



ENTREPRENEURSHIP, WORK VALUES AND HAPPINESS: ARE THERE ANY GENDER DIFFERENCES?

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Bio

Andreia Moreira was born in Portugal on October 14th, 1993. She started a Master of Environmental Engineering at Faculdade de Engenharia do Porto but in 2013 decided to change the area of studies. She graduated in Management from the Faculdade de Economia do Porto in 2016. Along with the studies, she took different experiences in the work field as in the area of accounting and customer relationship management. Since October 2018 she has integrated the team of Communication and Management of risk at Sonae Mc. She is passionate about travelling and curious to explore new cultures and her subjects of interest are, quality of life, sustainability and equality matters.

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Abstract

Entrepreneurship has been seen as a way of promoting economic growth as well as the creation of new businesses. In spite of a voluminous literature on entrepreneurship, two issues are yet overlooked, particularly in a gender perspective. A first issue regards to the relation between the relative importance entrepreneurs attribute to work values compared to other life values. The empirical evidence on this topic is scarce but the few extant studies did not explore whether such relation differ when we analyze female entrepreneurs rather than overall entrepreneurs or male entrepreneurs. A second issue refers to the impact of entrepreneurship on well-being /happiness. Again, the empirical literature is meagre and failed to address the gender perspective.

In order to fill these gaps, the present study resorts the 2016 World Values Survey (WVS), which reports the period 2010-2013 and includes 61 countries, comprising 51725 individuals with an occupation (41.3% of whom are women and 20.3% are entrepreneurs), as well as the European Values Survey, which reports to the period 2017-2018, including 16 European countries and comprising 10872 individuals with an occupation (51% of whom are women and 10% are entrepreneurs) and tests whether, the importance attributed to work values by female and male entrepreneurs is higher than that attributed to their non-entrepreneurs counterparts. Additionally, whether female and male entrepreneurs tend to be happier than female and male non-entrepreneurs. The methodology used is quantitative, more specifically, logistic regressions.

The estimations convey the following main results: 1) No matter the gender, entrepreneurs attribute more importance to work values than non-entrepreneurs; 2) Women entrepreneurs tend to give more importance to responsible job and less to generous holidays and good pay, when compared to women who are not entrepreneurs, whereas men entrepreneurs, compared to their male employees, underline use initiative and achieving something as important job attributes, downplaying attributes such as good pay and generous holidays; 3) Although regardless the gender being an entrepreneur is positively associated with happiness, the impact of the entrepreneurial status on happiness is higher for women than for men.

Summing up, our study suggests that although the determinants of female and male entrepreneurship are not very distinct, with work values impacting significantly in the propensity of being an entrepreneur, the relevance of given job attributes - responsible job, use initiative and achieving something - impact differently in female and male entrepreneurs. Moreover, entrepreneurship is related to happiness for both females and males, but the impact on females is more pronounced.

Keywords: Entrepreneurship; Women/Female entrepreneurship; Self-employment; Entrepreneurship propensity; Work values; Happiness/ Well-being.

Resumo

O empreendedorismo é visto como uma maneira de promover o crescimento económico assim como a criação de novos negócios. Apesar da extensa literatura sobre empreendedorismo, o tema está ainda muito por explorar na perspetiva do género. A primeira questão prende-se com a relação entre a importância que os empreendedores atribuem aos valores do trabalho quando comparados com os outros valores da vida. A evidência empírica acerca deste tópico é escassa e os poucos estudos existentes não exploram se tal relação difere quando analisamos mulheres empreendedoras face aos empreendedores no geral ou aos homens empreendedores. Uma segunda questão refere-se ao possível impacto do empreendedorismo no bem-estar/felicidade. Mais uma vez, a literatura é escassa e negligencia a perspetiva do género.

De modo a preencher as lacunas encontradas, o presente estudo recorre ao World Values Survey (WVS) de 2016, reportado ao período 2010-2013, que inclui 61 países e compreende 51.725 indivíduos (dos quais 41.3% são mulheres e 20.3% são empreendedores) bem como ao European Values Survey, que reporta ao período 2017-2018, inclui 16 países Europeus e compreende 10.872 indivíduos (sendo 51% mulheres e 10% empreendedores), para testar se, no caso das mulheres empreendedoras, a importância atribuída aos valores do trabalho é maior do que a atribuída pelas não empreendedoras. Adicionalmente, também é testado se as mulheres empreendedoras tendem a ser mais felizes do que as não empreendedoras. Para tal, a metodologia usada será quantitativa, mais especificamente a regressão logística.

As estimações permitem inferir os seguintes resultados: 1) Independentemente do género, os empreendedores atribuem mais importância aos valores do trabalho do que não empreendedores; 2) Mulheres empreendedoras tendem a dar mais importância à responsabilidade do trabalho e menos a férias generosas e bons salários, quando comparadas com não empreendedoras; relativamente aos empreendedores homens, quando comparados com não empreendedores, consideram importante numa ocupação/trabalho o uso de iniciativa e atingir objetivos, dando menos valor a atributos como bons salários e férias generosas; 3) Seja qual for o género, ser empreendedor está positivamente associado à felicidade; no entanto, o impacto de ser-se empreendedor na felicidade é maior no caso das mulheres do que nos homens.

Concluindo, este estudo sugere que embora as determinantes do empreendedorismo feminino e masculino não sejam muito distintas, com os valores do trabalho a impactar significativamente na propensão ao empreendedorismo, a importância de determinados atributos do trabalho - trabalho responsável, o uso de iniciativa e realização de algo - impacta distintamente nos empreendedores mulheres e homens. Além disso, o empreendedorismo está relacionado com felicidade tanto para as mulheres quanto para os homens, mas o impacto sobre as mulheres é mais significativo.

Palavras-chave: Empreendedorismo; Empreendedorismo Feminino; Empreendedor; Propensão ao empreendedorismo; Valores do trabalho; Felicidade/ Bem-estar.

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1. Introduction

Considerable evidence exists that entrepreneurship, as reflected in new businesses creation, is significantly and positively related to countries' economic growth (Acs, Estrin, Mickiewicz, & Szerb, 2018). As such, promoting entrepreneurship and implementing policies to encourage the creation of new ventures and jobs has been a major concern for both developed and developing countries (Meyer, 2018).

Over the years, entrepreneurship has been seen and studied by the lenses of male entrepreneurship (Marlow & Dy, 2018). Studies on women/ female entrepreneurship emerged in the 1970s (Meyer, 2018), but only in the last decade the publication of such research in well renowned and indexed sources observed a noticeable spurt.

A myriad of topics have been explored by these latter studies including (Ahl, 2006; Poggese, Mari, & De Vita, 2016; Sullivan & Meek, 2012): the psychology of women entrepreneurs; their personal background and business characteristics; attitudes to entrepreneurship; intentions to start a business; the start-up process; management practices, strategies, networking; family issues; access to capital, and performance; differences between male and female entrepreneurs in terms of educational levels, prior experiences of work (especially working in manager positions), and motivations to pursue entrepreneurship.

Although recognizing the marked dynamics of women entrepreneurship research, several authors (e.g., Marlow & Dy, 2018; Poggese et al., 2016) argue for the need to enlarge empirical evidence and extend the discussion to better understand the links between gender and entrepreneurship. Additionally, Brush, Ali, Kelley, and Greene (2017) underline the importance to undertake empirical studies at the individual level.

Two dimensions of entrepreneurship that have been relatively overlooked are those related to work values (Almeida & Teixeira, 2017) and happiness/well-being (Sánchez-García, Vargas-Morúa, & Hernández-Sánchez, 2018). Moreover, the gender issues have not yet been addressed in a sufficient manner, involving a very scanty research. For instance, some of the existing research dealing with women entrepreneurs explore issues such as entrepreneurship as a way of gaining more control over work/ life stability (Ratten & Tajeddini, 2018), the challenges faced by women's businesses when it comes to their expansion and growth, the lack of equality of access to opportunities and research for women (Meyer, 2018), and the relationship between having young children and the involvement of women in the labor force (Bögenhold & Fachinger, 2016). In spite of such remarkable contributions, evidence

regarding the relation between women entrepreneurship and happiness and women entrepreneurship and work values is, to the best of our knowledge, non-existent.

Examining the eventual differences between women entrepreneurs vs. women employees and men entrepreneurs vs. men employees would contribute to illuminate a process model of gender and entrepreneurship that builds from and extends research linking the psychology and entrepreneurship literatures.

Thus, the purpose of the present dissertation is to explore to what extent work values and happiness/well-being differ between female and male entrepreneurs vis à vis their non-entrepreneur counterparts. Two main research questions are addressed: 1) Does the impact of work values on entrepreneurship propensity differ between female entrepreneurs and male entrepreneurs?; and 2) Does the impact of entrepreneurial status on well-being/ happiness differ between female entrepreneurs and male entrepreneurs?

For pursuing such goal, we rely on quantitative methodologies, most notably logistics regressions based on data from the World Values Survey 2016, reported to the period 2010-2013, which comprises 51725 individuals from 61 countries and data from the European Value Survey from 16 countries, reported to 2017-2018, comprising 10872 individuals.

The present dissertation is structured as follows. The next section analyses the relevant literature by clarifying the concepts of entrepreneurship, women entrepreneurship, work values and happiness as well as the relation between those topics. Section 3 describes the methodology, whereas Section 4 presents and discusses the empirical results. In Conclusions the main outcomes of this study are presented, as well as its limitations and possible avenues for further research.

2. Literature review on the relation between work values, happiness and entrepreneurship: gender differences

2.1. Main concepts

2.1.1. Entrepreneurship and women/ female entrepreneurship

Multiple definitions can be found in the literature when it comes to entrepreneurship. While some authors (e.g. Gartner, 1990; Naudé, Amorós, & Cristi, 2014) emphasize that entrepreneurship entails the establishment of an organization, both self-employed or involving collaborators, others see it in a wider perspective. For instance, earlier contributions, such as that of Schumpeter (1947), consider entrepreneurs those who create new arrangements, new markets, product, or spreading structures. Following a similar line of thought, Shane and Venkataraman (2000) consider entrepreneurs are individuals who uncover, appraise and explore new ways to create future products or services. Some authors go even further, arguing that entrepreneurs do not necessarily need to create an organization, they can be a part of a corporate system encompassing individuals whose abilities allow them to lead and incorporate new and better ways to deliver products, processes or concepts, promoting innovation inside the company they work in (Ferguson & Condoor, 2013; Shane, 2003).

