



Lisbon School  
of Economics  
& Management  
Universidade de Lisboa



# **MASTER CORPORATE SCIENCES**

## **MASTER'S FINAL WORK DISSERTATION**

**REAL ESTATE AGENTS HAPPINESS! ENTREPRENEURIAL  
ORIENTATION COUNTS?**

**NUNO CANHÃO BERNARDES GONÇALVES COELHO**

**OCTOBER - 2022**



Lisbon School  
of Economics  
& Management  
Universidade de Lisboa



# **MASTER CORPORATE SCIENCES**

## **MASTER'S FINAL WORK DISSERTATION**

**REAL ESTATE AGENTS HAPPINESS! ENTREPRENEURIAL  
ORIENTATION COUNTS?**

**NUNO CANHÃO BERNARDES GONÇALVES COELHO**

**SUPERVISOR: PROF. MARIA DEL PILAR MOSQUERA  
FERNANDEZ CONDE**

**OCTOBER - 2022**

*To all those who  
believe in a better  
future.*

ERRATUM

## LIST OF ACRONYMS

- EU – European Union
- GDP – Gross Domestic Product
- GNH – Gross National Happiness
- LOC – Locus of Control
- MFW – Master’s Final Work
- OR – Opportunity Recognition
- EO – Entrepreneurial Orientation
- IEO – Individual Entrepreneurial Orientation
- RE – Real Estate
- SME - Small and Medium-Sized Enterprises
- SDT – Self-Determination Theory
- SLT – Social Learning Theory
- SWB – Subjective Well-being
- SWL – Satisfaction With Life
- OWB – Objective Well-being
- UN – United Nations.
- WB – Well-being

## ABSTRACT

In a society increasingly with more everyday stress and mental illnesses, the study of well-being becomes also increasingly relevant, and after Covid19 pandemic, in which people stayed for long periods indoors, also stimulate these studies in association with the real estate market.

This work aims to study real estate agents and whether two entrepreneurs traits, such as Locus of Control and Individual Entrepreneurial Orientation are predictors and somehow are related to well-being.

A quantitative methodology was adopted, with 213 answered surveys, of which 118 were Portuguese and 95 Brazilians. Statistical analysis was performed using SPSS (Statistical Package for the Social Sciences) version 27 for Windows and Andrew F. Hayes' Macro for Windows called PROCESS, v 4.0.

The study revealed that among the real estate agents, those who became part of the market by force of opportunity possess more internal Locus of Control in comparison to those who entered the market by force of necessity. Still on the first-mentioned, the study verified that they had higher levels of well-being, opportunity recognition and individual entrepreneurial orientation.

It was also observed that Internal Locus of Control is a predictor to the other constructs, individual entrepreneurial orientation, capability to recognize opportunities and well-being, and Individual Entrepreneurial Orientation is also a predictor to Opportunity Recognition, but does not affect well-being and does not demonstrate any influence through moderation in the relation between Locus of Control and Well-Being or Locus of Control with Opportunity Recognition.

## RESUMO

Numa sociedade com cada vez mais stress quotidiano e doenças associadas a mente, o estudo do bem-estar torna-se cada vez mais relevante, ainda mais após a pandemia Covid19, que associa o bem-estar ao mercado imobiliário, tendo em vista ter levado as pessoas a ficarem reclusas em casa por longos períodos.

Este trabalho tem como objetivo estudar agentes imobiliários e se duas características de empreendedores, como Locus de Controle e orientação empreendedora individual, são preditores ou alguma forma estão relacionados ao bem-estar.

Adotou-se uma metodologia quantitativa, com 213 inquéritos respondidos, dos quais 118 portugueses e 95 brasileiros. A análise estatística foi realizada usando o SPSS (Statistical Package for the Social Sciences) versão 27 para Windows e a Macro de Andrew F. Hayes para Windows denominada PROCESS, v 4.0.

O estudo revelou que entre os agentes imobiliários, aqueles que entraram no mercado por força de oportunidade possuem um Locus de Controle mais interno em comparação com aqueles que entraram no mercado por força de necessidade. Ainda sobre o primeiro grupo mencionado, o estudo verificou que eles apresentavam níveis mais elevados de bem-estar individual, capacidade de reconhecer oportunidades e orientação empreendedora individual.

Observou-se também que o Locus de Controle interno é preditor para os demais construtos, orientação individual empreendedora, capacidade de reconhecer oportunidades e bem-estar, e a orientação empreendedora individual também é preditor para a capacidade de reconhecer oportunidades, mas não afeta o bem-estar e não demonstra qualquer influência por moderação na relação entre Locus de Controle e bem-estar ou Locus de Controle e reconhecimento de oportunidades.

## KEYWORDS AND JEL CODES

KEYWORDS: Individual Entrepreneurial Orientation, Opportunity Recognition, Well-Being, Satisfaction With Life, Locus of Control, Real Estate.

JEL CODES: A12; I31; J64; L26; M13

## TABLE OF CONTENTS

Erratum .....	iii
List of acronyms .....	iv
Abstract.....	v
Resumo .....	vi
Keywords and JEL Codes.....	vii
Table of Contents.....	viii
Table of Figures.....	x
Acknowledgments .....	xi
1. Introduction .....	1
2. Literature Review .....	5
2.1. The Real Estate Sector.....	5
2.2. Entrepreneurship.....	6
2.3. Entrepreneurs Well-being.....	7
2.4. Entrepreneurs' Traits .....	10
2.4.1 Locus of Control.....	10
2.4.2 Individual Entrepreneurial Orientation.....	11
2.5. Opportunity Recognition .....	12
2.6 Interlocking Literature Review.....	14
2.6. Self-Determination Theory (SDT).....	15
3. Data analysis, results and discussions .....	17
3.1 Methodology.....	17
3.2 Sample characterization.....	17
3.3 Instruments .....	19
3.4 Data analysis .....	20



3.5 Testing Hypothesis and Discussion.....	22
4. Conclusion.....	27
References .....	29
Appendixes .....	45

## TABLE OF FIGURES

Figure 1 – Research Model

## ACKNOWLEDGMENTS

First, I would like to thank Professor Maria del Pilar Mosquera Fernandez Conde to believe in me in this particularly chapter of my life. She was more than an advisor, she was literally a master guide, teaching, encouraging, participating, pushing and guiding me in so many academic issues that I would not be able to overcome without her.

Thanks to Pamela Seligmann, the first person who introduced me “*Locus of Control*” concept several years ago and sparked my interest in studying psychological variables and soft skills in business and entrepreneurship environment.

Special thanks to all those who helped me getting the answers to the survey, to José Pereira with SPSS and an even more special thank you, posthumously, to Jaqueline Nunes, who helped me a lot and ended up being a victim of Covid19 without a chance to see the work published.

I’m also grateful to Professor Pedro Verga Matos, Professor Carla Curado to accepting me and supporting during the course.

Can’t forget to thank my family and partners for their patience and support while I pursued this project, leaving aside other important life subjects.

Finally, I express my gratitude for all People I have done business until now, even those that harmed me wickedly. Last years were very tough, full of judgements by People who didn’t really know me. But all defeats and triumphs defined the person I am today and made me a better and psychologically stronger person focused primarily on kindness and subjective well-being, or better said, happiness.



## 1. INTRODUCTION

Real estate agents work mostly for variable compensation and these agents are used to selling the benefits of a house to their customers by showing them on physical visits, that were severely restricted during the pandemic. It is pertinent to study the well-being in real estate agents, its inputs and outputs, particularly in the times, since they are the inducers of the well-being throughout society, given that everyone lives in a house.

In 2015, UN settled the 17 Sustainable Development Goals to be achieved till 2030, being Goal n° 3 “*Ensure healthy lives and promote **well-being** for all at all ages*”. The fact that the UN sets a psychological goal, such as well-being, means that we are witnessing an important change of mindsets in the way we see the development of humanity beyond economic indexes and its obsession for economic growth (McGregor & Pouw, 2017). In fact, global leaders are shifting the focus from welfare to well-being (McGregor & Pouw, 2017). Tsuda et al (2006) cited in Tanaka & Tokimatsu (2020) suggested that a sustainable society has two mainstreams, happiness and a triple bottom line composed by environment, economics, and society (Tanaka & Tokimatsu, 2020). The ESG terminology (Environmental, Social and Governance) used both in individual or collective contexts, suggests that in pursuing these three aspects, society will have greater well-being and sustainability (Nafta & Dudás, 2020).

The objectives of well-being and sustainability are very noticeable nowadays in the Real Estate sector, especially since COVID19 pandemic (del Giudice et al., 2020; D’Lima et al., 2020; Tanrıvermiş, 2020). Both, in individual and residential housing market, clients value more aspects that influence individual well-being, such as indoor air quality, thermal comfort, acoustics, and ergonomics (Kempeneer et al., 2021). Whether Real Estate sector is so important for countries GDP, and leaders pursue crazily a GDP growth to supposedly achieve society well-being, why science has limited scope on studies relating Real Estate to Well-being?

The Real Estate sector is belatedly chasing this trend with initiatives like buildings WELL certification, carried out by IWBI since, 2014, (IWBI, 2020), which means how far the Real Estate sector are from this thematic. Trying to bring a well-being standardization to new buildings through air, water, nourishment, light, fitness, comfort

**and mind** also shows that real estate ownership is positive correlated to subject well-being (Seiler et al., 2020). Studies that link the real estate market and human well-being are still scarce, nevertheless, there have been some previous attempts. that indicate, for example, that an increase in housing area improves well-being until certain limit (Seiler et al., 2020b).

Nikolova et. al (2019) demonstrated that managers in a real-estate firm could notice improved performance in their agents when they incorporated entrepreneurial tasks, like self-authoring techniques, permitting them to “write their own stories”. They suggest that if a real estate broker is competent and is given autonomy to make the connections in his/her community will develop self-organization and self-motivation which increase well-being. (Shir et al., 2019, 2020).

Predictors of entrepreneurs are being studied more and more (Asante & Affum-Osei, 2019a; Fadzil et al., 2019; Shu et al., 2018), and Wiklund et. al. (2019) emphasizes the importance of studying well-being as a key outcome in entrepreneurship complementing previous studies, that tend to focus on the negative psychological outcomes of entrepreneurship, such as failure or business performance.

Shir et al. (2019) suggest that autonomy is core to explain the effect of entrepreneurship on well-being, and instigate scholars for future researches on this issue in different cultures (Shir et al., 2019; Shir & Ryff, 2021). Considering the fact that real estate agents work majority on a commission based remuneration with pre disposition to entrepreneurship thru high individual entrepreneurial orientation since autonomy is one of the components of Individual Entrepreneurial Orientation (Bolton & Lane, 2012).

After a systematic review procedure, Stephan (2018) only found four studies relating entrepreneurship and well-being from 1950 and 2010(Stephan, 2018a). Previous studies have demonstrated that millionaires who achieved wealth by their own work are happier than those who inherited wealth (Donnelly et al., 2018), which suggests a likely correlation between entrepreneurship and subjective well-being, due to the fact that entrepreneurs create their own prosperity.

A longitudinal study covering the period between 2002 and 2014 provided the first causal evidence of physical and mental health consequences of self-employment, demonstrating that necessity entrepreneurship (moving from unemployment to self-

employment) improved mental but not physical health while opportunity entrepreneurship improved both mental and physical health (Nikolova, 2019a).

A recent study demonstrates that both, necessity and opportunity entrepreneurship motivation contribute to subjective well-being (Amorós et al., 2021), but necessity entrepreneurs could not foresee, as well as opportunity entrepreneurs, how they could take advantage in the adversities that arose during COVID19 pandemic (Afshan et al., 2021). This study can somehow contribute to link entrepreneurship and well-being, in both career movements a) from unemployment to self-employment (necessity entrepreneurship) and b) from contract based employee to self-employment (opportunity entrepreneurship) (Nikolova, 2019b).

Shir et al. (2019) suggest that autonomy is core to explain the effect of entrepreneurship on well-being, and instigate scholars for future researches on this issue in different cultures, and motivate this study to contribute with other possible predictors of well-being. Most of the previous research on the predictors of entrepreneurship has focused on Locus of Control, that can be understood as, how much a person feels in control of its life, suggesting that entrepreneurs tend to have a more internal Locus of Control (Asante & Affum-Osei, 2019a). Internal Locus of Control has also been correlated with well-being (Frankham et al., 2020; Malhotra, 2017; Valentine et al., 2019). There are also studies evidencing that some People can see opportunities while others face more difficulties in the same social environment, indicating a positive relation between emotional intelligence and entrepreneurship (Schutte, 2014). A study published during the Covid19 pandemic evinced a significant positive effect of this perception of self-control on emotional well-being, suggesting that People with a higher internal Locus of Control can safeguard their emotional well-being more than others from declining during the outbreak. (Yang & Ma, 2020).

The bibliometric review carried out in 2018 demonstrated a vast number of studies linking Entrepreneurship through its entrepreneurial orientation to well-being, considering this orientation as one with propensity to act autonomously, willingness to innovate and take risks (Sánchez-García et al., 2018). This raises a relevant question: how much an internal Locus of Control (LOC) and a higher Individual Entrepreneurial

Orientation (IEO) affect the capacity to recognize opportunities in Real Estate and their Subjective Well-being?

This work is divided in four chapters, being the present introduction the first one. In the second chapter we present a brief literature review on the Real Estate sector and on Entrepreneurship and then we review the main concepts developed in this study: entrepreneurs' traits - Locus of Control and individual entrepreneurial orientation; opportunity recognition and well-being. We also present the theoretical framework of the study – Self-determination theory (SDT). In the third chapter we present the empirical study – methodology, data analyses and discussion, associating our results with previous studies and finally, the fourth and last chapter is the conclusion.



## 2. LITERATURE REVIEW

### 2.1. The Real Estate Sector

Some of the biggest cities in the world, suffered a populational boom in the last decades. São Paulo, one of the ten largest cities in the world, quintupled its population in the last six decades (IBGE, 2021), generating greater pressure for housing which, associated with diverse supply constraints, created a significant impact in properties prices, creating a positive environment for real estate investment and attracting new real estate agents for opportunity reasons. Real estate agents operating in Brazil have already followed a similar trend, even during deep economic crises, increasing from 284.000 in 2013 to 350.000 in 2017, suggesting that necessity reasons encouraged People to move to the real estate sector (Fenaci, 2017; Cofeci-Creci, 2017). Therefore, new real estate agents may be attracted by both opportunity and necessity motivation (Evans and Leighton, 1989 cit. in Fairlie & Fossen, 2018), and both necessity and opportunity entrepreneurship seem to be related to mental health (Nikolova, 2019a).

