 16% state that the same moderator would highly influence their decision.

It is also possible to observe that, despite the overall trend, the mentioned trend has different expressions in the several levels of education: in terms of influence, participants with a post-graduation were the ones that expressed being the less influenced by the moderator with a 47% of these mentioning that their decision would not be influenced; these are followed by participants with a bachelor's degree with 26% mentioning that their decision would not be influenced by the moderator; the participants with the lowest percentage not being influenced by the moderator were participants with a high school degree and a master's degree which, respectively, 24% and 19% of these groups not having their decision influenced by the moderator when considering a determined financial product or service. Note that the group of participants that have, as the highest completed level of education, the 9th grade was not mentioned as its size cannot reflect any sort of relevant observation.

		What is the highest degree or level of education you have completed?										Total			
		9th grade		Highschool (12th grade)		Bachelor's Degree		Master's Degree		Professional/Technical Degree				Post-Graduation	
If you were considering a certain financial product/service, would it be key for you that it had a "green" management policy?	It would highly influence my decision	0	0%	6	35%	7	17%	1	4%	1	33%	3	16%	18	17%
	It would somehow influence my decision	1	100%	7	41%	24	57%	20	77%	2	67%	7	37%	61	56%
	It would not influence my decision	0	0%	4	24%	11	26%	5	19%	0	0%	9	47%	29	27%
Total		1	1%	17	16%	42	39%	26	24%	3	3%	19	18%	108	100%

Table 16 – Cross-Table between Q5.3 and Q2.5

Table 20 exposes the result of the cross-table analysis between the participant's highest completed education level and the answers to the question "Have you ever invested in any type of security?". Through the obtained results it can be observed that participants who have achieved a high school degree as the highest level of education have the highest relative number of individuals that have never invested in any sort of securities with this fact being quantified in 76% of the mentioned participants. Participants who have as the highest level of education a bachelor's degree have a total of 66% of individuals that have never invested in any type of securities and 29% that have already invested in any type of securities. The survey's participants with the major levels of highest completed education level, namely master's degree and post-graduation, recorded the lowest number of participants that have never invested in any type of security, with this event being quantified, respectively, in 66% and 63% of each group. Note that the groups of participants that have as the highest level of accomplished education the 9th grade and professional degree were not considered in this analysis as the number of these groups could not output any sort of reliable data.

		What is the highest degree or level of education you have completed?										Total			
		9th grade		Highschool (12th grade)		Bachelor's Degree		Master's Degree		Professional/Technical Degree				Post-Graduation	
Have you ever invested in any type of security?	Yes	0	0%	4	24%	12	29%	9	35%	1	33%	7	37%	33	31%
	No	1	100%	13	76%	30	71%	17	65%	2	67%	12	63%	75	69%
Total		1	1%	17	16%	42	39%	26	24%	3	3%	19	18%	108	100%

Table 14 - Cross-Table – Q5.3 and Q4.4

When analyzing the participant's highest level of education groupings with the expressed response of these participants to the shown campaign it is possible to notice an overall 93% of participant's stating that they would consider be part of the campaign while the remaining 7% stated otherwise. Note that, as in the previous cross-table-analysis, the groups of participants that have as the highest level of achieved education the 9th grade and professional degree were not considered equally in this analysis as the number of these groups could not output any sort of reliable data. In the remaining groups, it is possible to observe a higher adherence to the presented campaign in participants with a master's degree and participants with a post-graduation, respectively, with the amount of individuals that stated considering being part of the displayed campaign quantified in 100% and 95%. Participants which the highest level of education was the 12th grade were the group that most stated that would not be part of the presented campaign being these quantified in 12% of the group's size.

		What is the highest degree or level of education you have completed?										Total	
		9th grade		Highschool (12th grade)		Bachelor's Degree		Master's Degree		Professional/Technical Degree		Post-Graduation	
Would you consider being part of the shown environmental campaign and pass from paper to electronic statement?	Yes	1	100%	15	88%	37	88%	26	100%	3	100%	18	95%
	No	0	0%	2	12%	5	12%	0	0%	0	0%	1	5%
Total		1	1%	17	16%	42	39%	26	24%	3	3%	19	18%
												100	93%
												8	7%
												108	100%

Table 15 - Cross-Table – Q5.3 and Q2.3

5. DISCUSSION

Here takes place the analysis of the existing literature and the obtained results with the aim of relating these while commenting on the formulated research questions and hypotheses.

5.1.1. Research Question 1 - Do environmental-friendly campaigns positively influence younger consumers to invest?

Having in mind the increasing awareness regarding green practices stated by Mishra and Sharma (2010), it is pertinent to the study's scope to analyze the relationship between participants' age and the influence of environment-friendly campaigns. The obtained results, due to the sample's characteristics, size and distribution in certain variables, could only provide an inconclusive answer to the set question.

Regarding the obtained results, in order to properly investigate Research Question 1, it must be defined previously the accounted age interval for "younger consumers": according to the United Nations RIC website² there is not a universally accepted age interval to define youth, nevertheless, despite the several definitions adopted by the member-state, the United Nations have defined for statistical purposes the age interval comprehended between 15 and 24 years old. Many other organizations, both national and international, have adopted different age ranges to define youth, therefore, having all the existent definitions in mind as well as the socio-economic, cultural and demographical context of the country where this study took place, it will be used the age interval between 18 and 34 years old in this work.

Regarding the descriptive statistics that were performed, young consumers represent 58,3% of the sample, this signifies two age intervals in a total of five, which is a limitation of the sample that passes to the analysis. When the data about age intervals was analyzed with additional variables, namely survey's questions Q2.3, Q2.4 and Q2.5, it is possible to observe that 42,86% of participants aged 18-34 years old state being influence by environmental-friendly campaigns when considering a new financial institution, moreover 76,19% of young participants also state that "green management" policies are key when considering a certain financial product or service. Still, due to the statistical limitations of the collected sample, further testing such as Sommer's D, Gamma or Lambda analysis were not viable. It is not possible, from the available information, to withdraw a solid answer to the RQ1, however it is possible to observe a preference for "green management policies" from younger participants in the performed descriptive analysis.

5.1.2. Research Question 2 - Are personal finances better managed when there are investing habits?

As it was found by the 3rd Inquiry to Portuguese Population's Financial Literacy executed by the Portuguese National Council of Financial Supervisors in the year of 2020, the use of financial products meant for saving increase, such as saving accounts that suffered a 14,9% increase between 2010 and 2020. Also, the same study stated that 65% of Portuguese participants claimed to have saved, being possible to observe a preference for saving accounts and retirement-related products. As per the mentioned literature, this suggests a relationship between investment and saving habits and personal finances management as these are considered part of the desirable financial behaviors.

² Available in <https://unric.org/pt/juventude/> . Consulted on the 21st of August, 2022.

As such, the results of this study corroborate the following: table 17 shows the cross-tabulation between the groups of participants who have already invested and participants' budgeting habits; in the stated table it is possible to observe that, even though the group that stated having never invested in securities is substantially larger than the group that has already invested in securities (69% vs 31%, respectively), yet it lies in the group of participants that have already invested the greatest relative percentage of people who has more frequent budgeting habits.

Moreover, it is relevant to analyze the level of education of participants who have stated having already invested in securities (or not), as literature mentions that the success of the investor in financial markets strongly (but not exclusively) depends on financial literacy and academic background (Agnew & Szykman, 2005). As such, the collected samples illustrates that the smaller groups of participants that would not be influenced by sustainable management policies rest precisely in groups containing participants with a higher education level; also, participants who have already invested in securities (it is being assumed in this study that investing habits are maintained, even if with different frequencies) also lie in groups containing individuals with higher education levels.

