



Self-Employed Individuals with and without Employees: Individual, Social and Economic Level Differences

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Abstract. This paper focuses on the differences between solo self-employed individuals and self-employed persons that hire employees, in terms of individual, social and economic variables. The study is based on Dyer's (1994) model of entrepreneurial careers and Schwartz' (1992, 1994) values inventory and uses data from Wave 7 of the European Social Survey released in 2016. The analysis found that, compared to solo self-employed, self-employed individuals with employees have higher scores regarding their need for power values, i.e., they attach higher importance to achieving high social status and prestige, authority, wealth, and a positive public image. Moreover, the level of overall happiness is higher for self-employed with employees, even when controlling for their higher incomes. On the other hand, entrepreneurs attaching a high importance to self-direction (including job autonomy) were more often found to be working on their own (i.e., solo self-employed).

Keywords: self-employed, entrepreneurs, need for achievement, need for power, need for self-direction.

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1. Introduction

Do entrepreneurs have special genes? What does it take to become an entrepreneur? How do business owners become successful? Many such questions have been asked and answered in numerous research studies related to entrepreneurship. However, not too many studies have focused on a special category of entrepreneurs, the self-employed individuals, who remain, for a while or for a longer period, at the level of the "one man show", without the need or strategic motive to become a small business and start hiring help.

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Researchers have studied personality characteristics, organizational factors, social and environmental factors in relation to entrepreneurial success (Aldrich and Wiedenmayer, 1993; Baum and Locke, 2004; Beugr, 2014; Naffziger, Hornsby and Kuratko, 1994). In addition, individual characteristics, such as personality, motivation, experience and expertise have received significant attention in research, together with factors related to the social support and the economic environment of entrepreneurs (Baum and Locke, 2004; Carter et al., 2003; Hessels, van Gelderen and Thurik, 2008; Dyer, 1994; Johnson, 1990).

Entrepreneurship research also has focused on macro level indicators, taking into consideration various country level variables, cultural characteristics and institutional factors. Different categories of entrepreneurs were also included in studies. For example, more targeted research papers focused on ethnic entrepreneurs, family businesses and the determinants of their success, and even off-the-books entrepreneurs (Bruder, Neuberger and Rathke-Doppner, 2011; Iyer, 2004; Sjögrén et al., 2014; Williams et al., 2013). Most studies have researched business founders and owners, assuming that entrepreneurs have started their own business in order to become self-employed (Kolvereid, 1996). However, few studies so far have focused on the difference among the various groups of self-employed individuals, although there are researchers that have noted the heterogeneous characteristics of the self-employed group of entrepreneurs. Some researchers have studied the differences between self-employed categories regarding topics such as growth, and recommend the highest level of disaggregation possible in entrepreneurship studies (Salas-Fumás and Sanchez-Asin, 2013). Other studies focus on specific categories of self-employment, such as individual self-employment, and self-employment with employees, or necessity and opportunity self-employed, noting the differences in entrepreneurial motivations, decisions and constraints (Bunk et al., 2012; Burke, FitzRoy and Nolan, 2000; Cowling, Taylor and Mitchell, 2004; Kraaij and Elbers, 2016; Seva et al., 2016).

Discovering and knowing these differences is important, considering that entrepreneurial efforts are augmented by growth in the number of employees, and about one third of self-employed individuals in the U.S., the U.K. and other Western countries hire additional workers (Cowling et al., 2004). Nevertheless, the number of self-employed individuals without employees was also growing among the economically active population in the last decade (Kraaij and Elbers, 2016). The importance of job generation is also underlined by public authorities' efforts to support entrepreneurial start-ups (Kraaij and Elbers, 2016).

This research endeavour focuses specifically on the differences between self-employed individuals working on their own and self-employed individuals that also have employees. The study is based on Dyer's (1994) integrative model of entrepreneurial careers and analyses the differences in employment choice and their antecedents, related to psychological, social and economic factors. The focus of this article is to assess the differences between individuals who are solo

self-employed and those who work for themselves but also have employees, based on the key framework provided by Dyer (1994). The conceptual model includes individual order factors connected to psychological characteristics, the social and economic environment of entrepreneurs.