Contrary to Brazil, Portugal population has presented a reduction trend in the last decades, and followed a reduction trend since 2010 until 2019. Then, as a result of diverse political and economic incentives carried out by the government after the 2008/2009 crisis, Portugal attracted some immigrants and, therefore, Portuguese population slightly increased (0.04%) (INE, 2020). This immigration, associated with supply constraints (e.g. long licensing time that delays the construction of new properties), lead to recent increase of housing prices in Portugal and also raised the number of real estate agents. In fact, the rates of licenses for real estate mediation in Portugal has grown steadily, ranging from 12,22% in 2015 to 21,07% in 2017. According to regulatory agency, the sector counts with 6.257 licensed companies and 12.854 employees (IMPIC, 2018), and the sector (construction and real estate activities) represents almost 10% of all companies in the country (INE & Turismo de Portugal, 2019), and 12% of GDP in 2019 (INE 2020), clearly demonstrating the relevance of the sector for the Portuguese economy. Thus, in both Brazilian and Portuguese cases, the increase in real estate agents was associated both to necessity and opportunity motivations (Nikolova, 2019b).

The changes that today's dynamic world brings to the sector, as an example, the race for coworking spaces (office spaces that share tangible and intangible resources like

knowledge (Gauger et al., 2021), the influences of unpredictable events, like COVID19 pandemic in real estate market (Charles S. Gascon & Jacob Haas, 2020) or sustainability construction (Kaklauskas et al., 2021) due to global warming, without considering the land development itself turns out to be a way of undertaking (Williams, 1991), which demonstrate a close relation between entrepreneurship and the sector, even more since both GDP and population growth directly affects the need for space, whether commercial or residential. Included in this context are the real estate agents as entrepreneurs, as aforementioned in the introduction (Shir et al., 2020; Sánchez-García et al., 2018; Williams, 1991).

## 2.2. Entrepreneurship

There is no consensual definition for entrepreneurship in the literature and many authors consider that innovation and entrepreneurship are closely linked (Cromie, 2000; Karp, 2006; Risker, 1998). One of the first conceptualizations came from the creator of the “gale of creative destruction” meaning “*the process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one*” (Schumpeter, 1934; 1942, pp.82-83). Schumpeter (1934) has been considered as the first author to define entrepreneurship (Nicolaou et al., 2009). According to this author, entrepreneurship “*consists in doing things that are not generally done in the ordinary course of business routine*” (Schumpeter, 1951 p.255; Ronstadt, 1984 cit. in Cromie, 2000) defined entrepreneurship as a “*dynamic process of creating incremental wealth*”.

Likewise, there are several definitions in the literature of being an entrepreneur: “self-employment”; “founding a new firm”; or “being an owner-operator of a company” (Low & Macmillan, 1988), but the “creation of a new enterprise” (Gartner, 1995) and the “creation of organizations” (Fadzil et al., 2019) are probably the most common (Eurostat, 2016). Some authors clearly distinguish a business owner from an entrepreneur, because the latter applies to innovative individuals who act strategically to achieve business growth and profit while the first one is a more conservative concept (Carland et al., 1984).

The role of entrepreneurship is crucial for the development of economies. SMEs (Small and Medium-Sized Enterprises) are consistently referred to as the backbone of economies, providing jobs and growth opportunities. European Union had 22.6 million

SMEs in business economy in 2021, employing almost 84 million People, with the vast majority of these companies are micro-sized firms with less than 9 People employed contributing EUR 35 trillion to the value added (statista.com). Being even more relevant in some economies like Italy (99,4%) and Portugal (99,3%) with high dependence of its SMEs (Dickel & Eckardt, 2020)

Since entrepreneurship is key for society development and growth (Urbano et al., 2019) and well-being is a key factor for a sustainable society accordingly to UN and Paris Agreement (Sachs, J.D., Schmidt-Traub, G., Mazzucato, M. et al., 2019), recently, some scholars are becoming increasingly interested in studying the mechanisms that can affect entrepreneurs' mental health and well-being as an outcome of business venturing (Shir et al., 2019), considering what influences their personal judgement and decision at starting a new venture.(Wiklund et al., 2020).

Lumpkin and Dess (1996) refers to Entrepreneurial Orientation as a way to measure entrepreneurship since it is a combination of desire of acting autonomously, to innovate and take risks (Sánchez-García et al., 2018), and as explained later, we will use in this study.

### 2.3. Entrepreneurs Well-being

Before deepening studies on the well-being concept, we sought to understand the concept of happiness, which in turn led us to study well-being or subject well-being since it is the scientific concept that are more likely used as a happiness concept. Wilson (1967) reviewed studies and scales of avowed happiness since 1930s, and brought some conclusions, standardizations and suggestions on happiness measurements in both negative and positive poles, especially on the negative end of scales to avoid skewed distributions. He has constructed a basement for future investigators standardize the concept of subjective well-being (SWB) as it is used nowadays (Wilson, 1967). Many researchers operationalized well-being as the balance between positive and negative affect (Ryff, 1989). Whether a person is indebted or starving, money and food, respectively, can be associated to well-being. On the other hand, excess of money or food can bring envy and obesity, then well-being would be associated, on the opposite side, with desire of a simple life or losing weight.

We are considering here one of the three concepts of SWB in the literature evaluation, according to Dolan & Metcalfe (2012) – Life Satisfaction. Being the other two, experience (momentary mood) and eudemonia (purpose) (Dolan & Metcalfe, 2012).

Diener et al. (1999) suggested that researchers interested on the topic of well-being should pursue four directions: i) Look for more sophisticated methodologies to examine the causal direction of the correlates with happiness; ii) Dip into internal characteristics (as personality traits) since demographic factors surprisingly had small effects on subject well-being; iii) Strive to understand the process underlying adaptation, both positive or negative; iv) Refine theories to best predict the influence between inputs and SWB. Different authors (Deci & Ryan, 2008; Ryan & Deci, 2001; Ryff & Keyes, 1995; Waterman, 1993) refer the hedonic and eudemonic approach to subjective well-being.

The hedonic view suggests that a happy person pursue incessantly pleasure activities, avoiding deeply suffering and pain (Giacomini, 2004) and happiness would be the sum of all pleasant moments (Ryan & Deci, 2001; Seligman et al., 2005; Galinha, 2008). In other words, the individual self-evaluates its positive and negative affects with what he considers good or bad for his life (Kahneman, Diener & Schwarz, 1999).

Eudemonic view is less predominant and focuses in positive psychology and individual cognitive capacities utilization, when a person pursuit meaningful life through human development, sense of purpose with self-realization and self-fulfillment (Deci & Ryan, 2008; Delle Fave et al., 2011; Freire et al., 2014; Ryan & Deci, 2001; Waterman et al., 2008), so it's more related to psychological well-being than immediate pleasure, since not all granted pleasures lead to subjective well-being (Waterman, 1993). A multidimensional *construct* can measure both, hedonic and eudemonic perspectives and full-fill better the idea of “happiness” (Ryan & Deci, 2001; Galinha, 2008).

As mood and emotions together are labeled as affect. Pleasant (joy, elation, ecstasy, etc) and unpleasant affect (guilt, shame, sadness, anxiety, worry, etc) became increasingly separated as the timeframe increased, Diener et al. (1999) suggested that the two components of SWB should be measured separately, and we prefer to adopt Life Satisfaction evaluation, leaving out the mood evaluation, since it is less focused at present time and also represents a shorter questionnaire.

Recent research tends to consider well-being as a multidimensional concept. Stiglitz et al. (2009) in their effort to create a new way to measure social progress besides GDP, clearly define well-being as a multi-dimensional construct that includes: i) material living standards (income, consumption and wealth); ii) health; iii) education; iv) personal activities including work; v) political voice and governance; social connections and relationships; vi) environment (present and future conditions); vii) insecurity, of an economic as well as a physical nature. According to these authors, both objective well-being (measured by physiological methodologies like brain waves) and subjective well-being (inquiring directly the individual) are important (Stiglitz et al., 2009).

Linton et al. (2016) conducted a systematic review on the topic and found 196 dimensions. Shir et al. (2019) also developed a broader well-being measure not focused only in hedonic (affect) and evaluative (life satisfaction) but also a eudemonic aspect like subjective vitality, since they believe, as well as Ryan and Deci (2017), that it would be better to capture a psychological functioning.

Several studies relate well-being with other constructs such as social capital (Tanaka & Tokimatsu, 2020), social integration (Xia & Ma, 2020), economic status (Howell & Howell, 2008) and individual traits (Chay, 1993). A considerable number of those variables focused on the negative impact on well-being, such as job stress (Bell et al., 2012) risk of depression when a child is exposed to socioeconomic adversity in early life (Culpin et al., 2015), or psychopathological symptoms such as anxiety and depression (Bulmash, 2016).

Recently, studies on entrepreneurship measured entrepreneurs' well-being with Satisfaction with Life (Shir et al., 2019). Satisfaction with Life is measured by satisfaction with current life, desire to evolve life, satisfaction with past, future and significant others' views of one's life and the Domain Satisfactions are work, family, leisure health, finances, self and one's group (Diener, 2000). Since this study is targeting entrepreneurs, SWL was our choice of measuring.

A 2022 meta-analysis reviewed 94 studies from 82 countries and confirmed that entrepreneurship has a slightly positive impact on well-being, but depends on the analyzed component of well-being, since entrepreneurship, according to the authors, is a

*roller coaster* (Stephan et al., 2022). They also suggest in their conclusion to deepen studies in well-being components, as we are doing with SWL.

## 2.4. Entrepreneurs' Traits

Scholars have long been seeking to identify entrepreneurs' traits. Hornaday (1982) lists 42 characteristics and Koh (1996) points that entrepreneurs have a high need for achievement and tolerance for ambiguity, an internal Locus of Control and moderate orientation towards risk taking. Durham University Business School (1988) cit. in Cromie (2000) suggest other entrepreneur traits: need for achievement, Locus of Control, need for autonomy, risk-taking, creativity tendency and calculated risk taking.

Locus of Control, along with innovativeness, self-efficacy, risk taking and need for achievement are related to entrepreneurs (Luca & Simo, 2016) , but in this study we try to contribute to academy studying LOC and IEO concepts together in the real estate context and its reflection to individual well-being.

### 2.4.1 *Locus of Control*

The relation between LOC and Entrepreneurship has been considerably studied. Nevertheless, results are still controversial. Some studies concluded that entrepreneurs have a higher Internal LOC, which means they control their environment by the action they take and display initiative in proactively seeking out innovative business opportunities and marshalling requisite resources (Nicolaou et al., 2009). Other studies (Brockhaus & Nord, 1979; Cromie et. al. 1992) did not find significant differences between entrepreneurs and non-entrepreneurs in what concerns LOC.

Locus (from Latin, place), of Control reflects to whom an individual attribute the causal source of his successes and failures in life. It can be a way of measuring how much each individual feels in control of his/her actions (Rotter, 1966).

If an individual believes that the events of his life are linked to chance, luck, or external factors, the construct indicates a high externality. On the other hand, if the individual feels in control of the events that occur in his life, he will have an internal Locus of Control (dela Coleta, 1987). It is important to clearly distinguish "Locus of

Control" from "attribution of causality", because Locus of Control is considered a stable variable of the individual and not sparse events (dela Coleta, 1987; Nowicki & Strickland, 1973).

The unidimensional Rotter test is still perhaps one of the most widely used today to measure People's Locus of Control. Nevertheless, several authors questioned the concepts behind his unidimensional scale and proposed different scales like Crandall, Katkovsky and Crandall in 1965 cit. in Nowicki & Strickland (1973) or Levenson (1973) cit. in Nuccitelli et al. (2018). Considering Locus of Control as a “personality trait”, tends to associate more attractive or valuing characteristics to individuals with an internal Locus of Control. It has been suggested that Locus of Control becomes more internal with age, higher social class or “*white culture*” (Lefcourt, 1981 cit.in dela Coleta, 1987) .

It is important to emphasize that there is no individual with a pure/extreme locus of control (internal or external). So, everybody has both, internal and external in different proportions, depending on predominance.

Locus of Control has been associated with many different concepts, such as illness, stress, (Asante & Affum-Osei, 2019a), depression (J. R. Lumpkin, 1985) work-life balance (Karkoulian et al., 2016), professional success, happiness, among others (Bani-Hani & Hamdan-Mansour, 2021). Several studies (e.g., Chandiramani (2014) found a positive relationship between internal LOC and well-being. Thus, we propose:

### **Hypothesis 1 – Internal Locus of Control is positively related to Well-being**

#### *2.4.2 Individual Entrepreneurial Orientation*

As mentioned before above, entrepreneurship refers to *new entry* or the act of launching new business - “what business shall be entered?” -, while Entrepreneurial Orientation (EO) refers to the practices, process and decision-making of *how* new entry is undertaking (G. T. Lumpkin & Dess, 1996).

Many studies applied the concept of EO at the organizational level to analyze competitiveness and firm performance (Rosenbusch et al., 2013; Vogelsang, 2015), but only a few applied the concept at the individual level (Vogelsang, 2015). Understanding

Individual Entrepreneurial Orientation (IEO) could help forming new entrepreneurs through entrepreneurship education programs and maybe help solving economy problems such as unemployment. (Sondari, 2014).

According to Lumpkin and Dessit. in Bolton & Lane (2012), IEO is a multidimensional construct composed by five dimensions: autonomy, innovativeness, proactiveness, risk taking and competitive aggressiveness. Later, Bolton & Lane (2012) found that autonomy and competitive aggressiveness sub-scales presented bad reliability and excluded them. Muller and Thomas (2000) considered that an individual has IEO when he has, simultaneously, an Internal Locus of Control and Innovativeness.

There are studies in the academy that relate entrepreneurship through “*entrepreneurial orientation*” to well-being and dramatically improve organizational outcomes and performance (Amorós et al., 2021; Wang et al., 2020; Wiklund et al., 2019; Zgheib & Kowatly, 2011)

### **Hypothesis 2 – Individual Entrepreneurial Orientation is positively related to Well-being**

Entrepreneurship and Locus of Control is widely studied in literature, through its different traits, like Entrepreneurial Orientation, normally associating internal Locus of Control with entrepreneurial traits (Ardichvili et al., 2003; Baluku et al., 2018; Bulmash, 2016; Linton, 2017; Schjoedt & Shaver, 2012; Zgheib & Kowatly, 2011).

### **Hypothesis 3 – The Locus of Control is positively related to Individual Entrepreneurial Orientation**

## 2.5. Opportunity Recognition

Opportunity recognition can be defined as “*an activity that can occur both prior to firm founding and after firm founding throughout the life of the firm*”. The definition of Christensen, P.S., Madsen, O.O. & Peterson, R. (1994, p.61) is related to the capacity to visualize potential new profit through (a) Creation of a new venture or (b) the significant improvement of an existing one. Opportunity recognition is considered an important part of the entrepreneurship process and therefore has been recently called the attention of



many scholars (Baron & Ensley, 2006; Casson & Wadeson, 2007; Gaglio & Katz, 2001; Nicolaou et al., 2009) .