The collected sample reflects a substantial percentage of participants who have never invested in securities, which not only corroborates the existent literature but also confirms the mentioned expectation regarding participant's feelings towards securities.

As such, considering more frequent budgeting and saving habits as desirable financial behaviors and therefore a "better management of personal finances" than individuals without consolidated and frequent budgeting and saving habits, also considering that the study allows to observe a higher relative amount of individuals with frequent budgeting habits in the group of participants who have already invested, despite the higher distribution of answers in the group of participants who have never invested in securities, Research Question 2 is answered positively through this study. Nevertheless, further research should be prosecuted in the future to obtain further details regarding Research Question 2.

5.1.3. Research Question 3 - Although the existing digital channels, do consumers feel "close" to their banks in case of need?

Rühl et al. (2019) mentions the effect of digitalization in financial markets as a development that, overall, benefits as the democratization of financial services by demolishing some entry-barriers and by making them accessible for a broader range of consumers. Globally, all users are benefited from the intensive and disruptive digitalization of banking, says Rühl et al. (2019), where this process also changes the product and service distribution methods.

As such, in this study, there is the aim of uncovering if, with the actual level of digitalization in banking, consumers in Portugal feel close to their banks in case of need. The collected data reveals that most participants would prefer to have the possibility of scheduling a videocall with their account manager (71% of the analyzed sample), as it currently is possible e.g., for some medical appointments, besides some banking institutions currently offer this sort of services in more exclusive customer segments, however this sort of services are not offered yet in mass market segments. This preference, in terms of age interval, has a higher expression in participants with more than 54 years old (92% of this group), followed by participants aged 45-54 years (78% of this group) and 25-34 years old (74% of this group). The group that valued less the possibility of having a videocall was the group in the age interval of 18 to 24 years old with an expression quantified in 62% of the stated group. Overall, most participants use the digital channels (a.k.a. Home-banking) on a daily or weekly basis (43,5% and 42,6%, respectively), existing only 8,3% of the analyzed sample that states a monthly use of the digital channels and 5,6% states not using any Home-Banking application. This data supports the existence of demand regarding alternative digital channels (e.g., videocall) from customers who do not exhibit an active use of the existing digital channels, that is primarily users from higher age intervals.

5.1.4. Research Question 4 - Which kind of participants are most influenced by green-securities' campaigns?

Literature by Mishra and Sharma (2010) states that it is observable a change in behavior among people, specifically in the adoption of green practices, both individually and collectively, due to the growing awareness about environmental causes which cause consumer's priorities to change. Further literature from Bethlendi et al. (2022) advises that a positive attitude by individuals towards sustainability is not enough to achieve the consumers' decision for a sustainable product.

From the existent literature and collected dataset, with efficiency in mind, there is the objective of trying to explore which audiences are more prone to be affected by sustainable securities' campaigns. In terms of age intervals, results suggest that different age-intervals might be more (or less) susceptible to environment-friendly campaigns based on the type of decision, for instance, when performed a cross-table analysis between the variable Q5.1 - "Participant's Age" and Q2.4 – Influence of Sustainable Campaigns when choosing a Financial Institution, it is possible to observe a higher influence in the "extreme" age intervals, namely, 18-24 years old and participants with more than 54 years old. On the other hand, then Q5.1 is analyzed with Q2.3 in Table 15, it is possible to observe the opposite effect, therefore participants aged 25-54 years old being the ones who appear more mobilized by environmental campaigns regarding financial services e.g., the swap between paper to electronic bank statement.

Answering to the RQ4, table 16 and table 19 illustrate the influence of green-securities campaigns in participants by age and education level, respectively. The remaining potential independent variables are not mentioned as no relevant output was possible. Table 16 allows to observe also that the "extreme" age intervals were the ones with lower relative quantity of participants not being influenced by sustainable management policies when considering a determined financial product/service. Table 19 reveals a higher influence of sustainable management policies in participants which the highest achieved level of education was, respectively, the Master's Degree (81% of the group), the High-School Degree (76% of the group) and the Bachelor's Degree (74% of the group). As such, it is possible to state that, according to the analyzed data, participants with higher levels of education and which age is out of the age interval 24-54 years old were the ones most mobilized by green-securities campaigns.

5.1.5. Hypothesis 1 - Environment-Friendly Marketing Campaigns are preferred by younger customers.

Literature suggests that groups with higher levels of education tend to carry a higher awareness about sustainability and may be, therefore, more susceptible to environmental campaigns. Additionally, as acknowledged previously, Bethlendi et al. (2022) mentions the observation of a relationship between individuals that most value sustainability in their personal life and a positive behavior of these same individuals regarding sustainable financial products. The formulated hypothesis intends to assess the direct relationship between age and environmental/sustainable campaign preference concerning the collected dataset.

The analyzed sample allows us to detect that, apart from non-significant groups, participants holding a master's degree as their highest education level constitute the group which has a lower relative number of individuals that would not be influenced by sustainable management policies, furthermore, 55% of individuals aged 18 to 24 years old state that environmental initiatives would influence their decision when considering a certain financial institution/bank; the remaining age intervals bellow 54 years old recorded values inferior to 34% regarding preference for a determined financial institution moderated by environmental initiatives, besides, individuals over 54 years old recorded 50% of answers in those who also expressed preference regarding the stated.

The questions regarding the shown in the survey, although recording a high adherence rate, logged the lowest values exactly in the previously age intervals, where all age intervals expressed an adherence superior to 93% except the groups of individuals with 18 to 24 years old (86% of adherence frequency) and individuals with more than 54 years old (83% of adherence frequency). To conclude, the same bipolarization of the results is observable in table 16, even though with a less obvious expression, the age intervals 18-24 and +54 recorded the highest influence from sustainable management policies when considering a financial product/service, where not only the accumulated frequency of individuals who would be “somehow influenced” and “highly influence” (opposed with the remaining “not influenced” option in the 3 points Likert Scale) was the highest, but also the frequency of participants who stated that would be “highly influenced” by the stated was the highest.

From the mentioned results it is not possible to either exclude or validate the formulated hypothesis for this study, as per it is observable a preference from one of the two youngest age intervals, nevertheless, this result was consistently followed by a similar expression from the group of participants with more than 54 years old. Hypothesis 1 is given as inconclusive in this study, leaving for future works, preferably with a more sizeable sample, to further investigate the formulated hypothesis.

5.1.6. Hypothesis 2 - Digital Channels have a higher usage from younger consumers (18y-34y) rather than older ones (+35y).

Wan et al (2005) has found that the adoption of all banking channels, with the exception of the ATM, was strongly associated with demographic backgrounds, therefore it was found relevant to this study to additionally analyze if it is possible to confirm a relationship between one demographic variable, such as the participants’ age, and the assess usage of digital channels.

The performed analysis reveals a marginally significant result regarding the frequency of Home-Banking usage demonstrated by the one-way ANOVA ($F = 1,753$, $p = 0,188$), not being possible to detect other significant results for this analysis.

