

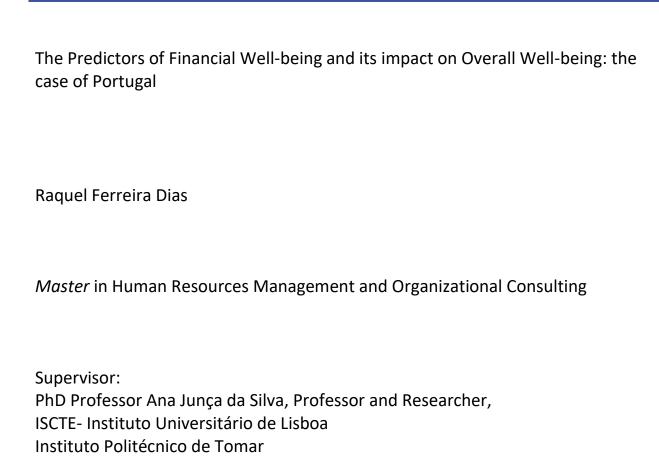
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The Predictors of Financial Well-being and its impact on Overall Well-being: the case of Portugal
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**ABSTRACT** 

Although overall well-being is a well study phenomenon, financial well-being only recently

has taken interest in the research field. Accordingly, the aim of this study is to understand the

relation between financial well-being, its predictors (financial status, financial behaviour,

financial knowledge and financial attitudes) and overall well-being. Additionally, hypotheses

were tested with age, gender, household income and area of residence. It was used the

quantitative method to gather the data, and to analyse it, the SPPS through linear regression

analysis, mediation analysis, independent t-test and an anova test. Regarding the results, the

financial status is the only positive and significant impactor on financial well-being and the

latter has a significant positive relation with overall well-being. It was also found that financial

well-being was a mediator between financial status and overall well-being. Overall, the other

predictors did not show a significant effect. Moreover, higher household incomes contribute to

increase the financial well-being. Plus, I found that there were differences in financial well-

being between groups. For example, the older you get does not necessarily implies a higher

financial satisfaction. Overall, men appear to have a higher financial well-being than women.

In sum, these results show a multidisciplinary concept of overall well-being and that

individuals prioritise financial security over the other components. In terms of practical

implications, this research is relevant because it highlights the evidence of financial status'

importance in predicting financial well-being, as well as the role of household income for

individual financial satisfaction.

Keywords: financial well-being; financial status; financial attitudes; financial knowledge;

well-being

**JEL Classification:** 

I31 General Welfare; Well-Being

M50 Personnel Economics: General

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**RESUMO** 

Embora o bem-estar geral seja um fenómeno bem estudado, o bem-estar financeiro só

recentemente se tornou interessante no campo da investigação. Consequentemente, o objetivo

do estudo é entender a relação entre o bem-estar financeiro, seus antecedentes (status

financeiro, comportamento financeiro, conhecimento financeiro e atitudes financeiras) e o

bem-estar geral. Adicionalmente, foram testadas hipóteses com a idade, género, rendimento

familiar e área de residência. Foi utilizado o método quantitativo para reunir os dados, e para a

sua análise, o SPPS através da análise de regressão linear, análise de mediação, independente

t-teste e o anova teste. Em relação aos resultados, o status financeiro é o único e significante

fator positivo no bem-estar financeiro e este último tem uma relação positiva significativa com

o bem-estar geral. Constatou-se também que o bem-estar financeiro é o mediador entre o status

financeiro e bem-estar geral. No geral, os outros antecedentes não mostraram um efeito

significativo. Além disso, elevado rendimento familiar contribui para aumentar o bem-estar

financeiro. Adicionalmente, encontrei diferenças no bem-estar financeiro entre grupos. Por

exemplo, ao envelhecer não implica necessariamente numa maior satisfação financeira. No

geral, os homens têm um maior bem-estar financeiro do que as mulheres. Em suma, estes

resultados mostram um conceito multidisciplinar de bem-estar geral e que os indivíduos dão

primazia à segurança financeira sobre os outros componentes. Em termos de implicações

práticas, esta pesquisa é relevante porque evidencia a importância do status financeiro na

previsão do bem-estar financeiro, bem como o papel do rendimento familiar para satisfação

financeira individual.

Palavras-Chave: bem-estar financeiro; estatuto financeiro; atitudes financeiras; conhecimento

financeiro; bem-estar

Classificação JEL:

I31 Bem-estar geral; Bem-Estar

M50 Economia Pessoal: Geral

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# I. Introduction

In the last few years, the topic of well-being is being discussed in the literature. As a result, it has generated diverse debates regarding potential conceptual frameworks that may be adjusted to all types of persons and societies. However, it is commonly said that "a happy worker is a productive worker" which brings the importance of well-being not only to the person *per se* but also to organizations (Patel & Wolfe, 2019). Therefore, the proposal of this research is to study the existing gap in the well-being literature. The main goal of this research is to understand how the antecedents of financial well-being have impact on it, and how this, in turn, will impact on overall well-being.

The first argument is that money is essential for humans because they spend, the most of their life, earning and spending money to satisfy their needs (Diener & Biswas-Diener, 2002). Furthermore, "the field is increasingly recognizing the role that financial health plays in overall well-being" (Bailey, 2019, p. 147) because well-being is a multidimensional phenomenon which have different domains. Praag, Frijters and Carbonell (2003) have studied how much each domain of well-being impacts on general satisfaction. The top domains were, respectively, financial, health and job satisfaction. Therefore, programs could be designed if we know to what extent financial well-being can improve financial satisfaction on organizations and individuals (Prawitz, Garman, Sorhaindo, Neill, & Kim, 2006), which in turn, would increase overall well-being and performance.

Furthermore, Portugal is not an exception in accessing this issue. OECD has evaluated the well-being and concluded that, in terms of income and wealth, Portugal was below the OECD average. It means that "there is a considerable gap between the richest and poorest – the top 20% of the population earn nearly six times as much as the bottom 20%" ("OCDE - Better Life Index - Portugal," n.d.). Hence, the Portuguese gave a 5.4 grade on average to rate their well-being which is above the medium on a scale from 0 to 10. Nevertheless, it is still one of the lowest scores in the OECD, where the average is 6.5. One reason for that result might be the Portugueses' lower rates of financial satisfaction. In truth, Portuguese population have reasons to have more concerns about personal finances, and this can have a negative impact on their and well-being outcomes (Prawitz et al., 2006).

For this research I defined four goals. The first goal is to test, for the Portuguese context, the overall model used by Gerrans, Speelman and Campitelli (2014) which is an adaption of the Joo's (2008) model. This model describes four components that predict financial and overall well-being. Based on that, I want to analyse if the four antecedents (financial knowledge, financial status, financial behaviour and financial attitudes) will predict financial well-being and find out what is the most relevant. I also pretend to explore how the demographic characteristics (e.g., gender, age, household income and residence) influence these relationships and do comparisons between the different groups. Moreover, I want to test if financial well-being impacts, positively or negatively, on overall well-being.

# II. Theoretical reasoning on well-being

Nowadays, the awareness of individuals and organizations about well-being has increased. It is an important issue because if a person is happier, the personal and organizational outcomes, will be positive. Individuals are searching for happiness, which has been going on for a long time, since the beginning. One of the main quotes of Aristotle refer that "happiness is the meaning and the purpose of life, the whole aim and the end of human existence". Therefore, happiness is and will be a preponderant factor in human life. So, it is imperative for companies to invest in their workers well-being. For example, investments in education will bring higher productivity, higher income and higher levels of financial well-being (Rutherford & Fox, 2010). Plus, in terms of personal well-being, it will have a major impact on individuals' overall health, enabling them to, successfully, overcome adversities and, more easily, achieve what they want in life. Past experiences and attitudes can all impact well-being, as can physical or affective events.

Well-being is a complex phenomenon and it does not have one consensual definition. There are different ways to understand and define it. Plus, it depends on the subject and how a person perceives it. For example, the concept of well-being is distinct in the economic field and in the psychological one. In the economic field, a higher income gives a greater number of choices to satisfy needs which, in turn, brings higher well-being (Diener & Seligman, 2004). This is in line with the decreasing marginal utility of money in the economic literature (Kahneman, Diener, & Schwarz, 1999). Moreover, the term "economic well-being" focus on how income affected the life of individuals (Caputo, 1998). Accordingly, income was synonymous of financial well-being (Sorgente & Lanz, 2017).

On the other hand, in the psychological field there are two major approaches to understand well-being: the eudaimonic perspective and the hedonic one (Ryan & Deci, 2001). These perspectives analyse and conceive well-being in a different way. In the eudaimonic one, well-being is more than pleasure or happiness, it is the fulfilment of one's true potential (Ryff, 1989) so a happy life is, in this context, a meaningful life. In contrast, the hedonic perspective, relies on happiness *per se*, that is, the pursuit of pleasurable moments and avoidance of painful ones (Ryan & Deci, 2001). In this perspective, the individual is happy if he is satisfied with his life, avoiding pain and achieving pleasure (Kahneman et al., 1999).

# 2.1. Eudaimonic perspective

In the eudaimonic perspective, the researchers agree that happiness is not a condition for well-being. Accordingly, the well-being is viewed as building one's true potential and self-actualization (Ryff, 1989). Moreover, this perspective refers that, not all positive achievements can translate in well-being, which brings the notion that subjective happiness is not equal to well-being (Ryan & Deci, 2001). Therefore, a happier person is a person who makes an active effort to develop him/herself, is a person who is involved in positive relations with others, if full of competences to deal with the environment, is engaged with life and has major goals to pursuit.

Ryff (1989) presented a psychological well-being (PWB) model which is in the context of mental health, clinical and life span theories. She stated Aristotle and defined happiness as "the feelings accompanying behaviour in the direction of, and consistent with, one's true potential" (Ryff, 1989, p. 1070). This model uses the compilation of all different theories which have similar dimensions of psychological functioning to understand the phenomenon of well-being. Thus, it described six elements of human actualization: self-acceptance, positive relation with others, autonomy, environmental mastery, purpose in life and personal growth. All these dimensions postulate that well-being is achievable if a person is true to his/herself, if a person is capable of construing positive relationships, if he/she has autonomy to choose and to change the environment when needed; and also, if a person regularly seek for personal improvement and growth when having purposes in life.

An important theory using this perspective is the self-determination theory (SDT) developed by Ryan & Deci (2000). This one addresses how the process of different forms of motivation (intrinsic and extrinsic) and contextual factors in pursuing life goals can bring several consequences to individuals. Therefore, it comprehends the concept of self-realization or eudaimonia. For better outcomes (e.g. well-being), the motivation should integrate and internalize three psychological needs: perceived competence, autonomy and relatedness. When these needs are achieved by the individual, it will provide positive outcomes, such as a "sense of integrity", psychologic growth and well-being (Ryan & Deci, 2000). However, these needs can be set in conflicting by the social contexts, where the individual must choose the "better" psychological need for the current situation implying a deterioration of well-being. SDT gives insights on the importance of need fulfilment for goal achievements which are consistent with

the eudaimonic perspective. Accordingly, a happier person has a meaningful life and purposes to achieve, such as, life goals, as well continuously seek to develop him/herself, relying on it as well the others around (social context).

#### 2.2. Hedonic perspective

The hedonic perspective dated centuries ago with the Greek philosopher Aristippus. He stated that the main objective of humanity was to maximize the experiences of pleasure and avoid painful experiences (Ryan & Deci, 2001). Therefore, well-being is viewed as the pursuit of pleasurable experiences, as much possible, as well as, judgements of good or bad elements of life. Consequently, well-being is equivalent to subjective happiness.

Moreover, this perspective focus on subjective well-being (SWB), which refers to "people's cognitive and affective evaluations of their lives" (Diener, 2000, p. 34) and to the pursuit of pleasure and avoidance of pain. Therefore, it has two main components: the cognitive one (life satisfaction), and the affective component (which is the higher frequency of positive affect, and low levels of negative affect). For this perspective, a happier person is the one who makes a positive judgement of his/her life as a whole, and experiences higher levels of positive affect and lower levels of negative affect. According with Diener (2000; 2010), it is important to continue to increase SWB because it beneficiates not only the individual but also the society, within heath, work benefits, social relations and societal benefits (Diener & Ryan, 2009).

An important researcher studying well-being is Kahneman (1999). He defines it in two different ways, objective happiness and subjective happiness, which are respectively, "derived from a record of instant utility over the relevant period" and "is assessed by asking respondents to state how happy they are" (Kahneman et al., 1999, p. 5). Therefore, in Kahneman perspective, well-being is viewed as "happiness". He conceptualizes well-being as more than income and material possessions; it is the pleasure *vs* pain experiences that influence the perceptions of the individual's life satisfaction.

It is unquestionable the importance of events and affect in an individual' life. One relevant theory is the affective events theory (AET) developed by Weiss and Cropanzano (1996). The activity that all people spend the most time of their life is working. Therefore, the events that occur in the workplace can have affective reactions that, in turn, will impact well-being.

Therefore, the AET focus on affective daily events which have consequences on well-being at work (Weiss & Cropanzano, 1996). Moreover, these affective daily events can be either negative or positive. People who experience different affective events (e.g., receiving a complain at work, or achieving a goal) will feel different affective reactions, such as, joy or anger. These reactions will impact on workers' attitudes and behaviours. Consequently, these affective daily events will, ultimately, impact well-being.

Other examples are the definitions given by Schwarz and Strack (1999), Diener and Lucas (1999) and Seligman (2004) which rely on the idea that well-being is a multi-conceptual phenomenon and is related to life satisfaction (one of the dimensions of subjective well-being). Although well-being is strongly influenced by the context, society, groups, in which persons belong to, and by the perceptions that individuals have (Kahneman et al., 1999), roles, values, it also, depends on the persons' life circumstances (Diener & Biswas-Diener, 2002).