We first discuss the concept of self-employment and establish the two main categories of self-employed individuals that will be the focus of this study, solo self-employed and those that employ other people. Then we discuss Dyer's (1994) career choice framework that is used to analyse the key differences between the two groups of self-employed individuals. The three main types of factors underlined by Dyer (1994) are then presented in detail, using variables commonly encountered in the entrepreneurship literature and Schwartz's (1992, 1994) human values inventory. To test our hypotheses, we use data and variables from the European Social Survey, an academically driven cross-national survey, which has been distributed every two years across Europe since 2001 (European Social Survey, 2016). We analyse our data using MANOVA and logistic regression.

This study can contribute to clarifying the differences between individuals who prefer to be solo self-employed and those self-employed individuals who hire other people and develop their business. The analysis adds further knowledge to the entrepreneurship literature by explaining the differences between the two categories of entrepreneurs and placing the basis for future studies relations to self-employment motivation, strategic and growth decisions.

2. Self-Employed Individuals vs. Business Owners

In its most broad sense, the term self-employed refers to all self-employed individuals working on their own account. A distinction can be made between self-employed with employees and self-employed without employees, also known as solo self-employed. Within the latter group, a further distinction can be made between solo self-employed offering goods and those offering only their own knowledge and skills (van Stel and de Vries, 2015). While some solo self-employed own a business (typically those that offer goods), others do not (Cieslik, 2015). This form of self-employment can derive into a more developed form of entrepreneurship, with owning a business and employing others, but it is not necessary, since the self-employed individual can continue to work on their own, without the need to create a company, employ other individuals and increase business (McKeown, 2015). Other researchers consider self-employment a simple form of entrepreneurship and used these two terms interchangeably (Blanchflower and Oswald, 1998; Burke, FitzRoy and Nolan, 2008).

At the same time, researchers have noted the heterogeneous characteristics of the self-employed group of entrepreneurs and have analysed differences between different segments of this population. Some researchers have studied the

heterogeneity of self-employed individuals considering demographic characteristics and start-up motives, including the specifics of necessity and opportunity entrepreneurs in the context of self-employment (Binder and Coad, 2013; McKeown, 2015; van Stel and de Vries, 2015).

Other studies focus on two main categories of self-employment, individual self-employment, and self-employment with employees, noting their differences regarding managerial and start-up constraints, as well as the individual and psychographic profile variations of these entrepreneurs (Bunk et al., 2012; Burke et al., 2000; Cowling et al., 2004; Cowling and Taylor, 2001; Kraaij and Elbers, 2016; Seva et al., 2016). The present study focuses on the differences between individual (solo) self-employment, where the entrepreneur works on his/her own, and self-employed individuals that own a company where they also hire other persons. We consider both categories as entrepreneurs and use the term entrepreneur for all self-employed groups. Throughout the paper we might use different terms for the first category, such as solo self-employed, on their own or without employees, while the second category might also be named self-employed with employees, business owners or self-employed who also hire other persons, to avoid repetition.

Regarding self-employment, research has analysed different aspects that are related to self-employment with and without employees, including antecedents such as start-up motivations, demographic characteristics and barriers to entry, as well as outcomes, such as the number of employees, as well as business growth and performance (Blanchflower and Oswald, 1998; Burke et al., 2000; Cowling et al., 2004; Cowling and Taylor, 2001; van Stel and de Vries, 2015). Studies also look at differences between self-employed individuals regarding job satisfaction, subjective well-being and work-family conflict (Binder and Coad, 2013; Bunk et al., 2012; Seva et al., 2016). The focus of this paper is on the main differences between the two categories of self-employed entrepreneurs, as it is presented in the conceptual framework.

3. Conceptual Framework

Dyer's (1994) integrative model of entrepreneurial careers focuses on four major areas: (1) the antecedents that influence career choice; (2) career socialization; (3) career orientation; and (4) career progression. According to Dyer (1994), individuals make career decisions based on three types of factors: individual (demographic and psychographic), social (including family support), and economic (economic situation, employment opportunities and resources). Overall, Dyer's (1994) framework provides a structure that can be used to examine entrepreneurial careers and their evolution in time and stages of development. This article is centred on the antecedents that affect individuals' career choice, work situation, and entrepreneurial decisions, included in three

main categories: individual, social and economic factors, as can be seen in Table 1.