AGE * Number of Diferent Devices used for Homebanking access per user. Crosstabulation							
		Number of Diferent Devices used for Homebanking access per user.					
		No Homebanking Use	1 Device	2 Devices	3 Devices	Total	
AGE	18-34	Count	3	42	17	2	64
		% within AGE	4,7%	65,6%	26,6%	3,1%	100,0%
		% within Number of Diferent Devices used for Homebanking access per user.	50,0%	59,2%	60,7%	66,7%	59,3%
		% of Total	2,8%	38,9%	15,7%	1,9%	59,3%
	+35	Count	3	29	11	1	44
		% within AGE	6,8%	65,9%	25,0%	2,3%	100,0%
		% within Number of Diferent Devices used for Homebanking access per user.	50,0%	40,8%	39,3%	33,3%	40,7%
		% of Total	2,8%	26,9%	10,2%	0,9%	40,7%
	Total	Count	6	71	28	3	108
		% within AGE	5,6%	65,7%	25,9%	2,8%	100,0%
		% within Number of Diferent Devices used for Homebanking access per user.	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	5,6%	65,7%	25,9%	2,8%	100,0%

As such, it was performed an additional cross-table analysis to verify nominal and relative frequencies, being possible to assess a majority of the participants from all age groups that possess only 1 device to access their Home-Banking Portal, while the higher frequencies of users who access their Home-Banking Portal through more 2 or more devices remains in the users belonging to the age group 18-34 years hold although this result was not very expressive in our analysis as we expected from the revised literature.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Number of Different Devices used for Homebanking access per user.	Between Groups	,076	1	,076	,208	,649
	Within Groups	38,665	106	,365		
	Total	38,741	107			
How often do you use your Homebanking App? - Selected Choice	Between Groups	1,200	1	1,200	1,753	,188
	Within Groups	72,541	106	,684		
	Total	73,741	107			
Would you consider being part of the shown environmental campaign and pass from paper to electronic statement?	Between Groups	,021	1	,021	,302	,584
	Within Groups	7,386	106	,070		
	Total	7,407	107			

5.1.7. Hypothesis 3 – There is a higher amount of customers who have never invested in the group of customers without Higher Education than in the group of customers who have completed Higher Education.

Despite the appearance that Portuguese participants prefer “low-risk” saving options, according to the collected data in the 3rd Inquiry to Portuguese Population’s Financial Literacy executed by the Portuguese National Council of Financial Supervisors in the year of 2020, the inquiry does not specify the results moderated by the inquired population’s academic background, where the academic background as well as financial literacy are, according to Agnew & Szykman, 2005, an important factor to determine an investor’s investing success.

The collected data reveals a marginally significant difference among groups as demonstrated by the one-way ANOVA ($F = 0,305$, $p = .821$).

**HIGHEST LEVEL OF ACHIEVED EDUCATION * Have you ever invested in any type of security?
E.g.: Stocks, Bonds, ETF's, Investment Funds, etc. Crosstabulation**

			Have you ever invested in any type of security? E.g.: Stocks, Bonds, ETF's, Investment Funds, etc.		
			Yes	No	Total
HIGHEST LEVEL OF ACHIEVED EDUCATION	Elementary School (EQF Level 4)	Count	0	1	1
		% within HIGHEST LEVEL OF ACHIEVED EDUCATION	0,0%	100,0%	100,0%
	HighSchool (EQF Level 5)	Count	5	15	20
		% within HIGHEST LEVEL OF ACHIEVED EDUCATION	25,0%	75,0%	100,0%
	Bachelor's Degree (EQF Level 6)	Count	19	42	61
		% within HIGHEST LEVEL OF ACHIEVED EDUCATION	31,1%	68,9%	100,0%
	Master's Degree (EQF Level 7)	Count	9	17	26
		% within HIGHEST LEVEL OF ACHIEVED EDUCATION	34,6%	65,4%	100,0%
Total		Count	33	75	108
		% within HIGHEST LEVEL OF ACHIEVED EDUCATION	30,6%	69,4%	100,0%

The analysis of the cross-table allows to verify that the majority of the participants (69,4%) have never invested in any sort of security, nevertheless, it is also possible to verify opposite trends in the “yes” and “no” columns, where the relative amount of participants who have already invested in securities increases with the progression in the academic background scale as well as the opposite trend happens as we check the academic background scale from the higher to the lower level, suggesting a relationship between academic background and consumer’s proneness to invest.

6. CONCLUSIONS

Understanding how marketing campaigns and strategies evolve and are innovated in financial institutions, namely regarding sustainability, financial inclusion and financial literacy which are topics that are expanding its awareness through consumers, is relevant in order to allow financial institutions to better design their marketing campaigns in order to target the most appropriate costumers. Also, as financial exclusion is still a topic with a substantial expression, mainly in less developed countries, it is pertinent to understand how this topic can be better approached by financial institutions as it could mean a great opportunity for these, not only regarding business objectives but also through the social role that financial institutions play in society.

The performed study reveals that, after the analysis of an exceptionally young sample, it was observed that the moderator “sustainability” played a relevant role to the study’s participants, especially in the age intervals 18-24 and +50 years old. Although it was possible to observe the relevance of the moderator “sustainability” in participant’s financial decision, it was also possible to find that its relevance is somewhat limited as, for most participants, it would not be the most important detail when considering a financial product of service. Furthermore, the stated limitation was found more noticeable when the decision involved considering a certain financial institution, where data validated that, for different financial decisions, sustainability would play a different significance in the individual’s decisions.

As stated in the reviewed literature, since the appearance of Fintech Companies, mainly traditional banking institutions suffered a forced innovation process from the disruptive digitalization being conducted by Fintech Companies, as well as changes in the business model, where also the customer started to be placed in the center of these institutions’ business model. In this topic, through descriptive statistics, it was possible to find a positive relationship between younger individuals and the frequency of home banking app’s use, which had also been found in previous literature by Sulaiman et al. (2007, p.162).

Regarding participant’s financial habits, it is pertinent to mention the relatively high amount of individuals which stated not setting any budget (29,6%) as well as not having saving habits (12%), which, if these results could be transposed to a much larger population, would represent not only a socially responsible opportunity for financial institutions, but also a business convenience for these.

In sum, this study finds that financial institutions, namely commercial and social banks, having business objectives, also play a structural social and economic role in society; as such, these two main roles of these institutions should not be pursued separately under the risk of these organizations lose not only their relevance but also their competitiveness and therefore creating market opportunities for innovation and disruption by other market players.

In addition, it was learned that innovation in these institutions can not only fulfill a social or legal purpose but also can create a business opportunity for these institutions. An example of this is the current and potential effect of digitalization, which, through the creation of digital channels, allows consumers to have greater contact with their banks, as well as allowing these consumers to have much more substantial flexibility whenever they need it. The digitization of these institutions allows, on the other hand, that consumers are much more exposed to the communications from their banking institution, creating a range of opportunities for these institutions such as extremely customized campaigns that can be created with the growing number of users and features that these channels support.

It is also relevant to highlight the potential environmental impact of this type of innovation in terms of transparency - in the availability and traceability of financial information -, sustainability - in the saving of a substantial amount of carbon emissions by being possible to avoid the displacement of consumers to ATMs and branches of your financial institution to carry out operations that become possible to carry out on digital channels -, mitigation of the exclusion of formal financial services - when it is possible to carry out any and all financial operations, starting with the opening of a new account, the from any device with an internet connection.

In conclusion, we also conclude with this study that financial literacy, particularly in Portugal, has exceptionally low indicators that can be positively impacted through the direct action of financial institutions as well, namely through pedagogical portals on the digital channels of these institutions: in this way, it is possible to not only transforming the mass of consumers but also potentially transforming consumption patterns towards more informed consumption patterns and with the potential for customer loyalty.

7. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE WORKS

I believe that, due to the profile risk of the average investor in Portugal (according to CMVM's 2010 study), the results may be somewhat impacted according to the geography where the data collection took place. Furthermore, it is pertinent to mention the impossibility to transpose the obtained results to a larger population due to the low number of collected answers, as well as the asymmetric distribution of answers in certain variables, which compromises the possibility to correctly assess these.