In this study, I will focus on the subjective side of well-being, because I will consider the perceptions of the individuals about their state related to well-being. In this sense, well-being is composed by the following concepts, happiness and life satisfaction, and it can be defined as the following "people's affective responses, domain satisfactions, and a global judgment of life satisfaction" (Patel & Wolfe, 2019, p. 2). Moreover, one of the most broadly measure is the satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985), which is composed by a set of five items that evaluate the individuals' perception of their life satisfaction.

#### 2.3. Financial Well-being

Overall well-being is composed by several dimensions, such as the financial one, which have a positive effect on it (Netemeyer, Warmath, Fernandes, & Lynch, 2018; Van Praag et al., 2003). Plus, financial well-being is the main predictor of overall well-being (Van Praag et al., 2003). Therefore, it can be concluded that money is essential for humans because they spend their life earning and spending it to satisfy their needs (Diener & Biswas-Diener, 2002). Hence, it is important to measure this relationship and determine how significant it is.

As stated above, financial well-being is a crucial dimension of overall well-being (Van Praag et al., 2003) but the least understood factor of SWB (Netemeyer et al., 2018). Accordingly, the

study of Sorgente and Lanz (2017), which revised several studies focused on the financial well-being, demonstrated that financial well-being was, mostly, studied as an outcome and not as a predictor. Thus, it is required to define financial well-being as in the literature.

Brüggen et al. (2017, p. 229) defined financial well-being as "the perception of being able to sustain current and anticipated desired living standard and financial freedom". Moreover, financial well-being has a subjective and an objective dimension which are, respectively, financial satisfaction and economic well-being. The latter consists, mostly, of income (Sorgente & Lanz, 2017) and other financial indicators. In contrast, the subjective approach is a more comprehensive perspective because it will not address only the financial issues, but also financial well-being as a whole phenomenon.

On the other hand, Gerrans, Speelman and Campitelli (2014) used a different definition and concept - personal financial wellness - which Joo (2008) defines as "a comprehensive, multidimensional concept incorporating financial satisfaction, objective status of financial situation, financial attitudes, and behaviour that cannot be assessed through one measure" (p. 23). In truth, Joo (2008, p. 23) uses a more specific and functional concept instead of financial well-being, "a state of being financially healthy, happy, and free from worry", to address the importance of a person's financial health, which results in assessing the financial satisfaction, financial attitudes and financial behaviours. A similar definition, of Rehman et all. (2014, p. 1), states that financial wellness is "the knowledge and having control about personal finances that make one feel satisfied in the existing situation and also means, one's ability to mobilize finances in a foreseeable future situation". Therefore, one can conclude that financial wellness is a sub-dimension of financial well-being, which can be used as a measure, such as financial satisfaction (Rutherford & Fox, 2010).

It is relevant to mention that income is not a robust determinant of financial satisfaction by itself, because a person is influenced by his/her behaviours, stress, knowledge and attitudes (Joo & Grable, 2004). Consequently, the relation between income and financial satisfaction is stronger than the relation between income and well-being, since financial satisfaction is a broad concept that explains more than the single variable income (Diener & Biswas-Diener, 2002). As a result, the likelihood of the relationship between financial satisfaction and life satisfaction is higher than income (Diener & Biswas-Diener, 2002; Zhang & Cao, 2010). However, a higher income can facilitate the satisfaction of several needs, such as, health care and others which, in

turn, impact positively on individuals' health and, consecutively, in their overall well-being (Arber, Fenn, & Meadows, 2014; Zhang & Cao, 2010).

#### 2.3.1. Model

For this study the main goal is to understand the relation between financial well-being phenomenon and overall well-being, testing the model, which is adjusted from the Gerrans, Speelman and Campitelli (2014) model (Annex 3). This model focus on the relations between the antecedents of financial well-being and financial satisfaction, as well as the relationships between predictors. The research model that I propose is different and will be explained in this section below.

Firstly, financial wellness is defined by Joo (2008) as "a comprehensive, multidimensional concept incorporating financial satisfaction, objective status of financial situation, financial attitudes, and behaviour that cannot be assessed through one measure" (p. 23), as well as, subjective perception which includes financial attitudes and financial knowledge (Joo, 2008). Secondly, as financial wellness is a sub-dimension of financial well-being, financial satisfaction can be used as a measure (Rutherford & Fox, 2010). So, for a positive financial situation, which has effects on well-being, these components are crucial. The antecedents are: financial knowledge, financial status, financial behaviour and financial attitudes (Brüggen et al., 2017; Gerrans et al., 2014; Joo, 2008). However, it should be taken in consideration that they impact differently on the perceived financial satisfaction by individuals.

H1: All antecedents (financial knowledge, financial status, financial behaviour, and financial attitudes) are positively related to financial satisfaction.

Regarding the financial knowledge, it was the most studied variable in the literature. Financial knowledge is defined by Sorgente and Lanz (2017, p. 30) as "the information and preparation on financial matters that an individual possesses", and is a component of cognitive psychology (Gerrans et al., 2014). Specifically, Lusardi (2012, p. 26) defined it as "the knowledge of basic financial investment concepts such as inflation and risk diversification and the capacity to do calculations related to interest rates". Therefore, financial knowledge is the assimilation of all the available financial information which, in turn, facilitates the best financial decisions. This knowledge can be perceived by different channels such as family, friends, media and internet (Chan, Chau, & Chan, 2012).

One open question remain is: why it is important? Financial markets are expanding and offer diverse products which are difficult to understand (Lusardi, 2012). Therefore, having the ability to understand it, will make impact on making the best financial decisions. Recent studies, about financial well-being, showed that the financial skills that a person has are critical for economic and social welfare (Bailey, 2019; Brüggen et al., 2017; Netemeyer et al., 2018; Norvilitis et al., 2006; Patel & Wolfe, 2019; Vlaev & Elliott, 2014), as well as a plan for retirement (Lusardi, 2012). Moreover, research by Netemeyer et al. (2018) showed that financial knowledge has positive effect on increasing expected future financial security and decreasing the current money management stress.

Research by Joo (2008; Joo & Grable, 2004) has provided evidence that financial literacy, not only have impact on financial wellness, but also influence financial attitudes, which lead to better financial behaviours and decrease materialism (Gutter & Copur, 2011). Therefore, the perceived knowledge determines the individuals' attitudes and their actual behaviour (Chan et al., 2012; Shim, Barber, Card, Xiao, & Serido, 2010) and, as result, ameliorates positive financial decision-making (Loibl & Hira, 2005; Shim et al., 2010). For example, a less knowledgeable person will easily incur in higher fees in borrowing money from a bank, or is likely to have difficulties managing the debt.

On the other hand, the relationship between financial knowledge and financial satisfaction can be negative because knowledgeable individuals are less financial satisfied and struggle to increase their financial livings comparing with less knowledge people (Joo & Grable, 2004). Nevertheless, in the majorities of the studies this variable had a positive effect on financial well-being. So, it is expected that:

H1a: The financial knowledge impacts positively the financial satisfaction.

Financial status is defined by Joo (2008) as a desirable objective status composed by the income, debt, net worth, and household wealth (Gerrans et al., 2014), but the most common measure is income (Xiao, Tang, & Shim, 2009). A similar definition is presented by Rutherford & Fox (2010, p. 469): "objective status refers to the unbiased and quantifiable aspects of a person's economic position". Moreover, some studies also use financial ratios or financial solvency as items of financial status (Joo, 2008; Joo & Grable, 2004). Therefore, financial status is all the economic possessions and financial responsibilities that an individual has. Additionally, the financial support, that one receives, affect financial status (Chan et al., 2012).

This support can be provided by family, friends and banks and can either help maintain healthy financial status or aggravate the financial situation.

In addition, this variable relates to financial satisfaction because every person tends to compare their financial status with others which will, directly, affect their financial satisfaction (Joo & Grable, 2004). Moreover, regarding the financial status satisfaction, it includes the absence of financial difficulties (Joo & Grable, 2004). The research of Xiao et al. (2009) proved that subjective satisfaction with financial status increases overall life satisfaction, financial balance and savings, and has a negative impact on debt and expenses. Thus, when individuals are financially secure, they are happier and have a higher well-being (Gutter & Copur, 2011).

Debt, one of the components of financial status, has been studied in the literature and it has been proved to hold a negative relationship with financial well-being and life satisfaction and, in contrast, a positive relationship with overall stress (Archuleta, Dale, & Spann, 2013; Netemeyer et al., 2018; Norvilitis et al., 2006). Moreover, according with Shim et al. (2009), debt affects, negatively, financial status satisfaction and promotes desperate coping patterns. In this sense, it is important to decrease its impact on financial status. The study of Solis and Durband (2006) proves that students who have loans tend to be more displeased with their financial status.

Regarding the gender, is expected that the relation between financial status and financial satisfaction is different between women and men, in which, the relationship is stronger for females (Gerrans et al., 2014) because women tend to be more sensible of their financial situation than men. Nevertheless, as stated above, financial status will mostly have a positive effect on financial satisfaction.

As a result, it is expected that:

*H1b:* The financial status impacts positively the financial satisfaction.

Another variable to take into account is financial behaviour. This variable is defined as "the behaviour of the individual in terms of managing his/her money" (Sorgente & Lanz, 2017, p. 30). Additionally, can be defined as "any human behaviour that is relevant to money management" (Gutter & Copur, 2011, p. 704). Joo (2008) refers that financial management, financial adjustment and financial empowerment are important for proper behaviours. Following that reasoning, these actions were defined by Serido et al. (2010; 2010) as financial coping behaviours. Therefore, individuals are more satisfied when they make adequate

financial behaviours which ameliorates their financial situation. Examples of financial behaviours are checking and control of finances (e.g. budgeting and saving) and living within financial possibilities (Sorgente & Lanz, 2017; Vlaev & Elliott, 2014). These financial behaviours can be risky or healthy depending the effect, negative or positive, on the financial satisfaction.

Correct financial behaviour includes "breaking financially destructive behaviours and habits, stimulating financially sound behaviours, and stabilising critical/vulnerable life situations" (Brüggen et al., 2017, p. 231). People who can act well on present, but think about their financial future, tend to have higher correct financial behaviours (Netemeyer et al., 2018). Moreover, according with Shim et al. (2010) individuals are influenced, for the rest of their lives, by (good or bad) learned financial behaviours. Consequently, the financial education and the financial support can have a great impact in future behaviours.

To become financially healthy, individuals should have correct behaviours because it has, direct (Brüggen et al., 2017; Xiao et al., 2009) and indirect, impact on financial well-being (Joo & Grable, 2004). So, the knowledge is of little use if it is not putted into action (Drever et al., 2015). This impact is, not only on the financial dimension of well-being, but also in other domains (Xiao et al., 2009), such as, health. So, it is proved that positive financial behaviours are positively related to financial satisfaction (Gutter & Copur, 2011; Joo, 2008; Shim et al., 2009; Xiao et al., 2009), expected future financial security (Netemeyer et al., 2018), and to decreases in financial stress (Gutter & Copur, 2011). For example, impulsivity is correlated to a higher chance of bad financial behaviours (Fernandes, Lynch, & Netemeyer, 2014). Additionally, Joo and Grable (2004) found out that financial behaviour is the main predictor of financial satisfaction.

Some studies provided evidence for the relationship between financial knowledge and financial behaviour (Gerrans et al., 2014; Joo & Grable, 2004). If a person is knowledgeable about financial matters, it will influence their behaviours, increasing the likelihood of correct actions towards finance decisions. However, this relation is not significant in other studies (e.g, Fernandes et al., 2014; Netemeyer et al., 2018). Moreover, Hadar et al. (2013) demonstrated that perceived financial self-efficacy helps individuals in adopting positive financial behaviours. However, it is still missing, from the literature, answers regarding the strategies to better improve financial behaviours (Brüggen et al., 2017).

#### Therefore, I expect that:

#### H1c: The financial behaviour impacts positively the financial satisfaction

Financial attitudes are defined as "a person's subjective perception of personal finances that is used to measure financial well-being" (Joo, 2008, p. 26) and it takes a key role in addressing the level of financial satisfaction. Moreover, Sorgente and Lanz (2017, p. 284) use a broader definition: "financial attitudes indicates certain personal dispositions of the person with respect to financial issues". Financial attitudes can be either positive or negative depending on the expression of favour or disfavour of a financial matter. Thus, these have contrasting effects on behaviours, which impact differently on financial satisfaction. For example, different levels of risk tolerance can have, positive or negative, effects on individuals (Brüggen et al., 2017; Joo & Grable, 2004). An example of a negative financial attitude is the quote "It is Better to Live Your Life and Enjoy it, Rather than Worry About Money" studied by Vlaev and Elliott (2014) which could promote reckless financial behaviours in extreme cases.

This variable, according with Gerrans et al. (2014), is related to financial knowledge, as well as, financial behaviour. Additionally, they found evidence for the relationship between financial knowledge and financial attitudes, mostly for men than women. Moreover, in Chan et al. (2012) research', students who perceived a higher financial knowledge, had a higher chance to have positive financial attitudes. Nevertheless, attitudes can also influence behaviours, both positively and negatively, depending the attitude taken, in a concrete event (Brüggen et al., 2017; Joo, 2008). For example, people which are risk-averse have more probability to achieve financial well-being comparing with people who like to take financial risks (Rutherford & Fox, 2010). Hence, specific financial attitudes encourage specific financial behaviours that, in turn, influence specific financial satisfaction (Shim et al., 2009).

The attitudes that a child or a young adult perceive, in their childhood, will influence the attitudes that they are will to make, when they grow up (Drever et al., 2015). So, it is important to start educating earlier and have a healthy financial communication in the household, never forgetting that the values acquired will have a significant impact on the subsequent attitudes (Shim et al., 2009). Shim et al. (2009) also found that, in young adults, self-actualizing values increased positive financial attitudes. Thus, financial attitudes are dependent of several factors such as education, knowledge, age and gender (Falahati & Fazli Sabri, 2015).