Regarding the definition of women entrepreneurs, extant literature considers women who start and own their own businesses (Brush, 1992; Perez-Perez & Aviles-Hernandez, 2016) or, more demanding, females who besides owning a business also manage it (Minniti & Naudé, 2010; Moore & Buttner, 1997). Khanka (2000) describes female entrepreneurs as women skilled enough for being economically independent by their own, or with cooperation, self-confident, inventive and creative that builds job opportunities for others throughout originating, establishing and administrating a business by harmonizing it with her personal, family and social life. The family issue is also highlighted by Ameen and Willis (2016) who consider female entrepreneurs those women who create new chances for themselves and ensure economic security for their families. Finally, departing from the definition used in the European Parliament resolution of September 13 of 2011, Navarro and Jimenez (2016) contend that women entrepreneurs are female who generated a business in which they have the majority of the shares and are dynamically interested in being involved in the decision making process, risk taking and the everyday management.

2.1.2. Work values

Most academics agree that values are standards or criteria for selecting one's ambitions or conducting actions and are quite lasting and steady over time (Schwartz & Bilsky, 1987). Those values may be influenced by the way societal organizations (for example, religious, educational, political, families) work and how they define their value priorities (Schwartz, 1999). However, individual's priorities result from their collective culture as well as their intimate experience (Vuorio, Puumalainen, & Fellnhofer, 2018). When entering the corporate field, some organizational researchers (Dose, 1997; Hirschi & Fischer, 2013) use the expression 'work values' to cover several opinions from professional ethics to work inclinations. Dose (1997) defines work values as evaluative principles related to the professional activity or the work atmosphere through what individuals determine what is 'more correct' or through what they decide their preferences importance. Some of these selections of work values may be linked with collective unanimity while others only depend of individual choice. Additionally, Zytowski (1970) defines work values as an arranged set of concepts mediating each person's affective standing and external items that may offer comparable contentment. In the same line of thought, Schwartz (1999) describes work values as aims that each person hunts to fulfill a need, this necessity may be fulfilled by more than one type of occupation.

Basically, work values are rewards individuals seek throughout their jobs, they are a result of more broad human values in the work environment (Lechner, Sortheix, Obschonka, & Salmela-Aro, 2018). This last idea is also supported by Ros, Schwartz, and Surkiss (1999) who state that work values are particular expressions of common values in labor context. These work values are illustrations of the meaning each individual assign to diverse features of work, incorporating desired job sceneries and work-related results.

2.1.3. Well-being / happiness

The literature has evolved from defining well-being as the standard idea of 'being well' to consider it as a measure that should be incorporated in the evaluation of human progression (Sánchez-García et al., 2018).

Presently, well-being is considered to be a mix of feeling good and having a meaningful life-time, healthy relationships, a supportive family, have a satisfying and good-looking job, satisfactory salary, being healthy, have key ambitions connected to individual standards, living in a democratic environment and a well established society (Diener & Seligman, 2004;

Sánchez-García et al., 2018). As Deci and Ryan (2000) describe, well-being is connected to happiness in terms of reaching pleasure and trying to escape from pain.

There are several ways of referring to happiness. We may link it with quality of life, consisting of real personal needs and subjective well-being (Costanza et al., 2007). We can also associate it to self-interestedly meeting biological necessities and personal desires immediately (Baumeister, Vohs, Aaker, & Garbinsky, 2013). Blanchflower and Oswald (2004) connect it to how individuals grade their global quality of life as satisfactory and Sihombing, Pramono, Zulganef, and Ismanto (2016) state that happiness indicates the status of feeling happy, being defined as having pleasure due to our life.

Happiness brings quality for the society as it nurtures increasing wealth and development of new ideas. This allows people to generate employment and provides them opportunities to be creative as long as being financial active (Ali, 2014). Additionally, when feeling happy individuals tend to be more confident, positive and disposed to dive into the unknown to accomplish their goals (Binder & Coad, 2013). This is why past studies have been attempting to recognize what drives happiness, so that one can advise individuals how to live their lives, and be happier, as well as improve common policies (Naudé et al., 2014).

2.2. Relation between work values and (women) entrepreneurship

2.2.1. Theoretical arguments

Values are perceived as a basis for individual action, they do not influence a person's compartment directly, but do it indirectly influencing attitudes and ambitions (Rauch & Frese, 2007). Work-related values have been treated as a manifestation of life values in general, used to state customs and mutual goals that help guiding collective actions (Roe & Ester, 1999).

Entrepreneurship is a professional path only for a small number of individuals (Hirschi & Fischer, 2013). This may be associated with the fact that entrepreneurs need to possess particular characteristics, such as openness to change, certain personal traits, risk propensity and control beliefs, as well as a constricted set of values, including work values (Hirschi & Fischer, 2013).

Morris and Schindehutte (2005) summarize the values that are related to entrepreneurship and the entrepreneur: team spirit, social marginality, individualism, low uncertainty avoidance, and orientation to the long term. Entrepreneurs are also known for having a more relaxed position when it comes to financial insecurity, higher change orientation and

optimistic approaches toward risk (Douglas & Shepherd, 2000; Rauch & Frese, 2007). Entrepreneurs tend to have very different values from managers, as they value the liberty to accomplish and mature their own potential (Almeida & Teixeira, 2017).

When referring to work values, entrepreneurs differ from non-entrepreneurs in the sense they value the most being stimulated by their jobs, self-direction and autonomy, extrinsic rewards and achievement (Lechner et al., 2018). On the contrary, non-entrepreneurs stake to values like security and risk avoidance, good hours, equality in the way people are treated and they search for a job that feels interesting and contributes to the sake of society (Mueller & Thomas, 2001). According to Almeida and Teixeira (2017), and despite what might be expected, when compared with non-entrepreneurs, entrepreneurs also value not having too much pressure, respected and family-friendly jobs; moreover, excluding family, entrepreneurs rank work as more important than personal things like friends, politics, religion, relaxing time.

Given that work values play a key role in conducting occupational choices, it is expected that those related with the burdens and returns of corporate leadership will be connected to more developed entrepreneurial and leadership aspirations (Lechner et al., 2018). That kind of ambitions are determined by work values such as high standing of the extrinsic return and inferior importance of security, a higher (in the case of entrepreneurial) versus a lower (in the case of leadership) importance of social characteristics (Lechner et al., 2018).

Ros et al. (1999), based on the theory of basic individual, says that four types of work values may be defined: extrinsic, intrinsic, prestige and social. More recent literature (Hirschi & Fischer, 2013) points eight work values: altruism, benevolence (or the relationships with others), achievement (related to the values achieved by their salaries), power (or prestige), security, authority, stimulation (related to their openness to change) and autonomy.

When relating work values to gender entrepreneurship, Halman and Müller (2006) state that there was no substantial evidence for gender differences. Although some of the motives for creating a business differ from women to men, they also have some similarities, like desire for independence and self-achievement (Hirschi & Fischer, 2013).

However, some studies contend that genders issues arise on occupational choices which might hidden underlying work values between women and men. Indeed, it has been observed that men tend to prefer occupations that have higher salaries, better career opportunities, higher risk taking, that stimulates and challenge them, that tends to imply responsibility and power (Hirschi & Fischer, 2013; Rottinghaus & Zytowski, 2006). Women, on contrast,

typically chose occupations that involve helping others, allowing them to show their altruism, that can be easily conciliated with family time but, at the same time, foster the development of their abilities and knowledge (Hirschi & Fischer, 2013).

Combining this evidence with the set of work values defined by Hirschi and Fischer (2013), we conjecture that the importance that women entrepreneurs attribute, compared to their non-entrepreneur counterparts, to work values such as altruism, benevolence, security, and autonomy is likely to be higher than the importance male entrepreneurs attribute, compared to male non-entrepreneurs, to that same work values. As referred by Terrell and Troilo (2010), women entrepreneurs tend to start their businesses because they value security independence and personal satisfaction more than male entrepreneurs, who appear to be more motivated by the status and financial rewards this may bring.

2.2.2. Empirical evidence

Among the small set of studies that analyze work values and entrepreneurial intensity/ propensity, Almeida and Teixeira (2017) is the only one which address work values and compare them with other values, most notably life values such as family, friends and acquaintances, leisure time, politics and religion. When compared to non-entrepreneurs, Almeida and Teixeira (2017) demonstrate that entrepreneurs are more likely to consider work as the most important thing in life (before friends, politics, leisure time, religion) but they do not consider it more important than family.¹

The remaining studies - Hirschi and Fischer (2013), Lechner et al. (2018) and Tipu and Ryan (2016) - have focused only on work values and their relative importance for entrepreneurs and non-entrepreneurs.

The analysis of work values like altruism and benevolence produced different results and very distinct conclusions among these studies, particularly the ones studying entrepreneurial propensity (Almeida & Teixeira, 2017) and entrepreneurial intentions (Hirschi & Fischer, 2013). The former concluded that entrepreneurs attribute altruism and benevolence less importance than non-entrepreneurs (Almeida & Teixeira, 2017), whereas the latter could not reach any conclusion regarding the relative importance of altruism and benevolence for entrepreneurs and non-entrepreneurs.

¹ We consider the estimation results of the baseline model regarding the most recent wave (2008-2010).

In a slightly different context, analyzing individuals who aspire to business leadership versus those that do not, Lechner et al. (2018) found that the former value social/interpersonal relationships (e.g. working together with others, helping others), which are more in line with the work values of altruism and benevolence, much less than those who do not aspire to business leadership. When it comes to job security, again comparing entrepreneurs with non-entrepreneurs, evidence suggest that the former rate this work value less importantly than the latter (Almeida & Teixeira, 2017). In studies which focus entrepreneurial intentions (Hirschi & Fischer, 2013) and aspirations to business leadership (Lechner et al., 2018), job security did not emerge as a statistically significant value to distinguish ‘entrepreneurs/leaders’ from ‘non-entrepreneurs/non-leaders’.

In what concerns the work values such as autonomy, it emerged as a very important work value for entrepreneurs, ‘would be entrepreneurs’, and aspiring business leaders when compared to non-entrepreneurs (Almeida & Teixeira, 2017), non- would be entrepreneurs (Tipu & Ryan, 2016),² and non-aspiring business leaders (Lechner et al., 2018). The outcome is achieved in the case of work values like status or financial rewards (Hirschi & Fischer, 2013; Lechner et al., 2018; Tipu & Ryan, 2016).³ In contrast, Almeida & Teixeira (2017) found that ‘good pay’ was equally important for both entrepreneurs and non-entrepreneurs.