Since 2000, researches are increasing their attention to decipher the antecedents of opportunity recognition, including genetic predisposition (Baron & Ensley, 2006; Casson & Wadeson, 2007; Gaglio & Katz, 2001; Shane, 2016; Shir et al., 2019). One of the findings is that People with the ability to recognize opportunities are more likely than other People to be an entrepreneur(Baron & Ensley, 2006).

Is expected that People with Internal LOC have higher desire to start their own businesses (Ajzen, 1991; Asante & Affum-Osei, 2019; Esfandiar et al., 2019) and thence be more alert to Opportunity Recognition (OR). On the other hand, is expected that People with External LOC would have lower desire to start their own business, after all they do believe that their outcomes come from powerful others or luck and they don't have any influence on their outcomes and rewards (Asante & Affum-Osei, 2019a; Espiritu-Olmos & Sastre-Castillo, 2015). This makes them less proactive and will in turn make them less proactive and perceptive to OR.

***Hypothesis 4: An internal LOC is positively related to Opportunity Recognition.***

Literature also tries to consolidate a relation between entrepreneurship traits and opportunity recognition. (Jill Kickul, Jianwen Jon Liao, 2010; Linton, 2017; G. T. Lumpkin & Dess, 1996)

***Hypothesis 5: Individual Entrepreneurial Orientation is positively related to Opportunity Recognition.***

Sources published from 1950 to June 2017 were condensed in a study with 144 findings, associating Entrepreneurship and well-being and its different antecedents (105) and outcomes (28), like persistence and opportunity recognition. In particular, they found that the higher is the MWB (Mental Well-being) the higher would be the capability to recognize opportunities.(Stephan, 2018a). So, studies corroborate that higher well-being increases the capability of recognize opportunities, but is the opportunity recognition capability able to increase well-being? There is not a clear direction in literature and we can bring a small contribute here on this thematic.

***Hypothesis 6: Opportunity Recognition is positively related to entrepreneurs' wellbeing.***

Considering the most likely correlations explained above in the Literature review, between LOC and OR - H4 - (Asante & Affum-Osei, 2019b; Ruiz-Palomino & Martínez-Cañas, 2021), and LOC and WB - H1 - (Chandiramani, 2014; Farnier et al., 2021; Xia & Ma, 2020), as well as the LOC relation with Entrepreneurship and Entrepreneurial Orientation (Ardichvili et al., 2003), would the last moderate in any level the impact of LOC in OR and WB?

***Hypothesis 7: IEO moderates the relation between ILOC and OR.***

***Hypothesis 8: IEO moderates the relation between ILOC and WB.***

## 2.6 Interlocking Literature Review

As referred in the literature review, we found a large quantity of studies relating Locus of Control with Entrepreneurship supporting our hypothesis (Baluku et al., 2018; Bulmash, 2016; Kesavayuth et al., 2018; LUCA & SIMO, 2016; Mueller & Thomas, 2000; Schjoedt & Shaver, 2012; Thomas W. H. NG, Kelly L. Sorensen, 2006) and well-being (Bulmash, 2016; Carneiro & Fernandes, 2015; Damascena et al., 2016; Farnier et al., 2021; Griffin, 2014; Karkouljian et al., 2016; Malhotra, 2017; Promsri, 2018; Spector et al., 2002; Xia & Ma, 2020). It is also consistent in academy the relation between entrepreneurship and opportunity recognition (Ardichvili et al., 2003; Asante & Affum-Osei, 2019a; Baron & Ensley, 2006; Casson & Wadson, 2007; Chandra et al., 2009; Fairlie & Fossen, 2018; Grégoire et al., 2010; Jill Kickul, Jianwen Jon Liao, 2010; Linton, 2017; Nicolaou et al., 2009; Shane, 2016; Shu et al., 2018; Yitshaki & Kropp, 2016) and well-being (Amorós et al., 2021; Audretsch & Belitski, 2015; Bulmash, 2016; Chay, 1993; Nikolaev et al., 2020; Sánchez-García et al., 2018; Sherman et al., 2016; Shir et al., 2019, 2020; Shir & Ryff, 2021; Stephan, 2018a, 2018b; Wiklund et al., 2019).

When one link the three concepts together, it become to be more sparse (Bulmash, 2016) and including it into the Real Estate sector it is even more sparse, even though there are relations individually with well-being (Charles S. Gascon & Jacob Haas, 2020; del Giudice et al., 2020; Seiler et al., 2020b; Tanrivermiş, 2020) and entrepreneurship (Charles S. Gascon & Jacob Haas, 2020; del Giudice et al., 2020; Gauger et al., 2021;

Karp, 2006; Seiler et al., 2020a; Williams, 1991), normally relating to physical concept of real estate and not from a human perspective, as we suggest here through a sample with real estate agents.

## 2.6. Self-Determination Theory (SDT)

Self-determination Theory (SDT) is a vast human motivation and personality theory that considers human orientation towards well-being (Deci & Ryan, 2000; Ryan & Deci, 2020). It maintains an understanding that human motivation requires a consideration of innate psychological needs for competence, autonomy, and relatedness. Established and derived from previous need theories that emphasizes that needs specify the necessary conditions for psychological growth, integrity, and well-being. (Lepper et al., 1973)

*“Self-determination theory (SDT) is a broad framework for understanding factors that facilitate or undermine intrinsic motivation, autonomous extrinsic motivation, and psychological wellness, all issues of direct relevance to educational settings”.* (Ryan & Deci, 2020, p.1).

The SDT mention the “Impersonality and Amotivation” as result of a lack of basic need satisfaction (autonomy, competence and relatedness) and also associated with an External Locus of Control (Pelletier et al., 1999; Deci, 2000) which reflects in a poorest performance and mental-health outcomes (Ryan, Deci, & Grolnick, 1995 cit in Deci & Ryan, 2000). Amotivation, as already mentioned, is caused for a complete lack or felt of competence to perform, or lack of value or interest, and has been a strong negative predictor of engagement, learning, and wellness (Deci, 1971; Lepper et al., 1973).

Intrinsic motivation has been consistently associated by scholars with higher performance or better outcomes (Deci & Ryan, 2000) Technically intrinsic motivation refers to activities done “for their own sake” or for their inherent interest and enjoyment.(Ryan & Deci, 2020).

Extrinsic motivation, contrarily, consists in doing thing for any other reason that not inherent satisfaction or joy. But motivators can vary widely and for this reason, the SDT has defined four subtypes of extrinsic motivation, being the first two more controlled

forms of motivation and the other two more internalized (Ryan & Deci, 2020): External Regulation, Introjection, Identification, and Integration.

Since seventies, scholars have clearly demonstrated (Ryan & Deci, 2020), that the focus in intrinsic motivation and internalization result much better for outcomes and psychological well-being than extrinsic rewards or evaluations, which result in lower-quality motivation and performance. In other words, SDT research shows that entrepreneurs, or self-employed, exhibit higher commitment than salary-employment People (Baluku et al., 2020), and an academic environment that support students' and teachers' basic psychological needs fosters students' wellness, instead circumvent basic needs can provoke damage (Froiland, 2018; Ryan & Deci, 2020; Taylor et al., 2014).

Figure 1 depicts the Research Model analysing Real Estate agents Well-being considering its predictors: Internal Locus of Control, Individual Entrepreneurial Orientation and Opportunity Recognition.

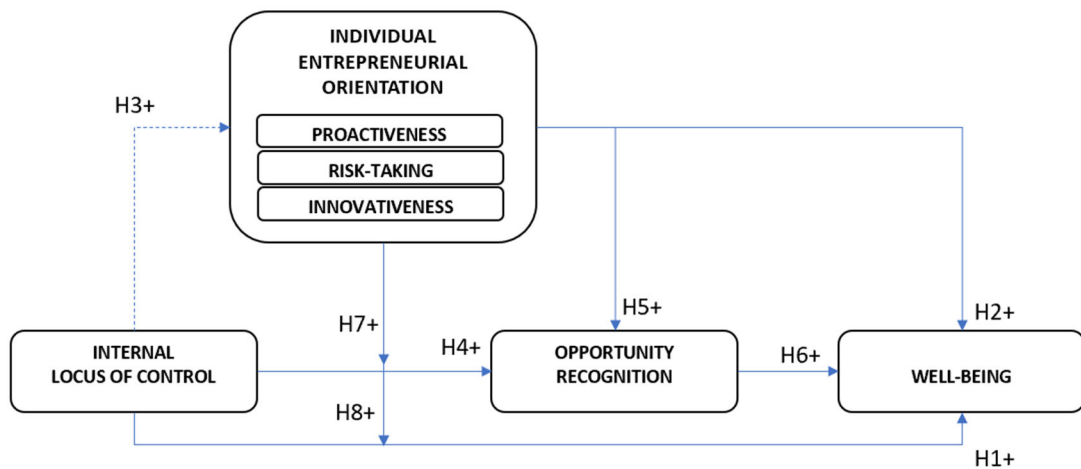


Figure 1 - Research Model

### 3. DATA ANALYSIS, RESULTS AND DISCUSSIONS

#### 3.1 Methodology

The present dissertation is based on the quantitative, hypothetical-deductive method, supported by hypothesis tests. A questionnaire was applied (see Annex 1) to real estate agents in Portugal and Brazil, since my professional background as a real estate developer could reach both countries and several agencies. The questionnaire was developed through the QualtricsXM software released from March 25 to April 28, 2021 and both confidentiality and anonymity of responses were guaranteed. The answers were mostly obtained during the Covid19 pandemic and therefore online. Statistical analysis was performed with SPSS (Statistical Package for the Social Sciences) version 27 for Windows and Andrew F. Hayes' Macro for Windows called PROCESS, v 4.0.

#### 3.2 Sample characterization

A total sample of 213 respondents was collected, 118 (55.5%) of them being Portuguese and 95 Brazilians (44.5%). The average age was 45.8 years, ranging from a minimum of 26 to a maximum of 74 years. The majority were male (53.5%), graduated (58.9%), having a work relationship with a real estate agency (69.8%), receiving commissions (81.4%) having no other source of income (59.3%), became real estate agent for opportunity reasons (76.5%) and were employed before becoming a real estate agent (55.6%). The groups were equivalent in terms of age, gender, employment status, fixed salary, and time as a broker. There are significant differences in education between the two sub-samples: more Portuguese have primary education as well as, postgraduate and master's degrees when compared with Brazilians who tend to have more secondary education or a bachelor's degree,  $\chi^2(5) = 68,224$ ,  $p < .001$ . Brazilians are more prone to become real estate agents by opportunity than Portuguese (Fisher's test,  $p = .040$ ).

It was a convenience sample, collect both online and presential, and quite conditioned due to Covid19 pandemic, which required considerable effort to obtain it in two countries.

Table 1 – Sociodemographic characterization (N = 213)

	Total		Portugal		Brazil		Sig.
	N	%	N	%	N	%	
<b>Age (M; DP)</b>	45.8	10.7	45.5	10.5	46.2	11.0	,625
<b>Gender</b>							1,000
Masculine	115	53,5	64	53,3	51	53,7	
Feminine	99	46,0	55	45,8	44	46,3	
Other	1	0,5	1	0,8	0	0,0	
<b>Academics Education</b>							.001***
Fundamental School (9 years)	11	5.1	11	9.2	0	0.0	
Secondary Level (12 years)	30	14.0	8	6.7	22	23.2	
University Degree	80	37.2	24	20.0	56	58.9	
Post-Graduation / MBA	75	34.9	59	49.2	16	16.8	
Masters	18	8.4	17	14.2	1	1.1	
Doctored	1	0.5	1	0.8	0	0.0	
<b>RE Agency bond</b>							.327
Yes	150	69,8	87	72,5	63	66,3	
No	65	30,2	33	27,5	32	33,7	
<b>Fix Income</b>							.909
Yes	40	18,6	22	18,3	18	18,9	
No	175	81,4	98	81,7	77	81,1	
<b>Professional Situation before</b>							,973
Unemployed	40	18,7	22	18,5	18	18,9	
Employed	119	55,6	67	56,3	52	54,7	
Other	55	25,7	30	25,2	25	26,3	
<b>Another source of income</b>							.650
Yes	87	40.7	50	42.0	37	38.9	
No	127	59.3	69	58.0	58	61.1	
<b>Necessity/Oppportunity</b>							.040*
Necessity	50	23,5	34	28.8	16	16.8	
Opportunity	163	76,5	84	71.2	79	83.2	
<b>Time as RE Agent</b>	9.4	8.2	9.0	7.9	9.9	8.4	,447

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

### 3.3 Instruments

#### *Well-being*

According to OECD (2013) guidelines, Satisfaction with life scale (SWLS) “is one of the best-tested and most reliable multi-item scales” to measure SWB. It is also a cognitive scale and a good option in questionnaires due to its reduced size when it’s used alone – 5 items. It was created by Diener et. al. (1985) and review by Pavot and Diener (1993), originally with 45 items including positive and negative affect. Diener et. al., refers to a Cronbach alpha of 0.87 and is consistent with other measures of well-being (Nunes, 2009).

#### *Locus of Control*

The adapted unidimensional scale created by Muller and Thomas (2000) with 10 items, adapted from the original one created by Rotter (1966), with 29 items, was used in this study since they applied in Entrepreneurial environmental like this study and they also have demonstrated that the reduced scale is reliable, with a Cronbach’s alpha in an acceptable range with minimal variance across the countries they have collected data, from 0,81 (Canada) to 0,53 (Slovenia).

#### *Entrepreneurial Orientation*

The individual entrepreneurial orientation scale, created by Bolton and Lane (2012) is a scale used to assist in entrepreneurship education as an important construct in entrepreneurship literature. It was based on the Entrepreneurial Orientation construct presented by Lumpkin and Dess (1996) and adapted to an individual perspective. The 5 original dimensions were reduced to 3, due to a low Cronbach alpha in 2 constructs (autonomy and competitiveness), becoming a 10 items scale, being 4 for innovativeness, 3 for proactiveness and 3 for risk-taking (Bolton & Lane, 2012).

#### *Opportunity Recognition*

A reduced, simple and reliable scale, which 5 items and Cronbach alpha of 0,72 was used in this study to measure the capacity to recognize opportunities. It was created by Nicolaou et. al. (2009) in a remarkable study with 1706 twins (851 monozygotic and 855 dizygotic) with the purpose of examine the tendency to be an entrepreneur through their capacity to recognize opportunities drawn from the opportunity recognition literature (Baron & Ensley, 2006;Baron & Ozgen 2009; Singh et. al., 1999).

### 3.4 Data Analysis

Statistical analysis involved measures of descriptive statistics (absolute and relative frequencies, means and their standard deviations) and inferential statistics. The significance level for rejecting the null hypothesis was set at  $(\alpha) \leq .05$ . Considered Cronbach's alpha coefficient of internal consistency, Pearson's correlation coefficient, Student's t-test for one sample. Student's t-test for independent samples, Chi-square test of independence, Fisher's test, simple linear regression and mediation effects analysis. The Chi-square assumption that there should not be more than 20% of cells with expected frequencies below 5 was analyzed. In situations where this assumption was not satisfied, the Chi-square test by Monte Carlo simulation was used. Differences were analyzed with the support of standardized adjusted residuals.