Financial attitudes play an important tole on predicting financial satisfaction (Davis & Schumm, 2009; Joo, 2008; Joo & Grable, 2004). A person with stronger insights and proactive financial attitudes tends to be more financial satisfied (Joo & Grable, 2004). For example,

Gutter and Copur (2011) found that, when students had positive financial attitudes and behaviours, they would present a higher financial well-being. In addition, people with positive attitudes toward credit improved, significantly, their financial well-being (Rutherford & Fox, 2010). Therefore, positive financial attitudes will impact, in a positive way, financial satisfaction. So, I expect that:

H1d: The financial attitudes impact positively the financial satisfaction.

The second hypothesis is regarding the relation between financial well-being and overall well-being. As I mentioned, in the previous section, financial well-being is a critical domain which impacts on overall well-being. If an individual feel that his/her financial situation is satisfactory, it will increase their well-being, and the same happens in the opposite side. If a person is unsatisfied with their financial well-being, it has a big negative impact on well-being. Diverse studies found evidence of a positive relation between financial satisfaction and well-being (e.g. Netemeyer et al., 2018; Sorgente & Lanz, 2017; van Praag et al., 2003). As result, it is expected:

*H2: The financial satisfaction is positively related to overall well-being.* 

Financial satisfaction can also have a role of mediator between the antecedents (financial knowledge, financial status, financial behaviour and financial attitudes) and overall well-being. Therefore, the model will test if financial satisfaction can also be a mediator in the relationship between the four antecedents and overall well-being.

H3: The financial satisfaction mediates the relationship between all the antecedents and overall well-being.

H3a: Financial satisfaction mediates the relationship between financial knowledge and overall well-being.

H3b: Financial satisfaction mediates the relationship between financial status and overall well-being.

H3c: Financial satisfaction mediates the relationship between financial behaviour and overall well-being.

H3d: Financial satisfaction mediates the relationship between financial attitudes and overall well-being.

In summary, based on the literature and the model of Gerrans et al. (2014), the following research model was proposed:

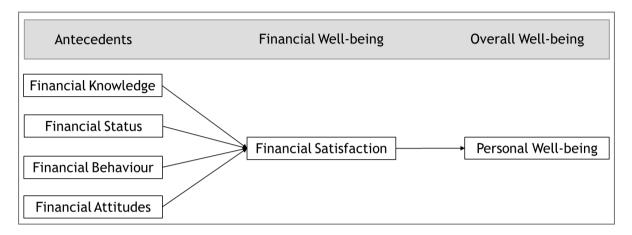


Figure 1 - Research Model

#### 2.3.2. Demographic Characteristics

To understand better this phenomenon, I propose some exploratory assumptions regarding the demographic characteristics of gender, age, household income, residence and financial well-being. Therefore, there are diverse socio-demographic characteristics that have been, consistently, related to financial well-being (Gutter & Copur, 2011). In the literature, the more relevant characteristics were gender, age, education, marital status, and family (Brüggen et al., 2017). They should be studied, because in the framework proposed by Joo and Grable (2004), they concluded that both demographic and socioeconomic characteristics affect, directly and indirectly, financial satisfaction.

#### Gender

With relation to the gender, the results were different between males and females. In particular, men tend to have a higher financial well-being than women (Diener & Biswas-Diener, 2002; Falahati & Fazli Sabri, 2015; Gerrans et al., 2014). Therefore, the perceived levels of financial knowledge and financial satisfaction have different effects according to the gender (Falahati & Fazli Sabri, 2015; Gutter & Copur, 2011). Men tend to have higher financial knowledge, comparing to women, which, in turn, results in higher financial satisfaction.

Regarding debt, the role of gender does not have a concrete conclusion because women tend to be more responsible and to have a budget to manage. However, and in contrast, women, in general, have more credit cards than men (Norvilitis et al., 2006). According with Falahati and Fazli Sabri (2015), the reason of these differences are in the attitudes and management of their financial issues which, in turn, will impact, differently, on their financial well-being. This is an ancient tendency, men managed better their financial well-being than women (Caputo, 1998).

Hypothesis 4a: There will be gender differences in financial well-being, in which, men will have higher perceived financial well-being than women.

#### Household income

Based on the literature, income does not predict overall well-being, but it can predict a part of financial well-being. According with Friedline et all. (2014, p. 1), household wealth has been theorized to serve as "a personal safety net that can supplement income in times of need". Moreover, they found that, independently of, higher or lower, household income, it is related to the young adult's savings in the future (Friedline et al., 2014). Nevertheless, the higher the household income is, higher tends to be the life satisfaction (Aknin, Norton, & Dunn, 2009).

Additionally, there is an impact of gender on these results. When the wife's household income is higher than her husband's one, her household income tend to have a negative impact in her husband's financial satisfaction (Bonke & Browning, 2009). Regarding the education and age, these two variables had different results depending of what was under analysis.

Hypothesis 4b: There will be household income differences in financial well-being, in which, the higher household income, the higher will be the financial well-being.

#### Age

The age can influence the relation between financial well-being and overall well-being. All age groups perceive financial well-being in a different way, because the knowledge, maturity and life experiences are different. Starting with children till young adults, they are influenced by their parents' behaviours, expectations and financial status (Serido et al., 2010). So, it is important to start in this age empowering them with responsible financial behaviours. As such, parents are a key factor in this process (Shim et al., 2010).

On the other hand, young adults are in a life-changing phase. The olders go to university and have the first debt experience in their life or are dependent of family support (Solis & Durband, 2006). Several studies showed that young adults feel unprepared for financial responsibilities (Rutherford & Fox, 2010). Therefore, they should develop positive financial behaviours, which can give them a better financial future (Gutter & Copur, 2011) and overall well-being (Shim et al., 2010). According with Chan et al (2012), students which have enough financial knowledge, have more probability to have positive attitudes and behaviours in financial management practices. For example, according with Norvilitis et al. (2006), as students grow up they tend to have more credit cards and are more receptive to debt.

Regarding adults and older people, they have more financial knowledge so they can take better decisions and behaviours which have a positive impact on financial well-being. Many of them have lived in the economic crisis (Sorgente & Lanz, 2017) and their education was different which influenced their financial well-being, in different ways. In contrast, Lusardi (2012) found evidence that the elderly group has the lowest level of financial knowledge, which can lead to lower financial well-being. Nevertheless, older people should be more comfortable with their financial situation than younger generations, due to their financial experiences.

Hypothesis 4c: There will be age differences in financial well-being, in which, the older will have higher financial well-being.

#### Residence area

Regarding the area of residence, does not exist literature, about Portugal or other country, that uses this as a demographic characteristic that impacts on financial well-being. Notwithstanding, Diener et al. (2010) studied this phenomenon in several countries, and concluded that wealthier countries, also have higher levels of well-being. Therefore, it is important to understand if financial well-being is, differently, perceived depending where individuals live. Portugal's development and well-being is different between coastal and interior regions (Estatística, 2017). Therefore, in developed cities, individuals tend to have easier access to information and facilities, which can have a higher positive impact on their well-being, than in less developed cities. Moreover, people who live in the coastal regions tend to spend more and, in contrast, people who live in the interior do not spend so much. They do not have the same big shopping centres and do not necessarily need because the majority produces their own resources, such as fruit and other essentials.

According with the Portuguese report about Territorial Portrait of Portugal (2017), the coastal region is more dynamic in terms of urbanistic, economic and demographic factors than the more rural regions which are less developed and demographically worse. In the Annex 2, there is a graphic which shows the differences in the gross domestic product (GDP) per habitant of Portugal regions. The majority of coastal cities have a higher GDP per habitant than the interior cities. Therefore, some reasons for these disparities are related to the increasing of the average life expectancy, decreasing of birth rate, and more employment opportunities in the coastal regions which, in turn, make them more attractive to live in.

Hypothesis 4d: There will be a residence differences in financial well-being, in which, people who live in the coastal cities will have a higher financial well-being than people who live in the interior region.

# III. Methods

I used a quantitative method, with an online questionnaire to gather data and test the hypotheses.

# **Sample Characterization**

The overall sample consisted in 262 participants, in which 50% were female and male (Annex 4). Most of them live in the metropolitan cities like Lisbon (30.9%), Coimbra (35.9%) and Porto (11.5%) (Annex 6). In relation to the individuals' age group (Annex 5), the most representative were the 18 to 25 years old and 36 to 45 years old, both with 25.2%. 19.1% were aged between 26 to 35 years old, and 18.3% were aged between 46 to 55 years old. Lastly, the two older groups, 56 to 65 years old and more than 66 years old had, respectively, 11.5% and 0.8%. Most participants (Annex 7) were employed (76%), 18.3% were students, 5.3% were retired and 0.4% were unemployed. Moreover, the income after taxes that most participants reported was between 1.001€ and 1.500€ (33.2%) and, only, 2.7% reported to receive more than 3.001€ (Annex 8). Finally, the composition of the Portuguese families, in this sample, was mainly of four members (31.3%) followed by three household members (25.2%) (Annex 9). The sample did not have any missing values. So, the response rate was 100%.

# 3.1. Variables

The questionnaire was based on the Gerrans, Speelman and Campitelli (2014) research. However, there were slight modifications in order to adapt it to the Portuguese financial context (Annex 1).

#### Personal Well-being

To measure overall well-being, I used the variable personal well-being. It was measured using the original scale of Gerrans, Speelman and Campitelli (2014). The scale contains nine items evaluating how satisfied the individual is in several domains in life. Therefore, questions were asked about life in general, standard of living, health, achievements, relationships, security, sense of community, future and religion. An example of item is "How satisfied are you with your standard of living?". Participants answered to the items on a 10-point Likert scale (0 – completely dissatisfied to 10 – completely satisfied). The measure presented a good internal consistency (Cronbach alpha = .81).

#### Financial Well-being

This variable is composed by six items which reflect how the person perceives their financial situation. Moreover, some examples of these items are "On a scale of 1 to 10, where one is "overwhelming stressed" and ten is "no stress at all", what do you feel is the level of financial stress today?" and "On a scale of 1 to 10, where one is "completely dissatisfied" and ten is "completely satisfied", how satisfied are you with your present financial situation?". It was measured using the original scale of Gerrans, Speelman and Campitelli (2014). This measure presented a Cronbach's alpha of .82, which means that there is internal consistency and that the analysis can be reliably performed.

#### Financial Knowledge

This is the variable that has suffered some changes. Firstly, in the original survey, to measure this variable, it was included items related to financial general knowledge, knowledge of financial products and superannuation general knowledge. However, in this study I eliminated the items related to the last measure (superannuation general knowledge) because it does not apply to the Portuguese population, once our national retirement income calculation is different from the Australian one. Secondly, there were changes in the second item of financial general knowledge, because Portuguese Goods and Services Tax (IVA) is different comparing to the Australian Tax (GST). At last, in the knowledge of financial products dimension, the fourth item was adapted to the Portuguese context, because it is different from the Australian Securities and Investment Commission.

So, in this study, this variable presents two dimensions, financial general knowledge and knowledge of financial products. They were measured by the original scale of Gerrans, Speelman and Campitelli (2014). The first one encompasses eight items which evaluate the individual's knowledge regarding broad financial issues. An item example is "If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power in a year's time?". The scale is a nominal one and verifies if the individuals answer correctly the question about financial knowledge. The measure did not present a good internal consistency because Cronbach' alpha was .41. Therefore, I eliminated the last two items: "Which one of the following is the most accurate statement about fluctuations in market values?" and "Which one of the following would you recommend for an investment advertised as having a return well above market rates and no risk?". The Cronbach' alpha improved to .51.

Regarding the knowledge of financial products' dimension, it refers to a more specific knowledge acquired by individuals' life experiences and, therefore, are not intrinsic. It has six items regarding knowledge of loans, bank procedures and actions. So, an item example is "If someone is not able to make the repayments on a secured loan, is it the organization that lent them money allowed to sell the assets that were used as security for the loan?". In the first set of items, the participants answered in a nominal scale. The measure did not present a good internal consistency with a Cronbach alpha of .56. Therefore, I eliminated the item: "Which of the following term deposits would play the most interest in total?" and the Cronbach' alpha improved to .62, presenting, therefore, a good internal consistency.

#### Financial Behaviour

The variable financial behaviour included two items (Gerrans, Speelman & Campitelli, 2014). These evaluate if a person has had any contact with some finance professional and if he/she has calculated the amount for his/her retirement. Therefore, the items are: "Have you consulted any of the following people regarding your finances over the last 5 years?" and "Have you identified a figure for how much per year you will need to live on when you retire?". These two items use a nominal scale and because they present different information, the correlation between these measures was .009 meaning that they are not significantly related between them.

## Financial Attitudes

The variable financial attitudes also included two items (Gerrans, Speelman & Campitelli, 2014). These explore the degree of importance that financial information has for the participants: "In your opinion, how important is it for people like you to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector?" and what is the attitude about retirement: "I don't think it really matters much about superannuation or planning and saving for retirement because the government will make up the gap". The latter it was answered on a 5-point Likert scale (1- strongly disagree to 5 – strongly agree). The correlation between these measures was .19 (p < .01) suggesting that both items are closely related to each other.

#### Financial Status

Regarding the financial status, the measures are identical to the Gerrans, Speelman and Campitelli (2014) survey. Therefore, this measure included three items: household income,

assets and debts. However, the options were adjusted to the Portuguese context, in terms of values. The values were chosen taking into consideration the annual average household income in *Pordata* (in 2018 was 33.205,1 $\in$ ). An example item is "Which of the following, best describes your total annual household income from all sources, including returns from investments, before tax?". These items were answered using a intervals scale  $(1 - 8.000 \in$  or less;  $2 - \text{between } 8.001 \in$  and  $20.000 \in$ ;  $3 - \text{between } 20.001 \in$  and  $40.000 \in$ ;  $4 - \text{between } 40.001 \in$  and  $60.000 \in$ ;  $5 - \text{more of } 60.001 \in$ ). Moreover, in the household debts' item, it was added more intervals. The measure presented a good internal consistency with a Cronbach' alpha of .60.