The fact that this study was performed during the year of 2021 and 2022 may also impact the collected results as this period was notoriously affected by an economic crisis due to the COVID-19 pandemic where high inflation and a poor wage progression led to numerous socio-economic effects, as well as the recent political crisis that was resolved between January and February 2022 with the elections that occurred.

It was not possible to quantify the relative significance of sustainability and digitalization, as per it was noticed a different implication of these moderators in consumer's decisions, nevertheless, the lack of this data is given as a limitation of this study as well as a recommendation for future work. Also, for future works we recommend an approach more focused on gathering more answers and from several countries that can allow more insightful results.

8. BIBLIOGRAPHY

- Agnew, J. R., & Szykman, L. R. (2005). Asset allocation and information overload: The influence of information display, asset choice, and investor experience. *The Journal of Behavioral Finance*, 6(2), 57-70. https://doi.org/10.1207/s15427579jpfm0602_2
- Alves, N., & Cardoso, F. (2010). A poupança das famílias em Portugal: evidência micro e macroeconómica. *Banco de Portugal, Boletim Económico*, 16(4).
- Apergis, N., & Tsoulfidis, L. (1997). The relationship between saving and finance: theory and evidence from EU countries. *Research in Economics*, 51(4), 333-358. <https://doi.org/10.1006/REEC.1997.0149>
- Augusto, M. A. G., & Freire, S. F. R. (2014). Atributos do investidor e tolerância face ao risco: a perspetiva dos pequenos investidores. *REGE-Revista de Gestão*, 21(1), 103-120. <https://doi.org/10.5700/rege521>
- Banerjee, A., Chitnis, U., & Jadhav, S. (2009). Hypothesis testing, type I and type II errors. *Industrial Psychiatry Journal*, 18(2), 127. <https://doi.org/10.4103/0972-6748.62274>
- Bethlendi, A., Nagy, L., & Póra, A. (2022). Green finance: the neglected consumer demand. *Journal of Sustainable Finance & Investment*, 1-19. <https://doi.org/10.1080/20430795.2022.2090311>
- Bragoli, D., Burlina, C., Cortelezzi, F., & Marseguerra, G. (2022). Banking proximity and firm performance. The role of small businesses, community banks and the credit cycle. *Applied Economics*, 1-20. <https://doi.org/10.1080/00036846.2022.2073959>
- Brennen, J. S., & Kreiss, D. (2016). Digitalização. *Enciclopédia Internacional de Teoria e Filosofia da Comunicação*, 1-11. <https://doi.org/10.1002/9781118766804.wbiect1>
- Cesaratto, S. (1999). Savings and economic growth in neoclassical theory. *Cambridge Journal of Economics*, 771-793.
- EFMA (2021) Millennium BCP: From Gen Z and Millennials to older generations - investment needs & customer journeys. Consulted on 25 July, 2022 at <https://www.efma.com/article/16928-millennium-bcp-from-gen-z-and-millennials-to-older-generations-investment-needs-customer-journeys>
- Engel, J.F., Blackwell, R.D., and Miniard, P.W. (1986). Consumer Behaviour, 5th edition. Dryden.
- European Central Bank (2021). Comunicação do BCE com o público em geral. Consulted on 25 July, 2022 (Link updated on 15/11/2022) at https://www.ecb.europa.eu/pub/economic-bulletin/articles/2022/html/ecb.ebart202108_02~5c1e5a116d.en.html
- European Union's Website. Description of the eight EQF levels. Consulted on 10 July 2022 at <https://europa.eu/europass/en/description-eight-eqf-levels>

- Fernando, P. M. P., & Fernando, K. S. D. (2017). *Estudo das Práticas Bancárias Verdes no Contexto do Sri Lanka: Uma Revisão Crítica. Trabalhos selecionados da Conferência Ásia-Pacífico sobre Economia & Finanças (APEF 2016)*, 125-143. https://doi.org/10.1007/978-981-10-3566-1_10
- Gallup (2022) Que percentagem de americanos são donos de ações? Consulted on 25 July, 2022 at <https://news.gallup.com/poll/266807/percentage-americans-owns-stock.aspx>
- Gonzalez, L., Diniz, E. H., & Pozzebon, M. (2015). The value of proximity finance: how the traditional banking system can contribute to microfinance. *Innovations: Technology, Governance, Globalization*, 10(1-2), 125-137. https://doi.org/10.1162/inov_a_00233
- T. Gorenšek, A. Kohont (2019). "Conceptualization Of Digitalization: Opportunities And Challenges For Organizations In The Euro-Mediterranean Area". https://emuni.si/wp-content/uploads/2020/01/IJEMS-2-2019_93%E2%80%9393115.pdf
- Gray, D., Montagnoli, A., & Moro, M. (2021). Does education improve financial behaviors? Quasi-experimental evidence from Britain. *Journal of Economic Behavior & Organization*, 183, 481–507. <https://doi.org/10.1016/j.jebo.2021.01.002>
- Königstorfer, F., & Thalmann, S. (2020). Applications of Artificial Intelligence in commercial banks—A research agenda for behavioral finance. *Journal of behavioral and experimental finance*, 27, 100352. <https://doi.org/10.1016/j.jbef.2020.100352>
- Le Thanh, H. (2022). Accelerating Digital Transformation Implementation in the Fight Against Corruption?: Evidence From European Countries Before and During the COVID-19 Pandemic. *International Journal of Electronic Government Research (IJEGR)*, 18(2), 1-27. <https://doi.org/10.4018/IJEGR.298181>
- Menon, D.G., Sreelakshmi, S. G., & Shivdas, A. (2017). *Iniciativas bancárias verdes: Uma revisão do setor bancário indiano. 2017 Conferência Internacional sobre Avanços Tecnológicos em Energia e Energia (TAP Energy)*. <https://doi.org/10.1109/tapenergy.2017.8397303>
- Mishra, P., & Sharma, P. (2010). Green marketing in India: Emerging opportunities and challenges. *Journal of Engineering, Science and Management Education*, 3(1), 9-14.
- Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. *Franco Modigliani*, 1(1), 388-436.
- Leininger, W. E. (1977). *Opportunity Costs: Some Definitions and Examples. The Accounting Review*, 52(1), 248–251. <http://www.jstor.org/stable/246049>
- Óskarsdóttir, M., Bravo, C., Sarraute, C., Baesens, B., & Vanthienen, J. (2020). Credit scoring for good: Enhancing financial inclusion with smartphone-based microlending. <https://doi.org/10.48550/arXiv.2001.10994>

- Phelps, E. S. (1962). The new view of investment: a neoclassical analysis. *The Quarterly Journal of Economics*, 76(4), 548-567. <https://doi.org/10.2307/1879546>
- Plano Nacional de Formação Financeira – Todos Contam (2021). Relatório do 3.º Inquérito à Literacia Financeira da população portuguesa 2022. Consulted on 25 July 2022 at <https://www.todoscontam.pt/sites/default/files/2021-06/relatorio3inqlf.pdf>
- Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of consumer affairs*, 44(2), 276-295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- Rodrigues, L. F., Oliveira, A., Rodrigues, H., & Costa, C. J. (2019). Assessing consumer literacy on financial complex products. *Journal of Behavioral and Experimental Finance*, 22, 93-104. <https://doi.org/10.1016/J.JBEF.2019.02.005>
- Rühl, A., & Palomo Zurdo, R. (2019). Does technology contribute to financial democratization? The collaborative economy and fintechs as catalysts for change. <https://doi.org/10.5209/reve.65486>
- Sarma, P., & Roy, A. (2021). A Scientometric analysis of literature on Green Banking (1995-March 2019). *Journal of Sustainable Finance & Investment*, 11(2), 143-162. <https://doi.org/10.1080/20430795.2020.1711500>
- Sulaiman, A., Jaafar, N. I., & Mohezar, S. (2007). An overview of mobile banking adoption among the urban community. *International Journal of Mobile Communications*, 5(2), 157. <https://doi.org/10.1504/ijmc.2007.011814>
- Wan, Wendy & Luk, Michael & Chow, Cherie. (2005). Customers' adoption of banking channels in Hong Kong. *International Journal of Bank Marketing*. 23. 255-272. 10.1108/02652320510591711.
- What Are Real Assets vs. Other Asset Types?, Consulted on the 11/06/2022 at <https://www.investopedia.com/terms/r/realasset.asp>