Normality of distribution was accepted in samples with a dimension greater than 30, according to the central limit theorem. The homogeneity of variances was analyzed using the Levene test. The assumptions of simple linear regression, namely the linearity of the relationship between the independent variables and the dependent variable (graphical analysis), independence of residuals (Durbin-Watson test), normality of residuals (Kolmogorov-Smirnov test) and homogeneity of variances (graphic analysis) were analyzed and were generally satisfied. Significance of indirect effects was calculated by Bootstrap of 5000 samples.

The internal consistency values, evaluated with the Cronbach's Alpha internal consistency coefficient, of the dimensions of the variables used in this study ranged from a minimum of .680 (weak but acceptable) in the individual entrepreneurial orientation dimension to a maximum of .796 (Good), in the Well-being dimension. The categorization of Alpha values follows that referenced in Hill (2014).



Table 2 – Internal consistency

	Portugal		Brazil	
	Alpha	Nr de itens	Alpha	Nr de itens
Locus of Control	,758	10	,729	10
Satisfaction With Life	,792	5	,796	5
Opportunity Recognition	,739	5	,763	5
Individual Entrepreneurial Orientation	,668	10	,680	10

Table 3 presents the descriptive statistics (means and standard deviations) of the variables included in the study. As Locus of Control values are significantly lower than the midpoint of the rating scale (3,0), subjects have a more internal than external Locus of Control ( $t(217) = -31,877, p < .001$ ). Well-being, Opportunity Recognition and Individual entrepreneurial orientation present values significantly higher than the midpoint of the evaluation scale ( $p > .001$ ). There are no statistically significant differences between Portugal and Brazil ( $p > .05$ ). I decided to keep the IEO since this is the scale more commonly used in the literature.

Table 3 – Descriptive statistics

	Portugal		Brazil		Sig.
	Avg	Std Dev	Avg	Std Dev	
Locus of Control	2,02	,47	1,97	,46	.429
Satisfaction With Life	3,49	,78	3,55	,80	.590
Opportunity Recognition	3,49	,65	3,51	,68	.750
Individual Entrepreneurial Orientation	3,44	,44	3,44	,44	.941

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

The Locus of Control correlates significantly, negatively and weakly with well-being, opportunity recognition and entrepreneurial orientation, indicating that internal Locus of Control has actually a positive correlation with all these variables.

Table 4 – Correlations

	Locus of Control	EI	SWL	ORec
Locus of Control	--			
Satisfaction with life	-,293**	-,066		
Opportunity Recognition	-,270**	,433**	,092	

Ind. Entrepreneurial orientation	-,162*	,092	,082	,383**
----------------------------------	--------	------	------	--------

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

When compared subjects who became agents by necessity with those who became agents by opportunity, we find differences statistically significant in Locus of Control: subjects who became agents by opportunity obtain significantly higher Internal Locus values than those who became agents by necessity ( $t(211) = 2,099, p = .037$ ).

Table 5 – Opportunity/Necessity

	Necessity		Opportunity		Sig.
	Avg	Std Dev	Avg	Std Dev	
Locus of Control	2,12	,49	1,97	,45	.037*
Satisfaction with life	3,47	,69	3,52	,82	.706
Opportunity Recognition	3,39	,64	3,54	,65	.141
Ind. Entrepreneurial orientation	3,40	,43	3,46	,43	.432

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

### 3.5 Testing Hypothesis and Discussion

#### **Hypothesis 1 – Internal Locus of Control is positively related to Well-being**

The simple linear regression model with the variable Locus of Control as the independent variable or predictor and the well-being as the dependent variable explains 8.2% of the total variance of this last variable and is statistically significant ( $F(1, 216) = 20,312, p < .001$ ). Locus of Control is a significant predictor of well-being ( $\beta = -.293, p < .001$ ). As the regression coefficient is negative, it means that subjects with Internal Locus of Control have higher well-being values. Thus, the hypothesis stated is confirmed in some way authors like Bulmash (2016), Carneiro & Fernandes (2015), Damascena et al. (2016); Farnier et al. (2021), Griffin (2014), Karkoulian et al. (2016), Malhotra (2017), Promsri (2018); Spector et al. (2002); Xia & Ma (2020).

Table 6 – VD: Well-being

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,506	,225		20,029	,000
	Locus	-,495	,110	-,293	-4,506	,000***

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

**Hypothesis 2: Individual Entrepreneurial Orientation is positively related to Well-being**

As Table 7 shows, Individual Entrepreneurial Orientation isn't a significant predictor of well-being ( $p > .05$ ). Thus, the stated hypothesis is not confirmed which contradict some studies (Fernet et al., 2016; Stephan et al., 2022) that relates entrepreneurship with well-being, but maybe we could argue that other entrepreneurial traits, like Locus of Control, stand out in terms of impact in individuals well-being.

Table 7 – VD: Well being

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3,012	,423		7,129	,000
Entrepreneurial Or	,147	,122	,082	1,207	,229

**Hypothesis 3 – Internal Locus of Control is positively related to Individual Entrepreneurial Orientation**

The simple linear regression model with the variable Locus of Control as the independent variable or predictor and the Entrepreneurial orientation as the dependent variable explains 2.2% of the total variance of this last variable and is statistically significant ( $F(1, 216) = 5,799, p = .017$ ). Locus of Control proved to be a significant predictor of the Entrepreneurial orientation ( $\beta = -.162, p < .05$ ). As the regression coefficient is negative it means that subjects with Internal Locus of Control have higher Entrepreneurial orientation values. Thus, the hypothesis stated is confirmed with corroborates several studies that consider Locus of Control one of the Entrepreneurs traits (Baluku et al., 2018; Bulmash, 2016; Kesavayuth et al., 2018; LUCA & SIMO, 2016; Mueller & Thomas, 2000; Schjoedt & Shaver, 2012; Thomas W. H. NG, Kelly L. Sorensen, 2006).

Table 8 – VD: Entrepreneurial orientation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,744	,129		28,968	,000
	Locus	-,152	,063	-,162	-2,408	,017*

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

#### **Hypothesis 4 – Internal Locus of Control is positively related to Opportunity Recognition.**

The simple linear regression model with the variable Locus of Control as an independent variable or predictor and Opportunity recognition as a dependent variable explains 6.9% of the total variance of this last variable and is statistically significant ( $F(1, 213) = 16,766, p < .001$ ). Locus of Control proved to be a significant predictor of Opportunity recognition ( $\beta = -.270, p < .001$ ). As the regression coefficient is negative, it means that subjects with Internal Locus of Control have higher Opportunity Recognition values. Thus, the hypothesis stated is confirmed and should be since the majority of studies confirm that entrepreneurship is related to opportunity recognition and Locus of Control is one of the principal traits of entrepreneurship (Asante & Affum-Osei, 2019b).

Table 9 – VD: Opportunity recognition

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,259	,191		22,335	,000
	Locus of Control	-,382	,093	-,270	-4,095	,000***

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

#### **Hypothesis 5 – Individual Entrepreneurial Orientation is positively related to Opportunity Recognition.**

The simple linear regression model with the individual entrepreneurial orientation variable as the independent variable or predictor and the Opportunity recognition as the dependent variable explains 14.2% of the total variance of this last variable and is

statistically significant ( $F(1, 216) = 36.514, p < .001$ ). The IEO proved to be a significant predictor of opportunity recognition ( $\beta = .382, p < .001$ ). As the regression coefficient is positive, it means that the higher the IEO, the higher the opportunity recognition. Thus, the hypothesis stated is confirmed and confirm a wide range of studies relating entrepreneurship and opportunity recognition (Ardichvili et al., 2003; Asante & Affum-Osei, 2019a; Baron & Ensley, 2006; Casson & Wadeson, 2007; Chandra et al., 2009; Fairlie & Fossen, 2018; Grégoire et al., 2010; Jill Kickul, Jianwen Jon Liao, 2010; Linton, 2017; Nicolaou et al., 2009; Shane, 2016; Shu et al., 2018; Yitshaki & Kropp, 2016).

Table – 10 VD: Opportunity recognition

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,506	,332		4,529	,000
	EO	,578	,096	,383	6,043	,000***

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

**Hypothesis 6: Opportunity Recognition is positively related to entrepreneurs' well-being.**

The simple linear regression model with the variable Opportunity Recognition as the independent variable or predictor and the Well Being as the dependent variable explains 0.09% of the total variance of this last variable and is not statistically significant ( $F(1, 213) = 1,830, p = .178$ ). The stated hypothesis is not confirmed, but maybe more studies should be carried out since are scarce the number of studies relating the capability to recognize opportunities with well-being. There are studies confirming the opposite direction, the better is well-being, the higher is the capability to recognize opportunities (Stephan, 2018a, Ming-Huei Chen, Min Tseng, Min-Jun Teng, 2020) and we also must remember that in our study we are limiting well-being analysis to the Life Satisfaction component.

Table 11– VD: Opportunity recognition

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,138	,291		10,799	,000

Oportunity	,110	,082	,092	1,353	,178
Recognition					

Our greatest happiness does not depend on the condition of life in which chance has placed us, but is always the result of a good conscience, good health, occupation, and freedom in all just pursuits.

**Hypothesis 7 – Entrepreneurial Orientation moderates of the relationship between Locus of Control and Opportunity Recognition**

The results indicate that the interaction between Locus of Control and Entrepreneurial orientation is not statistically significant (B=.106, p=.633).

Table 12 – Moderation Regression coefficients

	B	SE
Locus of Control	.067	.77
Entrepreneurial orientation	.733	.44
Interaction	.106	.22
R <sup>2</sup> adj	,191**	

**Hypothesis 8 – Entrepreneurial Orientation affects moderates the relationship between Locus of Control and Well-being**

The results indicate that the interaction between Locus of Control and Entrepreneurial orientation is not statistically significant (B=.513, p=.064).

Table 13 – Moderation Regression coefficients

	B	SE
Locus of Control	-.512***	.11
Entrepreneurial orientation	.082	.12
Interaction	.513	.27
R <sup>2</sup> adj	,101***	

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

In both cases we could discuss whether the used statistic method was the best alternative to analyse the influence of individual entrepreneurial orientation in other

variables, and we could also discuss if IEO is the best construct to analyse the impact, direction and intensity, of locus of control as input variable in well-being or opportunity recognition as output variables, since the literature doesn't bring any relevant contribute in this case.

In fact we almost consider the mediation instead of moderation and we also consider analysing other variables as moderator or mediator. We thought, at least, that individual entrepreneurial orientation could influence the direction and intensity of locus of control influence in well-being and opportunity recognition and that was not the case.

#### 4. CONCLUSION

Our study confirmed, firstly, that 81,4% of real estate agents in Portugal and Brazil work without fixed income, with pre disposition to entrepreneurship through high individual entrepreneurial orientation since autonomy is one of the components of Individual Entrepreneurial Orientation (Bolton & Lane, 2012). The results show that real estate agents have entrepreneurial characteristics and high level of well-being, confirming some studies (Shir & Ryff, 2021; Wiklund et al., 2019). Besides, real estate agents who choose their profession for opportunity reasons feel more in control of their own lives. Portugal has more agents out of necessity than Brazil, which may be a consequence of the last crisis experienced in Portugal. As this study was carried out during the COVID-19 pandemic, it was not possible to evaluate its effects.

The study confirmed that Locus of Control is positively related to real estate agents individual entrepreneurial orientation, ability to recognize opportunities and, well-being. Individual entrepreneurial orientation, on the other hand, is positively related to the opportunity recognition, but not with well-being. This construct also does not demonstrate any influence through moderation neither in the relation between LOC to OR nor LOC to WB.

We do believe that this study brings a small contribute to Real Estate sector, since the majority of studies in this sector are concentrated in physical characteristics like sustainable materials/buildings and not on the psychological impact on agents. Remember that UN settled the 17 Sustainable Development Goals, and GDP is not the unique target for the world. Health and Happiness there are also targets. An owner or a manager in a

company with real estate agents can take advantage of this study to observe the agent's well-being, inputs and outputs, and consequently improve the work environment and company results. We highly recommend more studies using data collected from developers and real estate agents. It's a rich environmental, full of data, researches and it is a sector with a great impact in countries GPD, in general.

This study has some gaps to be deepened in future research. The well-being could be evaluated in a broader analysis in addition to SWL in a hedonic and eudaemonic perspective, including other well-being measures like positive and negative affect. The Locus of Control could also be multidirectional to be more precise. Considering Real Estate agents as entrepreneurs was also an extrapolation and other ways to correlate entrepreneurs to these constructs can be done. We suggest here for future research, to seek further studies on real estate agents, in view of the wealth of diversity that exists between them and their entrepreneurial and self-employment characteristics. It is also suggested researches beyond this particular study but related to real estate market and well-being, like a research to be carried out to compare different types of residences, their sustainability, safety and related physical attributes and their effects on individual well-being, even more newsworthy after Covid-19 pandemic context, where People increasingly seek quality of life in their residential spaces. Studies that correlate physical aspects of buildings and its psychological impacts, like well-being, in short and long term in residents could bring an spectacular positive impact in this giant sector of Real Estate.



## REFERENCES

- Afshan, Dr. G., Memon, Mr. A. A., & Manzoor, Mr. A. (2021). Will I be able to function effectively? Pandemic and its effect on Entrepreneurial Well-being and Post-COVID-19 functioning. *SSRN Electronic Journal*, <https://ssrn.com/abstract=3851655> .
- Amorós, J. E., Cristi, O., & Naudé, W. (2021). Entrepreneurship and subjective well-being: Does the motivation to start-up a firm matter? *Journal of Business Research*, 127(February 2018), 389–398. <https://doi.org/10.1016/j.jbusres.2020.11.044>
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105–123. [https://doi.org/10.1016/S0883-9026\(01\)00068-4](https://doi.org/10.1016/S0883-9026(01)00068-4)
- Aristóteles. (2020). Ética a Nicômaco; Poética. In *e-book* (Issue 2). <https://doi.org/10.1017/CBO9781107415324.004>
- Asante, E. A., & Affum-Osei, E. (2019a). Entrepreneurship as a career choice: The impact of locus of control on aspiring entrepreneurs' opportunity recognition. *Journal of Business Research*, 98(October 2018), 227–235. <https://doi.org/10.1016/j.jbusres.2019.02.006>
- Asante, E. A., & Affum-Osei, E. (2019b). Entrepreneurship as a career choice: The impact of locus of control on aspiring entrepreneurs' opportunity recognition. *Journal of Business Research*, 98(October 2018), 227–235. <https://doi.org/10.1016/j.jbusres.2019.02.006>
- Audretsch, D. B., & Belitski, M. (2015). Is Happiness Conducive to Entrepreneurship ? Exploring Subjective Well-Being – Entrepreneurship Relationship across Major European Cities. *Henley Centre for Entrepreneurship*, September, 1–39. [https://www.henley.ac.uk/files/pdf/research/papers-publications/CFE-2015-01\\_Audretsch\\_and\\_Belitski.pdf](https://www.henley.ac.uk/files/pdf/research/papers-publications/CFE-2015-01_Audretsch_and_Belitski.pdf)
- B. F. Skinner. (1948). *Verbal Behaviour*. *Harvard University Press*.