#### 3.2. Procedure

Firstly, an online survey was created and was posted online between January and March of 2020 with the link: <a href="https://docs.google.com/forms/d/e/1FAIpQLSfJy6UR8yA3f0ZtmJS2Pt6-N9pmIZxpGgr7KnzIqWtaDXpFww/viewform">https://docs.google.com/forms/d/e/1FAIpQLSfJy6UR8yA3f0ZtmJS2Pt6-N9pmIZxpGgr7KnzIqWtaDXpFww/viewform</a>. I used the social media to share the questionnaire to obtain the highest number of respondents: Facebook, Linkedin and Instagram. The anonymity and confidentiality of the data were guaranteed to the participants and in the beginning of the questionnaire there was an explanation of the study, which referred that a study about the financial well-being of the Portuguese was being carried out.

After collecting the data, I used the SPSS to analyse it. The items of all variables: financial behaviour, financial status, financial attitudes, financial knowledge, financial well-being and the overall well-being were transformed in one variable each using the "compute" tool of SPSS.

To test the hypothesis 1 and 2, I performed diverse linear regression analysis. Furthermore, with the linear regression analysis we can identify the strength of the effect that the independent variables have on a dependent variable and predict the impacts of the change in the dependent variable. Regarding the hypothesis 3, the relations of financial satisfaction as a mediator, it was used the macro Process in SPSS (model 4; Hayes, 2018). So, the goal was to test the significance of the indirect effect (that the mediator) in the relations between the antecedents and overall well-being.

In relation to the exploratory hypothesis of the demographic variables, I used the t-test for independent samples to compare the means of two independent variables of gender (H4a) and

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all the other hypothesis (H4b, H4c and H4d) were tested using the Oneway Anova test to determine whether there were any statistically differences between groups.

# IV. Results

Table 1 presents the descriptive statistics and the correlations between all the study variables. Regarding the means, the higher mean was personal well-being (M = 7.12) and shows that, in average, the participants are satisfied with their life. In contrast, financial attitudes have the lowest mean (M = 1.57). Regarding the relations between the variables, the financial well-being is significantly correlated to personal well-being, and only to one predictor (financial status). As for the financial attitudes, the single significant relation is with financial knowledge. The financial status presents the more significant correlations to other variables. For example, it has a positive significant relation with personal well-being, financial well-being and has a strongly negative correlation with financial knowledge. Therefore, a higher financial status will implicate a less financial knowledge.

**Table 1 -** Descriptive statistics and correlations between variables

	Mean	SD	1	2	3	4	5	6
1. Personal Well-being	7.12	1.14	1					
2. Financial Well-being	5.94	1.80	.562**	1				
3. Financial Knowledge	2.06	0.42	021	058	1			
4. Financial Status	2.81	1.21	.161**	.204**	329**	1		
5. Financial Behaviour	4.26	1.36	.047	.035	082	032	1	
6. Financial Attitudes	1.57	0.58	019	.068	.126*	.077	066	1

<sup>\*</sup>p<.05, \*\*p<.01, \*\*\*p<.001

# 4.1. Overall Well-being

In the overall well-being variable, the items who had the lowest score were the satisfaction with future security (M = 5.60, SD = 2.29), the satisfaction with spirituality or religion (M = 6.73, SD = 2.29), in which 27.1% of the participants reported to be, neither satisfied or dissatisfied. However, all the average items were above the medium, which means that the individuals were quite satisfied with their life in several domains: "Thinking about your own life and personal circumstances, how satisfied are you with your life as whole?" (M = 7.13; SD = 1.52); "How satisfied are you with your standard of living?" (M = 6.90; SD = 1.53); "How satisfied are you with your health?" (M = 7.65; SD = 1.60); "How satisfied are you with what you are achieving in life?" (M = 7.12; SD = 1.70); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?" (M = 1.52); "How satisfied are you with your personal relationships?"

= 7.67; SD = 1.75); "How satisfied are you with how safe you feel?" (M= 7.76; SD = 1.57); and "How satisfied are you with feeling part of your community?" (M = 7.58; SD = 1.51).

# 4.2. Financial Well-being

The responses for the majority of financial well-being items were high: "On a scale of 1 to 10 where one is "overwhelmingly stressed" and ten is "no stress at all", what do you feel is the level of your financial stress today?" (M = 6.04, SD = 2.29); "On a scale of 1 to 10 where one is "completely dissatisfied" and ten is "completely satisfied", how satisfied are you with your present financial situation?" (M = 5.79, SD = 2.09); "On a scale of 1 to 10 where one is "feel completely overwhelmed" and ten is "feel very comfortable", how do you feel about your current financial situation?" (M = 5.98, SD = 2.03); "On a scale of 1 to 10 where one is "worry all the time" and ten is "never worry", how often do you worry about being able to meet normal monthly living expenses?" (M = 6.15, SD = 2.55); "On a scale of 1 to 10 where one is "no confidence" and ten is "high confidence", how confident are you that you could find the money to pay for a financial emergency that costs about twice your weekly income?" (M = 6.15, SD = 2.82); and "On a scale of 1 to 10 where one is "all the time" and ten is "never", how frequently do you find yourself just getting by financially and living from payslip to payslip?" (M = 5.51; SD = 2.85).

#### 4.3. Financial Knowledge

The financial knowledge variable is composed by dimensions, the first is about financial general knowledge and the second is about knowledge of financial products. Regarding the financial general knowledge, the results were: "If the inflation rate is 5 % and the interest rate you get on your savings is 3%, will your savings have at least as much buying power in a year's time?" (M = 2.24, SD = 0.52); "The percentage rate for basic goods and necessities is 6%." (M = 1.44, SD = 0.77); "The federal government will deduct it from your pay." (M = 1.97; SD = 0.71); "You don't have to pay the tax if your income is very low." (M = 2.02, SD = 0.55); "It makes things more expensive for you to buy." (M = 1.50, SD = 0.72); and "Which of the following is the best description of a budget?" (M = 2.92; SD = 0.63). The remaining two items were eliminated to increase the reliability of the variable.

The second group of items, Knowledge of Financial Products, the item which the individuals response correct was: "If someone is not able to make the repayments on a secured loan, is the

organization that lent them the money allowed to sell the assets that were used as security for the loan?" (M = 1.56, SD = 0.83), which 65.6% answered correctly and 21.8% did not know. Regarding the item "Which of the following is generally considered to make you the most money over the next 15 to 20 years?" (M = 2.53; SD = 1.43), 32.1% answered a savings account, 27.1% a range of fixed interest investments and 21.4% a range of shares. Moreover, for the items: "If providers of professional advice about financial products may receive commissions as a result of their advice, they are required by law to disclose this to their clients." (M = 2.24; SD = 0.92); "There is a cooling off period after taking out a new house and contents insurance policy during which time you can cancel the policy and have your premium fully refunded." (M = 2.14; SD = 0.95); and "The Portuguese Securities and Investment Commission of checks the accuracy of all prospectuses lodged with it." (M = 2.15; SD = 0.92), it is important to point that answer "Do not know" had a significant percentage of, respectively, 57.3%, 53.1% and 50.4%.

#### 4.4. Financial Status

The majority of annual household income of the participants ranged between 20.001€ to 40.000€ (M= 2.73; SD = 1.09), which represents 35.1% of the total, following the annual household income between 8.001€ to 20.000€ with 31.3%. The average assets of the sample population are mostly in the category 20.000€ to 40.000€ (M= 3.14, SD =1.69). However, the category "More than 60.001€" represents the highest percentage, 39.7% of the total and the category "8.000€ or less" with 25.2%. Regarding the last item of this variable, which is about debt, the average response was in between 20.001€ to 40.000€ (M = 2.56; SD = 1.97). On the other hand, the category "20.000€ or less" had the highest percentage of 52.7%.

#### 4.5. Financial Behaviour

The first item in financial behaviour variable was "Have you consulted any of the following people regarding your finances over the last 5 years?" (M = 7.87; SD = 2.67), so 56.9% of the participants had not consulted none of these and 23.3% only contacted a bank employee. Regarding the second item, about the future retirement, the highest response was that 66% of the participants still do not know how much they will need for the retirement (M = 0.66; SD = 0.48).

#### **4.6.** Financial Attitudes

The financial attitudes variable is composed by two items. When it was asked about the importance of people to keep up to date with what is happening with financial matters (M = 1.49, SD = 0.54), the major response was very important (52.7%) and important (46.2%). Regarding the second item, "I don't think it really matters much about superannuation or planning and saving for retirement because the government will make up the gap." (M = 1.65, SD = 0.93), the majority of the participants disagreed with this statement.

# 4.7. Test of hypothesis

### 4.7.1. The influence of the antecedents in financial well-being

The hypothesis 1 stated that all the antecedents (financial knowledge, financial status, financial behaviour, and financial attitudes) were positively related to financial satisfaction. This hypothesis is subdivided for each antecedent, hypothesis 1a (financial knowledge), hypothesis 1b (financial status), hypothesis 1c (financial behaviour) and hypothesis 1d (financial attitudes). To test these hypotheses, I performed Multiple Linear Regression Analysis (FW =  $\alpha + \beta_1 *FK + \beta_2 *FS + \beta_3 *FB + \beta_4 *FA + \epsilon$ ).

In this case, the results showed that  $F_{(4,257)} = 3.12$ , p = .016 and  $\overline{R^2} = .031$ , which means that 3.1% of the variation of financial well-being is explained by the independent variables introduced in the model. The model is valid, and all assumptions were verified. Therefore, the model is represented by the following equation:  $FW = 4.521 + .022*FK + .301*FS + .060*FB + .170*FA + \varepsilon$ . If the value of each independent variables was equal to zero, the estimated value for financial well-being would be 4.521. Moreover, all  $\beta$  are positive which means that the independent variables have a positive effect on financial well-being.

Regarding H1a, which suggests that financial knowledge would have a positive relationship with financial well-being. However, the results show that financial knowledge,  $\beta_1$ = .022, p = .94, does not have a significant effect on financial well-being. So, this hypothesis was not supported by the data, suggesting that, in this sample, financial knowledge did not significantly predict financial well-being.

The H1b stated that financial status would have a positive relation with financial well-being. Financial status demonstrated to have a positive effect on financial well-being ( $\beta_2$ = .301, p = .002). This means that, keeping all the other independent variables constant, an increase of one unit in financial status has a positive effect increasing financial well-being in .301 units. Off all independent variables, this one helps explain significantly financial well-being. Consequently, H1b was confirmed by the data.

The H1c stated that financial behaviour would have a positive relationship with financial well-being. The results showed that this relation was not statistically significant ( $\beta_3$ = .060, p = .46). So, this hypothesis was not confirmed by the data.

At last, the H1d stated that financial attitudes would have a positive relationship with financial well-being. The results demonstrated that the financial attitudes  $\beta_4$ = .170, p = .38. Therefore, the Hypothesis 1d is not proved by the data. Therefore, as the financial knowledge variable, the financial behaviour and financial attitudes do not help to explain significantly the financial well-being.

#### 4.7.2. The influence of financial well-being in overall well-being

The hypothesis 2 suggests that financial well-being would positively predict overall well-being. To test it, it was used a Simple Linear Regression Analysis with overall well-being as the dependent variable and financial well-being as independent one (OW =  $\alpha + \beta*FW + \epsilon$ ).

The results were  $F_{(1,260)} = 120.145$ , p < .001 and  $R^2 = .316$  which means that 31.6% of the variation of overall well-being is explained by the financial well-being variable. So, the equation model is  $OW = 5.011 + 0.356*FW + \varepsilon$  which represents if the average financial well-being was equal to zero, the estimated value for overall well-being would be 5.011. Moreover,  $\beta = .356$ , p < .01, which signifies that, for each unit variation in the financial well-being variable, it produces a predictable variation of more .356 units in the overall well-being. So, the variable financial well-being had a significant and positive contribution to explain the variation of overall well-being. The hypothesis 2 is proved by the data.

#### 4.7.3. The mediating role of Financial Satisfaction

The hypothesis 3 stated that financial satisfaction would be a mediator between the antecedents and well-being. First, I have divided this third hypothesis in four sub-hypotheses: hypothesis 3a (Financial satisfaction mediates the relationship between financial knowledge and overall-wellbeing); hypothesis 3b (Financial satisfaction mediates the relationship between financial status and overall well-being); hypothesis 3c (Financial satisfaction mediates the relationship between financial behaviour and overall well-being); and hypothesis 3d (Financial satisfaction mediates the relationship between financial attitudes and overall well-being).

To test these hypotheses, I used the macro Process (model 4) in SPSS. This macro tests the indirect effect though the bootstrapping method with 5000 corrected samples. Because this method, analysis the confidence intervals with 95% of confidence, it is possible to avoid the power of the indirect effect that may result from the sample distribution, as it is the issue of the asymmetric samples (MacKinnon, Lockood, & Williams, 2004). According to Preacher and Hayes (2004), the mediation is significant when the independent variable (X = antecedents) affects the independent one (Y = overall well-being) through the mediator (M = financial well-being). The effect of X on Y represents the total effect (c). The direct effect of X on Y after adding the mediator (M) is represented as c. The effect of X on M is the a effect, and the effect of M on Y (controlling the effect of X) is the b effect. The indirect effect between Y and X is defined as the ab effect. In most cases, the indirect effect (ab) represents the difference between c and c and, as such, the total effect (c) can be calculated as the sum of c and c and c and c and c and another total effect (c) with the same signal (positive or negative).