9. ANNEXES

PORDATA

Taxa de poupança das famílias

Em que países é que as pessoas
poupam maior e menor percentagem do

Proporção - %

Anos	Taxa de poupança das famílias
	PT - Portugal
1995	14,8
1996	13,7
1997	13,3
1998	14,5
1999	13,3
2000	12,4
2001	12,7
2002	12,8
2003	12,9
2004	11,2
2005	10,2
2006	8,7
2007	7,6
2008	7,3
2009	11,9
2010	9,7
2011	8,8
2012	10,2
2013	9,7
2014	6,9
2015	7,1
2016	7,1
2017	6,8
2018	7,0
2019	7,3
2020	Pro 13,1

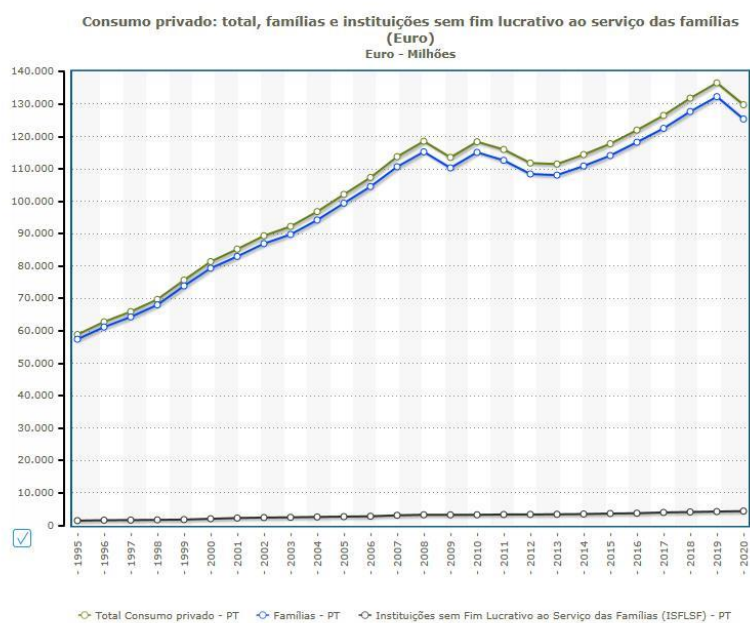
Taxa de poupança das famílias

Fontes de Dados: Eurostat | Institutos Nacionais de Estatística - Contas Sectoriais Anuais

Fonte: PORDATA

Última actualização: 2021-10-18

Table 16 – Household's Saving Rate in Portugal



Fontes de Dados: Eurostat | Institutos Nacionais de Estatística - Contas Nacionais Anuais
 Fonte: PORDATA
 Última actualização: 2021-09-24

Table 17– Private Consumption. Source: Pordata

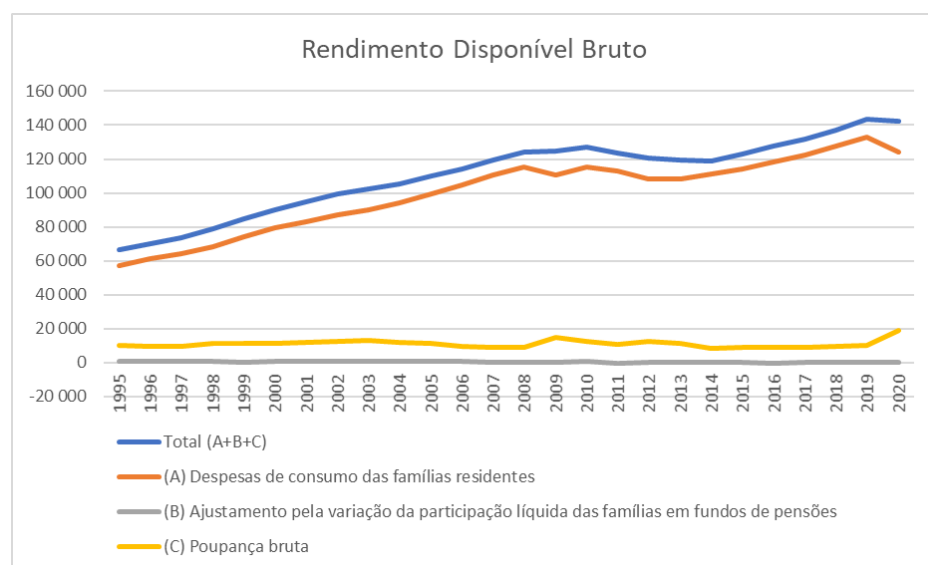


Table 18– Gross Available Income. Source: Pordata

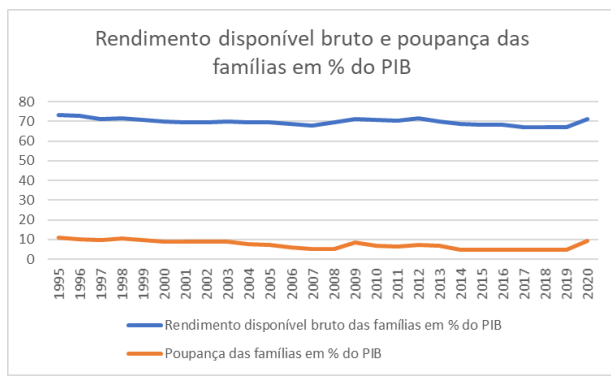


Table 19 – Gross Available Income and Household's Savings in GDP's % , Source: Pordata