Although three of the referred studies control for gender - with Almeida and Teixeira (2017) and Hirschi and Fischer (2013) evidencing that males, compared to females, have a higher propensity to entrepreneurship or ‘would be entrepreneurship’, and Lechner et al. (2018) concluding that no significant differences occur when comparing males and females aspiring business leaders – none of these works have related gender with work values.

Give the above, we conjecture that:

H1: Compared to wage earners/ employees, (both female and male) entrepreneurs attribute higher importance to work values.

H1a: The importance female entrepreneurs attribute to work values is lower than that attributed by male entrepreneurs (compared their non-entrepreneurs’ counterparts).

² In the case of Tipu and Ryan (2016), the work value that corresponds to autonomy is self-reliance.

³ Again, in the case of Tipu and Ryan (2016), the work values that represent status is centrality of work.

Table 1: Selection of studies on work values and entrepreneurship

Study	Period	Country	Number of observations	Methodology	Dependent variable	Proxy for the dependent variable	Independent variables	Work values	Results
Almeida and Teixeira (2017)	Divided in 4 waves: 1981-1984; 1990-1992; 1999-2001; 2008-2010	49 countries	166.502 individuals	Quantitative Logistic regression	Being an entrepreneur	Being an entrepreneur - Dummy variable which assumes de value 1 when the individual is self-employed and 0 otherwise.	Work values	Useful for society	---
								Pleasant people	---
								Job security	---
								Use initiative	+++
								Good pay	0
							Values	Family	--
								Friends and Acquittances	+++
								Leisure Time	+++
								Politics	++
							Religion	+++	
Age	0								
Gender (1: female; 0: male)	---								
Hirschi and Fischer (2013)	Analyzed for 12 months	Germany	218 individuals, University students	Quantitative Latent growth modeling (LGM)	Entrepreneurial intentions	Entrepreneurial intentions – assessed with a five-point Likert scale, ranging from 1 (very little) to 5 (a great deal)	Work values	Self-transcendence (altruism plus relationships)	0
								Conservation (security plus authority)	-
								Openness to change values (variety plus autonomy)	+
								Self-enhancement (pay plus prestige)	++
							Gender (1: female; 2: male)	++	
Tipu and Ryan (2016)	nd	United Arab Emirates (UAE)	309 individuals, Business students	Quantitative Short form of the multidimensional work ethic profile (MWEP-SF)	Entrepreneurial Intentions	Entrepreneurial Intentions – four item scale adapted from the scale 1=completely unsure to 5=completely sure*	Work values	Hard work	+++
								Self-reliance	++
								Centrality of work	+++
Lechner et al. (2018)	Divided in 2 waves: 2008/2009; 2013/2014	Finland	1.304 individuals	Quantitative Logistic regression	Aspiration to business leadership	Aspiration to business leadership - Respondents rated the statements on a 5-point-scale (1=strongly disagree; 5=strongly agree) and on a 6-point scale (1 = 10%; 6 = 100%).	Work values	Social/interpersonal relationships (e.g. working together with others, helping others)	-
								Intrinsic rewards (e.g. interesting work, learning opportunities)	0
								Security (e.g. good working conditions, job security)	---
								Autonomy (e.g. decision-making powers, independence)	++
								Extrinsic rewards (e.g. good pay, promotion)	+++
							Gender	0	

Note: *The four point scale was adapted from the five point scale used by Chen, Greene, and Crick (1998).

Legend: +++ (--) / ++ (-) / + (-): the relation is statistically significant and positive (negative) at 1% /5% /10% significant level. 0: statistically non-significant.

Source: Own elaboration

2.3. Relation between happiness and (women) entrepreneurship

2.3.1. Theoretical arguments

Work provides a significant contribute to people's happiness and well-being (Rodríguez-Muñoz & Sanz-Vergel, 2013) and the way a person feels will impact their jobs as well. If someone is more pleased with his/her job, will be more persistent and determined to work harder and, of course, people who are healthy (both physically and mentally) are more capable of working (Andersson, 2008; Naudé et al., 2014). Although this is true, there are differences in the work conditions for an entrepreneur or for an employee and, consequently, their well-being and happiness may differ (Andersson, 2008; Dijkhuizen, Veldhoven, & Schalk, 2016).

Entrepreneurs are not always happier than employees and self-employed satisfaction is determined by the personal motivation (Pham, Talavera, & Zhang, 2018). When we are comparing employees with self-employed, these last ones have higher scores on three (out of four) types of affective well-being: job satisfaction, work engagement and higher exhaustion (Dijkhuizen et al., 2016).

A frequent result found in the literature is that self-employed/entrepreneurs are happier with their professional situation than employees (Andersson, 2008; Dijkhuizen et al., 2016). An explanation of their major ability of feeling happy is that entrepreneurs' expectations are lower, and they are easier to achieve (Pham et al., 2018). We can find certain aspects that justify the high levels of job satisfaction among entrepreneurs, including their independence, freedom, lack of hierarchy and control over their working hours (Ali, 2014; Andersson, 2008). Binder and Coad (2013) conclude that entrepreneurs have more satisfaction because of their independent lifestyle.

In the literature, we may find two main types of entrepreneurs, those who become self-employed by necessity (because they have a lack of better professional possibilities) and the ones that do it because they find and understand an opportunity (Angulo-Guerrero, Pérez-Moreno, & Abad-Guerrero, 2017; Binder & Coad, 2013; Fuentelsaz, González, Maicas, & Montero, 2015). Binder and Coad (2013), when studying these two kinds of entrepreneurs in UK, understood that people who become self-employed by opportunity show a higher life satisfaction, while the ones that become entrepreneurs by necessity are not happy with being self-employed. These results are explained by the fact that people who become self-employed due to an opportunity usually have more financial freedom and their business gives enough flexibility, high rewards and, consequently, higher levels of satisfaction (Fuentelsaz

et al., 2015). Contrastingly, ‘necessity entrepreneurs’ start their companies because they are not able to find a job in the arranged segment of the economy and this leads to less economic power and to lower levels of satisfaction (Angulo-Guerrero et al., 2017; Fuentelsaz et al., 2015).

Regarding women entrepreneurship, it is a fact that the number of self-employed females has been increasing (Poschke, 2013). Entrepreneurship helps women to explore and discover their professional individuality and gives them acknowledgement towards the workforce (Ratten & Tajeddini, 2018). The question that arises is whether females enter in self-employment by the need to earn a living and be able to balance it with their personal life, or if this is the consequence of females taking the risk, for example, to embrace a business opportunity and become more financially independent (Bögenhold & Fachinger, 2016). Difficulties in combining family and work often push the entry of women into entrepreneurship (Bögenhold & Fachinger, 2016). The interest of women in pursuing entrepreneurship has been increasing for those who are raising children. It is a way for them to generate income and, at the same time, manage their career as well as motherhood (Ratten & Tajeddini, 2018). This option allows women to decrease the difficulties in administrate their familiar life, but this only happens because female value non-monetary aspects more than their male counterparts (Clain, 2000).

Given the above, if one contends that most of women enter in self-employment by necessity, for coping with family-work life (Duberley & Carrigan, 2013), then it is likely that women entrepreneurs be less satisfied, not so happy, compared to their male counterparts. Thus, we would expect that compared to their non-entrepreneurs’ counterparts, female entrepreneurs will be not so happy as the male entrepreneurs compared to their non-entrepreneurs colleagues. Using a distinct type of arguments, Bowen, Govender, Edwards, and Cattell (2018) support our view point by establishing female entrepreneur compared to their non entrepreneurs counterparts are likely to be less happy whereas male entrepreneurs tend to be happier than their non entrepreneurs peers given that compare with women, men deal in a better way with stressful situations as the one entrepreneurs often found involved in.

2.3.2. Empirical evidence

The way empirical studies analyze the relation between happiness/well-being and entrepreneurship vary considerably (see Table 2), most notably regarding the way happiness/well-being and entrepreneurship are measured.

Table 2: Selection of studies on entrepreneurship and happiness

Study	Period	Country	Number of observations	Methodology	Dependent variable	Independent variables	Results	
Andersson (2008)	1991-2000	Sweden	1.998 individuals	Quantitative Logistic regression	Job satisfaction	<i>Entrepreneurship measures:</i> self-employment or wage-earners <i>Control variables:</i> Socio-economic characteristics; Place of residence; Education (years); Job characteristics.	+++	
					Life satisfaction		+++	
					Job is stressful		+	
					Job is mentally straining		0	
					Mental health problems		0	
					Poor general health		0	
Binder and Coad (2013)	1996-2006	United Kingdom	78.664 observations	Quantitative Panel data	Mental well-being	<i>Entrepreneurship measures:</i> Employed, self-employed and unemployed <i>Control variables:</i> income, health, gender, age, marital status and education.	+++	
					Life satisfaction		+++	
Crum and Chen (2015)	Divided in 3 waves: 1995-1997, 2000- 2005, 2010-2012	Several countries	-	Quantitative Logistic regression	Self-assessment of their own happiness	<i>Entrepreneurship measures:</i> Individual's employment status <i>Control variables:</i> gender, education, age, if the respondent has children, marital status, individual's perception of his or her health, religiosity, income, survey waves and each country	+++ (highly developed countries)	
							Interaction between self-employed and male gender	---
								++ (less developed countries)
					Rating of their life satisfaction	<i>Entrepreneurship measures:</i> Individual's employment status <i>Control variables:</i> gender, education, age, if the respondent has children, marital status, individual's perception of his or her health, religiosity, income, survey waves and each country	+++ (highly developed countries)	
							Interaction between self-employed and male gender	-- (highly developed countries)
								0 (less developed countries)
Pham et al. (2018)	2012 (Ukraine) 2013 (Russia and China)	Ukraine, Russia and China	-	Quantitative Logit estimator with standard errors	Life satisfaction	<i>Entrepreneurship measures:</i> Self-employed, index of financial development (loan to GDP ratio and relative deposit to GDP ratio). <i>Control Variables:</i> Age, gender, educational attainment, cohabiting status health status, area of living.	Ukraine: 0	
					Job satisfaction.		China: +++	
							Russia: +	
							Ukraine: ---	
Russia: 0								

Legend: +++ (---) / ++ (-) / + (-): the relation is statistically significant and positive (negative) at 1% /5% /10% significant level; 0: statistically non-significant.