The hypothesis 3a stated that financial well-being would mediate the link between financial knowledge and overall well-being. The analysis of this hypothesis implies three paths: a-path is the relation between financial knowledge (FK) and financial well-being (FW), b-path is the relation between financial well-being and overall well-being (OW), and c-path is the direct effect of financial knowledge on overall well-being. Moreover, there is the c'-path which represents the total effect of financial knowledge on overall well-being. Firstly, the a-path was not significant (B = -.25, p = .35, CI 95% [-.78, .27]). Secondly, the relation between FW and OW is significant (B = .36, p < .001, CI 95% [.29, .42]). Additionally, for the direct effect and total effect, these relations were also not significant with, respectively, B = .03, p = .82, CI 95%

[-.24, .31], and B = -.06, p = .74, CI 95% [-.39, .28]. Moreover, the indirect effect of financial knowledge on overall well-being, that is the effect of financial satisfaction as mediator, was not significant, ab = -.09 with CI 95% of [-.29, .10]. Therefore, hypothesis 3a was not supported by the data.

The hypothesis 3b stated that financial well-being would mediate the link between financial status and overall well-being. I have also performed a mediation through PROCESS in SPSS (model 4). The relation between financial status and financial well-being had a significant effect (B = .30, p < .001, IC 95% [.13, .48]), as well as, the relation between financial well-being and overall well-being (B = .35, p < .001, IC 95% [.29, .42]). Moreover, there was a significant indirect effect of financial status on overall well-being through financial well-being (B = .11, P < .01, CI 95% [.05, .18]). Therefore, since the CI does not include zero, the mediation is significant, proving evidence for the hypothesis 3b. Thus, financial satisfaction mediates the relationship between financial status and overall well-being.

The hypothesis 3c stated that financial well-being would mediate the link between financial behaviour and overall well-being. The results demonstrated that only the relation between financial well-being and overall well-being effect was significant (B = .36, p < .001, CI 95% [.29, .42]), all other relations (a-path, c'-path) were not significant with, respectively, B = .05, p = .58, CI 95% [-.12, .21] and B = .02, p = .59, CI 95% [-.06, .11]. Additionally, there was not a significant indirect effect of financial behaviour on overall well-being through financial well-being, because the confidence interval has included zero (CI 95% of [-.04, .08]). Consequently, the hypothesis 3c is not confirmed by the data and, as such, the financial satisfaction does not mediate the relation between financial behaviour and overall well-being.

Lastly, the hypothesis 3d tested whether financial satisfaction would mediate the relationship between financial attitudes and overall well-being. As happened with hypothesis 3a and 3c, there was only one significant effect, the b-path (the relation between financial well-being and overall well-being) with B = .36, p < .001, CI 95% [.29, .42]. Therefore, all other effects were not significant. The relation between financial attitudes and financial well-being was not significant (B = .21, p = .27, CI 95% [-.16, .59]). Neither was the relation between financial attitudes and overall well-being had for the direct effect (B = -.11, D = .27, CI 95% [-.31, .09]) and (B = -.04, D = .76, CI 95% [-.28, .20]) for the total effect. The same occurred for financial well-being as the mediator, that is, the indirect effect was not significant because it was .08

with a CI 95% of [-.06, .21]. Therefore, the hypothesis 3d was not proved by the data, and financial satisfaction does not mediate this relationship between financial attitudes and overall well-being.

**Table 2** - Indirect effect of financial satisfaction in all variable relations

Financial Well-being	Indirect Effect	SE	IC 95% L	IC 95% U
Financial Knowledge	09	.10	29	.10
Financial Status	.11***	.03	.05	.18
Financial Behaviour	.02	.03	04	.08
Financial Attitudes	.08	.07	06	.21

Note. Regression coefficients without being standardized. Sample size bootstrapped = 5000. L: lower limit; U: highest limit; CI: Confidence interval; ES: Standardized error. \*\* p < .01

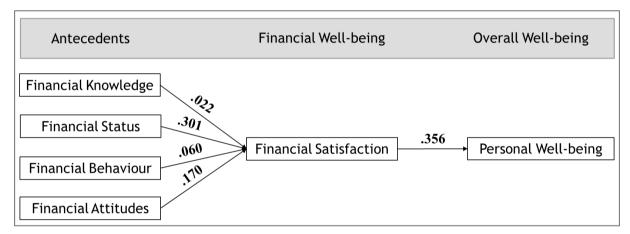


Figure 2 - Tested model

#### 4.7.4. The influence of demographic characteristics in financial well-being

The hypothesis 4a tests if are there gender differences financial well-being. Therefore, like has been suggested in the literature, men have a higher perceived financial well-being than the women. This hypothesis was tested using the T-test for independent samples. The results from the t-test showed that there were significant differences between males and females in financial well-being ( $t_{(1,260)} = 1.895$ ; p = .05). Specifically, women (M = 5.73; SD = 1.81) showed a lower satisfaction than men (M = 6.15; SD = 1.78). This means that the hypothesis 4a was confirmed by the data.

The hypothesis 4b aimed to analyse whether there were household income differences in financial well-being. I performed a Oneway ANOVA to test this hypothesis and look for significant differences in financial well-being according to the household income. Therefore, comparations between household income groups were made to understand if a higher individual's household income would correspond to a higher financial well-being.

The results, from one-way ANOVA, showed a statistically significant difference between groups as expected ( $F_{(4,257)} = 9.270$ , p < .001). In particular, results demonstrated that, the higher the household income, the higher the financial satisfaction: 8.000€ or less (M = 5.245; SD = 1.472); between 8.001€ and 20.000€ (M = 5.327; SD = 1.914); between 20.001€ and 40.000€ (M = 6.187; SD = 1.586); between 40.001€ and 60.000€ (M = 6.491; SD = 1.676); and more of 60.001€ (M = 7.389; SD = 1.599). Moreover, regarding the comparisons between these groups, the individuals which had the less household income (8.000€ or less), showed a mean difference of, approximately, -.09 with the group that earn "between 8.001€ and 20.000€". This increases to the maximum group (more of 60.001€), with a difference of -2.14, enhancing the difference between these household income groups. Therefore, the hypothesis 4b was supported by the data, once it was verified that the individuals who have a higher financial well-being, presented also higher household incomes.

The hypothesis 4c predicted the existence of age differences in financial well-being. I conducted a one-way Anova to compare financial well-being between the different age groups. Results demonstrated that there was a statistically significant difference between groups in financial well-being, in which  $F_{(5,257)} = 17.938$  and p < .001. The levels of financial well-being ranged between age group: 18 to 25 years (M = 5.662; SD = 1.454); 26 to 35 years (M = 5.643; SD = 1.891); 36 to 45 years old (M = 6.063; SD = 1.957); 46 to 55 years (M = 6.236; SD = 1.950); 56 to 65 years (M = 6.144; SD = 1.704); and more of 66 years (M = 7.833; SD = 0.235).

Therefore, between the youngest and the groups aged between 26 to 35 years old, there was a negative difference between them. The first one appeared to be more satisfied with their financial well-being, than people who are aged between 26 to 35 years old. The same case happened between the group of participants aged between 46 to 55 years old and the group aged between 56 to 65 years old, in which the latter presented a lower financial well-being than the 46 to 55 years old group. Hence, the hypothesis 4c was supported by the data.

The last hypothesis, h4d, predicts that there are significant differences in financial well-being, depending on the region of residence (coast or interior). Thus, it was expected that the financial well-being of the participants living in the coast would be higher than the participants living in the interior. The test used were a one-way ANOVA ( $F_{(2, 259)} = .900$ , p = .408). Accordingly, the differences were not statistically significant.

The groups formed were the coastal regions (Viana do Castelo, Braga, Porto, Aveiro, Coimbra, Leiria, Lisbon, Setúbal and Faro), the interior regions (Castelo Branco, Viseu, Guarda, Évora, Vila Real and Santarém), and other (includes the Azores and other foreign countries). One can found that, the highest financial well-being was in the Coastal regions (M = 5.980; SD = 1.794), followed by the Other (M = 5.694; SD = 1.331), and at last, for the participants living in the Interior (M = 5.375; SD = 2.055). Despite these differences, the one-way ANOVA test showed that they were not statistically significant. Therefore, I did not found support for the H4d.

#### V. Discussion

The main goal of this study was to test the model based on Gerrans et al. (2014) research, which analyses the relationships between predictors of the financial well-being, financial satisfaction and overall well-being. Specifically, I intended to analyse whether the four predictors of financial well-being would be significant in the Portuguese context. Then, I intended to verify if financial well-being would influence the overall well-being of Portuguese individuals. Additionally, I also aimed to test the overall model, that is, analysing the mediating role of financial satisfaction in the relations between all the predictors and overall well-being. At last, it was further explored how the gender, age, household income and residence would generate significant differences in the Portuguese's financial well-being.

The first hypothesis, which tested whether there was a significant influence of the different antecedents in predicting financial well-being, was divided in four sub-hypotheses, to test each predictor one by one. The results show that financial status is the more significant (and the only) predictor of financial well-being. This was contradictory to what is demonstrated in the literature which refers that the financial knowledge is the more significant one (Bailey, 2019; Brüggen et al., 2017; Netemeyer et al., 2018; Norvilitis et al., 2006; Patel & Wolfe, 2019; Vlaev & Elliott, 2014). Contrasting as well, and according to Xiao et al.(2009), the financial behaviour would have a greater relation with financial well-being than financial status. But this did not happen with the Portuguese sample.

Therefore, it is important to analyse why is the financial status the only antecedent with a significant relation to financial well-being. The explanation could be related to income, as it is a component of financial status, hence it is crucial to individuals' financial health (Joo, 2008). Additionally, another reason for this result, might be the fact that Portugal has, recently, recover from an economic crisis, in which the individuals' economic status has been significantly affected. Moreover, the financial status is more difficult to change when compared to the other antecedents. One can improve the financial knowledge, have better financial attitudes and correct financial behaviours, but it is still difficult to improve, alone, the financial status. Therefore, it is expected that people value more the status than the knowledge, and as such, it is not surprisingly that it appears as the only predictor of financial well-being. Nevertheless, all the antecedents presented a positive effect on financial well-being, which reveals that individuals who have a high status, correct financial behaviour, a high financial knowledge and

good financial attitudes, also tend to achieve higher levels of well-being and satisfaction. This is consistent with the original study of Gerrans et al. (2014) and with several other studies (e.g, Brüggen et al., 2017).

In relation to the second hypothesis, which expected that financial well-being would impact positively on overall well-being. The results confirmed that the financial well-being is positively related to overall well-being. Therefore, it is proved that overall well-being is a multidisciplinary concept with numerous domains, in which the financial sphere plays a positive and significant effect. Moreover, this positive impact is relevant and means that the financial well-being is essential to increase the individuals' well-being. Therefore, if individuals' are financially satisfied, it tends to increase their self-confidence facilitating their achievement of goals and success (Loibl & Hira, 2005). This is consistent with the eudaimonic perspective. Moreover, and according to the SWB approach, it will increase the perceived life satisfaction, contributing, therefore, to enhance happiness. In the literature it is mentioned that the financial domain has crucial implications on other domains like health, usually, ignored (Arber et al., 2014). Therefore, a high financial well-being should have a positive effect on individuals' health because it has impact on housing environment, on the access to facilities and to health care. This link is important to study, in further research, because it can have a relation with the work ability and with the level of salary that individuals receive.

The hypothesis 3 aimed to test the overall model, that is, the mediating role that financial satisfaction would play between the predictors and overall well-being. It was not surprisingly that this mediating effect was only significant between financial status and overall well-being. In this sense, like I mentioned before, the financial status is a crucial predictor of satisfaction and well-being. Plus, this result demonstrates that the Portuguese individuals tend to value more the "image" than saving behaviours or positive financial attitudes regarding their financial situation.

The results of the fourth hypothesis regarding the demographic characteristics show that the gender, household income, and age presented significant differences between groups in the levels of financial well-being. Firstly, the model also confirmed that the male sample perceived a higher financial well-being than the female sample. The literature proves these variations between gender (e.g., Caputo, 1998; Diener & Biswas-Diener, 2002; Falahati & Fazli Sabri, 2015; Gerrans et al., 2014). However, it is important to refer that, in these studies, women

tended to show a higher financial knowledge than men. Therefore, unlike the most studies, financial well-being was unexpected to be higher for women. This result can be explained by their higher education which has being influenced by their entry in the workforce and taking leadership positions (Wall et al., 2017). Table 3, presented below, represents all means between gender in all the predictors and financial well-being. Regarding the financial status, men still exceed female in terms of income, which contributes for this observed inequality. Regarding the other variables, the financial attitudes for men were higher than for women and the financial behaviour was inversed, were the women who presented a higher average than men. For the latter, women tend to use a budget and sound financial practices more than men (Norvilitis et al., 2006) which may contribute to enhance financial behaviours.

**Table 3** – Differences in average between men and women

Variable	Men	Women	p value	T-test
Financial Well-being	6.15	5.73	.05	1.895
Financial Knowledge	2.07	2.12	.25	-1.146
Financial Status	3.14	2.48	.00	4.615
Financial Behaviour	4.16	4.37	.20	-1.277
Financial Attitudes	1.63	1.51	.07	1.763

Second, when analysing the household income, the higher it is, the higher the financial well-being. As mentioned earlier, the household income is defined as a supplement of income which facilitate families when they are in financial need (Aknin et al., 2009). Therefore, if they have a higher household income, they also have a higher safety net which might contribute for a higher life satisfaction, because they can satisfy more needs (Zhang & Cao, 2010). Moreover, it influence the economic status because a higher household income means a higher financial status bringing more financial satisfaction, when comparing with others with lower household income (Joo & Grable, 2004). So, it is important to refer that individuals with a higher household income tend to feel safe regarding their financial situation which, in turn, contributes to enhance their financial well-being. Lastly, if household income is a significant variable, it could have the opposite effect. If it decreases, it might have a deep negative impact on financial well-being. Therefore, the organizations and the government should be aware of the household income' role to financial well-being, as well as, create practices to increase it.