Table 1: Characteristics influencing career choice

Antecedents Influencing Career Choice*
Individual Factors
Psychological Factors
Need for achievement
Need for control
Tolerance for ambiguity
Entrepreneurial attitudes
Social Factors
Family relationships
Family support
Community support
Role models
Economic Factors
Lack of alternative careers in existing organizations
Economic growth/business opportunities
Availability of resource networks

* Source: Dyer (1994).

3.1. Individual Factors

Entrepreneurship studies have focused on psychological factors that motivate individuals to pursue an entrepreneurial career, including elements such as the need for achievement, the ability to take risks, financial drives, and tolerance for ambiguity (Carter et al., 2003; Hessels et al., 2008; Naffziger et al., 1994; McClelland, 1961; McClelland and Burnham, 1976). Research underlines the fact that, besides the very important need for achievement, independence needs, such as freedom and time flexibility, are also significant for entrepreneurs (Berglund, Seva and Strandh, 2015; Hessels et al., 2008; Kolvereid, 1996; Schein, 1990). Other individual characteristics related to the entrepreneurial process include valuing control, power, energy level and conformity, as well as persistence and dominance (Ahmad, 2010; Baum and Locke, 2004; Berglund et al., 2015). Research has noted that entrepreneurs with higher achievement motivations, higher risk-takers and innovators are more likely to emphasize business growth, expansion and focus on extensive planning (Stewart et al., 2003).

Overall, as Dyer (1994) notes, individual factors are important in the selection of an entrepreneurial career and in developing a theory of

entrepreneurial careers. Some of the key individual factors included by Dyer (1994) in his framework are the need for achievement, need for control, tolerance for ambiguity, entrepreneurial attitudes and many other elements studied in the literature. Work experiences (either positive or negative), specialized skills, education and knowledge can also lead to entrepreneurial development, as well as attitudinal measures (Dyer 1992, 1994).

Researchers have also noted that entrepreneurs who integrated their personal values in their entrepreneurial vision were personally more committed and passionate about their efforts (Baum and Locke, 2004). In this context, we consider some of the most important individual values underlined by previous entrepreneurship literature, such as the need for achievement, need for control and the need for autonomy, independence and self-direction. Given their correspondence to the inventory of human values described by Schwartz (1992, 1994), one of the most widely used by social scientists to study individual differences in values, we take into consideration the human values theory and focus on achievement, power and self-direction values. Values are abstract motivations that explain attitudes and actions and, therefore, in the context of research they provide predictive and explanatory power in the analysis of attitudes, opinions and actions (Schwartz, 1992, 1994). Another individual variable taken into consideration, often encountered in entrepreneurship research, is happiness or life satisfaction (Binder and Coad, 2013; Blanchflower and Oswald, 2004).

3.1.1. Happiness

One of the personal traits discussed in the specialized literature includes passion for work, referring to the emotions of love, attachment, and enthusiasm about one's job or company (Baum and Locke, 2004; Timmons, 2000). Locke (2000) identified passion and love for work as key characteristics of great wealth creators, including Michael Bloomberg and Bill Gates. They exhibit enthusiasm for the type of business, zeal and drive for work. This characteristic can be combined with individuals' psychological well-being also studied in connection to entrepreneurship (Hessels et al., 2008).

Research found that, in general, self-employed individuals are more satisfied with their jobs than employees, due to more autonomy and interesting work (Benz and Frey, 2008; Binder and Coad, 2013; Blanchflower and Oswald, 2004; Coad and Binder, 2014; Hessels et al., 2008; Seva et al., 2016). Even in the context of self-employed individuals, researchers studied variables such as job satisfaction, psychological well-being and skill utilization (Hessels et al., 2008). Regarding self-employment, different studies have shown that the effects on life-satisfaction are unclear, which can be due to the heterogeneity of the self-employed group (Binder and Coad, 2013). Some studies found that self-employed individuals who

employ others have a higher level of life satisfaction than regular employees, while solo self-employed persons are significantly less well off in this regard and less interested in economic growth (Seva et al., 2016). Potential explanations for this relationship include greater stress and pressure for solo self-employed, due to their sole responsibility for the well-being and functioning of the business (Seva et al., 2016).