Source: Own elaboration

For instance, Andersson (2008)⁴ and Pham et al. (2018) compared job satisfaction (proxy for well-being) between self-employed (proxy for entrepreneurs) and wage earners. Andersson (2008), analysing Swedish individuals, evidenced that self-employed feel much satisfied with their jobs than wage earners, while Pham et al. (2018) reached different conclusions depending on the country analyzed: in the case of Ukraine, self-employed are less satisfied with their job than wage earners while in the case of Russia, there is no significant difference when it comes to job satisfaction.

Evaluating happiness through mental well-being, Andersson (2008) discovered no differences among Swedish entrepreneurs and non entrepreneurs individuals when it comes to mental as well as poor general health. However, Binder and Coad (2013) found that UK self-employed feel much better than wage earners in terms of mental well-being. Using other happiness/ well-being proxies, Andersson (2008) found that swedish self-employed consider the job more stressful than their wage earners counterparts, whereas no difference emerged in the case of mentally straining. Considering life satisfaction in general, self-employed give it a higher rate than wage workers, meaning that they feel more satisfied with life than wage earners (Andersson, 2008; Binder & Coad, 2013; Pham et al., 2018). However, in the case of Ukraine (Pham et al., 2018) no differences were found at this regard between self-employed and wage earners.

Crum and Chen (2015) evaluated happiness through self-assessment of individuals happiness and life satisfaction and their results comes in line with the authors previously mentioned. For highly developed countries, they found that self-employed are much satisfied with life and feel happier than wage earners. The authors also included an interaction variable of entrepreneur and gender, whose estimates suggest that in highly developed countries male [female] entrepreneurs are less happy [happier] than their non entrepreneurs counterparts, whereas in less developed countries male [female] entrepreneurs feel happier [less happy] than their non entrepreneurs colleagues.

Summing up, we conjecture that

H2: Compared to wage earners/ employees, (both female and male) entrepreneurs are likely to feel happier.

H2a: The degree of happiness of female entrepreneurs is lower than that of male entrepreneur.

In a nutshell, and graphically, our theoretical framework can be depicted as in Figure 1.

⁴ In the case of Andersson (2008), data collected refer to Model II.

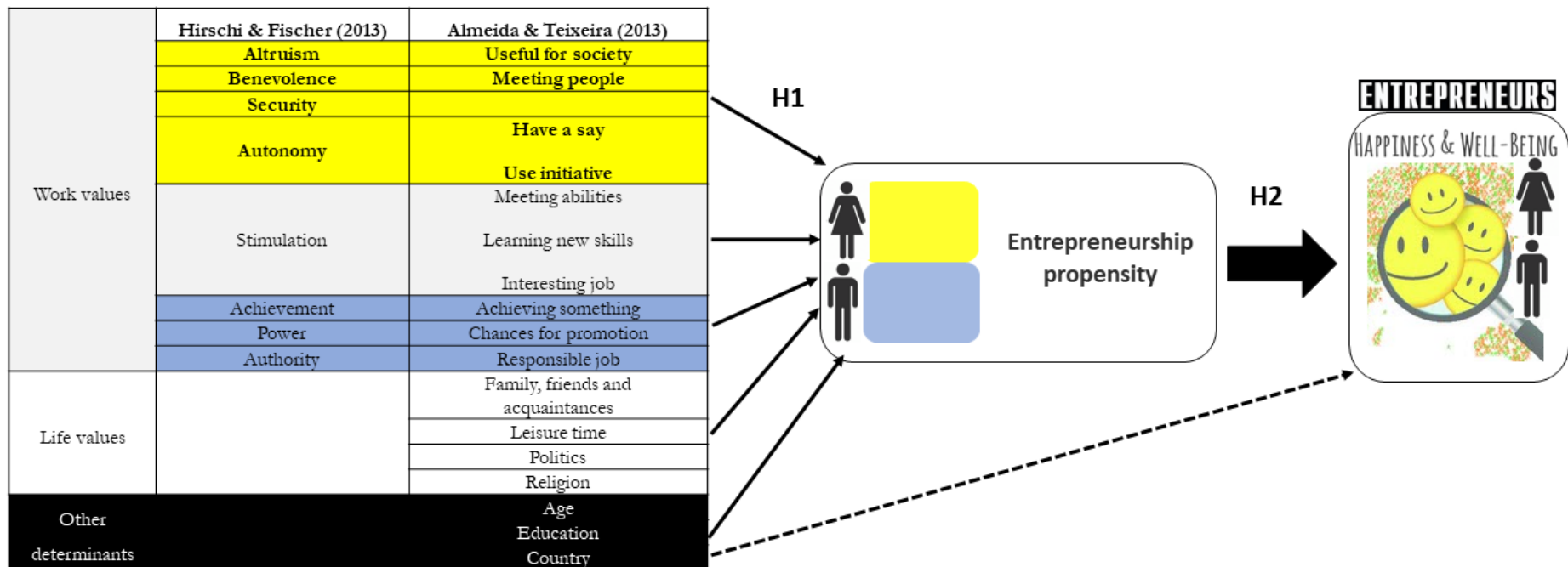


Figure 1: Theoretical framework – work values- (women) entrepreneurship – happiness
 Source: Own elaboration.

3. Methodology

3.1. Main hypotheses and method of analysis

Based on our research questions – 1) *Does the impact of work values on entrepreneurship propensity differ between female entrepreneurs and male entrepreneurs?*; and 2) *Does the impact of entrepreneurial status on well-being/ happiness differ between female entrepreneurs and male entrepreneurs?* –, which involves the examination of the relationship between the three core variables (work values, entrepreneurship, happiness), and to look for cause and effect relationships, we must resort to quantitative type of methodologies (Carsrud & Brännback, 2014). This option is further confirmed by the extant empirical literature on the subject (see Tables 1 and 2).

As depicted in Figure 1, the present study has two main aims: 1) to assess the impact of work values on the entrepreneurial propensity of both women and men, detailing the main (eventual) differences encounter; and 2) to estimate the impact of being a female and male entrepreneur on individuals' wellbeing or happiness.

Considering the literature review exposed in Section 2, the following hypotheses are to be tested:

H1: Compared to wage earners/ employees, (both female and male) entrepreneurs attribute higher importance to work values.

H1a: The importance female entrepreneurs attribute to work values is lower than that attributed by male entrepreneurs (compared their non-entrepreneurs' counterparts).

H2: Compared to wage earners/ employees, (both female and male) entrepreneurs are likely to feel happier.

H2a: The degree of happiness of female entrepreneurs is lower than that of male entrepreneur.

To test these hypotheses, we will resort to a multivariate model, more precisely, logistic regressions. As the dependent variables - 'being an entrepreneur' / high level of happiness / well-being – are binary, assuming the value 1 if the individual is self-employed (is very happy) and 0 if it is not, the adequate estimation technique is the logistic regression. In order to have a more straightforward interpretation of the results, the logistic models in Eq. 1-4 are rewritten in terms of the log odds.

The econometric specifications establish the relation between work values and entrepreneurial propensity for both females (Eq. 1) and males (Eq. 2). Eq. 3 and 4 relate individual's

happiness/well-being (dependent variable) with female (Eq. 3) and male (Eq. 4) entrepreneurial status.

$$\log \left(\frac{\text{Prob}(\text{female entrepreneur})}{\text{Prob}(\text{female non-entrepreneur})} \right) = \beta_1^F + \beta_2^F \text{work values vs other life dimensions}_i + \beta_3^F \text{important in a job}_i + \beta_4^F X_i + u_i \quad (\text{Eq. 1})$$

$$\log \left(\frac{\text{Prob}(\text{male entrepreneur})}{\text{Prob}(\text{male non-entrepreneur})} \right) = \beta_1^M + \beta_2^M \text{work values vs other life dimensions}_i + \beta_3^M \text{important in a job}_i + \beta_4^M X_i + v_i \quad (\text{Eq. 2})$$

$$\log \left(\frac{\text{Very Happy}}{\text{Otherwise}} \right)_i = \alpha_1^F + \alpha_2^F \text{entrepreneurial status}_i + \alpha_3^F X_i + \mu_i \quad (\text{Eq. 3})$$

$$\log \left(\frac{\text{Very Happy}}{\text{Otherwise}} \right)_i = \alpha_1^M + \alpha_2^M \text{entrepreneurial status}_i + \alpha_3^M X_i + r_i \quad (\text{Eq. 4})$$

where:

i represents the individual

F – represents ‘Female’

M – represents ‘Male’

Entrepreneurs/entrepreneurial status is a dummy variable which assumes value 1 when the individual is self-employed and 0 otherwise.

Very happy is a dummy variable which assumes value 1 when the individual state that he/she feels very happy and experiences very good health and 0 otherwise.

Work values vs Life dimensions include the relative importance attribute to work compared to family, friends and acquaintances, leisure time, politics and religion.

Important in a job include altruism, benevolence, security, autonomy, status and financial rewards.

X represents a vector of control variables which include the age (in years), education, marital status, income and country of residence of the individual.

3.2. Data source and variable proxies

For an adequate estimation of our model, we resort to data from the 2016 World Values Survey (WVS), available in <http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp> after registration. The use of this data base relates to the fact that we are unable to find other comparable data base that includes micro economic information, based on individuals, which include evidence about values and professional status.

The survey reports the period 2010-2013, includes 61 countries and comprises 51725 individuals (41.3% of whom are women and 20.3% are entrepreneurs).

We also called upon data from the European Values Survey (EVS), available in <https://europeanvaluesstudy.eu>, containing data from 2017-2018, including 16 European countries and studying 10872 individuals (51% of whom are women and 10% are entrepreneurs).

Using this data, we are able to test whether the importance attributed to work values, in the case of female (and male) entrepreneurs, is higher than that attributed to their non-entrepreneurs' counterparts as well as whether female (and male) entrepreneurs tend to be happier than female (and male) non-entrepreneurs.

The variable entrepreneurship (and entrepreneurial status) is constructed based on the responses to the professional status question whose alternative responses include "full time", "part time", "self-employed", "retired", "housewife", "students", "unemployed" and "other". The variable assumes the value 1 if the individual response is "self-employed", being considered an entrepreneur, and 0 if the answer is "full time", "part time" (the remaining categories - "retired", "housewife", "students", "unemployed" and "other" - were excluded as the relevant sample here is individuals who are considered employed). This goes in line with a high number of studies that consider self-employed as proxy for entrepreneurs (Almeida & Teixeira, 2017; Andersson, 2008; Binder & Coad, 2013; Pham et al., 2018).