Lastly, there were significant differences in financial well-being between age groups. The two groups, 26 to 35 years old and 56 to 65 years old, presented a decrease in financial well-being, comparing with the previous age group. This demonstrates that the older you get, it does not imply a higher financial well-being. Therefore, age presents a quadratic relationship with wellbeing and the same happens in other studies (e.g., Gerrans et al., 2014; Netemeyer et al., 2018; van Praag et al., 2003). That is, when there are increases, followed by decreases, then increases, and then decreases again. Therefore, the reasons for these differences can be explained by the parents' financial support for the youngster generation, which in individuals aged between 26 and 35 years old, tend to not have. Plus, it is at this time, that the majority of people buy a house, contract debts, and start a family leading to more financial responsibilities which, in turn, have a negative impact on financial well-being (Brüggen et al., 2017; Shim et al., 2009). Moreover, according with Rutherford and Fox (2010), young adults do not feel prepared for financial responsibilities which demonstrates that the financial education beforehand is important. In the case of the group aged between 56 to 65 years old, at this age, people start worrying about retirement, their financial expectations can be less favourable, because they are getting ready to a new life event, so the afraid of the unknown, the lack of coping strategies might impair their financial well-being. Plus, at this age it is common to deal with chronic illness, or serious injury which may decrease their financial well-being (Archuleta et al., 2013). Therefore, all life events and work-related events may affect individuals' financial well-being (Brüggen et al., 2017) and should be addressed to better understand the results.

This study presents some limitations. Firstly, I used only a quantitative method of collecting data. This could have led to missing some important insights about the reasons of these particular results. Therefore, future studies could rely on mixed methods, such as the combination of a quantitative and a qualitative one. Second, the use of self-reported measures might have biased the data, due to the presence of social desirability answers and, as such, limits the generalization of these results. Regarding the sample, the total respondents were 262, although a good number of sample population, it is needed for future research to amplify the sample and access these variables in another contexts and countries. It is important to refer that the data collection occurred between January and the beginning of March 2020, after this period the answers could be biased because they could be affected by the epidemic crisis.

The results show that financial well-being has a significant and positive effect on overall well-being. Consequently, organizations should start evaluating their workers' financial well-being

or have data regarding their well-being. Workers with high well-being are happier workers which translates into higher productivity (Rutherford & Fox, 2010). Moreover, companies should invest on financial practices that may be adjusted for all age groups increasing workers' satisfaction and, at the same time, promoting career progression, reducing absenteeism and turnover (Loibl & Hira, 2005). Organizations should also promote higher incomes and benefits because these results confirm that financial status is the main predictor of financial well-being. So, it appears to be crucial to rise individuals' economic status. Therefore, unexpected financial status has a greater importance when compared to financial knowledge, contrary to the literature. In this sense, more studies should be done to understand what is the main contributor of financial well-being and the reasons for these differences. Maybe, adding some items to the original survey, or even, adding some open questions to it.

Other important results are the differences in financial well-being between gender and age, which will have practical implications to management. In relation to gender, the results show that there are significant differences between men and women. In this sense, organisations and managers should address this issue and develop practices to decrease the disparities between gender and implement equal financial policies for men and women. To increase financial satisfaction, we should take into consideration that the gender has different effects on well-being. For example, men still tend to receive more salary than women, for the same function and same responsibilities. In this sense, the policies, implemented by organizations, should fight these inequalities which affects individuals' financial situation. Regarding the age, the results showed differences in financial well-being. Therefore, it is important to develop different financial practices regarding the age group. For example, managers should help their youngest workers to acquire financial knowledge and provide financial learning activities and training. As for, the oldest, for example, managers should provide financial information about retirements. So, all decision-making individuals should be aware of these differences to create the best practices to enhance their financial well-being.

Although the outcomes of overall well-being had been studied, the outcomes of financial well-being have not. So, it is required to investigate the, positive and negative, consequences because financial well-being could have serious consequences to mental and physical health, which in turn, might influence the working ability. This, as a result, has a major impact on all variables of financial well-being. Therefore, further studies should investigate this matter in all levels, not only individual, but also at the group and organizational level.

It is noteworthy that financial well-being phenomenon is still an emergent research area, so it is needed a future development and investigation on this subject and an agreement on the same constructs and predictors. Moreover, like I referred in the last section, it is important to study the link between financial well-being and health because it can have effects on the relationship to overall well-being. It should also be considered to explore the link between financial satisfaction and other forms of well-being (subjective, psychological). So, a multidisciplinary study should be made to understand the implications that financial well-being has on individuals, as a whole. Additionally, as this study revealed, the antecedents of financial well-being should be further investigated because they can have different meanings depending of the context. They can be perceived in different ways by different cultures, impacting, therefore, differently on financial satisfaction. Moreover, the demographic characteristics, these and others (e.g., education level) could also be investigated, in future studies.

#### VI. Conclusion

The goal for each individual is to have a "happy life", that is to increase his overall well-being. However, the role of financial well-being as one of the main impactors only recently have been receiving attention. Seeing the importance of this subject to not only in the Portuguese context but also to literature, the main objective of this study was to understand how financial well-being influences the overall-well-being and the relation with the predictors.

This study provides new unexpected evidence of financial status as the main contributor to the financial well-being literature and indicate that household income as a crucial element for increasing financial satisfaction. So, financial security is the priority of individuals and not so much financial knowledge. Nevertheless, like in the literature, financial well-being contributes significantly to increase the overall well-being of a person and all antecedents have a positive impact on financial well-being. Therefore, organizations and individuals should set their mind and efforts to increase their financial well-being and develop practices to help financial satisfaction in all his predictors.

Another important result is that there were differences in financial well-being by household income, age and gender. Moreover, a higher household income reflected a higher financial well-being. This was expected because it is one of the components of financial status and is the main contributor to increase financial well-being. There were differences between generations, the older you get, does not automatically increase your financial well-being, as life changing events have some effect on the way individuals feel. Regarding gender, an unexpected result showed that women had a higher financial well-being than men, contrasting with the results presented in the literature. For the area of residence, there were not significant differences between people which live in coastal and interior regions in Portugal.

For further research it is important to understand the financial well-being phenomenon as a whole, the antecedents and the outcomes. Therefore, continuous investigation regarding this subject is essential for individuals and organizations take measures for increasing their financial well-being and ultimately growth of overall well-being.

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#### **Annexes**

#### A. Portuguese Questionnaire

#### I - Características Demográficas

- 1. Género
- 2. Idade
- 3. Cidade onde reside?
- 4. Qual a sua situação profissional?
- 5. Qual o seu rendimento mensal (líquido)?
- 6. Agregado Familiar

#### II A - Bem-estar pessoal

Nas seguintes questões responda como se sente ao nível da sua satisfação, numa escala de 0 a 10 (0 = Completamente Insatisfeito; 5 = Nem Satisfeito, nem insatisfeito; 10 = Completamente Satisfeito).

- 1. Pensando na sua própria vida e nas suas circunstâncias pessoais, quanto satisfeito está com a sua vida no geral?
- 2. Quanto satisfeito está com o seu padrão de vida?
- 3. Quanto satisfeito está com a sua saúde?
- 4. Quanto satisfeito está com o que está a alcançar na vida?
- 5. Quanto satisfeito está com os seus relacionamentos pessoais?
- 6. Quanto satisfeito está com a sua segurança?
- 7. Quanto satisfeito está com o facto de se sentir parte da sua comunidade?
- 8. Quanto satisfeito está com a sua poupança para o futuro?
- 9. Quanto satisfeito está com a sua espiritualidade ou religião?

#### II B - Bem-estar Subjetivo

Numa escala de 1 a 5 responda se concorda ou não com as afirmações seguintes, sendo que:

- 1 = Discordo Totalmente, e 5 = Concordo Totalmente.
  - 1. Em muitos aspetos, a minha vida aproxima-se dos meus ideais.
  - 2. As minhas condições de vida são excelentes.
  - 3. Estou satisfeito/a com a minha vida.
  - 4. Até agora, consegui obter aquilo que era importante na vida.
  - 5. Se pudesse viver a minha vida de novo, não alteraria praticamente nada.
  - 6. De um modo geral, sinto-me bastante satisfeito/a com o seu trabalho.
  - 7. O meu trabalho faz com que não possa estar tanto tempo com a minha família como gostaria.
  - 8. Tenho de faltar a atividades extratrabalho devido ao tempo que tenho de dedicar ao trabalho.
  - 9. O tempo que tenho de dedicar ao meu trabalho não permite dedicar-me de igual modo a atividades e responsabilidades extratrabalho.

#### III - Bem-estar Financeiro

Agora, quero fazer algumas perguntas sobre a sua sensação de bem-estar financeiro.

- 1. Numa escala de 1 a 10, em que 1 é "stress extremo" e 10 é "sem stress", em que nível o seu stress financeiro está hoje?
- 2. Numa escala de 1 a 10, em que 1 é "completamente insatisfeito" e 10 é "completamente satisfeito", qual é o grau de satisfação com a sua situação financeira atual?
- 3. Numa escala de 1 a 10, em que 1 é "sinto-me completamente sobrecarregado" e 10 é "sinto-me muito confortável", como se sente relativamente à sua situação financeira atual?
- 4. Numa escala de 1 a 10, em que 1 é "preocupa-me o tempo todo" e 10 "nunca me preocupa", com que frequência se preocupa em conseguir pagar as despesas mensais?
- 5. Numa escala de 1 a 10, onde 1 é "sem confiança" e 10 é "alta confiança", quanto confiante está de que poderá encontrar o dinheiro para pagar uma emergência financeira que custa cerca de duas vezes o seu rendimento mensal?
- 6. Numa escala de 1 a 10, onde 1 é "o tempo todo" e 10 é "nunca", com que frequência se vê a viver financeiramente somente com o seu salário?

#### IV - Status Financeiro

- Qual das seguintes opções melhor descreve o seu rendimento familiar anual total de todas as fontes, incluindo retornos de investimentos, antes dos impostos? (8.000€ ou menos/ Entre 8.001€ e 20.000€/ Entre 20.001€ e 40.000€/ Entre 40.001€ e 60.000€/ Mais de 60.001€)
- 2. Qual é o valor total de todos os seus ativos (casa, banco, ppr, etc)? (8.000€ ou menos/ Entre 8.001€ e 20.000€/ Entre 20.001€ e 40.000€/ Entre 40.001€ e 60.000€/ Mais de 60.001€)
- 3. Qual é o valor total de todas as suas dívidas? (20.000€ ou menos/ Entre 20.001€ e 40.000€/ Entre 40.001€ e 60.000€/ Entre 60.001€ e 80.000€/ Entre 80.001€ e 100.000€/ Mais de 100.001€)

#### V - Comportamento Financeiro

- Já consultou alguma destas seguintes pessoas sobre as suas finanças nos últimos 5 anos? (Contabilista, Corretor hipotecário, Corretor da bolsa, Corretor de seguros, Especialista em tributação, Consultor financeiro, Gerente ou funcionário do banco, Nenhuma, Outro)
- 2. Já pensou certamente na sua reforma. Identificou algum valor de quanto por ano precisará para viver quando se reformar? (Sim, Não)

#### VI - Atitudes Financeiras

- 1. Na sua opinião, qual a importância das pessoas manterem-se atualizadas sobre questões financeiras, como a economia e o setor de serviços financeiros? (Muito importante, Importante, Não muito importante, Nada importante)
- 2. "Eu não acho que sejam importantes o planeamento e a poupança para a reforma, porque o governo fará a diferença". Indique seu nível de concordância com a seguinte

afirmação (numa escala de 1 a 5, em que 1 é "discordo totalmente" e 5 é "concordo totalmente").

#### VII - Conhecimento Financeiro

#### Conhecimento Geral Financeiro

- 1. Se a taxa de inflação for de 5% e a taxa de juro que obtiver nas suas poupanças for de 3%, as suas poupanças terão pelo menos o mesmo poder de compra num ano? (Sim, Não, Não Sei)
- 2. Para as afirmações seguintes relacionadas com o Imposto sobre o Valor Acrescentado (IVA), indique se cada uma das afirmações seguintes é verdadeiro ou falso.
  - 2.1. A taxa percentual para bens de 1ª necessidade é de 6%.
  - 2.2. O governo deduzirá o IVA no seu pagamento.
  - 2.3. Não precisará pagar o imposto se o seu rendimento for muito baixo.
  - 2.4. Torna os bens mais caros quando os compra.
- 3. Qual das alternativas seguintes é a melhor descrição de um orçamento? (Uma folha de cálculos, Gastar o mínimo possível, Um plano onde sabe o que ganha e o que gasta, Saber para onde vai todo o seu dinheiro)
- 4. Qual das alternativas a seguir é a afirmação mais correta sobre as flutuações de valores de mercado? (Investimentos que flutuam em valor não são bons a longo prazo, Bons investimentos sempre aumentam em valor, Flutuações de curto prazo no valor de mercado podem ser esperadas mesmo com bons investimentos)
- 5. Qual das seguintes opções escolheria para um investimento anunciado como tendo um retorno bem acima das taxas de mercado e sem risco? (Considerava "bom demais para ser verdade" e não investia, Investia pouco e via como corria antes de investir mais, Investia muito para maximizar o seu retorno)

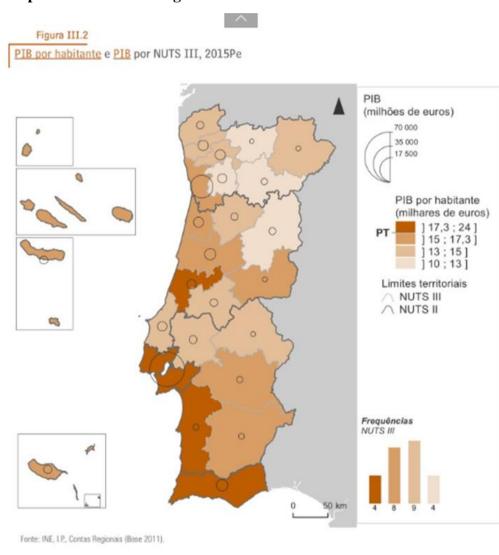
#### Conhecimento de Produtos Financeiros

- 1. Se alguém não puder pagar um empréstimo, a organização que lhe emprestou o dinheiro está autorizada a vender os ativos que foram utilizados como garantia para o empréstimo? (Sim, Não, Não Sei)
- 2. Qual das opções seguinte é geralmente considerada para ganhar mais dinheiro nos próximos 15 a 20 anos? Uma conta poupança, Uma série de ações, Uma série de investimentos com juros fixos, Uma conta corrente, Não sabe)
- 3. Qual dos seguintes depósitos a prazo pagaria mais juros no total? (Depósito a prazo de um ano com juros de 7% ao ano pagos no vencimento do depósito, Depósito a prazo de um ano com juros de 7% ao ano pagos trimestralmente, Em ambos pagaria a mesma quantia de juros)
- 4. No seu entender, as seguintes afirmações seguintes são verdadeiras ou falsas?
  - 4.1. A Comissão do Mercado de Valores Mobiliários verifica a precisão de todos os prospetos apresentados.
  - 4.2. Se os provedores de aconselhamento profissional sobre produtos financeiros poderem receber comissões como resultado dos seus conselhos, eles são obrigados por lei a divulgar isso aos seus clientes.