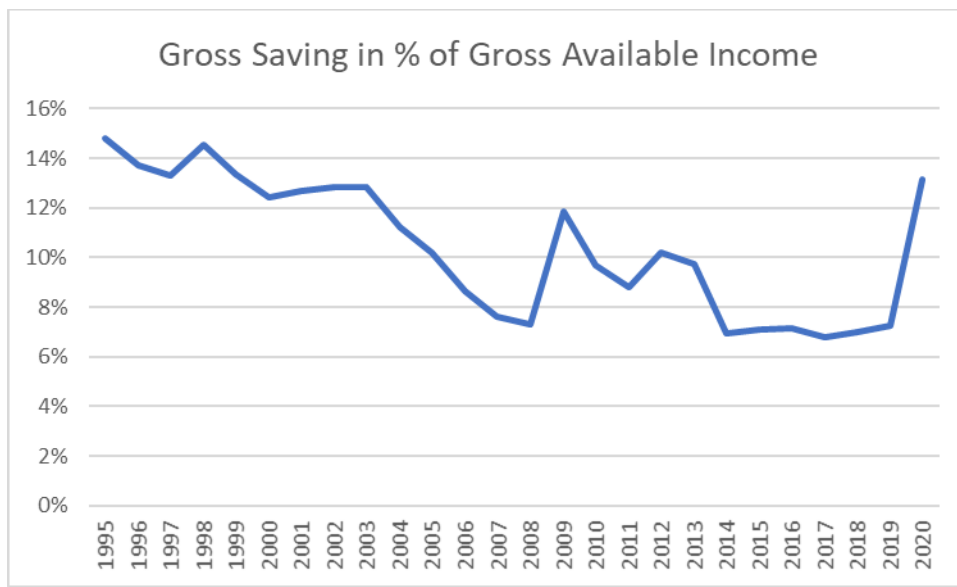


Table 26 - Gross Saving in % of Gross Available Income, Pordata

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
European Union - 28 countries	8.34	7.94	7.67	7.65	7.55	7.85	8.16	8.24	8.39	:
Euro area - 19 countries (from 2011)	9.21	8.80	8.37	8.24	8.09	8.35	8.52	8.72	8.79	8.56
Belgium	9.45	9.37	9.03	9.45	9.31	9.33	9.28	9.35	9.77	9.19 ^(R)
Bulgaria	:	:	:	:	:	:	:	:	:	:
Czechia	9.82	8.74	8.77	8.88	8.84	9.18	7.86	9.00	9.45	8.89
Denmark	8.51	7.87	7.35	7.60	7.50	7.46	8.10	8.33	8.97	9.57
Germany (until 1990 former territory of the FRG)	9.51	9.61	9.56	9.65	9.32	9.62	9.48	9.71 ^(R)	9.74 ^(R)	9.96 ^(R)
Estonia	6.47	6.84	7.52	7.79	7.94	8.52	8.95	8.58	9.23	9.82
Ireland	4.93	3.98	4.29	4.33	4.54	5.06	5.35	6.09	5.10	4.60
Greece	8.54	6.28	4.90	3.16	2.72	2.75	2.69	2.44 ^(R)	2.56 ^(R)	2.74 ^(R)
Spain	7.85	6.48	4.84	4.72	4.57	4.60	5.17	5.42	5.41	5.54
France	9.46	9.31	9.27	9.07	8.88	8.99	9.41	9.47	9.62 ^(R)	8.55 ^(R)
Croatia	5.53	5.43	4.92	4.72	4.81	4.90	4.95	5.29	6.31	6.16 ^(R)
Italy	9.82	9.20	8.42	7.78	7.58	7.68	7.74	7.77	7.65	7.25
Cyprus	10.76	8.77	7.55	7.17	6.71	8.04	9.00	11.35	12.94	12.52 ^(R)
Latvia	4.93	6.18	4.63	4.99	5.77	4.89	4.84	5.70	5.88	5.83
Lithuania	5.11	4.70	5.56	6.04	6.68	6.89	6.51	6.78	7.10	6.99
Luxembourg	11.26	10.43	11.34	12.75	12.34	12.48	12.35	11.44	10.78	10.85
Hungary	5.11	4.80	4.92	5.17	5.68	5.86	6.53	7.19	7.51	8.96 ^(R)
Malta	:	:	:	:	:	:	:	:	:	:
Netherlands	9.54	8.47	7.46	8.10	9.08	10.60	10.80	11.52	12.24	11.96 ^(R)
Austria	8.60	8.47	8.58	8.30	8.36	8.29	8.69	8.81	9.00	9.27
Poland	7.64	7.94	7.29	7.66	7.63	7.28	6.62	5.59	5.69	4.81
Portugal	5.81	5.07	4.37	4.51	4.50	4.71	5.05	5.48	5.65	5.59 ^(R)
Romania	8.53	9.17	8.73	8.78	8.66	8.90	12.47	10.75	6.76 ^(R)	:
Slovenia	6.30	5.78	5.50	5.65	5.81	5.85	6.28	6.48	6.31	5.69
Slovakia	7.01	6.66	7.09	6.39	6.11	6.75	6.72	6.76	6.79	6.94
Finland	12.18	12.12	11.49	10.88	10.49	11.57	12.09	12.50	12.25	12.10
Sweden	5.48	4.51	4.61	4.69	5.69	6.14	6.76	6.23	5.89	6.27
Iceland	4.58	4.81	5.19	5.57	:	:	:	:	:	:
Norway	10.98	11.73	12.32	11.82	11.35	12.34	12.91	12.62	12.05	11.44
Switzerland	6.48	6.29	6.31	6.20	6.26	6.13	6.07	6.06	5.69 ^(R)	5.42 ^(R)
United Kingdom	5.02	4.95	5.27	5.67	5.84	6.16	6.77	6.62	6.81	:
Serbia	:	:	:	:	:	:	:	:	:	:
Turkey	11.32	10.73	12.13	12.37	12.07	11.72	12.61	:	:	:

Table 27 – Gross Household investment rate, Eurostat. Consulted in 30-01-2022

Survey's Questions

Q1.1

Dear participant

This survey regards research about Innovation in Financial Institutions' Marketing Strategies and its Influence on Consumers' Investment.

This survey should take about 5 minutes to complete, being composed by 4 main blocks.

Be informed that:

- There is no risk involved in answering this survey;
- Your participation in this survey is voluntary and anonymous;
- Your response is very important and will be used only for academic purposes.

Feel free to contact me if any further information is required.

João Borges

m20200722@novaims.unl.pt

- ☐ I understood and intend to proceed. (1)
- ☐ I do not intend to proceed. (2)

Q1.1

Estimado/a Participante

Este questionário visa desenvolver o conhecimento científico sobre a Inovação em Campanhas e estratégias de marketing das instituições financeiras e a sua influência nas decisões de investimento dos/as consumidores/as.

O preenchimento do presente questionário deverá demorar cerca de 5 minutos, sendo este composto por 4 secções temáticas.

Tenha em consideração o seguinte:

- Não existe qualquer risco associado a este questionário;
- A sua participação neste questionário é voluntaria e anónima;
- A sua resposta é muito importante e será exclusivamente utilizada para fins académicos.

Caso seja necessária qualquer informação adicional, por favor não hesite em entrar em contacto através do email abaixo.

João Borges

m20200722@novaims.unl.pt

- o Compreendo a informação transmitida e pretendo continuar. (1)
- o Não pretendo avançar. (2)

Skip To: End of Survey If Q1.1 = 2

End of Block: Disclaimer

Start of Block: Experiment 1

Q2.1 Please analyze the bellow image(s).

Millennium bcp turns paper statements into trees



Millennium bcp, as part of its Sustainability policy, has just joined AMI - Assistência Médica Internacional in the "Vamos Todos ser Dinis" ("Let's all be Dinis") campaign of the Ecoética project, to participate in the **reforestation of the Pinhal de Leiria**, where more than 80% of the trees were destroyed in the fires of 2017.

Through September 2020, each time a Millennium Customer signs up to receive their monthly bank statement in digital format, the Bank will donate €1 to this project. Regardless of the amount collected, Millennium bcp is committed to financially supporting this initiative with a minimum donation of €10,000. The campaign will culminate in a replanting effort in November 2020, to rehabilitate of 100,000 sq. m. Many volunteers, including employees and customers of Millennium bcp, will participate in this project.

Miguel Maya, Chief Executive Officer of Millennium bcp, said that "our support for this initiative underlines the importance of switching to digital, and encourages the transformation of processes used by financial services to make them more compatible, in environmental terms. This is an emblematic action, as it will contribute to the rehabilitation of one of the forest areas with enormous importance for Portugal."

Fernando Nobre, President of AMI - Assistência Médica Internacional, said: "AMI is committed to be an agent of change, to following and promoting the adoption of conscious and responsible behavior by citizens, companies and institutions. If we all work together, contributing to the 2030 Agenda and playing our part to preserve the planet, there will be no need for a plan B."