The independent variable work values vs other life dimensions was measured by asking to the respondents about how important family, friends, leisure time, politics, work and religion was in their life. The answers were scaled as 1 being "very important" to 4 "not at all important". We have recoded all of those variables considering 1 if the response was "very important" and 0 otherwise.

Since the variable important in a job does not exist in the WVS, and since we aimed at understanding the relationship between the work values and entrepreneurship, we were pushed to use another database which has this information, however it includes only a given set of

(16) European countries for a more recent period, 2017-2018. The variable ‘important in a job’ was constructed as a set of dummies which assume the value 1 when the individual mentioned a given attribute - good pay, good hours, opportunity to use initiative, generous holidays, achieving something, responsible job - and 0 when if the given attribute was not mentioned.

The literature offers many definitions of happiness, connecting it to positive emotional state, with feelings of well-being (Sánchez-García et al., 2018; Sihombing et al., 2016). Our variable about happiness is constructed based on the responses to the question about individual’s “feeling of happiness”. The alternative responses include: “very happy”, “rather happy”, “not very happy” and “not at all happy”. In the present study, the variable ‘happiness’ is a dummy which assumes the value 1 when the answer is “very happy” and 0 otherwise.

Regarding the other relevant variables –age, education, marital status, income and country of residence -, the proxies are the following. Age is a continuous variable expressed in years, whereas education encompasses individuals who possess “some university level” or “university level” (dummy variable equals to 1 in this case, and 0 otherwise). As for the marital status, it assumes the value 1 if the answer is “married” or “living together as married” and 0 otherwise. When it comes to the income variable, the scale was in deciles and we have used to consider high income the three highest steps, that is, when the answer was “eighth step”, “ninth step” and “tenth step” (see Annex Table A1). For the variable ‘region’, we considered all the categories considered in the World bank list from June 2018: North America, Middle East & North Africa, Sub- Saharan Africa, East Asia & Pacific and South Asia. We considered the value 1 if the country was from that specific region and zero otherwise (see Annex Table A1).

4. Empirical results

4.1. Generic characteristics of the samples

The most recent available database from the World Values Survey, conveys information from 2010 to 2013, includes 51725 employed individuals (that is, self-employed and employees), from 61 countries (see Table A1 in Annex). Nonetheless, as stated before, this database does not offer information about the variable important in a job. To overcome this gap, we resort to the European Value survey, which includes 10872 employed individuals from 16 European countries.

Regarding the wider set of 61 worldwide countries, 32.9 % (employed) individuals claim to be very happy, 41.3% are female, and 20.3% entrepreneurs (i.e., self-employed). In the restricted set of 16 European countries, the corresponding percentages are 28.7%, 51% and 10% - see Table 3.

Table 3: Means of the relevant variables in each database

		2010-2013 [61 Worldwide countries]; # 51725 ³	2017-2018 [16 European countries]; # 10872 ³
Individuals' characteristics	Female (%)	41.3%	51.0%
	Entrepreneur (self-employed), %	20.3%	10.0%
	Very happy (%)	32.9%	28.7%
	Age (years)	36.8	41
	Highly educated (1 if the individual has at least some university education; 0 otherwise), %	27.0%	34.0%
	Marital status (1 if the individual is married or is living as married; 0 otherwise), %	64.3%	60.0%
	High income level (1 if the individual has high income level; 0 otherwise), %	22.4%	
Countries' characteristics - income	High income country, %	31.4%	64.9%
	Upper middle income country, %	38.2%	35.1%
	Lower middle income country, %	22.4%	
	Low income country, %	8.0%	
Countries' characteristics - geography	Europe & Central Asia, %	30.1%	100%
	North America, %	5.2%	0%
	Latin America & Caribbean, %	12.6%	
	Middle East & North Africa, %	19.6%	
	Sub-Saharan Africa, %	13.6%	
	East Asia & Pacific, %	18.8%	
	South Asia	4.3%	

Source: Own computations based on data from: ¹ World Values Survey wave 6 (2010-2014) - Inglehart, R., C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2014. World Values Survey: Round Six - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp. Madrid: JD Systems Institute. ² EVS (2018): European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 1.0.0,

4.2. Work values and entrepreneurship

4.2.1. Descriptive results

The individuals with a given occupation, self-employed and employees, totaled 56156 for the 61 Worldwide countries and 11855 for the 16 European countries.⁵

From the 56156 individuals, 32793 are male and from these, 22% is self-employed, 23363 individuals are female and 17% of them are self-employed. Similarly, from the 11855 individuals of the 16 European countries, 5721 are male and from those 13% are self-employed while 6134 are female, being 7% self-employed – see Table 4.

Table 4: Number and percentage of employees and self-employed by sex

Database	Occupational status	Male		Female		All
		Number	%	Number	%	All
2010-2013 [61 worldwide countries]	Employees	25594	78%	19328	83%	44922
	Self-employed	7198	22%	4036	17%	11234
	All	32793	100%	23363	100%	56156
2017-2018 [16 European countries]	Employees	5005	87%	5686	93%	10691
	Self-employed	716	13%	448	7%	1164
	All	5721	100%	6134	100%	11855

Source: Own computations based on data from:

¹ World Values Survey wave 6 (2010-2014) - Inglehart, R., C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2014. World Values Survey: Round Six - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp. Madrid: JD Systems Institute.

² EVS (2018): European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 1.0.0, doi:10.4232/1.13090 [Date of Collection: 19.06.2017 - 01.09.2018].

To understand if individuals consider a given life value important, we need to look at those values comparing not only whether the individual is male or female but also his/her occupational status - self-employed versus employee.

The most highly regarded life value (which is considered ‘very important’ for the largest part of the inquired individuals, regardless their occupational status, gender and the sample) is “Family”, with more than 90% (85%) of the individuals in the WVS (EVS) stating that this life value was very important – see Table 5. It is followed by the life value “Work”. In contrast

⁵ These values differ from the values referred earlier - 51725 and 10872 – as we are not considering here the individuals who have no information for the remaining variables that we included in the model (see Table 7).

with “Family” value, for which negligible differences exist, “Work” value presents a distinct pattern when we compare entrepreneurs versus non-entrepreneurs. Specifically, both male and female entrepreneurs consider “Work” more importantly than non-entrepreneurs as the percentage of entrepreneurs who consider work as “very import” (males: 79.0%; females: 76.1%) is higher than that of non-entrepreneurs (males: 71.0%; females: 63.8%).

Regarding the life values “Politics” and “Religion”, albeit the percentages of individuals who consider these life values very important are lower than that of “Work”, we observe a similar pattern to the life value “Work”: the percentage of male and female entrepreneurs that attribute high importance to “Politics” and “Religion” is higher than that of non-entrepreneurs (for both samples, the WVS and the EVS).

Table 5: Percentage of individuals who consider the given life values as very important, according to sex and occupational status

Life values	Sex	2010-2013 ¹		2017-2018 ²	
		[61 worldwide countries] - WVS		[16 European countries] - EVS	
		Entrepreneurs (Self-employed)	Employees	Entrepreneurs (Self-employed)	Employees
Family	Male	92.0%	90.6%	86.9%	85.4%
	Female	92.3%	92.5%	89.7%	91.3%
Work	Male	79.0%	71.0%	71.4%	63.1%
	Female	76.1%	63.8%	65.8%	62.4%
Religion	Male	61.4%	45.8%	24.2%	16.2%
	Female	61.9%	43.2%	29.3%	20.3%
Friends	Male	47.0%	48.1%	49.2%	49.6%
	Female	43.3%	46.7%	54.5%	52.0%
Leisure	Male	33.1%	38.3%	36.0%	43.0%
	Female	35.6%	39.8%	44.2%	44.1%
Politics	Male	19.8%	16.6%	12.2%	10.0%
	Female	16.0%	12.3%	10.2%	8.1%

Source: Own computations based on data from:

¹ World Values Survey wave 6 (2010-2014) - Inglehart, R., C. Haerper, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2014. World Values Survey: Round Six - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp. Madrid: JD Systems Institute.

² EVS (2018): European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 1.0.0, doi:10.4232/1.13090 [Date of Collection: 19.06.2017 - 01.09.2018].

In a similar fashion to the life value “Family”, no much differences exist in the percentage of individuals entrepreneurs and non-entrepreneurs who considered “Friends” very

important. Notwithstanding, for the EVS sample the percentage of female that consider “Friends” as a very important life value is higher than that of males, with the corresponding percentage for female entrepreneurs being higher than that of female employees.

Leisure is the life value for which the percentage of employees who considered it very important (about 39% in the WVS and 44% in the EVS) is higher than that of entrepreneurs (about 34% in the WVS and 40% in the EVS).

In what respects work values specifically and the attributes entrepreneurs and non-entrepreneurs value in a job (see Table 6), resorting only to the European Value Survey (EVS), we can observe that “Good pay”, “Achieving something”, and “Good hours” are, in general, the most referred attributes in a job. However, entrepreneurs and non-entrepreneurs tend to refer it distinctly. Indeed, whereas “Good pay” and “Good hours” and much more referred by employees, “Achieving something” emerges as more important to entrepreneurs either female or male entrepreneurs. The same happens in the case of “Opportunity to use initiative” and “Responsible job”. In contrast, “Generous holidays” is more highly referred by employees as compared to entrepreneurs.

Table 6: Percentage of individuals who have mentioned the given attribute as important in a job, according to sex and occupational status

Attribute – important in a job	Sex	2017-2018 [16 European countries] - EVS	
		Entrepreneurs (Self-employed)	Employees
Good pay	Male	80.7%	86.4%
	Female	79.1%	86.5%
Achieving something	Male	76.9%	69.9%
	Female	72.8%	69.8%
Good hours	Male	62.5%	71.0%
	Female	71.2%	77.3%
Opportunity to use initiative	Male	62.3%	58.1%
	Female	63.2%	59.7%
Responsible job	Male	54.3%	52.1%
	Female	56.2%	51.2%
Generous holidays	Male	32.1%	45.6%
	Female	36.6%	48.2%

Source: Own computations based on data from EVS (2018): European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 1.0.0, doi:10.4232/1.13090 [Date of Collection: 19.06.2017 - 01.09.2018].