- Baluku, M. M., Balikoowa, R., Bantu, E., & Otto, K. (2020). Applying self-determination theory to explaining differences in career commitment between self-employed and salaried employees: The role of basic psychological needs. *Journal of Entrepreneurship in Emerging Economies*, 12(5), 593–619. <https://doi.org/10.1108/JEEE-05-2019-0051>
- Baluku, M. M., Bantu, E., & Otto, K. (2018). Effect of Locus of Control on Entrepreneurial Attitudes and Self-Employment Intentions: The Moderating Role of Individualism. *Journal of Enterprising Culture*, 26(03), 251–283. <https://doi.org/10.1142/s0218495818500103>
- Bani-Hani, M. A., & Hamdan-Mansour, A. M. (2021). The moderation effect of locus of control on the relationship between job demand and job satisfaction among nurses. *International Journal of Nursing Practice*, 27(1), 1–10. <https://doi.org/10.1111/ijn.12876>
- Baron, R. A., & Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331–1344. <https://doi.org/10.1287/mnsc.1060.0538>
- Bell, A. S., Rajendran, D., & Theiler, S. (2012). Job stress, wellbeing, work-life balance and work-life conflict among Australian academics. *E-Journal of Applied Psychology*, 8(1), 25–37. <https://doi.org/10.7790/ejap.v8i1.320>
- Bolton, D. L., & Lane, M. D. (2012). Individual entrepreneurial orientation: Development of a measurement instrument. *Education and Training*, 54(2–3), 219–233. <https://doi.org/10.1108/00400911211210314>
- Bulmash, B. (2016). Entrepreneurial Resilience: Locus of Control and Well-being of Entrepreneurs. *Journal of Entrepreneurship & Organization Management*, 05(01), 1–6. <https://doi.org/10.4172/2169-026x.1000171>
- Carland, J. W., Hoy, F., Boulton, W. R., Carland, J. A. C., Boulton, W. R., & Carland, J. O. A. N. N. C. (1984). Linked references are available on JSTOR for this article : Differentiating Entrepreneurs from Small Business Owners : A Conceptualization. *The Academy of Management Review*, 9(2), 354–359.

- Carneiro, L. L., & Fernandes, S. R. P. (2015). Bem-estar pessoal nas organizações e locus de controle no trabalho. *Revista Psicologia Organizações e Trabalho*, 15(3), 257–270. <https://doi.org/10.17652/rpot/2015.3.599>
- Casson, M., & Wadeson, N. (2007). The discovery of opportunities: Extending the economic theory of the entrepreneur. *Small Business Economics*, 28(4), 285–300. <https://doi.org/10.1007/s11187-006-9037-7>
- Chandiramani, K. (2014). Locus of control and subjective wellbeing: Examining gender differences. *Indian Journal of Health and Wellbeing*, 5(3), 325–329.
- Chandra, Y., Styles, C., & Wilkinson, I. (2009). The recognition of first time international entrepreneurial opportunities: Evidence from firms in knowledge-based industries. *International Marketing Review*, 26(1), 30–61. <https://doi.org/10.1108/02651330910933195>
- Charles S. Gascon, & Jacob Haas. (2020). The Impact of COVID-19 on the Residential Real Estate Market | St. Louis Fed. *Federal Reserve Bank of St. Louis.*, 1–5. <https://www.stlouisfed.org/publications/regional-economist/fourth-quarter-2020/impact-covid-residential-real-estate-market>
- Chay, Y. W. (1993). Social support, individual differences and well-being: A study of small business entrepreneurs and employees. *Journal of Occupational and Organizational Psychology*, 66(4), 285–302. <https://doi.org/10.1111/j.2044-8325.1993.tb00540.x>
- Cromie, S. (2000). Assessing entrepreneurial inclinations: Some approaches and empirical evidence. *European Journal of Work and Organizational Psychology*, 9(1), 7–30. <https://doi.org/10.1080/135943200398030>
- Culpin, I., Stapinski, L., Miles, Ö. B., Araya, R., & Joinson, C. (2015). Exposure to socioeconomic adversity in early life and risk of depression at 18 years: The mediating role of locus of control. *Journal of Affective Disorders*, 183, 269–278. <https://doi.org/10.1016/j.jad.2015.05.030>
- Damascena, L. G., França, R. D., & Silva, J. D. G. (2016). Relação entre locus de controle e resiliência: um estudo com profissionais contábeis. *Revista Contemporânea de Contabilidade*, 13(29), 69. <https://doi.org/10.5007/2175-8069.2016v13n29p69>

- Deci, E. L. (1971). Effects of Externally Mediated Rewards on Intrinsic Motivation. *Journal of Personality and Social Psychology*, 18(1), 105–115.
- Deci, E. L., & Ryan, R. M. (2000). Psychological Inquiry : An International Journal for the Advancement of Psychological Theory The " What " and " Why " of Goal Pursuits : Human Needs and the Self-Determination of Behavior The “ What ” and “ Why ” of Goal Pursuits : Human Needs and the Sel. *Psychological Inquiry*, 11(4), 37–41. <https://doi.org/10.1207/S15327965PLI1104>
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, 49(3), 182–185. <https://doi.org/10.1037/a0012801>
- del Giudice, V., de Paola, P., & del Giudice, F. P. (2020). COVID-19 infects real estate markets: Short and mid-run effects on housing prices in Campania region (Italy). *Social Sciences*, 9(9). <https://doi.org/10.3390/SOCSCI9070114>
- dela Coleta, M. F. (1987). Escala multidimensional de locus de controle de Levenson. *Arq. Bras. Psicol. (Rio J. 1979)*, 39(2), 79–97.
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The Eudaimonic and Hedonic Components of Happiness: Qualitative and Quantitative Findings. *Social Indicators Research*, 100(2), 185–207. <https://doi.org/10.1007/s11205-010-9632-5>
- Dickel, P., & Eckardt, G. (2020). Who wants to be a social entrepreneur? The role of gender and sustainability orientation. *Journal of Small Business Management*, 00(00), 1–23. <https://doi.org/10.1080/00472778.2019.1704489>
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34–43. <https://doi.org/10.1037/0003-066X.55.1.34>
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Diener, Suh, Lucas & Smith (1999).pdf. In *Psychological Bulletin* (Vol. 125, pp. 276–302). <https://doi.org/10.1037/0033-2909.125.2.276>
- D’Lima, W., Lopez, L. A., & Pradhan, A. (2020). COVID-19 and Housing Market Effects: Evidence from U.S. Shutdown Orders. *SSRN Electronic Journal*.

- Dolan, P., & Metcalfe, R. (2012). Measuring subjective wellbeing: Recommendations on measures for use by national governments. *Journal of Social Policy*, 41(2), 409–427. <https://doi.org/10.1017/S0047279411000833>
- Donnelly, G. E., Zheng, T., Haisley, E., & Norton, M. I. (2018). The Amount and Source of Millionaires' Wealth (Moderately) Predict Their Happiness. *Personality and Social Psychology Bulletin*, 44(5), 684–699. <https://doi.org/10.1177/0146167217744766>
- Esfandiar, K., Sharifi-Tehrani, M., Pratt, S., & Altinay, L. (2019). Understanding entrepreneurial intentions: A developed integrated structural model approach. *Journal of Business Research*, 94(August 2016), 172–182. <https://doi.org/10.1016/j.jbusres.2017.10.045>
- Espíritu-Olmos, R., & Sastre-Castillo, M. A. (2015). Personality traits versus work values: Comparing psychological theories on entrepreneurial intention. *Journal of Business Research*, 68(7), 1595–1598. <https://doi.org/10.1016/j.jbusres.2015.02.001>
- Eurostat. (2016). *Annual enterprise statistics by size class for special aggregates of activities (NACE Rev. Source of data : Eurostat [ sbs \_ sc \_ sca \_ r2 ] NACE \_ R2 : Total business economy ; repair of computers , personal and household goods ; except financial and i. 000*, Al-Homoud, M. S. (2001). Computer-aided building e.
- Fadzil, A. F., Hashim, U. J., Yaacob, M. R., Sallehudin, H., Muhayiddin, M. N., Mukhtar, D., & Ibrahim, R. M. (2019). Entrepreneurial Psychology and Competencies: Some Perspectives from E-commerce Entrepreneurs in Malaysia. *Journal of Entrepreneurship, Business and Economics*, 7(2), 31–79.
- Fairlie, R. W., & Fossen, F. M. (2018). Opportunity Versus Necessity Entrepreneurship: Two Components of Business Creation. *SSRN Electronic Journal*, September. <https://doi.org/10.2139/ssrn.3132357>
- Farnier, J., Shankland, R., Kotsou, I., Inigo, M., Rosset, E., & Leys, C. (2021). Empowering Well-Being: Validation of a Locus of Control Scale Specific to Well-Being. *Journal of Happiness Studies*, 0123456789. <https://doi.org/10.1007/s10902-021-00380-7>

- Fernet, C., Torrès, O., Austin, S., & St-Pierre, J. (2016). The psychological costs of owning and managing an SME: Linking job stressors, occupational loneliness, entrepreneurial orientation, and burnout. *Burnout Research*, 3(2), 45–53. <https://doi.org/10.1016/j.burn.2016.03.002>
- Frankham, C., Richardson, T., & Maguire, N. (2020). Do Locus of Control, Self-esteem, Hope and Shame Mediate the Relationship Between Financial Hardship and Mental Health? *Community Mental Health Journal*, 56(3), 404–415. <https://doi.org/10.1007/s10597-019-00467-9>
- Freire, T., Zenhas, F., Tavares, D., & Iglésias, C. (2014). Felicidade Hedónica e Eudaimónica: um estudo com adolescentes portugueses. *Análise Psicológica*, 31(4), 329–342. <https://doi.org/10.14417/ap.595>
- Froiland, J. M. (2018). The Intrinsic Learning Goals of Elementary School Students, in Their Own Words. *Journal of Humanistic Psychology*, 1–21. <https://doi.org/10.1177/0022167818763923>
- Gaglio, C. M., & Katz, J. A. (2001). *Gaglio-Katz2001\_Article\_ThePsychologicalBasisOfOpportu.* 95–111.
- Gartner, W. B. (1995). The Describing Framework for Conceptual Creation Venture Phenomenon of New Venture Creation. *Academy of Management Review*, 10(4), 696–706. <https://doi.org/10.1177/026327602761899255>
- Gauger, F., Strych, J. O., & Pfnür, A. (2021). Linking real estate data with entrepreneurial ecosystems: Coworking spaces, funding and founding activity of start-ups. *Data in Brief*, 37, 107185. <https://doi.org/10.1016/j.dib.2021.107185>
- Giacomoni, C. H. (2004). Bem-estar subjetivo: em busca da qualidade de vida. *Temas Psicol. (Online)*, 1(1), 43–50.
- Grégoire, D. A., Barr, P. S., & Shepherd, D. A. (2010). Cognitive processes of opportunity recognition: The role of structural alignment. *Organization Science*, 21(2), 413–431. <https://doi.org/10.1287/orsc.1090.0462>
- Griffin, D. (2014). Locus of Control and Psychological Well-Being: Separating the Measurement of Internal and External Constructs -- A Pilot Study. *Eastern Kentucky University Encompass*, 13.

- Howell, R. T., & Howell, C. J. (2008). The Relation of Economic Status to Subjective Well-Being in Developing Countries: A Meta-Analysis. *Psychological Bulletin*, 134(4), 536–560. <https://doi.org/10.1037/0033-2909.134.4.536>
- IBGE, I. B. de G. e E. (2021). Indicadores IBGE - Constas nacionais trimestrais. *Instituto Brasileiro de Geografia e Estatística - IBGE*. <http://www.ibge.gov.br/%0Ahttp://repositorio.unan.edu.ni/2986/1/5624.pdf%0Ahttps://www.unhcr.org/publications/manuals/4d9352319/unhcr-protection-training-manual-european-border-entry-officials-2-legal.html?query=excom> 1989
- IMPIC. (2018). *2019 broke a trend of population reduction*.
- INE. (2020). Projeções de População Residente 2080 . Contudo , na Área Metropolitana de Lisboa e no Algarve a população residente poderá aumentar. *Destaque Informação à Comunicação Social*, 1–21.
- INE, & Turismo de Portugal, I. (2019). *Portal do INE - Anuário Estatístico de Portugal - 2018*.
- Jill Kickul, Jianwen (Jon) Liao, L. G. (2010). *Firm resources, opportunity recognition, entrepreneurial orientation and performance: the case of Russian women-led family business*.
- Kaklauskas, A., Zavadskas, E. K., Lepkova, N., & Raslanas, S. (2021). *Sustainable Construction Investment , Real Estate Development , and COVID-19 : A Review of Literature in the Field*. 1–42.
- Karkouliau, S., Srour, J., & Sinan, T. (2016). A gender perspective on work-life balance, perceived stress, and locus of control. *Journal of Business Research*, 69(11), 4918–4923. <https://doi.org/10.1016/j.jbusres.2016.04.053>
- Karp, T. (2006). The inner entrepreneur: A constructivistic view of entrepreneurial reality construction. *Journal of Change Management*, 6(3), 291–304. <https://doi.org/10.1080/14697010600876864>
- Kempeneer, S., Peeters, M., & Compennolle, T. (2021). Bringing the user back in the building: An analysis of esg in real estate and a behavioral framework to guide future research. *Sustainability (Switzerland)*, 13(6). <https://doi.org/10.3390/su13063239>

- Kesavayuth, D., Ko, K. M., & Zikos, V. (2018). Locus of control and financial risk attitudes. *Economic Modelling*, 72(July 2017), 122–131. <https://doi.org/10.1016/j.econmod.2018.01.010>
- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, 28(1), 129–137. <https://doi.org/10.1037/h0035519>
- Linton, G. (2017). *Linking Entrepreneurial Orientation and Opportunity Identification to performance*.
- Low, M. B., & Macmillan, I. C. (1988). Entrepreneurship: Past Research and Future Challenges. *Journal of Management*, 14(2), 139–161. <https://doi.org/10.1177/014920638801400202>
- Luca, M. R., & Simo, A.M. (2016). Entrepreneurial Traits and Work Satisfaction. *Bulletin of the Transilvania University of Brasov. Series VII: Social Sciences. Law*, 9(1), 173–180. <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=124245166&site=e=ehost-live>
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance Author ( s ): G . T . Lumpkin and Gregory G . Dess Published by: Academy of Management Stable URL : <http://www.jstor.com/stable/258632> REFERENCES Linked references are available. *Academy of Management Review*, 21(1), 135–172.
- Lumpkin, J. R. (1985). Scale for Survey Research1. *Psychological Reports*, 655–659. <https://doi.org/10.2466/pr0.1985.57.2.655>
- Malhotra, R. (2017). Locus of control and well-being among college students. *Indian Journal of Positive Psychology*, 82(2), 231–236.
- McGregor, J. A., & Pouw, N. (2017). Towards an economics of well-being. *Cambridge Journal of Economics*, 41(4), 1123–1142. <https://doi.org/10.1093/cje/bew044>
- McLeod, S. (2018). Maslow ' s Hierarchy of Needs Maslow ' s Hierarchy of Needs. *Simply Psychology (Www.Simplypsychology.Org/Maslow.Html)*, 3–5.