Millennium bcp is strongly committed to developing its Sustainability policy, promoting a culture of responsible investment and consumption, and assuming the goal of maintaining a consistent reduction of the ecological footprint as a way of protecting the environment, preserving natural resources and fighting climate change. Millennium has revised its Sustainability Master Plan, which guides action on ESG (Environmental, Social and Governance) matters, including policies and actions that contribute to achieving the goals defined by the Paris Agreement, and also to minimize the environmental impacts of its operations, an effort reflected in the objectives of reducing consumption (energy, water, materials and greenhouse gas emissions) to which we commit each year.

AMI is a Portuguese, private, independent, non-political, non-profit, non-governmental organization (NGO) whose mission is to "Bring humanitarian aid and promote human development, taking into account Human Rights and Sustainable Development Goals, in the areas of health, society and the environment, anywhere in the world, regardless of race, gender, age, nationality, language, politics, religion, philosophy or social position, considering each person as a unique, irreplaceable being, worthy of attention and care."

For more information about this project, see: <https://ami.org.pt/missao/ecoetica/>

Q2.1 Por favor leia atentamente a notícia ilustrada abaixo.

Millennium bcp troca extratos em papel por árvores



O Millennium bcp, no âmbito da sua política de Sustentabilidade, acaba de se associar à AMI - Assistência Médica Internacional, na Campanha "Vamos todos ser Dinis" do projeto Ecoética, com o objetivo de participar no esforço de **reflorestação do Pinhal de Leiria**, consumido em mais de 80% pelos incêndios de 2017.

Até setembro de 2020, por cada adesão dos Clientes do Millennium ao extrato digital, o Banco doará **1€** para este projeto. Independentemente do valor a apurar, o Millennium bcp compromete-se a apoiar financeiramente esta iniciativa. Esta ação culminará com uma intervenção de reflorestação, a realizar nos dias 20 e 21 de novembro de 2020, onde está prevista a reabilitação de 100.000 m2 de terreno e que contará com o apoio de muitos voluntários, entre Colaboradores e Clientes do Millennium bcp.

Miguel Maya, Presidente da Comissão Executiva do Millennium bcp, afirma que "o apoio a esta iniciativa tem como propósito enfatizar a importância e incentivar a transformação dos processos utilizados pelos serviços financeiros de modo a torná-los mais compatíveis em termos ambientais com as exigências dos cidadãos. Trata-se de uma ação emblemática, pois vai contribuir para reabilitar uma das áreas florestais que tem uma enorme importância para Portugal."

Já **Fernando Nobre, Presidente da AMI – Assistência Médica Internacional**, afirma: "A AMI está empenhada em ser um agente de mudança, seguindo e promovendo, para isso, a adoção de comportamentos conscientes e responsáveis por parte dos cidadãos, das empresas e das instituições! Se todos trabalharmos em conjunto, contribuindo para a Agenda 2030 e desempenhando o nosso papel na preservação do planeta, não será necessário um plano B."

O Millennium bcp está fortemente empenhado no aprofundamento da sua política de Sustentabilidade, promovendo uma cultura de investimento e consumo responsáveis e assumindo o objetivo de manter uma redução consistente da pegada ecológica como forma de proteção do meio ambiente, preservação dos recursos naturais e combate às alterações climáticas. O Banco redefiniu o seu Plano Diretor de Sustentabilidade, quadro de referência de atuação em matérias ESG (*Environmental, Social e Governance*) que contempla um conjunto de políticas e atuações que visam contribuir de forma tangível para o cumprimento das metas definidas pelo Acordo de Paris, mas também para a minimização dos impactos ambientais das suas operações, esforço traduzido nos objetivos de redução de consumos (energia, água, materiais e emissão de gases com efeito de estufa) com que nos comprometemos anualmente.

A AMI é uma Organização Não Governamental (ONG) portuguesa, privada, independente, apolítica e sem fins lucrativos, cuja missão é "Levar ajuda humanitária e promover o desenvolvimento humano, tendo em conta os **Direitos Humanos** e os **Objetivos de Desenvolvimento Sustentável**, nas áreas da saúde, social e ambiental, em qualquer parte do mundo, independentemente de raça, género, idade, nacionalidade, língua, política, religião, filosofia ou posição social, olhando para cada pessoa como um ser único, insubstituível, digno de atenção e cuidado".

Para mais informações sobre este projeto, consulte, <https://ami.org.pt/missao/ecoetica/>

Page Break

Q2.3 Would you consider being part of the shown environmental campaign and pass from paper to electronic statement?

- ☐ Yes (1)
- ☐ No (2)

Q2.3 Face ao anúncio exposto, na situação de receber o seu extrato bancário em papel, aceitaria aderir á campanha publicitada e passar a receber o seu extrato bancário em formato digital?

- ☐ Sim (1)
- ☐ Não (2)

Q2.4 Would these kind of initiatives influence you decision to be a client of a certain bank/institution?

- ☐ Yes (1)
- ☐ No (2)

Q2.4 Este tipo de iniciativas influenciaria a sua escolha de optar por ser cliente de um determinado banco/instituição financeira?

- ☐ Sim (1)
- ☐ Não (2)

Q2.5 If you were considering a certain financial product/service, would it be key for you that it had a "green" management policy?

- ☐ It would highly influence my decision (1)
- ☐ It would somehow influence my decision (2)
- ☐ It would not influence my decision (3)

Q2.5 Se fosse investir num fundo de investimento, seria relevante para si uma política de gestão/investimento "verde" por parte do referido fundo?

- ☐ Sim, influenciaria muito a minha decisão. (1)
- ☐ Sim, influenciaria moderadamente a minha decisão. (2)
- ☐ Não influenciaria, de todo, a minha decisão. (3)

End of Block: Experiment 1

Start of Block: Digital Habits

Q3.1 Do you use an Homebanking App?

- ☐ Yes, on my smartphone (1)
- ☐ Yes, on my PC (2)
- ☐ Yes, in my tablet (3)
- ☐ No, I do not use any Homebanking App (4)

Q3.1 Costuma utilizar os canais digitais do seu Banco (Portal de Homebanking)?

- ☐ Sim, no smartphone (1)
- ☐ Sim, no computador (2)

- ☐ Sim, no tablet (3)
- ☐ Não, não utilizo os canais digitais do meu Banco (4)

Q3.2 How often do you use your Homebanking App?

- ☐ Daily (1)
- ☐ Weekly (2)
- ☐ Monthly (3)
- ☐ Other (4) _____

Q3.2 Com que frequência utiliza os canais digitais do seu Banco?

- ☐ Diariamente (1)
- ☐ Semanalmente (2)
- ☐ Mensalmente (3)
- ☐ Outra (4) _____

Q3.3 Would you prefer to schedule a videocall with your account manager instead of visiting a branch?

- ☐ Yes (1)
- ☐ No (2)

Q3.3 Teria preferência em agendar uma reunião com o seu gestor de conta em vez de visitar a sucursal fisicamente?

- ☐ Sim (1)
- ☐ Não (2)

Q3.4 Do you think that being able to periodically meet with your account manager would allow you to better manage your personal finances?

- ☐ Yes (1)
- ☐ No (2)

Q3.4 Considera que a possibilidade de poder reunir-se periodicamente com o seu gestor de conta lhe permitiria fazer uma melhor gestão das suas finanças pessoais?

- ☐ Sim (1)
- ☐ Não (2)

Q3.5 How useful would you find the possibility to have a live chat with an account manager to help you to better understand financial products' characteristics before making an investment decision?