4.2.2. Causality results

Table 7 presents the logistics estimations for the determinants of entrepreneurship (self-employment) focusing on the impact of life and work values. We estimated 9 models, 3 based on the WVS (Models A1, A2 and A3), which includes 61 countries in the period 2010-2013, and 6 based on the EVS (Models B/C1, B/C2 and B/C3), which restricts the sample of countries to 16 European countries in 2017-2018. Models A/B/C1 comprise all individuals, Models A/B/C 2, females and Models A/B/C 3 males. Models B1-3 respects to the EVS and include similar determinants as Models A1-3, based on the WVS, whereas Models C1-3 are based on the EVS but add the work value determinants.

All the estimated models present a reasonable fit/adjustment quality, with the Hosmer-Lemeshow test reflecting the acceptance of the null hypothesis (“The model represents the reality well”) and the percentage of values of the dependent variables correctly predicted above 80%.

Diagnosis tests - Variance Inflation Factor (VIF) and Breusch-Pagan / Cook-Weisberg test for heteroskedasticity – evidence that no problem of multicollinearity exists (with the VIF being lower than 1.5 in all the models) (O'Brien, 2007) and that the errors are heteroscedastic, which required estimations corrected for heteroscedasticity, that is, with robust standard errors (Greene, 2018).

Estimations evidence that for the wider sample do countries (Models A1-A3), individuals who attach great importance to the life value “Work” are more likely to be entrepreneurs (i.e., self-employed). That propensity to entrepreneurship is even more evident for females (Model A2) than for males (Model A3). On average, all the other factors remaining constant, a female that attach great importance to Work has an odd of being an entrepreneur 1.27 higher than females that attribute lower importance to Work. The corresponding figure to males is 1.16. Thus, for the larger sample of countries (61), the H1 “*Compared to wage earners/ employees, (both female and male) entrepreneurs attribute higher importance to work values*” is validated whereas H1a “*The importance female entrepreneurs attribute to work values is lower than that attributed by male entrepreneurs (compared their non-entrepreneurs’ counterparts)*” is rejected.

For the restricted sample of (16) European countries (Models B/C1-3), the higher importance attributed to work values is positively related to entrepreneurs for all individuals (Models B1 and C1) and for males (Models B3 and C3), however, no enough statistical evidence exists that permit to conclude that female entrepreneurs and female employees attach

distinct importance to work values. Thus, H1 is partially validated, that is, is validated for males but not for females. In contrast, H1a “*The importance female entrepreneurs attribute to work values is lower than that attributed by male entrepreneurs (compared their non-entrepreneurs’ counterparts)*” seems to be supported as the estimated coefficient associated to work values is positive and significant for the male sample and non-significant for the female sample.

The results found for the wider set of countries go in the opposite direction of the previous literature (Almeida & Teixeira, 2017; Hirschi & Fischer, 2013). Terrell and Troilo (2010) contend that women tend to start their businesses because they want stability and not because they highly value work. Moreover, given the types of values that are more associated to women - altruism, benevolence, security and autonomy (Hirschi & Fischer, 2013) -, we would expect that women entrepreneurs would less likely give high importance to work, when compared to the non-entrepreneurs, than their males counterparts.

Interestingly, estimations convey that women that attribute higher importance to the life value “Family” are less likely to become an entrepreneur both for the 61 worldwide countries or the 16 European countries. For males, there is no statistical evidence that family values matter for explaining entrepreneurial propensity. In the case of the high importance attached to religion, estimations show that the individuals (both male and female) that attribute higher importance to religion tend to have higher entrepreneurial propensity, with that impact being larger for females.

Age, education, marital status, income level and country of residence are relevant to explain entrepreneurial propensity. Indeed, more senior, less educated, married and high-income level individuals tend to have a higher entrepreneurial propensity. Excluding the high income variable, the same happens in the case of female entrepreneurial propensity.

Focusing on the relation between job attributes and entrepreneurial propensity (Models C1-3), we observe that, on average and all the remaining factors being held constant, individuals who identify “Achieving something” and “Opportunity to use initiative” as important attributes in a job are more likely to become an entrepreneurs, whereas those who consider “Good pay”, “Good hours” or “Generous holidays” as important job attributes are less likely to become entrepreneurs. When we limit the analysis to women, we conclude that also for women those who attach greater importance to “Good pay” or “Generous holidays” are much less likely to become an entrepreneur. However, unlikely to males, females who consider “Responsible job” as a key attribute tend to have higher entrepreneurial propensity.

Table 7: Determinants of entrepreneurship: logistics estimations (dependent variable: self-employed – dummy variable which assumes the value 1 when the individual is self-employed²)

Variables		2010-2013			2017-2018			2017-2018		
		[61 worldwide countries]			[16 European countries]			[16 European countries]		
		All	Female	Male	All	Female	Male	All	Female	Male
		Model A1	Model A2	Model A3	Model B1	Model B2	Model B3	Model C1	Model C2	Model C3
Life values (1 if the individual attributed high importance to the given value; 0 otherwise)	Work	0.202*** (0.029)	0.237*** (0.047)	0.146*** (0.039)	0.180** (0.072)	0.056 (0.112)	0.229** (0.096)	0.145* (0.074)	0.039 0.114	0.195* 0.099
	Family	-0.151*** (0.046)	-0.242** (0.076)	-0.060 (0.058)	-0.232** (0.103)	-0.325* (0.176)	-0.064 (0.128)	-0.249** (0.107)	-0.334* 0.183	-0.105 0.134
	Friends	-0.005 (0.025)	-0.041 (0.041)	-0.020 (0.031)	0.126* (0.073)	0.153 (0.117)	0.103 (0.093)	0.079 (0.074)	0.115 0.120	0.051 0.096
	Leisure	-0.068*** (0.026)	0.019 (0.043)	-0.109** (0.033)	-0.180** (0.074)	0.007 (0.116)	-0.296*** (0.098)	-0.049 (0.076)	0.110 0.119	-0.148 0.101
	Politics	0.013 (0.032)	0.030 (0.055)	-0.011 (0.039)	0.122 (0.108)	0.037 (0.178)	0.093 (0.138)	0.079 (0.109)	-0.031 0.180	0.077 0.141
	Religion	0.032*** (0.028)	0.415*** (0.046)	0.280*** (0.036)	0.308*** (0.077)	0.382*** (0.115)	0.331*** (0.105)	0.283*** (0.078)	0.359*** 0.117	0.324*** 0.109
Importance in a job (1 if the individual mentioned the given attribute; 0 not mentioned)	Good pay							-0.387*** 0.088	-0.447*** 0.137	-0.364*** 0.116
	Good hours							-0.181** 0.075	-0.064 0.124	-0.171* 0.097
	Opportunity to use initiative							0.224*** 0.076	0.167 0.122	0.280*** 0.099
	Generous holidays							-0.531*** 0.075	-0.492*** 0.117	-0.547*** 0.101
	Achieving something							0.376*** 0.081	0.182 0.127	0.498*** 0.107
	Responsible job							0.110 0.073	0.233** 0.114	-0.013 0.095
Age (ln)	0.852*** (0.038)	0.874*** (0.062)	0.888*** (0.049)	0.781*** (0.117)	0.955*** (0.199)	0.811*** (0.145)	0.796*** (0.118)	0.975*** (0.199)	0.825*** (0.095)	
Highly educated (1 if the individual has at least some university education; 0 otherwise)	-0.615*** (0.031)	-0.750*** (0.052)	-0.515*** (0.038)	-0.136* (0.070)	0.008 (0.108)	-0.166* (0.093)	-0.257*** (0.073)	-0.117 (0.113)	-0.281*** (0.149)	
Marital status (1 if the individual is married or is living as married; 0 otherwise)	0.229*** (0.027)	0.367*** (0.042)	0.088** (0.036)	0.253*** (0.070)	0.207* (0.107)	0.153 (0.098)	0.251 (0.073)	0.231** (0.110)	0.137 (0.102)	
High income level (1 if the individual has high income level; 0 otherwise)	0.070** (0.029)	0.048 (0.048)	0.087** (0.036)							
Income group (default: High income)	Upper middle income	0.827*** (0.035)	0.819*** (0.058)	0.829*** (0.045)	0.301*** (0.066)	0.085 (0.109)	0.445*** (0.086)	0.446*** (0.071)	0.228* (0.117)	0.592*** (0.092)
	Lower middle income	1.466*** (0.039)	1.556*** (0.064)	1.416*** (0.050)						
	Low income	1.534*** (0.051)	1.676*** (0.080)	1.434*** (0.066)						

(...)

Variables		2010-2013 [61 worldwide countries]			2017-2018 [16 European countries]			2017-2018 [16 European countries]		
		All	Female	Male	All	Female	Male	All	Female	Male
		Model A1	Model A2	Model A3	Model B1	Model B2	Model B3	Model C1	Model C2	Model C3
Region (default: Europe & Central Asia)	North America	0.655*** (0.058)	0.838*** (0.087)	0.530*** (0.080)						
	Middle East & North Africa	0.134*** (0.035)	-0.108* (0.064)	0.182*** (0.043)						
	Sub-Saharan Africa	0.416*** (0.037)	0.571*** (0.058)	0.294*** (0.049)						
	East Asia & Pacific	0.629*** (0.053)	0.886*** (0.053)	0.469*** (0.043)						
	South Asia	0.357*** (0.033)	0.474*** (0.117)	0.285*** (0.062)						
N		51562	21917	29625	11350	5862	5488	10955	5637	5318
Entrepreneurs (1 if self-employed)		10321	3815	6500	1110	430	680	1061	411	650
Others		41241	18102	23125	10240	5432	4808	9894	5226	4668
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (p-value)		4679.0 (0.000)	2958.67 (0.000)	2031.85 (0.000)	564.00 (0.000)	290.27 (0.000)	308.01 (0.000)	988.73 (0.000)	516.27 (0.000)	499.18 (0.000)
Average [Max] VIF		1.32 [1.92]	1.28 [1.79]	1.35 [2.08]	1.13 [1.27]	1.12 [1.27]	1.16 [1.28]	1.18 [1.35]	1.17 [1.38]	1.20 [1.32]
% correct		80.1	82.8	78.2	90.2	92.7	87.6	90.3	92.7	87.8
Test Hosmer and Lameshow (p-value)		74.74 (0.000)	49.84 (0.000)	23.71 (0.000)	2.63 (0.269)	0.39 (0.824)	7.23 (0.027)	7.11 (0.029)	2.85 (0.241)	1.44 (0.487)

Legend: In brackets it stands the robust standard errors. p-values: *** (**) [*] Significant at 1% (5%) [10%]. Estimations performed with Stata 14.1.

Source: Own elaboration based on data from the World Values Survey and the European Values Survey.