In this context, this study considers the elements of well-being and happiness as important in connection to the selection of an entrepreneurial career and growth decisions, which can make the difference between solo self-employed individuals and business owners with employees. Considering previous research and the profile of the solo self-employed, including the risks, the responsibilities and the liabilities they face every day, we estimate that the levels of reported happiness will be higher for entrepreneurs that hire other people.

H1a: Self-employed individuals with employees have higher levels of self-reported happiness than solo self-employed.

3.1.2. Need for Achievement

Overall, this research project looks at the differences between entrepreneurs – business owners and solo self-employed individuals, regarding individual values and psychological characteristics. From these individual values, one of the variables selected is related to individuals' need for achievement, respect and recognition. One of the key elements discussed in the entrepreneurship literature refers to psychosocial needs, such as need for achievement and need for respect, as psychological characteristics of an individual. Valuing achievement refers to placing significant importance on personal success, through demonstrating competence according to social standards, and includes being ambitious and influential (Schwartz, 1992, 1994).

Individuals with intention to start up a business can be characterized as individuals who have motivations such as self-achievement, who are ambitious, innovative and autonomous (Marques et al., 2013; Tyrowicz, 2011). The need for achievement is one of the traits most commonly associated with self-employment, together with other values, such as the need for control and independence (Benz and Frey, 2008; Berglund et al., 2015; Hessels et al., 2008; Kolvereid, 1996; McClelland, 1961, 1986).

Studies have also shown the importance of need for achievement on economic development in the entrepreneurial context (McClelland, 1961, 1965). Other studies also found that achievement motivation was higher for entrepreneurial CEOs than for professional CEOs (Ahmad, 2010; Stewart et al., 2003). A few studies on this topic also found that employers have higher and positive wage residuals than solo self-employed, which might be due to their

higher aspirations (Tyrowicz, 2011). Considering the impact of need for achievement on business growth, we estimate that entrepreneurs who are more motivated to be successful and to achieve personal influence will be more likely to follow a path of business growth and development. Under these circumstances, self-employed individuals who also employ other people are more likely to have high levels of achievement values than persons who are only on their own.

H1b: Self-employed individuals with employees have higher levels of need for achievement than solo self-employed.

3.1.3. Need for Power

Research has noted that the pursuit of achievement values may be compatible with the pursuit of power values, meaning seeking personal success is likely to strengthen and to be reinforced by actions aimed at enhancing one's social position and authority over others (Schwartz, 1992, 1994). Power values include social status and prestige, authority, wealth, as well as building and maintaining a positive public image (Schwartz, 1992, 1994).

Besides the need for achievement, the need for power has been underlined by the entrepreneurship literature as an important motivation for entrepreneurial behaviour and a reason to become self-employed (Ahmad, 2010; Benz and Frey, 2008; Berglund et al., 2015; Hessels et al, 2008; Kolvereid, 1996; McClelland and Burnham, 1976). From this point of view, entrepreneurial ventures are seen as a potential vehicle in creating social status and prestige, much more than simple employment can do.

Considering entrepreneurs' need for power in the context of self-employment, a business with employees, on a developing and growing path has the potential to bring more social status and prestige for the entrepreneur. Having employees and being in a leadership position can also satisfy the need to have authority over others and even to build a social image through a growing and successful business. Considering these elements, we estimate that self-employed individuals who have employees value more control and power than their solo counterparts.

H1c: Self-employed individuals with employees have higher levels of need for power than solo self-employed.

3.1.4. Need for Self-Direction

Schwartz (1992, 1994, 2005) describes the self-direction value as derived from organismic needs for mastery and from the interaction requirements of autonomy

and independence. It refers to independent thought and action-choosing, creativity, freedom and the ability of an individual to choose his/her goals.

Studies on entrepreneurship have found that self-employed individuals have higher work-related worries and report working harder than employees, although they have higher levels of job satisfaction, greater opportunities to develop special skills and greater freedom and autonomy at work (Eden, 1973; Kolvereid, 1996; Meager, 2015). Creativity and innovation are considered characteristics necessary for the role of entrepreneurship, and they have been shown to make the difference between entrepreneurs and managers (Timmons, 2000). This underlines the importance of independence and autonomy for self-employed persons, that can even attenuate longer working hours and higher stress levels.