- ☐ Not at all useful (1)
- ☐ Slightly useful (2)
- ☐ Moderately useful (3)
- ☐ Very useful (4)
- ☐ Extremely useful (5)

Q3.5 Como avalia a utilidade relativamente á possibilidade de poder reunir-se virtualmente com o seu gestor de conta, permitindo-lhe ter uma maior compreensão das características de algum produto financeiro antes de tomar uma decisão de investimento?

- ☐ Inútil (1)
- ☐ Pouco útil (2)
- ☐ Moderadamente útil (3)
- ☐ Muito útil (4)
- ☐ Extremamente útil (5)

End of Block: Digital Habits

Start of Block: Financial Questions

Q4.1 Do you set up a budget? How Often?

- ☐ Yes, Yearly (1)
- ☐ Yes, Monthly (2)
- ☐ Yes, Weekly (3)
- ☐ Yes, Daily (4)

- ☐ I do not set any budget (5)

Q4.1 Costuma fazer um orçamento pessoal/familiar? Se sim, com que frequência?

- ☐ Sim, anualmente (1)
- ☐ Sim, mensalmente (2)
- ☐ Sim, semanalmente (3)
- ☐ Sim, diariamente (4)
- ☐ Não costumo fazer qualquer orçamento. (5)

Q4.2 How often do you manage to save?

- ☐ Daily (1)
- ☐ Weekly (2)
- ☐ Monthly (3)
- ☐ Everytime I plan my periodic budget (4)
- ☐ I do not / cannot manage to save (5)

Q4.2 Com que frequência consegue poupar?

- ☐ Diariamente (1)
- ☐ Semanalmente (2)
- ☐ Mensalmente (3)
- ☐ Sempre que planeio o meu orçamento pessoal/familiar (4)
- ☐ Eu não poupo/consigo poupar (5)

Q4.3 How much money do you manage to save?

(Percentage of your monthly income)

- ☐ < 10% (1)
- ☐ 11% - 30% (2)
- ☐ 31% - 50% (3)

- ☐ 51% - 70% (4)
- ☐ 71% - 90% (5)
- ☐ 91% - 100% (6)

Q4.3 Qual a percentagem do seu rendimento que utiliza para poupança?

- ☐ < 10% (1)
- ☐ 11% - 30% (2)
- ☐ 31% - 50% (3)
- ☐ 51% - 70% (4)
- ☐ 71% - 90% (5)
- ☐ 91% - 100% (6)

Q4.4 Have you ever invested in any type of security?

E.g.: Stocks, Bonds, ETFs, Investment Funds, etc.

- ☐ Yes (1)
- ☐ No (2)

Q4.4 Alguma vez investiu em mercados de valores mobiliários?

E.g.: Ações, Obrigações, ETF's, Fundos de Investimento, etc.

- ☐ Sim (1)
- ☐ Não (2)

Display This Question: If Q4.4 = 1

Q4.5 How do you evaluate your personal finances' management after you started investing?

- ☐ Much worse (1)
- ☐ Somewhat worse (2)
- ☐ About the same (3)
- ☐ Somewhat better (4)
- ☐ Much better (5)

Q4.5 Como avalia a sua gestão de finanças pessoais após ter começado a investir?

- ☐ Muito pior (1)
- ☐ Pior (2)
- ☐ Sem alteração (3)
- ☐ Melhor (4)
- ☐ Muito melhor (5)

End of Block: Financial Questions

Start of Block: Demographic Questions

Q5.1 How old are you?

- ☐ 18-24 (1)
- ☐ 25-34 (2)
- ☐ 35-44 (3)
- ☐ 45-54 (4)
- ☐ More than 54 (5)

Q5.1 Qual a sua idade atual?

- ☐ 18-24 (1)
- ☐ 25-34 (2)
- ☐ 35-44 (3)
- ☐ 45-54 (4)
- ☐ Mais de 54 (5)

Q5.2 What is your gender?

- ☐ Female (1)
- ☐ Male (2)

☐ Other (please specify) (3) _____

Q5.2 Qual o seu género?

☐ Feminino (1)

☐ Masculino (2)

☐ Outro (por favor especifique) (3) _____

Q32 What is your nationality?

☐ Portuguese (1)

☐ Other (please specify (5) _____

Q32 Qual é a sua nacionalidade?

☐ Portuguesa (1)

☐ Outra (por favor especifique) (5) _____

Q5.3 What is the highest degree or level of education you have completed?

☐ 4th grade (1)

☐ 9th grade (2)

☐ Highschool (12th grade) (3)

☐ Professional/Technical Degree (8)

☐ Bachelor's Degree (4)

☐ Post-Graduation (9)

☐ Master's Degree (5)

☐ Ph.D. or Higher (6)

Q5.3 Qual é o grau mais elevado de escolaridade que já concluiu?

☐ 4º Ano (1)

- ☐ 9º Ano (2)
- ☐ 12º Ano (Ensino Secundário) (3)
- ☐ Curso Técnico-Profissional (8)
- ☐ Licenciatura (4)
- ☐ Pós-Graduação (9)
- ☐ Mestrado (5)
- ☐ Doutoramento (6)

Q5.4 What is your occupational status?

- ☐ Employed (1)
- ☐ Self-Employed (2)
- ☐ Unemployed (3)
- ☐ Retired (4)
- ☐ Student (not working) (5)
- ☐ Student and Employed (6)
- ☐ Student and Self-Employed (7)

Q5.4 Qual é a sua situação profissional atual?

- ☐ Empregado(a) por contra de outrem (1)
- ☐ Empregado(a) por conta própria (2)
- ☐ Desempregado(a) (3)
- ☐ Reformado(a) (4)
- ☐ Estudante (5)
- ☐ Estudante e Empregado(a) por conta de outrem (6)
- ☐ Estudante e Empregado(a) por conta própria (7)

Q5.5 What is your main area of studies?

- ☐ Science (1)
- ☐ Arts (2)

- ☐ Technology (3)
- ☐ Economy/Finance/Accounting (4)
- ☐ Languages and Humanities (5)
- ☐ Other (not listed) (6) _____

Q5.5 Qual é a sua principal área de estudo?

- ☐ Ciências (1)
- ☐ Artes (2)
- ☐ Tecnologia (3)
- ☐ Economia/Finanças/Contabilidade (4)
- ☐ Línguas e Humanidades (5)
- ☐ Outras (por favor especifique) (6) _____

Q5.6 What is your main field of work?

(If you are retired, please reply accordingly to your main work experience.)

- ☐ Health and Medicine (1)
- ☐ Arts (2)
- ☐ Data Science (3)
- ☐ Business Services (accounting, auditing, etc) (4)
- ☐ Education (5)
- ☐ Communications (advertising, journaling, etc) (6)
- ☐ Engineering (7)
- ☐ Languages and Humanities (8)
- ☐ Other (not listed) (9) _____

Q5.6 Qual a sua área profissional?

(Se estiver reformado(a), por favor responda de acordo com a sua última área profissional principal.)

- ☐ Profissional de Saúde (1)
- ☐ Artes (2)

- ☐ Ciência de Dados (3)
- ☐ Economia/Gestão (4)
- ☐ Ciências da Educação (5)
- ☐ Comunicação (6)
- ☐ Engenharia (7)
- ☐ Línguas e Literaturas (8)
- ☐ Outras (por favor especifique) (9) _____

Page Break

Q5.7 Do you want to share any feedback?

If not, you can move forward to the end of the survey.

Thank you for your time!

Q5.7 Pretende partilhar a sua opinião?

Se não pretende, pode avançar e submeter as suas respostas. Obrigado pelo seu tempo!!

End of Block: Demographic Questions