- Mueller, S. L., & Thomas, A. S. (2000). POTENTIAL: A NINE COUNTRY STUDY OF LOCUS OF CONTROL AND INNOVATIVENESS. *Journal of Business Venturing*, 16, 51–75.
- Nafta, H., & Dudás, F. (2020). *LIVING LONGER, WORKING SMARTER, AGEING WELL* (Issue January, pp. 110–115).
- Nicolaou, N., Shane, S., Cherkas, L., & Spector, T. D. (2009). Opportunity recognition and the tendency to be an entrepreneur: A bivariate genetics perspective. *Organizational Behavior and Human Decision Processes*, 110(2), 108–117. <https://doi.org/10.1016/j.obhdp.2009.08.005>
- Nikolaev, B., Boudreaux, C. J., & Wood, M. (2020). Entrepreneurship and Subjective Well-Being: The Mediating Role of Psychological Functioning. *Entrepreneurship: Theory and Practice*, 44(3), 557–586. <https://doi.org/10.1177/1042258719830314>
- Nikolova, M. (2019a). Switching to self-employment can be good for your health. *Journal of Business Venturing*, 34(4), 664–691. <https://doi.org/10.1016/j.jbusvent.2018.09.001>
- Nikolova, M. (2019b). Switching to self-employment can be good for your health. *Journal of Business Venturing*, 34(4), 664–691. <https://doi.org/10.1016/j.jbusvent.2018.09.001>
- Nowicki, S., & Strickland, B. R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology*, 40(1), 148–154. <https://doi.org/10.1037/h0033978>
- Nunes, L. N. v. (2009). *Universidade de Coimbra Faculdade de Psicologia e de Ciências da Educação Promoção do Bem-Estar Subjetivo dos Idosos através da Intergeracionalidade*.
- OECD. (2013). OECD Guidelines on Measuring Subjective Well-being. In *OECD Guidelines on Measuring Subjective Well-being*. <http://www.oecd-ilibrary.org.proxy1-bib.sdu.dk:2048/docserver/download/3013031e.pdf?expires=1374408063&id=id&accname=guest&checksum=410D90E44144222FE92B5736C489F74A>

- Pelletier, L. G., Dion, S., Tuson, K., & Green-Demers, I. (1999). Why do people fail to adopt environmental protective behaviors? Toward a taxonomy of environmental amotivation. *Journal of Applied Social Psychology*, 29(12), 2481–2504. <https://doi.org/10.1111/j.1559-1816.1999.tb00122.x>
- Promsri, C. (2018). The Influence of External Locus of Control on Life Stress: Evidence from Graduate Students in Thailand. *International Journal of Social Sciences Perspectives*, 3(1), 38–41. <https://doi.org/10.33094/7.2017.2018.31.38.41>
- Riskier, D. C. (1998). Toward an Innovation Typology of Entrepreneurs. *Journal of Small Business and Entrepreneurship*, 15(2), 27–41. <https://doi.org/10.1080/08276331.1998.10593282>
- Rosenbusch, N., Rauch, A., & Bausch, A. (2013). The Mediating Role of Entrepreneurial Orientation in the Task Environment-Performance Relationship: A Meta-Analysis. *Journal of Management*, 39(3), 633–659. <https://doi.org/10.1177/0149206311425612>
- Rotter, J. B. (1966). *Psychological Monographs: General and Applied GENERALIZED EXPECTANCIES FOR INTERNAL VERSUS EXTERNAL CONTROL OF REINFORCEMENT* (Vol. 80, Issue 1).
- Ruiz-Palomino, P., & Martínez-Cañas, R. (2021). From opportunity recognition to the start-up phase: the moderating role of family and friends-based entrepreneurial social networks. *International Entrepreneurship and Management Journal*, 17(3), 1159–1182. <https://doi.org/10.1007/s11365-020-00734-2>
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>

- Ryff, C. D., & Keyes, C. L. M. (1995). The Structure of Psychological Well-Being Revisited. *Journal of Personality and Social Psychology*, *69*(4), 719–727. <https://doi.org/10.1037/0022-3514.69.4.719>
- Sánchez-García, J. C., Vargas-Morúa, G., & Hernández-Sánchez, B. R. (2018). Entrepreneurs' well-being: A bibliometric review. In *Frontiers in Psychology* (Vol. 9, Issue SEP). Frontiers Media S.A. <https://doi.org/10.3389/fpsyg.2018.01696>
- Schjoedt, L., & Shaver, K. G. (2012). Development and validation of a locus of control scale for the entrepreneurship domain. *Small Business Economics*, *39*(3), 713–726. <https://doi.org/10.1007/s11187-011-9357-0>
- Schutte, N. S. (2014). Social Environment Contexts of Trait Emotional Intelligence. *Journal of Human Behavior in the Social Environment*, *24*(7), 741–750. <https://doi.org/10.1080/10911359.2013.866065>
- Seiler, M. J., Zhang, Y., & Zhao, L. (2020a). The effect of real estate ownership on subjective well-being. *Journal of Real Estate Portfolio Management*, *25*(2), 128–137. <https://doi.org/10.1080/10835547.2020.1791646>
- Seiler, M. J., Zhang, Y., & Zhao, L. (2020b). The effect of real estate ownership on subjective well-being. *Journal of Real Estate Portfolio Management*, *25*(2), 128–137. <https://doi.org/10.1080/10835547.2020.1791646>
- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *The American Psychologist*, *60*(5), 410–421. <https://doi.org/10.1037/0003-066X.60.5.410>
- Shane, S. (2016). Linked references are available on JSTOR for this article: Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science*, *11*(4), 448–469.
- Sherman, C. L., Randall, C., & Kauanui, S. K. (2016). Are you happy yet? Entrepreneurs' subjective well-being. *Journal of Management, Spirituality and Religion*, *13*(1), 7–23. <https://doi.org/10.1080/14766086.2015.1043575>
- Shir, N., Nikolaev, B. N., & Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*, *34*(5), 105875. <https://doi.org/10.1016/j.jbusvent.2018.05.002>

- Shir, N., Nikolaev, B. N., & Wincent, J. (2020). *Entrepreneurship: The Path to Well-Being*. 13(1).
- Shir, N., & Ryff, C. D. (2021). Entrepreneurship, Self-Organization, and Eudaimonic Well-Being: A Dynamic Approach. *Entrepreneurship: Theory and Practice*. <https://doi.org/10.1177/10422587211013798>
- Shu, R., Ren, S., & Zheng, Y. (2018). Building networks into discovery: The link between entrepreneur network capability and entrepreneurial opportunity discovery. *Journal of Business Research*, 85(71372064), 197–208. <https://doi.org/10.1016/j.jbusres.2017.12.048>
- Sondari, M. C. (2014). Is Entrepreneurship Education Really Needed?: Examining the Antecedent of Entrepreneurial Career Intention. *Procedia - Social and Behavioral Sciences*, 115(July), 44–53. <https://doi.org/10.1016/j.sbspro.2014.02.414>
- Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., Büssing, A., Dewe, P., Hart, P., Lu, L., Miller, K., Renault de Moraes, L., Ostrognay, G. M., Pagon, M., Pitariu, H. D., Poelmans, S. A. Y., Radhakrishnan, P., Russinova, V., Salamatov, V., ... Yu, S. (2002). Locus of control and well-being at work: How generalizable are western findings? *Academy of Management Journal*, 45(2), 453–466. <https://doi.org/10.2307/3069359>
- Stephan, U. (2018a). Entrepreneurs' mental health and well-being: A review and research Agenda. *Academy of Management Perspectives*, 17(3), 290–322. <https://doi.org/10.5465/amp.2017.0001>
- Stephan, U. (2018b). Entrepreneurs' Mental Health and Well-Being: A Review and Research Agenda Journal: Academy of Management Perspectives Academy of Management Perspectives: *Entrepreneurs' mental health and well-being: a review and research agenda*.
- Stephan, U., Rauch, A., & Hatak, I. (2022). Happy Entrepreneurs? Everywhere? A Meta-Analysis of Entrepreneurship and Wellbeing. In *Entrepreneurship: Theory and Practice* (Vol. 0, Issue 0). <https://doi.org/10.1177/10422587211072799>
- Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*.

- Tanaka, S., & Tokimatsu, K. (2020). Social Capital, Subjective Well-Being, and Happiness: Evidence from a Survey in Various European and Asian Countries to Address the Stiglitz Report. *Modern Economy*, *11*(02), 322–348. <https://doi.org/10.4236/me.2020.112026>
- Tanrıvermiş, H. (2020). Possible impacts of COVID-19 outbreak on real estate sector and possible changes to adopt: A situation analysis and general assessment on Turkish perspective. *Journal of Urban Management*, *9*(3), 263–269. <https://doi.org/10.1016/j.jum.2020.08.005>
- Tay, L., & Diener, E. (2011). Needs and Subjective Well-Being Around the World. *Journal of Personality and Social Psychology*, *101*(2), 354–365. <https://doi.org/10.1037/a0023779>
- Taylor, G., Jungert, T., Mageau, G. A., Schattke, K., Dedic, H., Rosenfield, S., & Koestner, R. (2014). A self-determination theory approach to predicting school achievement over time: The unique role of intrinsic motivation. *Contemporary Educational Psychology*. <https://doi.org/10.1016/j.cedpsych.2014.08.002>
- Thomas W. H. NG, Kelly L. Sorensen, L. T. E. (2006). Locus of control at work: a meta-analysis. *Journal of Organizational Behavior*, *60*(1), 5–22. <https://doi.org/10.1002/job>
- Urbano, D., Aparicio, S., & Audretsch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned? *Small Business Economics*, *53*(1), 21–49. <https://doi.org/10.1007/s11187-018-0038-0>
- Valentine, S. R., Hanson, S. K., & Fleischman, G. M. (2019). The Presence of Ethics Codes and Employees' Internal Locus of Control, Social Aversion/Malevolence, and Ethical Judgment of Incivility: A Study of Smaller Organizations. *Journal of Business Ethics*, *160*(3), 657–674. <https://doi.org/10.1007/s10551-018-3880-8>
- Vogelsang, L. (2015). *Individual Entrepreneurial Orientation: an Assessment of Students*. July, 1–27.
- Wang, X., Dass, M., Arnett, D. B., & Yu, X. (2020). Understanding firms' relative strategic emphases: An entrepreneurial orientation explanation. *Industrial*

- Marketing Management*, 84(August 2018), 151–164.  
<https://doi.org/10.1016/j.indmarman.2019.06.009>
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64(4), 678–691. <https://doi.org/10.1037//0022-3514.64.4.678>
- Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies*, 9(1), 41–79. <https://doi.org/10.1007/s10902-006-9020-7>
- Wiklund, J., Hatak, I., Lerner, D. A., Verheul, I., Thurik, R., & Antshel, K. (2020). Entrepreneurship, Clinical Psychology and Mental Health: an Exciting and Promising New Field of Research. *Academy of Management Perspectives*, 32, 1–11. <https://doi.org/10.5465/amp.2019.0085>
- Wiklund, J., Nikolaev, B., Shir, N., Foo, M. der, & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, 34(4), 579–588. <https://doi.org/10.1016/j.jbusvent.2019.01.002>
- Williams, J. T. (1991). Real estate development as an option. *The Journal of Real Estate Finance and Economics*, 4(2), 191–208. <https://doi.org/10.1007/BF00173124>
- Wilson, W. R. (1967). Correlates of Avowed Happiness. *Psychological Bulletin*, 67(4), 294–306. <https://doi.org/10.1037/h0024431>
- Xia, Y., & Ma, Z. (2020). Social integration, perceived stress, locus of control, and psychological wellbeing among chinese emerging adult migrants: A conditional process analysis. *Journal of Affective Disorders*, 267(January), 9–16. <https://doi.org/10.1016/j.jad.2020.02.016>
- Yang, H., & Ma, J. (2020). How an Epidemic Outbreak Impacts Happiness: Factors that Worsen (vs. Protect) Emotional Well-being during the Coronavirus Pandemic. *Psychiatry Research*, 289(April), 113045. <https://doi.org/https://doi.org/10.1016/j.psychres.2020.113045>

- Yitshaki, R., & Kropp, F. (2016). Motivations and Opportunity Recognition of Social Entrepreneurs. *Journal of Small Business Management*, 54(2), 546–565. <https://doi.org/10.1111/jsbm.12157>
- Zgheib, P. W., & Kowatly, A. K. (2011). Autonomy, Locus of Control, and Entrepreneurial Orientation of Lebanese Expatriates Worldwide. *Journal of Small Business and Entrepreneurship*, 24(3), 345–360. <https://doi.org/10.1080/08276331.2011.10593543>

Websites:

1. <https://www.un.org/en/observances/happiness-day>
2. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
3. <https://www.givingpledge.org/>
4. <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20191125-1?inheritRedirect=true&redirect=%2Feurostat%2F>
5. <https://observador.pt/especiais/viseiras-mascaras-e-desinfetante-como-as-empresas-portuguesas-se-reinventaram-para-lutar-contr-a-covid-19/>
6. <https://data.worldbank.org/country>
7. <https://blog.grupozap.com/crise-faz-numero-de-corretores-aumentar-no-brasil/>
8. <https://www.wellcertified.com/about-iwbi/>
9. <https://www.adultdevelopmentstudy.org/> - Harvard happiness study.
10. <https://www.statista.com/statistics/878412/number-of-smes-in-europe-by-size/>

Livros:

Aristóteles (2020) – *Ética a Nicômaco* [livro eletrônico] / tradução, texto adicionais e notas Edson Bini – Edipro, 2020 (Série Clássicos Edipro).

Audretsch, D. B. (2002). *Entrepreneurship: Determinants and policy in a European-US comparison*. Boston: Kluwer Academic

The Connected Discourses of the Buddha: A Translation of the Samyutta Nikaya  
Hardcover – June 15, 2003

Csikszentmihalyi, Mihaly. (1990). Flow: The Psychology of Optimal Experience.

Frey, B. S., & Stutzer, A. (2002). Happiness & Economics. Princeton, NJ and Oxford:  
Princeton University Press.