Regarding the category of self-employed, research notes that their greater autonomy and interesting work are positively impacting their job satisfaction (Benz and Frey, 2008; Berglund et al., 2015; Hessels et al., 2008). Self-employment is highly valued because of the self-determination and autonomy it brings to individuals, which has the potential to increase job and life satisfaction (Binder and Coad, 2013; Blanchflower, 2004; Coad and Binder, 2014; Schneck, 2014).

Considering the higher stress and liability level for self-employed individuals without employees underlined by research and their responsibility for their personal and financial well-being (Seva et al., 2016), we estimate that they also suffer from lower levels of autonomy than their counterparts who employ other people. Individuals who own businesses with employees are more likely to highly value self-direction, independence and are more interested in growing their business so that they benefit from even more autonomy. We hypothesize that self-employed entrepreneurs with employees are more likely to have higher levels of self-direction values than their solo counterparts.

H1d: Self-employed individuals with employees have higher levels of need for self-direction than solo self-employed.

3.2. Social Factors

A variety of social factors from the entrepreneurship literature were shown to have a significant influence on an individual's decision to become an entrepreneur (Carter et al., 2003; Dyer, 1994; Reynolds, 1997). For example, the social environment can provide the motivational and support bases for an individual's future entrepreneurial success.

Given the importance of the community in the entrepreneurial process, this study considers the social dimension as potentially making the difference in the decision whether to select individual self-employment or opening a business and estimates that higher levels of support lead to more entrepreneurial decisions and

actions. From this point of view, the article takes into consideration one key variable, community well-being, which is part of the social well-being dimensions that an individual experiences (Jeffrey, Abdallah and Quick, 2015). Community well-being represents an individual's feelings about the community in which s/he lives, including trust in other people, feeling supported by members of the community, and experiencing a sense of neighbourliness (Jeffrey et al., 2015).

Social support for the entrepreneurial career can have an impact on career choice, and this includes family, financial, psychological support, community help and recognition (Carter et al., 2003). For example, researchers found stronger relationships between job and family satisfaction for self-employed individuals than for regular employees, due to their commitment to the success of the business and to an interdependent relationship between work and family (Kolvereid, 1996). Recognition and need for approval have been found to be significant and are used to describe an individual's intention to have approval and recognition from his/her family, friends, and other persons in the community (Carter et al., 2003).

Research has also noted the necessity for entrepreneurs to count on other individuals in the community regarding the necessary resources for the entrepreneurial venture, including in their endeavour to develop the business and hire new employees (McKeown, 2015). Self-employed individuals need not only financial resources, but also human resources, especially when deciding to use employees and expand the business, in which case the community's well-being is an important aspect.

Studies have also noted that family significantly influences an entrepreneur's decisions, especially regarding family and social support throughout the entrepreneurial process (Naffziger et al., 1994; Wang et al., 2012). At the same time, not only the entrepreneurs' family, but also their peers, mentors and role models can have a significant impact on their support. Dyer (1992) even writes that one reason for not pursuing an entrepreneurial career is the lack of support from family members or rejection of entrepreneurial initiatives by the community. Studies have found that entrepreneurial initiative and success are driven by both necessity and opportunity (Williams and Williams, 2014). Not only family support, but also expertise, educational background and entrepreneurial experience can affect an individual's decision to become self-employed or to create a new business. Social and entrepreneurial networks that provide support, expertise and mentorship can have an impact on career and business choices (Naffziger et al., 1994).

Research focusing on the differences within the self-employed group have also found differences based on social relations, social support and their influence on subjective well-being (Seva et al., 2016). In this context, the level of perceived community well-being is hypothesized to be higher for self-employed individuals with employees, who need better support in their business development.

H2: Self-employed individuals with employees perceive higher levels of community well-being than solo self-employed.

3.3. Economic Factors

A third set of factors that can encourage or inhibit entrepreneurial activity that Dyer (1994) took into consideration is related to economics, including macro level factors, such as the state of the economy, and micro level factors related to individual income and resources.