For male entrepreneurs as compared to their non-entrepreneurs' counterparts, "Achieving something" and "Opportunity to use initiative" emerge as key attributes in a job, whereas for women these attributes do not distinguish entrepreneurs from employees.

The results reflect that women entrepreneurs, when compared to their non-entrepreneurs counterparts, attribute great importance to the characteristic of the occupation itself in terms of responsibility, that is, independence and personal satisfaction, whereas in the case of men entrepreneurs seem to value highly occupation's status in line with the arguments by Terrell & Troilo (2010).

4.3. Happiness/well-being and entrepreneurship

4.3.1. Descriptive results

As earlier referred, the most recent available database from the World Values Survey, which conveys information from 2010 to 2013, includes 51725 individuals, from 61 countries (see Table A1 in Annex). From these individuals, 32.9 % claim to be very happy, 41.3% are female, and 20.3% entrepreneurs (i.e., self-employed) – see Table 3. When restricting to female individuals, from the ones that are self-employed, 39% claims to be very happy, while in the case of non-entrepreneurs the percentage is 31% - see Figure 2.

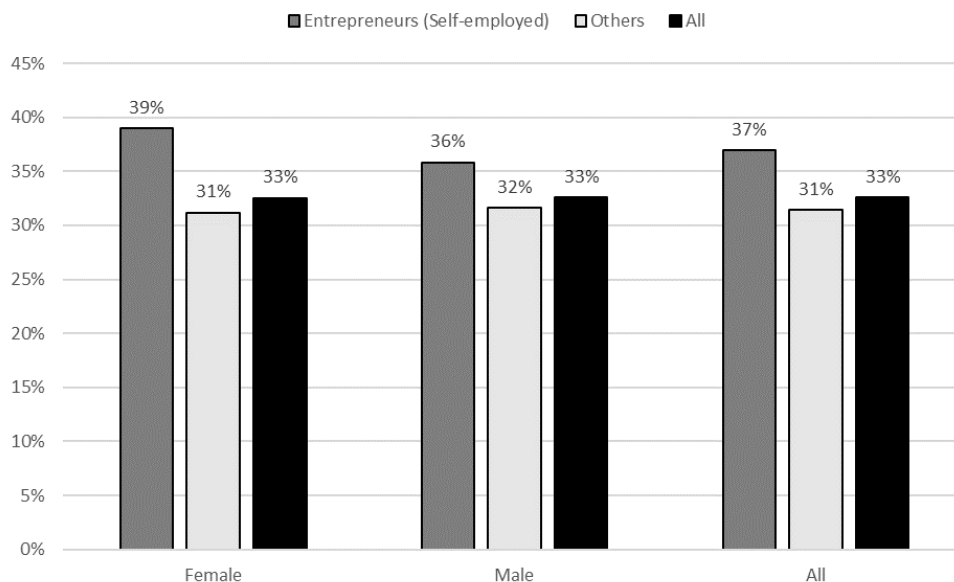


Figure 2: Percentage of individuals who claim to be “very happy”, according the occupation status (entrepreneurs vs employees) and sex, World Values Survey, 2010 to 2013

Source: Own computations based on World Values Survey wave 6 (2010-2014) - Inglehart, R., C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarín & B. Puranen et al. (eds.). 2014. World Values Survey: Round Six - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp. Madrid: JD Systems Institute.

In the case of males, 33% of total males' individuals claim to be “very happy”, from the ones that are self-employed 36% claimed to be very happy while from the non-entrepreneurs that percentage is 32%. Despite our values look similar when we are observing all the individuals with an occupation, the percentage of female entrepreneurs claiming to be happy is higher than that same value for men.

If we considered instead a more recent database from the European Value Survey, which refer to the period 2017-2018, and it is smaller, including only 16 European countries, the number of respondents with an occupation totaled 10872 (see Table A2 in Annex). From these individuals, 28.7 % claim to be very happy, 51% are female and 10% entrepreneurs (i.e., self-employed) – see Figure 3. When restricting to female individuals, from the ones that are self-employed, 34.5% claims to be very happy, while in the case of non-entrepreneurs the percentage is 27.7%. In the case of males, 28.5% of total males' individuals claim to be “very happy”, from the ones that are self-employed 33.2% claimed to be very happy while from the non-entrepreneurs that percentage is 27.8%. The values found for the EVS sample, go in line with the previous WVS results.

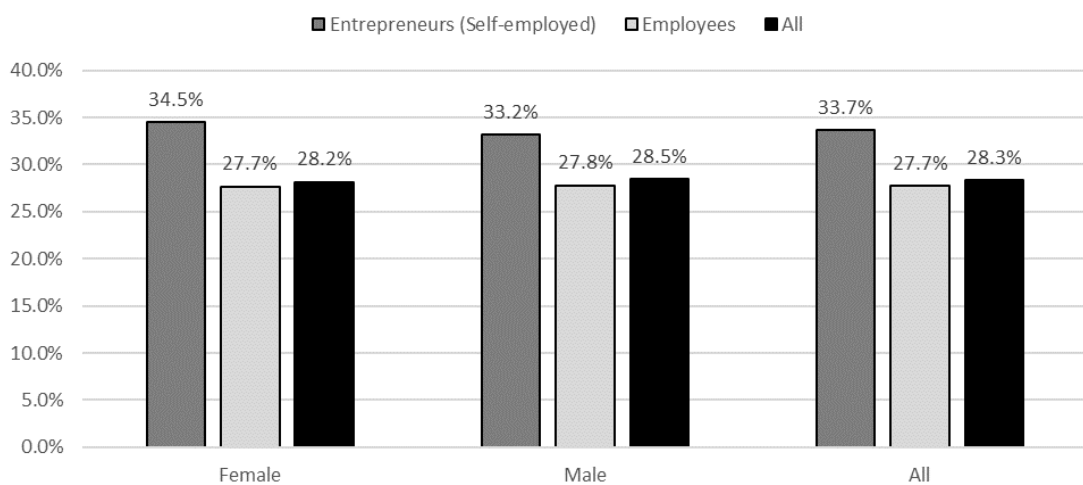


Figure 3: Percentage of individuals who claim to be “very happy”, according the occupation status (entrepreneurs vs employees) and sex, European Values Survey, 2017 to 2018

Source: Own computations based on EVS (2018): European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 1.0.0, doi:10.4232/1.13090 [Date of Collection: 19.06.2017 - 01.09.2018].

4.3.2. Causality results

The estimations for the determinants of happiness are reported in Table 8. We estimated 6 models, 3 based on the WVS (Models D1, D2 and D3), which includes 61 countries in the period 2010-2013, and 3 based on the EVS (Models E1, E2 and E3), which restricts the

sample of countries to 16 European countries in 2017-2018. Models D/E1 comprise all individuals, Models D/E 2, females and Models D/E 3 males.

According to the Hosmer-Lemeshow test all models excluding Model D1 and D3 present a reasonable fit/adjustment quality, with reflecting the acceptance of the null hypothesis (“The model represents the reality well”). Moreover, the percentage of values of the dependent variables correctly predicted is above 67%.

Regarding the diagnosis tests, the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity is rejected, which means that the variances of the models are not homoscedastic. The existence of heteroscedasticity is a major concern in the application of regression analysis, namely in context of binary models, as it can invalidate statistical tests of significance that assume that the modelling errors are uncorrelated and uniform (hence that their variances do not vary with the effects being modeled). Thus, in order to account for the heteroskedasticity robust standard errors are estimated (Greene, 2018). Additionally, the variance inflation factors (VIF) for the independent variables are much lower than 2, which means that there is no problem of multicollinearity (O'Brien, 2007).

The estimates for the determinants of happiness (see Table 8) evidence that being an entrepreneur positively and significantly ($p\text{-value} < 0.01$) impacts on individuals' happiness. In concrete, when looking for the 2010-2013 wave, regardless the age and the education of an individual, the odds of happiness is 1.23 times higher for an entrepreneur (self-employed) than for a non-entrepreneur (i.e., an employee). For females, the corresponding figure is 1.36 and for males 1.16. While looking at the 2017-2018 wave, the odds of happiness is 1.45 times higher for an entrepreneur (self-employed) than for a non-entrepreneur (i.e., an employee). For females, the corresponding figure is 1.50 and for males 1.43. The results show that, everything constant, being a female entrepreneur is related with feeling happier, the impact of the entrepreneurial occupation in the sense of happiness is higher in the case of females than males, either for a sample of 61 Worldwide countries or for a sample of 16 European countries. Thus, H2 “*Compared to wage earners/employees, (both female and male) entrepreneurs are likely to feel happier*” is validated but H2a “*The degree of happiness of female entrepreneurs is lower than that of male entrepreneur*” is rejected.

Our results are partially in line with the previous literature. For instance, Dijkhuizen et al., (2016) and Crum & Chen (2015) evidence that entrepreneurs/ self-employed (both men and women globally considered) are happier than employees. Furthermore, Crum & Chen (2015)

evidence that in highly developed countries being a male self-employed, compared to male employees, conveys lower levels of happiness, or conversely, female self-employed /entrepreneur compared to their non entrepreneur counterparts are happier. Notwithstanding the sampled countries (highly developed) and period (2010-2012) analysed are distinct from ours (all type of countries and 2010-2013), their result is in line with our results.

As such, and in opposite to the arguments put forward in the literature, either linking to necessity related entrepreneurship (Duberley & Carrigan, 2013) or lower propensity in dealing with stress (Bowen et al., 2018), our results evidence that being a female entrepreneur, compared to being a female employee, involves higher level of happiness than in the case of males.

Regarding the control variables, the estimates show that age matters for explaining individuals' happiness. In short, older individuals are less happy. This relation is not so negative in the case of females. Education is statistically significant, at a 10% level, when we are analyzing the all individuals and, at a 5% of significance, for females. Results show that highly educated females are, on average, all the other factors being constant, less happy.