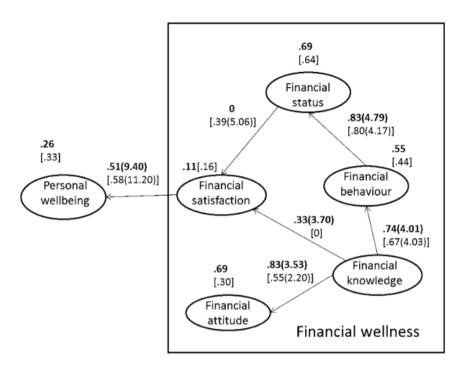
4.3. Existe um período de reflexão após a contratação de uma nova apólice de seguro a habitação, durante o qual pode cancelar a apólice e ser totalmente reembolsado.

# FIM Obrigada pela sua colaboração!

### B. GDP per habitant in Portugal in 2011



### C. Sequential Model of Gerrans, Speelman and Campitelli



#### D. Gender Table

			Gender		
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Male	131	50,0	50,0	50,0
	Female	131	50,0	50,0	100,0
	Total	262	100,0	100,0	

#### E. Age Table

Age (years)									
					Cumulative				
		Frequency	Percent	Valid Percent	Percent				
Valid	18-25	66	25,2	25,2	25,2				
	26-35	50	19,1	19,1	44,3				
	36-45	66	25,2	25,2	69,5				
	46-55	48	18,3	18,3	87,8				
	56-65	30	11,5	11,5	99,2				
	>66	2	,8	,8	100,0				
	Total	262	100,0	100,0					

### F. Area of Residence Table

#### **Area of Residence**

		Alea oi	Vesidelice	•	
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Coimbra	94	35,9	35,9	35,9
	Faro	5	1,9	1,9	37,8
	Braga	7	2,7	2,7	40,5
	Viana do Castelo	1	,4	,4	40,8
	Guarda	2	,8	,8	41,6
	Évora	2	,8	,8	42,4
	Vila Real	2	,8	,8	43,1
	Açores	1	,4	,4	43,5
	Foreign Country	5	1,9	1,9	45,4
	Lisboa	81	30,9	30,9	76,3
	Porto	30	11,5	11,5	87,8
	Leiria	5	1,9	1,9	89,7
	Castelo Branco	4	1,5	1,5	91,2
	Viseu	2	,8	,8	92,0
	Santarém	4	1,5	1,5	93,5
	Aveiro	6	2,3	2,3	95,8
	Setúbal	11	4,2	4,2	100,0
	Total	262	100,0	100,0	

### **G. Professional Situation Table**

# **Professional Situation**

					Cumulative
-		Frequency	Percent	Valid Percent	Percent
Valid	Student	48	18,3	18,3	18,3
	Employed	199	76,0	76,0	94,3
	Retired	14	5,3	5,3	99,6
	Unemployed	1	,4	,4	100,0
	Total	262	100,0	100,0	

### H. Income after taxes Table

# Income after taxes (euros)

					Cumulative
1		Frequency	Percent	Valid Percent	Percent
Valid	0€ - 600€	48	18,3	18,3	18,3
	601€ - 800€	27	10,3	10,3	28,6
	801€ - 1000€	36	13,7	13,7	42,4
	1001€ - 1500€	87	33,2	33,2	75,6
	1501€ - 2000€	46	17,6	17,6	93,1
	2001€ - 3000€	11	4,2	4,2	97,3
	Mais de 3001€	7	2,7	2,7	100,0
	Total	262	100,0	100,0	

### I. Household Members Table

### **Household Members**

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	1	44	16,8	16,8	16,8
	2	48	18,3	18,3	35,1
	3	66	25,2	25,2	60,3
	4	82	31,3	31,3	91,6
	5	17	6,5	6,5	98,1
	>6	5	1,9	1,9	100,0
	Total	262	100,0	100,0	

# J. Descriptive Statistics of Overall Well-being

	N	Minimum	Maximum	Mean	Std. Deviation
Thinking about your own life and personal circumstances, how satisfied are you with your life as whole?	262	2	10	7,13	1,517
How satisfied are you with your standard of living?	262	2	10	6,90	1,527
How satisfied are you with your health?	262	1	10	7,65	1,602
How satisfied are you with what you are achieving in life?	262	0	10	7,12	1,700
How satisfied are you with your personal relationships?	262	1	10	7,67	1,746
How satisfied are you with how safe you feel?	262	2	10	7,76	1,569
How satisfied are you with feeling part of your community?	262	2	10	7,58	1,509
How satisfied are you with future security?	262	0	10	5,60	2,294
How satisfied are you with your spirituality or religion?	262	0	10	6,73	2,389
In most ways my life is close to my ideal.	262	1	5	3,76	,779
The conditions of my life are excellent.	262	1	5	3,48	,820
I am satisfied with my life.	262	1	5	3,75	,772
So far I have gotten the important things I want in life.	262	1	5	3,86	,888,
If I could live my life over, I would change almost nothing.	262	1	5	3,08	1,159
In general, I feel very satisfied with my work.	262	1	5	3,56	,894
My work makes me not have much time with my family as I would like.	262	1	5	3,39	1,191
I have to miss extra work activities due to the time I have to dedicate to work.	262	1	5	3,07	1,185
The time I have to dedicate to my work does not allow me to dedicate myself equally to activities and responsibilities outside work.	262	1	5	3,22	1,140
Valid N (listwise)	262				

# K. Descriptive Statistics of Financial Well-being

	N	Minimum	Maximum	Mean	Std. Deviation
On a scale of 1 to 10 where one is "overwhelmingly stressed" and ten is "no stress at all," what do you feel is the level of your financial stress today?	262	1	10	6,04	2,287
On a scale of 1 to 10 where one is "completely dissatisfied" and ten is "completely satisfied," how satisfied are you with your present financial situation?	262	1	10	5,79	2,088
On a scale of 1 to 10 where one is "feel completely overwhelmed" and ten is "feel very comfortable," how do you feel about your current financial situation?	262	1	10	5,98	2,027
On a scale of 1 to 10 where one is "worry all the time" and ten is "never worry," how often do you worry about being able to meet normal monthly living expenses?	262	1	10	6,15	2,548
On a scale of 1 to 10 where one is "no confidence" and ten is "high confidence," how confident are you that you could find the money to pay for a financial emergency that costs about twice your weekly income?	262	1	10	6,15	2,821
Ona scale of1 to 10 where one is "all the time" and ten is "never," how frequently do you find yourself just getting by financially and living from payslip to payslip?	262	1	10	5,51	2,847
Valid N (listwise)	262				

# L. Descriptive Statistics of Financial Knowledge

	N	Minimum	Maximum	Mean	Std. Deviation
If the inflation rate is 5 % and the interest rate you get on your savings is 3 %, will your savings have at least as much buying power in a year's time?	262	1	3	2,24	,515
The percentage rate for basic goods and necessities is 6%.	262	1	3	1,44	,774
The federal government will deduct it from your pay.	262	1	3	1,97	,708
You don't have to pay the tax if your income is very low.	262	1	3	2,02	,546
It makes things more expensive for you to buy.	262	1	3	1,50	,715
Which of the following is the best description of a budget?	262	1	4	2,92	,626
Which one of the following is the most accurate statement about fluctuations in market values?	262	1	3	2,44	,749
Which one of the following would you recommend for an investment advertised as having a return well above market rates and no risk?	262	1	4	1,81	,652
If someone is not able to make the repayments on a secured loan, is the organization that lent them the money allowed to sell the assets that were used as security for the loan?	262	1	3	1,56	,827
Which of the following is generally considered to make you the most money over the next 15 to 20 years?	262	1	5	2,53	1,432
Which of the following term deposits would pay the most interest in total, or would they pay the same amount of interest?	262	1	3	2,40	,735
The Portuguese Securities and Investment Commission of checks the accuracy of all prospectuses lodged with it.	262	1	3	2,15	,916
If providers of professional advice about financial products may receive commissions as a result of their advice, they are required by law to disclose this to their clients.	262	1	3	2,24	,919
There is a cooling off period after taking out a new house and contents insurance policy during which time you can cancel the policy and have your premium fully refunded.	262	1	3	2,14	,950
Valid N (listwise)	262				

# M. Descriptive Statistics of Financial Status

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Which of the following best describes your total annual household income from all sources, including returns from investments, before tax?	262	1	5	2,73	1,092
What is the total value of all your assets?	262	1	5	3,14	1,692
What is the total amount of all your debts?	262	1	6	2,56	1,968
Valid N (listwise)	262				

### N. Descriptive Statistics of Financial Behaviour

	N	Minimum	Maximum	Mean	Std. Deviation
Have you consulted any of the following people regarding your finances over the last 5 years?	262	1	21	7,87	2,665
Have you identified a figure for how much per year you will need to live on when you retire?	262	0	1	,66	,475
Valid N (listwise)	262				

### O. Descriptive Statistics of Financial Attitudes

### **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
In your opinion, how important is it for people like you to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector?	262	1	4	1,49	,538
"I don't think it really matters much about superannuation or planning and saving for retirement because the government will make up the gap."	262	1	5	1,65	,929
Valid N (listwise)	262				

### P. Multiple Linear Regression Analysis of the antecedents and Financial Well-being

#### 1. Correlations Table

#### Correlations

		Financial Knowledge - compute	Financial Status - compute	Financial Behaviour - compute	Financial Attitudes - compute
Financial Knowledge -	Pearson Correlation	1	-,329**	-,082	,126*
compute	Sig. (2-tailed)		,000	,184	,041
	N	262	262	262	262
Financial Status - compute	Pearson Correlation	-,329**	1	-,032	,077
	Sig. (2-tailed)	,000		,604	,213
	N	262	262	262	262
Financial Behaviour -	Pearson Correlation	-,082	-,032	1	-,066
compute	Sig. (2-tailed)	,184	,604		,285
	N	262	262	262	262
Financial Attitudes -	Pearson Correlation	,126	,077	-,066	1
compute	Sig. (2-tailed)	,041	,213	,285	
	N	262	262	262	262

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### 2. Model Summary Table

## Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,215ª	,046	,031	1,77333	2,039

- a. Predictors: (Constant), Financial Attitudes compute, Financial Behaviour compute, Financial Status compute, Financial Knowledge compute
- b. Dependent Variable: Financial Wellbeing compute

#### 3. ANOVA Test Table

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39,249	4	9,812	3,120	,016 <sup>b</sup>
	Residual	808,191	257	3,145		
	Total	847,440	261			

- a. Dependent Variable: Financial Wellbeing compute
- b. Predictors: (Constant), Financial Attitudes compute, Financial Behaviour compute, Financial Status - compute, Financial Knowledge - compute

#### 4. Coefficients Table

#### Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4,521	,853		5,297	,000		
	Financial Knowledge - compute	,022	,282	,005	,079	,937	,862	1,160
	Financial Status - compute	,301	,097	,203	3,113	,002	,875	1,143
	Financial Behaviour - compute	,060	,081	,045	,739	,461	,987	1,013
	Financial Attitudes - compute	,170	,192	,055	,884	,377	,966	1,035

a. Dependent Variable: Financial Wellbeing - compute

### 5. Collinearity Diagnostics Table

#### Collinearity Diagnostics<sup>a</sup>

				Variance Proportions						
Model	Dimension	Eigenvalue	Condition Index	(Constant)	Financial Knowledge - compute	Financial Status - compute	Financial Behaviour - compute	Financial Attitudes - compute		
1	1	4,662	1,000	,00	,00	,01	,00,	,00		
	2	,150	5,566	,00	,03	,72	,04	,02		
	3	,114	6,407	,00	,00	,00,	,34	,58		
	4	,062	8,686	,02	,23	,00	,43	,38		
	5	,012	19,940	,98	,74	,27	,19	,02		

a. Dependent Variable: Financial Wellbeing - compute

#### 6. Residuals Statistics Table

### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5,1250	6,9329	5,9364	,38779	262
Residual	-4,80111	3,75009	,00000	1,75969	262
Std. Predicted Value	-2,092	2,570	,000	1,000	262
Std. Residual	-2,707	2,115	,000	,992	262

a. Dependent Variable: Financial Wellbeing - compute

### Q. Linear Regression Analysis on Overall Well-being and Financial Well-being

#### 1. Correlations Table

#### Correlations

		PERSONAL WELL BEING	Financial Wellbeing - compute
PERSONAL WELL BEING	Pearson Correlation	1	,562**
	Sig. (2-tailed)		,000
	N	262	262
Financial Wellbeing -	Pearson Correlation	,562**	1
compute	Sig. (2-tailed)	,000	
	N	262	262

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### 2. Model Summary Table

# Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	,562ª	,316	,313	,94642	2,030

- a. Predictors: (Constant), Financial Wellbeing compute
- b. Dependent Variable: PERSONAL WELL BEING