3.3.1. State of the Economy

Researchers have noted that environmental and economic conditions can lead to the creation of new organizations and stimulate entrepreneurial behaviour (Aldrich and Waldinger, 1990; Bruder et al., 2011; Kasturi and Subrahmanya, 2014; Kirchhoff, 1991; McKeown, 2015). Economic growth that leads to the creation of business opportunities can also influence entrepreneurial careers. Dyer (1994) found that, while a nation's economy is expanding and there is more demand for goods and services, it is more likely that these opportunities will lead to entrepreneurial developments. At the same time, resource networks, including the basic resources of labour, capital, and raw materials, can encourage the creation of entrepreneurial initiatives.

The economic climate of the market, and the availability of accessible financing and resources are also important economic influences in the decision to start a firm or become self-employed (Kasturi and Subrahmanya, 2014; Misra et al., 2014; Naffziger et al., 1994; Wang et al., 2012). In studies examining the evolution of self-employment, researchers have focused on the macroeconomic and structural factors, which affect the pursuit of these kinds of jobs, and found economic conditions important for this area (Benz and Frey, 2008; Burke et al., 2000; Hessels et al., 2008).

Other researchers found important differences in the patterns of the determinants of growth rates in the self-employed and in firms, based on business opportunities, but also on different macroeconomic variables such as inflation and unemployment (Salas-Fumás and Sanchez-Asin, 2013). Moreover, solo self-employed individuals have riskier operations that are subjected to the fluctuations of the economy and the market in which they operate (McKeown, 2015). For these reasons, this study considers that the way individuals perceive the state of the economy in their country can be related to their career decision and position as either solo self-employed or self-employed with employees.

H3a: Self-employed individuals with employees have higher levels of satisfaction with the state of the economy than solo self-employed.

3.3.2. Satisfaction with Income

At the same time, besides the macro-level state of the economy, individual decisions also relate to micro-level economics, meaning the economic state of the household. Individuals who prefer to have their own business usually expect from their career higher income, more leisure time and more comfortable working conditions. Studies found that both self-employed individuals and business owners feel that their preferred career provides greater opportunity to earn a higher income and to develop further (Kolvereid, 1996).

Research has also shown that, in general, self-employed individuals with employees make on average more than their paid employed counterparts with the same levels of education (van Stel and de Vries, 2015). However, when it comes to the differences between the different categories of self-employed individuals, research has noted that solo self-employment does not offer any income security and is a much riskier operation than self-employment with other employees (McKeown, 2015).

Researchers also found that employers have higher and positive income residuals than solo self-employed, which might be due to their higher aspirations (Tyrowicz, 2011). From this point of view, this research project also takes into consideration individuals' satisfaction with their income and hypothesizes that self-employed individuals with employees are more likely to be satisfied with their levels of income than their solo counterparts.

H3b: Self-employed individuals with employees have higher levels of satisfaction with income than solo self-employed.

Table 2: Variables included in the model

Individual factors
happiness
need for achievement
need for power
need for self-direction
Social factors
community well-being
Economic factors
state of economy
satisfaction with income

4. Methodology

In order to test the conceptual model presented, the European Social Survey, Round 7, with data collection starting in 2014 and with the last wave released in May 2016, was selected as a rich source of data, since it includes answers from 21 European countries, with a variety of cultural and economic backgrounds. The European Social Survey (ESS) is an academically driven cross-national survey, that has been distributed every two years across Europe since 2001 (European Social Survey, 2016). The European Social Survey (ESS) is a European Research Infrastructure Consortium known as ESS-ERIC, ran by a general assembly including top academics from the European countries surveyed and headquartered at City University London. The ESS achieves high response rates, typically of 70 percent or more, and its sample sizes are high and representative (Lange, 2012; Sappleton, 2009). Other researchers have used the ESS to perform analyses by taking personality traits, personal values and indicators for workers' autonomy explicitly into account and relating them to job satisfaction (Lange, 2012).

Overall, after eliminating the missing observations for the variable representing the type of self-employment, the sample in the second wave of Round 7 included 4139 self-employed individuals. However, after eliminating listwise the missing values for all our variables of interest, the sample was reduced to 2958 observations, of which 1727 (58%) are solo self-employed, and 1231 are self-employed that hire other people. Data was distributed among all European countries included in the ESS survey and the respondents were 62% males. This dataset was further used in the exploratory factor analyses, MANOVA and in logistic regression.