Frankl, Viktor E. (1946). Man's Search for Meaning (*Ein Psycholog erlebt das  
Konzentrationslager*). Portuguese edition published by editoraLuadePapel

Kahneman, D., Diener, E., & Schwarz, N. (Eds.) (1999). Bem-Estar: Fundamentos da  
Psicologia Hedônica. Nova Iorque, NY: Fundação Russell Sage.

Ronstadt, R.C. (1984). Entrepreneurship . Dover, MA: Lord Publishing

Schumpeter, J.A. (1951). Change and the entrepreneur. In R.V. Clemence (Ed.),  
Essays of J.A. Schumpeter. Reading, MA: Addison-Wesley

Christensen, P. S., O. O., Madsen and R. Peterson, "Conceptualizing Entrepreneurial  
Opportunity Recognition" In: G. Hills, Ed., Marketing & Entrepreneurship: Research  
Ideas and Opportunities (pp. 61-75), Greenwood Press, Westport, 1994 (Quorum Books).

Hull, C.L., 1943. Principles of behavior: An introduction to behavior theory.

Maslow, A.H., 1943. A theory of human motivation. Psychol. Rev. 50, 370.



## 7. APPENDIXES

Inquérito desenvolvido no âmbito de Tese do ISEG - Lisbon School of Economics & Management, da Universidade de Lisboa e pretende compreender características comportamentais de brokers imobiliários.

Os dados são anónimos e confidenciais, sendo utilizados exclusivamente para fins académicos.

Tempo aproximado de 7 a 9 minutos

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q1	O meu sucesso depende da sorte de estar no lugar certo, na hora certa.					
Q2	Grande parte da minha vida é controlada por acontecimentos acidentais.					
Q3	Quando consigo o que quero, geralmente, é porque tenho sorte.					
Q4	A minha vida é determinada por minhas acções.					
Q5	Quando obtenho o que quero, geralmente, é porque trabalhei muito para isso.					
Q6	Para mim, não é prudente planear a longo prazo, pois os eventos acabam por ser uma questão de sorte/azar.					
Q7	Se sou ou não bem sucedido na vida, depende principalmente de minha capacidade.					
Q8	Sinto que o que acontece em minha vida é determinado principalmente por pessoas em posições de poder.					
Q9	Sinto-me no controlo da minha vida.					
Q10	O sucesso nos negócios é, principalmente, uma questão de sorte.					
Q11	Quando me deparo com o desconhecido, gosto de tomar acções corajosas.					
Q12	Estou disposto(a) a investir muito tempo e/ou dinheiro em algo que possa ter um retorno elevado.					
Q13	Tenho tendência para agir de forma ousada em situações que envolvem riscos.					
Q14	Gosto, frequentemente, de experimentar atividades novas e invulgares que não são necessariamente arriscadas.					
Q15	Em geral, prefiro projetos que enfatizem abordagens únicas e exclusivas que repetir abordagens anteriormente testadas e verdadeiras.					
Q16	Prefiro fazer as coisas à minha maneira quando estou a fazer novas aprendizagens, em vez de fazer o mesmo que os outros.					
Q17	Favoreço a experiência e novas abordagens na resolução de problemas em vez de utilizar métodos que os outros usam para resolver os seus problemas.					
Q18	Habitualmente, ajo antecipadamente em relação a futuros problemas, necessidades ou mudanças.					
Q19	Tenho tendência a planear projetos antecipadamente.					
Q20	Prefiro intervir e envolver-me nos projetos em vez de esperar que outra pessoa o faça por mim.					

		Muito Pouco	Pouco	Mais ou menos	Muito	Muitíssimo
<i>Nos próximos 5 a 10 anos, quão interessado está em:</i>						
Q21	Iniciar um negócio.					
Q22	Adquirir um pequeno negócio.					
Q23	Iniciar e construir um negócio de alto crescimento.					
Q24	Adquirir e construir uma empresa numa area de negócios de alto crescimento.					

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q25	A minha vida parece-se, em quase tudo, com o que eu desejaria que fosse.					
Q26	As minhas condições de vida são muito boas.					
Q27	Estou satisfeito(a) com a minha vida.					
Q28	Até agora, tenho conseguido obter as coisas importantes que desejo na vida.					
Q29	Se eu pudesse recomeçar a minha vida, não mudaria quase nada.					

Inquérito desenvolvido no âmbito de Tese do ISEG - Lisbon School of Economics & Management, da Universidade de Lisboa e pretende compreender características comportamentais de brokers imobiliários.

Os dados são anónimos e confidenciais, sendo utilizados exclusivamente para fins académicos.

Tempo aproximado de 7 a 9 minutos

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q30	Gosto de pensar em novas maneiras de fazer as coisas.					
Q31	Eu frequentemente identifico oportunidades para iniciar novos negócios (mesmo que eu não os procure).					

Q32	Quantas ideias para novos negócios pensou no mês passado?	( ) nenhuma	( ) 1	( ) 2	( ) 3	( ) 4 ou mais
-----	---	-------------	-------	-------	-------	---------------

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q33	Eu frequentemente identifico ideias que podem ser convertidas em novos produtos ou serviços (mesmo que eu não os procure).					
Q34	Eu, geralmente, não tenho ideias que possam materializar-se em empresas lucrativas.					

Q35	Idade.....	_____
Q36	Há quanto tempo é broker/agente imobiliários (Anos)? .....	_____
Q37	Género .....	( ) Masculino ( ) Feminino ( ) Outro
Q38	Está vinculado a alguma agência imobiliária? .....	( ) Sim ( ) Sou Autónomo
Q39	Possui ordenado fixo ou trabalha somente por remuneração variável (comissões)? .....	( ) Sim, possuo ordenado ( ) Não, recebo apenas o que produzir (variável)
Q40	Possui outra fonte de renda além daquela recebida como broker imobiliário? .....	( ) Sim ( ) Não
Q41	Qual era sua situação profissional antes de tornar-se broker? .....	( ) Desempregado ( ) Empregado ( ) outro
Q42	Em sua opinião, tornou-se broker por necessidade ou oportunidade? .....	( ) Oportunidade ( ) Necessidade
Q43	Qual seu nível académico? .....	( ) Não concluiu a instrução fundamental ( ) Fundamental (9. ano) ( ) Ensino Secundário ( ) Licenciatura ( ) Pós-Graduação / MBA ( ) Mestrado ( ) Doutoramento

Questionário desenvolvido para Tese da Universidade de Lisboa (ISEG - Lisbon School of Economics & Management), e tem por objetivo o estudo de características comportamentais de corretores imobiliários.

Os dados são anônimos, confidenciais e com fins exclusivamente acadêmicos.

Tempo aproximado de 7 a 9 minutos

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q1	Meu sucesso depende da sorte de estar no lugar certo, na hora certa.					
Q2	Grande parte da minha vida é controlada por acontecimentos acidentais.					
Q3	Quando consigo o que quero, geralmente, é porque tenho sorte.					
Q4	A minha vida é determinada por minhas próprias ações.					
Q5	Quando obtenho o que quero, geralmente, é porque trabalhei duro para isso.					
Q6	Para mim, não é prudente planejar a longo prazo, porque as coisas acabam por ser uma questão de sorte/azar.					
Q7	Se sou ou não bem sucedido na vida, depende principalmente de minha capacidade.					
Q8	Sinto que o que acontece em minha vida é determinado principalmente por pessoas em posições poderosas.					
Q9	Sinto-me no controle da minha vida.					
Q10	O sucesso nos negócios é, principalmente, uma questão de sorte.					
Q11	Gosto de tomar ações corajosas quando me deparo com o desconhecido.					
Q12	Estou disposto(a) a investir muito tempo e/ou dinheiro em algo que possa ter um retorno elevado.					
Q13	Tenho tendência para agir de forma ousada em situações que envolvem riscos.					
Q14	Gosto, frequentemente, de experimentar atividades novas e invulgares que não são necessariamente arriscadas.					
Q15	Em geral, prefiro projetos que enfatizem abordagens únicas e exclusivas que repetir abordagens anteriormente testadas e verdadeiras.					
Q16	Prefiro fazer as coisas do meu jeito quando estou aprendendo novas coisas do que fazer o mesmo que os outros.					
Q17	Favoreço a experiência e novas abordagens na resolução de problemas em vez de utilizar métodos que os outros usam para resolver os seus problemas.					
Q18	Habitualmente, ajo antecipadamente em relação a futuros problemas, necessidades ou mudanças.					
Q19	Tenho tendência a planejar projetos antecipadamente.					
Q20	Prefiro intervir e envolver-me nos projetos em vez de esperar que outra pessoa o faça por mim.					

		Muito Pouco	Pouco	Mais ou menos	Muito	Muitíssimo
<i>Nos próximos 5 a 10 anos, quão interessado está em:</i>						
Q21	Iniciar um negócio.					
Q22	Adquirir um pequeno negócio.					
Q23	Iniciar e construir um negócio de alto crescimento.					
Q24	Adquirir e construir uma empresa numa área de negócios de alto crescimento.					

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q25	A minha vida parece-se, em quase tudo, com o que eu desejaria que fosse.					
Q26	As minhas condições de vida são muito boas.					
Q27	Estou satisfeito(a) com a minha vida.					
Q28	Até agora, tenho conseguido obter as coisas importantes que desejo na vida.					
Q29	Se eu pudesse recomeçar a minha vida, não mudaria quase nada.					

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q30	Gosto de pensar em novos jeitos de fazer as coisas.					
Q31	Eu frequentemente identifico oportunidades para iniciar novos negócios (mesmo que eu não os procure).					

Q32	Quantas ideias para novos negócios pensou no mês passado?	( ) nenhuma	( ) 1	( ) 2	( ) 3	( ) 4 ou mais
-----	---	-------------	-------	-------	-------	---------------

		Discordo totalmente	Discordo	Não concordo, nem discordo	Concordo	Concordo totalmente
Q33	Eu frequentemente identifico ideias que podem ser convertidas em novos produtos ou serviços (mesmo que eu não os procure).					
Q34	Eu, geralmente, não tenho ideias que possam materializar-se em empresas lucrativas.					

Q35	Idade.....	_____				
Q36	Há quanto tempo é corretor imobiliário (Anos)? .....	_____				
Q37	Gênero .....	( ) Masculino	( ) Feminino	( ) Outro		
Q38	Está vinculado a alguma imobiliária? .....	( ) Sim	( ) Sou Autônomo			
Q39	Possui salário fixo ou trabalha somente por remuneração variável (comissões)? .....	( ) Sim, possuo salário	( ) Não, recebo apenas o que produzir (variável)			
Q40	Possui outra fonte de renda além daquela recebida como corretor imobiliário? .....	( ) Sim	( ) Não			
Q41	Qual era sua situação profissional antes de tornar-se corretor? .....	( ) Desempregado	( ) Empregado	( ) outro		
Q42	Em sua opinião, tornou-se corretor por necessidade ou oportunidade? .....	( ) Oportunidade ( ) Necessidade				
Q43	Qual seu nível acadêmico? .....	( ) Não concluiu a instrução fundamental				
		( ) Fundamental (9. ano)	( ) Ensino Médio			
		( ) Universitário	( ) Pós-Graduação / MBA			
		( ) Mestrado	( ) Doutorado			



# CULTURE AND ENTREPRENEURIAL POTENTIAL: A NINE COUNTRY STUDY OF LOCUS OF CONTROL AND INNOVATIVENESS

STEPHEN L. MUELLER

*Florida International University, Miami, FL*

ANISYA S. THOMAS

*Florida International University, and Stockholm School of  
Economics, Stockholm, Sweden*

66 S.L. MUELLER AND A.S. THOMAS

**TABLE 2** Logistic Regression Analysis: Effects of Culture and Gender on Locus on Control and Innovativeness

	H1 Internal Locus of Control	H2 Innovativeness	H3 Entrepreneurial Orientation (Innovativeness + Internal LOC)		
Intercept	1.3265*** (0.1172)	0.8363*** (0.1482)	1.3283*** (0.1745)	2.3972*** (0.1558)	2.1718*** (0.1280)
Gender (Male = 1, Female = 0)	0.0710 (0.0959)	0.5787*** (0.0984)	0.6041*** (0.1200)	0.5231*** (0.1210)	0.5503*** (0.1209)
Individualism	0.0166*** (0.0016)		0.0131*** (0.0020)		
Uncertainty Avoidance		0.0017 (0.0022)		-0.0055* (0.0026)	
Entrepreneur Supportive (Low UA × IDV)					0.0002*** (0.0000)

Std. Errors in Parentheses; \*\* \*p < 0.001; \* \*p < 0.01; \* p < 0.05.

- Extracted and compiled parts of the original article

## **APPENDIX**

### **Survey Items Related to Locus of Control and Innovativeness**

Respondents were to indicate the extent to which they agree or disagree with the following statements. Five structured choices were offered: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree.

Ten items comprise the locus of control scale (adapted from Rotter 1966):

1. My success depends on whether I am lucky enough to be in the right place at the right time.
2. To a great extent my life is controlled by accidental happenings.
3. When I get what I want, it is usually because I am lucky.
4. My life is determined by my own actions.
5. When I get what I want, it is usually because I worked hard for it.
6. It is not wise for me to plan too far ahead, because things turn out to be a matter of bad fortune.
7. Whether or not I am successful in life depends mostly on my ability.
8. I feel that what happens in my life is mostly determined by people in powerful positions.
9. I feel in control of my life.
10. Success in business is mostly a matter of luck.

Eight items comprise the innovativeness scale (adapted from Jackson Personality Inventory 1994):

1. I often surprise people with my novel ideas.
2. People often ask me for help in creative activities.
3. I obtain more satisfaction from mastering a skill than coming up with a new idea.
4. I prefer work that requires original thinking.
5. I usually continue doing a new job in exactly the way it was taught to me.
6. I like a job which demands skill and practice rather than inventiveness.
7. I am not a very creative person.
8. I like to experiment with various ways of doing the same thing.