Table 8: Determinants of happiness: logistics estimations (dependent variable: happiness – dummy variable which assumes the value 1 when the individuals claim to be “very happy”)

Variables		2010-2013 [61 worldwide countries]			2017-2018 [16 European countries]		
		All	Female	Male	All	Female	Male
		Model D1	Model D2	Model D3	Model E1	Model E2	Model E3
Entrepreneurs (1 if the individual is self-employed; 0 if employee)		0.209*** (0.024)	0.304*** (0.040)	0.152*** (0.031)	0.374*** (0.068)	0.405*** (0.107)	0.356*** (0.009)
Age (ln)		-0.510*** (0.031)	-0.500*** (0.047)	-0.519*** (0.043)	-0.937*** (0.073)	-0.926*** (0.104)	-0.964*** (0.107)
Highly educated (1 if the individual has at least some university education; 0 otherwise)		-0.057* (0.022)	-0.100** (0.033)	-0.019 (0.029)	0.197*** (0.044)	0.208*** (0.060)	0.181*** (0.065)
Marital status (1 if the individual is married or is living as married; 0 otherwise)		0.313*** (0.021)	0.314*** (0.031)	0.316*** (0.030)	0.642*** (0.046)	0.594*** (0.063)	0.699*** (0.071)
High income level (1 if the individual has high income; 0 otherwise)		0.586*** (0.022)	0.597*** (0.035)	0.576*** (0.029)			
Income group (default: High income)	Upper middle income	0.016 (0.025)	-0.082** (0.036)	0.094*** (0.034)	0.509*** (0.045)	0.547*** (0.064)	0.475*** (0.066)
	Lower middle income	-0.041 (0.032)	-0.092* (0.048)	0.001 (0.042)			
	Low income	-0.283*** (0.045)	-0.299*** (0.069)	-0.266*** (0.059)			
Region (default: Europe & Central Asia)	North America	0.374*** (0.048)	0.352*** (0.070)	0.382*** (0.067)			
	Middle East & North Africa	0.028 (0.026)	0.118*** (0.043)	-0.020 (0.034)			
	Sub-Saharan Africa	0.641*** (0.033)	0.549*** (0.049)	0.683*** (0.044)			
	South Asia	0.325*** (0.051)	0.213* (0.111)	0.354*** (0.059)			
	East Asia & Pacific	0.111*** (0.026)	0.104*** (0.039)	0.118** (0.036)			
N		52895	22540	30334	11614	6008	5606
Very happy		17489	7414	10065	3302	1700	1602
Other		35406	15126	20269	8312	4308	4004
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (p-value)		383.42 (0.000)	193.90 (0.000)	203.53 (0.000)	194.36 (0.000)	114.04 (0.000)	81.21 (0.000)
Average [Max] VIF		1.33 [1.86]	1.29 [1.77]	1.37 [2.02]	1.05 [1.10]	1.03 [1.05]	1.09 [1.18]
% correct		67.3	67.3	67.2	71.5	71.9	71.3
Test Hosmer and Lameshow (p-value)		16.91 (0.000)	1.50 (0.473)	15.43 (0.000)	0.97 (0.614)	0.32 (0.853)	1.27 (0.530)

Legend: In brackets it stands the robust standard errors. p-values: *** (**) [*] Significant at 1% (5%) [10%]. Estimations performed using Stata v. 14.1

Source: Own elaboration based on data from the World Values Survey and the European Values Survey.

5. Conclusion

The volume of research discussing the relation between work values and entrepreneurship and happiness and entrepreneurship is still quite scanty. The present study aimed to empirically complement this literature which includes the studies by Almeida & Teixeira (2017), Binder & Coad (2013), Lechner et al. (2018) and Pham et al. (2018), by incorporating a gender perspective.

Using the logistic regression, we have reached the following results:

- 1- No matter the gender, entrepreneurs attribute more importance to work values than non-entrepreneurs.
- 2- While looking in a gender perspective, female entrepreneurs attribute more importance to work values than their non-entrepreneurs counterparts and the same happens in the case of males: male entrepreneurs give more importance to work values than non-entrepreneurs. Contrarily to the expected, however, and against the existing literature, the importance given to work values by women entrepreneurs (compared to their non-entrepreneurs counterparts) is higher than the importance given by male entrepreneurs (compared to their counterparts).
- 3- As for the attributes considered important in a job, women entrepreneurs tend to give more importance to responsible job, while giving less weight to generous holidays and good pay, when compared to women who are not entrepreneurs (who are employed). Regarding the men entrepreneurs, compared to their male employees, it was found that they consider use initiative and achieving something as important job attributes, downplaying attributes such as good pay and generous holidays.
- 4- Regardless the gender, being an entrepreneur is positively associated with happiness.
- 5- Both female and male entrepreneurs are happier than female and male employees. However, the impact of the entrepreneurial status on happiness is higher for women than for men, which is not aligned with the extant literature.

The study brings two main scientific empirical contributions. First, using a large sample of individuals from many countries, it addresses an overlooked issue, the relation between entrepreneurship, work values and happiness. Second, it adds to this analysis a gender perspective, assessing the extent to which the overall relations – entrepreneurship-work

values and happiness-entrepreneurship – are distinct when one analysis them separating female from males.

Similar studies which dealt with the issue of work values and entrepreneurship (e.g., Almeida & Teixeira, 2017; Crum & Chen, 2015; Hirschi & Fischer, 2013) although controlling for gender did not analyze separately female entrepreneurs versus non-entrepreneurs and male entrepreneurs versus non-entrepreneurs. When it comes to happiness, few studies already explored the impact of being an entrepreneur in the feeling of happiness (Andersson, 2008; Binder & Coad, 2013; Crum & Chen, 2015; Pham et al., 2018) but again have not analyzed this relation separated by gender.

Despite the novel contributions of the present study, some limitations need to be brought up. The databank used, the World Values Survey and the European Value Survey, are not focused on entrepreneurship, and therefore do not permit to construct a variable that directly and rigorously quantifies entrepreneurship. Nonetheless, we resort to a frequently used proxy for entrepreneurs, 'being a self-employed'. Other limitations are based on the fact that we could have considered not only the differences between being an entrepreneur or non-entrepreneur for men and women but also investigate inside the same group. That is, we could have looked for the entrepreneurial group and compared men to women while looking at the non-entrepreneur's group and done the same comparison. This last limitation is also a potential future research.

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Annex

Table A 1: Number of observations by country and income group in the World Values Survey, 2010-2014

Country	Region	Income group	Number of observations
Algeria	Middle East & North Africa	Upper middle income	1200
Argentina	Latin America & Caribbean	High income	1030
Armenia	Europe & Central Asia	Upper middle income	1100
Australia	East Asia & Pacific	High income	1477
Azerbaijan	Europe & Central Asia	Upper middle income	1002
Belarus	Europe & Central Asia	Upper middle income	1535
Brazil	Latin America & Caribbean	Upper middle income	1486
Chile	Latin America & Caribbean	High income	1000
China	East Asia & Pacific	Upper middle income	2300
Colombia	Latin America & Caribbean	Upper middle income	1512
Cyprus (G)	Europe & Central Asia	High income	1000
Ecuador	Latin America & Caribbean	Upper middle income	1202
Egypt	Middle East & North Africa	Lower middle income	1523
Estonia	Europe & Central Asia	High income	1533
Georgia	Europe & Central Asia	Lower middle income	1202
Germany	Europe & Central Asia	High income	2046
Ghana	Sub-Saharan Africa	Lower middle income	1552
Haiti	Latin America & Caribbean	Low income	1996
Hong Kong	East Asia & Pacific	High income	1000
India	South Asia	Lower middle income	4078
Iraq	Middle East & North Africa	Upper middle income	1200
Japan	East Asia & Pacific	High income	2443
Jordan	Middle East & North Africa	Upper middle income	1200
Kazakhstan	Europe & Central Asia	Upper middle income	1500
Kuwait	Middle East & North Africa	High income	1303
Kyrgyzstan	Europe & Central Asia	Lower middle income	1500
Lebanon	Middle East & North Africa	Upper middle income	1200
Libya	Middle East & North Africa	Upper middle income	2131
Malaysia	East Asia & Pacific	Upper middle income	1300
Mexico	Latin America & Caribbean	Upper middle income	2000
Morocco	Middle East & North Africa	Lower middle income	1200
Netherlands	Europe & Central Asia	High income	1902

(...)

Country	Region	Income group	Number of observations
New Zealand	East Asia & Pacific	High income	841
Nigeria	Sub-Saharan Africa	Lower middle income	1759
Pakistan	South Asia	Lower middle income	1200
Palestine	Middle East & North Africa	Lower middle income	1000
Peru	Latin America & Caribbean	Upper middle income	1210
Philippines	East Asia & Pacific	Lower middle income	1200
Poland	Europe & Central Asia	High income	966
Qatar	Middle East & North Africa	High income	1060
Romania	Europe & Central Asia	Upper middle income	1503
Russia	Europe & Central Asia	Upper middle income	2500
Rwanda	Sub-Saharan Africa	Low income	1527
Singapore	East Asia & Pacific	High income	1972
Slovenia	Europe & Central Asia	High income	1069
South Africa	Sub-Saharan Africa	Upper middle income	3531
South Korea	East Asia & Pacific	High income	1200
Spain	Europe & Central Asia	High income	1189
Sweden	Europe & Central Asia	High income	1206
Taiwan	East Asia & Pacific	High income	1238
Thailand	East Asia & Pacific	Upper middle income	1200
Trinidad and Tobago	Latin America & Caribbean	High income	999
Tunisia	Middle East & North Africa	Lower middle income	1205
Turkey	Europe & Central Asia	Upper middle income	1605
Ukraine	Europe & Central Asia	Lower middle income	1500
United States	North America	High income	2232
Uruguay	Latin America & Caribbean	High income	1000
Uzbekistan	Europe & Central Asia	Lower middle income	1500
Yemen	Middle East & North Africa	Low income	1000
Zimbabwe	Sub-Saharan Africa	Low income	1500
All			89565

Table A 2: Number of observations by country and income group in the European Values Survey, 2017-2018

	Region	Income group	Frequency
Austria	Europe & Central Asia	High income	1644
Armenia	Europe & Central Asia	Upper middle income	1500
Bulgaria	Europe & Central Asia	Upper middle income	1560
Belarus	Europe & Central Asia	Upper middle income	1548
Croatia	Europe & Central Asia	High income	1488
Czech Republic	Europe & Central Asia	High income	1812
Georgia	Europe & Central Asia	Lower middle income	2194
Germany	Europe & Central Asia	High income	1494
Iceland	Europe & Central Asia	High income	915
Netherlands	Europe & Central Asia	High income	686
Poland	Europe & Central Asia	High income	1352
Russia	Europe & Central Asia	Upper middle income	1825
Slovak Republic	Europe & Central Asia	High income	1435
Slovenia	Europe & Central Asia	High income	1076
Spain	Europe & Central Asia	High income	1212
Switzerland	Europe & Central Asia	High income	673
Total			22414