#### 3. ANOVA Test Table

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107,615	1	107,615	120,145	,000b
	Residual	232,883	260	,896		
	Total	340,498	261			

- a. Dependent Variable: PERSONAL WELL BEING
- b. Predictors: (Constant), Financial Wellbeing compute

#### 4. Coefficients Table

#### Coefficientsa

		Unstandardize	d Coefficients	Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	5,011	,202		24,846	,000		
	Financial Wellbeing - compute	,356	,033	,562	10,961	,000	1,000	1,000

a. Dependent Variable: PERSONAL WELL BEING

#### 5. Residuals Statistics Table

### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5,4262	8,3365	7,1260	,64212	262
Residual	-2,92840	2,65217	,00000	,94460	262
Std. Predicted Value	-2,647	1,885	,000	1,000	262
Std. Residual	-3,094	2,802	,000	,998	262

a. Dependent Variable: PERSONAL WELL BEING

### R. Independent Samples T-test for Gender and Financial Well-being

### 1. Group Statistics Table

#### **Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
FW	Male	131	6,1463	1,77531	,15511
	Female	131	5,7265	1,81059	,15819

### 2. Group Statistics Table

#### Independent Samples Test

	Levene's Test for Equality of Variances						t-test for Equality	of Means		
		F	Sig.	+	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidenc Differ Lower	
			oly.	,	ui	org. (z-taileu)	Dilletetice	Dilletetice	Lower	Оррсі
FW	Equal variances assumed	,538	,464	1,895	260	,059	,41985	,22155	-,01641	,85610
	Equal variances not assumed			1,895	259,899	,059	,41985	,22155	-,01641	,85611

# S. Oneway ANOVA Test for Age group and Financial Well-being

### 1. Descriptive Table

#### Descriptives

Financial	Woll	lhoina
rinanciai	vvei	peing

					95% Confidence Interval for Mean			
	Ν	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
8.000€ or less	32	5,2448	1,47195	,26021	4,7141	5,7755	2,33	8,17
Between 8.001€ and 20.000€	83	5,3273	1,91423	,21011	4,9093	5,7453	1,17	9,33
Between 20.001€ and 40.000€	91	6,1868	1,58578	,16624	5,8566	6,5171	2,50	9,17
Between 40.001€ and 60.000€	35	6,4905	1,67593	,28328	5,9148	7,0662	1,83	9,33
More of 60.001€	21	7,3889	1,59890	,34891	6,6611	8,1167	3,67	9,33
Total	262	5,9364	1,80191	,11132	5,7172	6,1556	1,17	9,33

### 2. Test of Homogeneity of Variances Table

### Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Financial Wellbeing	Based on Mean	2,050	4	257	,088
	Based on Median	2,226	4	257	,067
	Based on Median and with adjusted df	2,226	4	246,434	,067
	Based on trimmed mean	2,102	4	257	,081

#### 3. ANOVA Test Table

#### ANOVA

#### Financial Wellbeing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	106,854	4	26,714	9,270	,000
Within Groups	740,586	257	2,882		
Total	847,440	261			

### 4. Robust Tests of Equality of Means Table

### Robust Tests of Equality of Means

#### Financial Wellbeing

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	9,452	4	81,617	,000
Brown-Forsythe	9,865	4	174,148	,000

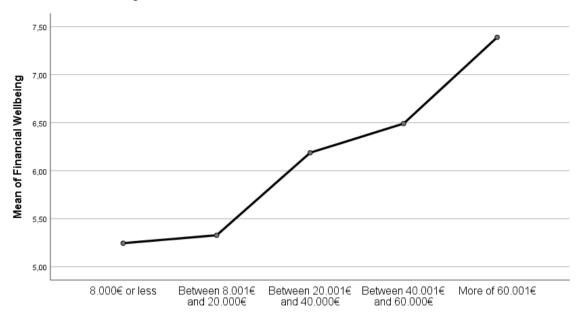
a. Asymptotically F distributed.

# 5. Post Hoc Tests – Multiple Comparisons Table

#### **Multiple Comparisons**

		Multiple	Companisons				
Dependent	t Variable: Financial Wellbeir	ng					
	(I) Which of the following best describes your total annual household income from all sources, including returns from investments, before tax?	(J) Which of the following best describes your total annual household income from all sources, including returns from investments, before tax?	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence of the Confiden	ence Interval Upper Bound
Scheffe	8.000€ or less	Between 8.001€ and 20.000€	-,08252	,35323	1,000	-1,1785	1,0135
		Between 20.001€ and 40.000€	-,94202	,34888	,125	-2,0245	,1405
		Between 40.001€ and 60.000€	-1,24568	,41519	,064	-2,5339	,0426
		More of 60.001€	-2,14410 <sup>*</sup>	,47673	,001	-3,6233	-,6649
	Between 8.001€ and	8.000€ or less	,08252	,35323	1,000	-1,0135	1,1785
	20.000€	Between 20.001€ and 40.000€	-,85950*	,25765	,027	-1,6589	-,0601
		Between 40.001€ and 60.000€	-1,16317	,34213	,023	-2,2247	-,1016
		More of 60.001€	-2,06158 <sup>*</sup>	,41466	,000	-3,3482	-,7750
	Between 20.001€ and 40.000€	8.000€ or less	,94202	,34888	,125	-,1405	2,0245
		Between 8.001€ and 20.000€	,85950*	,25765	,027	,0601	1,6589
		Between 40.001€ and 60.000€	-,30366	,33764	,937	-1,3513	,7439
		More of 60.001€	-1,20208	,41096	,076	-2,4772	,0730
	Between 40.001€ and	8.000€ or less	1,24568	,41519	,064	-,0426	2,5339
	60.000€	Between 8.001€ and 20.000€	1,16317	,34213	,023	,1016	2,2247
		Between 20.001€ and 40.000€	,30366	,33764	,937	-,7439	1,3513
		More of 60.001€	-,89841	,46857	,453	-2,3523	,5554
	More of 60.001€	8.000€ or less	2,14410*	,47673	,001	,6649	3,6233
		Between 8.001€ and 20.000€	2,06158*	,41466	,000	,7750	3,3482
		Between 20.001€ and 40.000€	1,20208	,41096	,076	-,0730	2,4772
		Between 40.001€ and 60.000€	,89841	,46857	,453	-,5554	2,3523

#### 6. Means Graphic



Which of the following best describes your total annual household income from all sources, including returns from investments, before tax?

### T. Oneway ANOVA Test for Age group and Financial Well-being

### 1. Descriptives Table

#### Descriptives

Financ	ial We	llbeing
--------	--------	---------

					95% Confidence Interval for Mean			
	Ν	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
18-25	66	5,6616	1,45355	,17892	5,3043	6,0189	1,67	9,33
26-35	50	5,6433	1,89073	,26739	5,1060	6,1807	1,17	9,00
36-45	66	6,0631	1,95653	,24083	5,5822	6,5441	2,17	9,33
46-55	48	6,2361	1,94998	,28145	5,6699	6,8023	2,00	9,33
56-65	30	6,1444	1,70403	,31111	5,5082	6,7807	1,83	8,67
>66	2	7,8333	,23570	,16667	5,7156	9,9510	7,67	8,00
Total	262	5,9364	1,80191	,11132	5,7172	6,1556	1,17	9,33

### 2. Test of Homogeneity of Variances Table

### Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Financial Wellbeing	Based on Mean	2,704	5	256	,021
	Based on Median	2,258	5	256	,049
	Based on Median and with adjusted df	2,258	5	240,489	,049
	Based on trimmed mean	2,658	5	256	,023

#### 3. ANOVA Test Table

#### ANOVA

#### Financial Wellbeing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23,145	5	4,629	1,438	,211
Within Groups	824,295	256	3,220		
Total	847,440	261			

### 4. Robust Tests of Equality of Means Table

### Robust Tests of Equality of Means

#### Financial Wellbeing

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	17,938	5	20,231	,000
Brown-Forsythe	1,771	5	221,357	,120

a. Asymptotically F distributed.

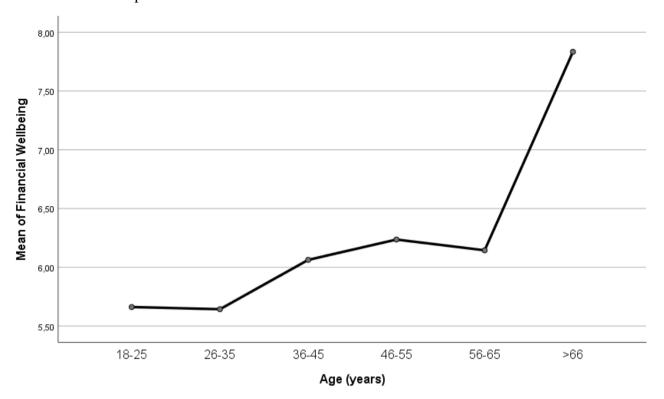
# 5. Post Hoc Tests – Multiple Comparisons Table

### **Multiple Comparisons**

Dependent Variable: Financial Wellbeing

			Mean Difference (I-			95% Confid	ence Interval
	(I) Age (years)	(J) Age (years)	J)	Std. Error	Sig.	Lower Bound	Upper Bound
Dunnett C	18-25	26-35	,01828	,32173		-,9329	,9695
		36-45	-,40152	,30002		-1,2825	,4795
		46-55	-,57449	,33351		-1,5619	,4129
		56-65	-,48283	,35889		-1,5669	,6012
		>66	-2,17172	,24452		-5,8020	1,4586
	26-35	18-25	-,01828	,32173		-,9695	,9329
		36-45	-,41980	,35986		-1,4823	,6427
		46-55	-,59278	,38822		-1,7450	,5595
		56-65	-,50111	,41023		-1,7372	,7350
		>66	-2,19000	,31508		-5,3819	1,0019
	36-45	18-25	,40152	,30002		-,4795	1,2825
		26-35	,41980	,35986		-,6427	1,4823
		46-55	-,17298	,37043		-1,2680	,9220
		56-65	-,08131	,39343		-1,2642	1,1015
		>66	-1,77020	,29288		-5,0616	1,5212
	46-55	18-25	,57449	,33351		-,4129	1,5619
		26-35	,59278	,38822		-,5595	1,7450
		36-45	,17298	,37043		-,9220	1,2680
		56-65	,09167	,41953		-1,1725	1,3559
		>66	-1,59722	,32710		-4,7430	1,5486
	56-65	18-25	,48283	,35889		-,6012	1,5669
		26-35	,50111	,41023		-,7350	1,7372
		36-45	,08131	,39343		-1,1015	1,2642
		46-55	-,09167	,41953		-1,3559	1,1725
		>66	-1,68889	,35294		-4,7737	1,3959
	>66	18-25	2,17172	,24452		-1,4586	5,8020
		26-35	2,19000	,31508		-1,0019	5,3819
		36-45	1,77020	,29288		-1,5212	5,0616
		46-55	1,59722	,32710		-1,5486	4,7430
		56-65	1,68889	,35294		-1,3959	4,7737

### 6. Means Graphic



### U. Oneway ANOVA Test for Area of Residence and Financial Well-being

### 1. Descriptives Table

#### Descriptives

#### Financial Wellbeing

					95% Confiden Me			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Coastal regions	240	5,9799	1,79420	,11581	5,7517	6,2080	1,17	9,33
Interior regions	16	5,3750	2,05526	,51381	4,2798	6,4702	2,33	8,00
Other	6	5,6944	1,33090	,54334	4,2977	7,0911	3,50	7,00
Total	262	5,9364	1,80191	,11132	5,7172	6,1556	1,17	9,33

### 2. Test of Homogeneity of Variances Table

### Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Financial Wellbeing	Based on Mean	,981	2	259	,376
	Based on Median	1,349	2	259	,261
	Based on Median and with adjusted df	1,349	2	258,986	,261
	Based on trimmed mean	1,015	2	259	,364

#### 3. ANOVA Test Table

#### ANOVA

#### Financial Wellbeing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5,847	2	2,924	,900	,408
Within Groups	841,592	259	3,249		
Total	847,440	261			

### 4. Robust Tests of Equality of Means Table

### Robust Tests of Equality of Means

#### Financial Wellbeing

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	,722	2	10,910	,508
Brown-Forsythe	,980	2	21,605	,391

a. Asymptotically F distributed.

### 5. Post Hoc Tests – Multiple Comparisons Table

#### Multiple Comparisons

Dependent Variable: Financial Wellbeing

			Mean Difference (l-			95% Confid	ence Interval
	(I) Residence	(J) Residence	J)	Std. Error	Sig.	Lower Bound	Upper Bound
Scheffe	Coastal regions	Interior regions	,60486	,46543	,431	-,5410	1,7507
		Other	,28542	,74505	,929	-1,5489	2,1197
	Interior regions	Coastal regions	-,60486	,46543	,431	-1,7507	,5410
		Other	-,31944	,86293	,934	-2,4440	1,8051
	Other	Coastal regions	-,28542	,74505	,929	-2,1197	1,5489
		Interior regions	,31944	,86293	,934	-1,8051	2,4440
Bonferroni	Coastal regions	Interior regions	,60486	,46543	,585	-,5167	1,7264
		Other	,28542	,74505	1,000	-1,5099	2,0807
	Interior regions	Coastal regions	-,60486	,46543	,585	-1,7264	,5167
		Other	-,31944	,86293	1,000	-2,3988	1,7599
	Other	Coastal regions	-,28542	,74505	1,000	-2,0807	1,5099
		Interior regions	,31944	,86293	1,000	-1,7599	2,3988
Dunnett C	Coastal regions	Interior regions	,60486	,52670		-,7572	1,9669
		Other	,28542	,55554		-1,5007	2,0715
	Interior regions	Coastal regions	-,60486	,52670		-1,9669	,7572
		Other	-,31944	,74781		-2,5210	1,8821
	Other	Coastal regions	-,28542	,55554		-2,0715	1,5007
		Interior regions	,31944	,74781		-1,8821	2,5210

# 6. Means Graphic