# Individual entrepreneurial orientation: development of a measurement instrument

Individual  
entrepreneurial  
orientation

219

Dawn Langkamp Bolton  
*Department of Management, Western Kentucky University,  
Bowling Green, Kentucky, USA, and*

Michelle D. Lane  
*Department of Management, Humboldt State University,  
Arcata, California, USA*

Received 14 March 2011  
Revised 20 May 2011  
25 July 2011  
Accepted 12 August 2011

**Table VI.**  
Correlation matrix of validated constructs

	1	2	3	4	5
1. Risk-taking subscale	1				
2. Innovative subscale	0.47**	1			
3. Proactiveness subscale	0.25**	0.34**	1		
4. I would like to work for myself	0.27**	0.33**	0.21**	1	
5. I would like to start my own venture	0.36**	0.36**	0.19**	0.78**	1

Note: \*\*Correlation is significant at the 0.01 level (two-tailed)

Item	Component		
	1	2	3
RISK2 [...] bold action by venturing into the unknown	0.18	-0.06	0.73
RISK3 [...] invest [...] yield a high return	-0.12	0.17	0.74
RISK5 [...] act "boldly" [...] where risk is involved	-0.03	-0.10	0.87
INNOV1 [...] try new and unusual activities [...]	0.51	0.13	0.12
INNOV3 [...] unique, one-of-a-kind approaches [...]	0.78	-0.05	-0.03
INNOV4 [...] prefer to try my own unique way [...]	0.81	0.06	-0.10
INNOV5 [...] favour experimentation/original approaches [...]	0.73	-0.02	0.10
PROACT1 [...] act in anticipation of future problems [...]	0.10	0.70	-0.04
PROACT4 [...] plan ahead on projects	-0.12	0.86	-0.02
PROACT5 [...] prefer [...] to get things going [...]	0.07	0.78	0.06
Eigenvalues	3.43	1.51	1.05

Notes: Extraction method: principal component analysis; rotation method: promax with Kaiser normalisation. Rotation converged in five iterations

**Table V.**  
Factor analysis for final three factors with final items

RISK2	I like to take bold action by venturing into the unknown
RISK3	I am willing to invest a lot of time and/or money on something that might yield a high return
RISK5	I tend to act "boldly" in situations where risk is involved
INNOV1	I often like to try new and unusual activities that are not typical but not necessarily risky
INNOV3	In general, I prefer a strong emphasis in projects on unique, one-of-a-kind approaches rather than revisiting tried and true approaches used before
INNOV4	I prefer to try my own unique way when learning new things rather than doing it like everyone else does
INNOV5	I favour experimentation and original approaches to problem solving rather than using methods others generally use for solving their problems
PROACT1	I usually act in anticipation of future problems, needs or changes
PROACT4	I tend to plan ahead on projects
PROACT5	I prefer to "step-up" and get things going on projects rather than sit and wait for someone else to do it

Individual  
entrepreneurial  
orientation

229

**Table VII.**  
Ten items measuring individual entrepreneurial orientation





## Opportunity recognition and the tendency to be an entrepreneur: A bivariate genetics perspective

Nicos Nicolaou<sup>a,\*</sup>, Scott Shane<sup>b</sup>, Lynn Cherkas<sup>c</sup>, Tim D. Spector<sup>c</sup>

<sup>a</sup> Department of Public and Business Administration, University of Cyprus, 1678 Nicosia, Cyprus

<sup>b</sup> Weatherhead School of Management, Case Western Reserve University, 11119 Bellflower Rd., Cleveland, OH 44106, United States

<sup>c</sup> Twin Research and Genetic Epidemiology Unit, King's College London, St Thomas' Hospital Campus, London, SE1 7EH, United Kingdom

N. Nicolaou et al. / Organizational Behavior and Human Decision Processes 110 (2009) 108–117

113

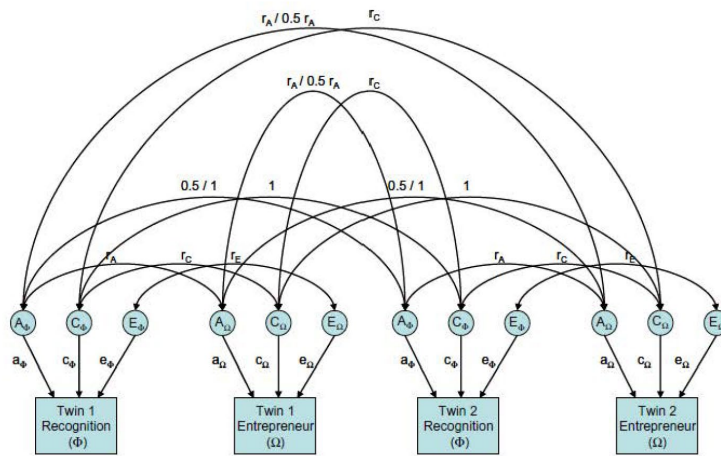


Fig. 2. Path diagram for opportunity recognition and the tendency to be an entrepreneur.

**Table 1**  
Descriptive statistics and correlations.

Variable	$\mu$	$\sigma$	1	2	3	4	5	6	7	8
1. Opportunity recognition scale	1.37	0.82								
2. Age	55.6	12.9	-.18							
3. Religion	.10	.30	.05	-.10						
4. Children	.73	.44	-.04	.30	-.05					
5. Businesses started	.34	.75	.34	.03	.05	.04				
6. Companies owned and operated	.23	.64	.22	.00	.02	.02	.65			
7. Years self-employed	.65	1.30	.21	.09	.04	.07	.59	.50		
8. Start-up efforts	.44	.91	.41	.01	.02	.03	.69	.49	.43	
9. Entrepreneurship scale	.41	.73	.35	.05	.04	.05	.87	.76	.84	.78

### *Measure of opportunity recognition*

We measure opportunity recognition through the use of a five-item scale composed of the following questions drawn from the literature on opportunity recognition (Baron & Ozgen, 2007; Singh et al., 1999): (In all five opportunity recognition questions we used a five point scale from one to five. In four of these questions the answer categories ranged from “strongly disagree” to “strongly agree”. With the third question the answer categories were “none”, “one”, “two”, “three”, “four or more”, the respective answers were coded from one to five.)

- I enjoy thinking about new ways of doing things.
- I frequently identify opportunities to start-up new businesses (even though I may not pursue them).
- How many ideas for new businesses did you think of in the past month?

# Ed Diener

Joseph R. Smiley Distinguished Professor Emeritus of Psychology  
Senior Scientist for the Gallup Organization



Home

Contacts & Links

Ed Diener & Lab

RESEARCH

SCALES

Inquiries

FIND STUFF

Search

Only search this site

## Scales

Overview

Satisfaction with Life Scale (SWLS)

Scale of Positive and Negative Experience (SPANE)

Flourishing Scale (FS)

Scales for Children and Teenagers

Affect Intensity Measure

Inventory of thriving (CIT & BIT)

## Satisfaction With Life Scale (SWLS)

### Permission to Use

The scale is copyrighted but you are free to use it without permission or charge by all professionals (researchers and practitioners) as long as you give credit to the authors of the scale: Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the *Journal of Personality Assessment*.

### About SWLS

The SWLS is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. The scale usually requires only about one minute of a respondent's time.

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

\_\_\_\_\_ In most ways my life is close to my ideal.

\_\_\_\_\_ The conditions of my life are excellent.

\_\_\_\_\_ I am satisfied with my life.

\_\_\_\_\_ So far I have gotten the important things I want in life.

\_\_\_\_\_ If I could live my life over, I would change almost nothing.

- 31 - 35 Extremely satisfied
- 26 - 30 Satisfied
- 21 - 25 Slightly satisfied
- 20 Neutral
- 15 - 19 Slightly dissatisfied
- 10 - 14 Dissatisfied
- 5 - 9 Extremely dissatisfied

Extracted and compiled parts of the original article and website  
<http://labs.psychology.illinois.edu/~ediener/SWLS.html>

**III. SLWS – Satisfaction With Life Scale (Diener et al., 1985); (Escala de Satisfação com a Vida, versão portuguesa de Simões, 1992)**

Esta escala compreende cinco frases com as quais poderá concordar ou discordar. Utilize a escala de 1 a 5 e marque uma cruz (X) no quadrado que melhor indica a sua resposta.

	Discordo muito (1)	Discordo um pouco (2)	Não concordo, nem discordo (3)	Concordo um pouco (4)	Concordo muito (5)
1. A minha vida parece-se, em quase tudo, com o que eu desejaria que fosse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. As minhas condições de vida são muito boas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Estou satisfeito(a) com a minha vida.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Até agora, tenho conseguido as coisas importantes da vida, que eu desejaria.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Se eu pudesse recomeçar a minha vida, não mudaria quase nada.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Tabela 23:** Matriz de intercorrelações entre a variável independente, bem-estar subjectivo e variáveis sociodemográficas contínuas.

	BES	Actividades Intergeracionais	Idade	Nº Filhos	Nº Netos	Contacto c/ Netos menores	Saúde
BES	1						
Actividades Intergeracionais	.47**	1					
Idade	-.05	.12	1				
Nº Filhos	-.265	-.13	.12	1			
Nº Netos	-.21	-.03	.07	.59**	1		
Contacto c/ Netos menores	.16	.75**	.11	-.20	.14	1	
Saúde	.24	.03	-.12	-.20	-.23	.12	1

\*\* Correlação significativa a  $p < .01$

**Tabela 22:** Matriz de intercorrelações entre a variável independente, variáveis dependentes e variáveis sociodemográficas contínuas.

	Actividades Intergeracionais	SWLS	Afectos Positivos	Afectos Negativos	Idade	Nº Filhos	Nº Netos	Contacto c/ Netos menores	Saúde
Actividades Intergeracionais	1.00								
SWLS	.34	1.00							
Afectos Positivos	.41*	.49**	1.00						
Afectos Negativos	-.20	.01	-.06	1.00					
Idade	.12	-.13	-.09	-.13	1.00				
Nº Filhos	-.13	-.13	-.25	.15	.12	1.00			
Nº Netos	-.03	-.19	-.10	.16	.07	.59**	1.00		
Contacto c/ Netos menores	.75**	-.20	.09	-.45	.11	-.20	.14	1.00	
Saúde	.03	.32	.28	.14	-.12	-.20	-.23	.12	1.00

\* Correlação significativa a  $p < .05$

\*\* Correlação significativa a  $p < .01$

## **Understanding Scores on the Satisfaction with Life Scale**

### **Ed Diener**

(Note: If we divide by the number of questions, rather than use the summed aggregate score, then the cutoffs below instead should be:

6-7  
5-6  
4-5  
3-4  
2-3  
1-2

#### **30 – 35 Very high score; highly satisfied**

Respondents who score in this range love their lives and feel that things are going very well. Their lives are not perfect, but they feel that things are about as good as lives get. Furthermore, just because the person is satisfied does not mean she or he is complacent. In fact, growth and challenge might be part of the reason the respondent is satisfied. For most people in this high-scoring range, life is enjoyable, and the major domains of life are going well – work or school, family, friends, leisure, and personal development.

#### **25- 29 High score**

Individuals who score in this range like their lives and feel that things are going well. Of course their lives are not perfect, but they feel that things are mostly good. Furthermore, just because the person is satisfied does not mean she or he is complacent. In fact, growth and challenge might be part of the reason the respondent is satisfied. For most people in this high-scoring range, life is enjoyable, and the major domains of life are going well – work or school, family, friends, leisure, and personal development. The person may draw motivation from the areas of dissatisfaction.

#### **20 – 24 Average score**

The average of life satisfaction in economically developed nations is in this range – the majority of people are generally satisfied, but have some areas where they very much would like some improvement. Some individuals score in this range because they are mostly satisfied with most areas of their lives but see the need for some improvement in each area. Other respondents score in this range because they are satisfied with most domains of their lives, but have one or two areas where they would like to see large improvements. A person scoring in this range is normal in that they have areas of their lives that need improvement. However, an individual in this range would usually like to move to a higher level by making some life changes.

#### **15 – 19 Slightly below average in life satisfaction**

People who score in this range usually have small but significant problems in several areas of their lives, or have many areas that are doing fine but one area that represents a substantial problem for them. If a person has moved temporarily into this level of life satisfaction from a higher level because of some recent event, things will usually improve over time and satisfaction will generally move back up. On the other hand, if a person is chronically slightly dissatisfied with many areas of life, some changes might be in order. Sometimes the person is simply expecting too much, and sometimes life changes are needed. Thus, although temporary dissatisfaction is common and normal, a chronic level of dissatisfaction across a number of areas of life calls for reflection. Some people can gain motivation from a small level of dissatisfaction, but often dissatisfaction across a number of life domains is a distraction, and unpleasant as well.

### **10 – 14 Dissatisfied**

People who score in this range are substantially dissatisfied with their lives. People in this range may have a number of domains that are not going well, or one or two domains that are going very badly. If life dissatisfaction is a response to a recent event such as bereavement, divorce, or a significant problem at work, the person will probably return over time to his or her former level of higher satisfaction. However, if low levels of life satisfaction have been chronic for the person, some changes are in order – both in attitudes and patterns of thinking, and probably in life activities as well. Low levels of life satisfaction in this range, if they persist, can indicate that things are going badly and life alterations are needed. Furthermore, a person with low life satisfaction in this range is sometimes not functioning well because their unhappiness serves as a distraction. Talking to a friend, member of the clergy, counselor, or other specialist can often help the person get moving in the right direction, although positive change will be up to the person.

### **5 – 9 Extremely Dissatisfied**

Individuals who score in this range are usually extremely unhappy with their current life. In some cases this is in reaction to some recent bad event such as widowhood or unemployment. In other cases, it is a response to a chronic problem such as alcoholism or addiction. In yet other cases the extreme dissatisfaction is a reaction due to something bad in life such as recently having lost a loved one. However, dissatisfaction at this level is often due to dissatisfaction in multiple areas of life. Whatever the reason for the low level of life satisfaction, it may be that the help of others are needed – a friend or family member, counseling with a member of the clergy, or help from a psychologist or other counselor. If the dissatisfaction is chronic, the person needs to change, and often others can help.

Part that is common to each category

To understand life satisfaction scores, it is helpful to understand some of the components that go into most people's experience of satisfaction. One of the most important influences on happiness is social relationships. People who score high on life satisfaction tend to have close and supportive family and friends, whereas those who do not have close friends and family are more likely to be dissatisfied. Of course the loss of a close friend or family member can cause dissatisfaction with life, and it may take quite a time for the person to bounce back from the loss.

Another factor that influences the life satisfaction of most people is work or school, or performance in an important role such as homemaker or grandparent. When the person enjoys his or her work, whether it is paid or unpaid work, and feels that it is meaningful and important, this contributes to life satisfaction. When work is going poorly because of bad circumstances or a poor fit with the person's strengths, this can lower life satisfaction. When a person has important goals, and is failing to make adequate progress toward them, this too can lead to life dissatisfaction.

A third factor that influences the life satisfaction of most people is personal – satisfaction with the self, religious or spiritual life, learning and growth, and leisure. For many people these are sources of satisfaction. However, when these sources of personal worth are frustrated, they can be powerful sources of dissatisfaction. Of course there are additional sources of satisfaction and dissatisfaction – some that are common to most people such as health, and others that are unique to each individual. Most people know the factors that lead to their satisfaction or dissatisfaction, although a person's temperament – a general tendency to be happy or unhappy – can color their responses.

There is no one key to life satisfaction, but rather a recipe that includes a number of ingredients. With time and persistent work, people's life satisfaction usually goes up when they are dissatisfied. People who have had a loss recover over time. People who have a dissatisfying relationship or work often make changes over time that will increase their dissatisfaction. One key ingredient to happiness, as mentioned above, is social relationships, and another key ingredient is to have important goals that derive from one's values, and to make progress toward those goals. For many people it is important to feel a connection to something larger than oneself. When a person tends to be chronically dissatisfied, they should look within themselves and ask whether they need to develop more positive attitudes to life and the world.

Copyright by Ed Diener, February 13, 2006  
Use is free of charge and granted by permission.