The variable reporting employment relationship was taken into consideration to identify individuals who are self-employed, which were then separated into self-employed with and without employees, based on the number of employees that they reported. We operationalized happiness as self-reported subjective well-being, including items related to happiness and satisfaction to life as a whole (Vogel, Boelhouwer and Veenhoven, 2005). This used a 1-10 scale (extremely unhappy-extremely happy), asking, for example, respondents to answer "How happy are you?". The exploratory factor analysis showed good results and the Cronbach's alpha was over 0.7, as shown in the Appendix.

The variables (need for) achievement, power and self-direction were measured according to the recommendations of Schwartz (1992, 1994, 2005) to calculate the individual level cultural human values based on the ESS questionnaire. These items used a 6-point scale, ranging from "not at all like me" to "very much like me". The score for each variable is the mean of the raw ratings given to the items that compose each measure. However, a correction is made for differences in the use of the response scale by cultural groups and individuals

(Schwartz, 1992, 1994, 2005). It is notable that Schwarz does not recommend factor analysis for these three variables.

Community well-being is a multi-item measure, on a 5-point Likert scale, as presented in the Appendix (Jeffrey, Abdallah and Quick, 2015). The factor analysis results, including item loadings, variance explained and eigenvalue look great, and Cronbach's alpha shows reliability for this scale. Considering the incipient status of the scale and the recommendations of the surveys creators and the ESS, we consider that it can be used under these circumstances.

Satisfaction with the state of the economic system is also measured through multiple variables, including satisfaction with the economy and government on a 10-point satisfaction scale, which had good results in the factor analysis procedure and a high Cronbach's alpha. The variables employed in order to measure the key concepts of our study are presented in the Appendix. The results for the factor analysis procedure and the Cronbach's alphas are also shown in order to provide evidence for the goodness-of-fit of the measures. In order to measure the variable related to income, the analysis included the one item, "How satisfied are you with your household income". Besides satisfaction with income, the variable of interest in the model, we also included the level of household income, as a control variable. The Appendix provides the tables including the results for the factor analysis and Cronbach's alpha for the variables, as well as the items included in the three cultural human value variables (need for achievement, need for power and need for self-direction).

4.1. Data Analysis

4.1.1. MANOVA

First, we employed a multivariate analysis of variance on the ESS sample including 2958 observations, in order to test the differences between self-employed individuals with and without employees regarding the seven variables of interest. A MANOVA procedure was necessary instead of ANOVA in order to include multiple variables. For the multi-item measures we employed the regression factor scores, except for the human values, which have specific calculations recommended by Schwartz (2005), as discussed above. We also include demographic covariates such as age, education and household income index. The results of the statistical test are presented in Table 3, showing the significant differences between the two categories of solo self-employed individuals and self-employed that hire other persons, based on the comparison of the means through the MANOVA procedure.

Table 3: MANOVA results

	Mean solo self-employed (n=1727)	Mean self- employed with employees (n=1231)	Difference (solo s.e. – s.e. with employees)	Sig.
H1a: Happiness	0.014	0.115	-0.101*	0.004
H1b: Need for achievement	-0.465	-0.446	-0.019	0.600
H1c: Need for power	-1.031	-0.856	-0.174*	0.001
H1d: Need for self-direction	0.702	0.612	0.091*	0.001
H2: Community well-being	0.082	0.036	0.047	0.203
H3a: Economy	0.023	0.072	-0.049	0.183
H3b: Satisfaction income	3.110	3.300	-0.189*	0.001
Age	53.070	55.000	-1.935*	0.001
Years of education	13.420	13.210	0.209	0.202
Household income	5.230	6.270	-1.045*	0.001

* The mean difference is significant at the 0.05 level.
Hypotheses in bold are supported.

The results presented in Table 3 also underline the direction of the significant differences between the two categories of self-employed individuals, based on the t-test procedure and comparison of the means. This analysis represents the basis for a further, more sophisticated analysis, viz. logistic regression.

4.1.2. Logistic Regression

In the next step we employed a logistic regression procedure to test the relationship between the probability of being self-employed with employees (relative to solo self-employment) and the seven variables of interest from the individual, social and economic categories. We also used the main demographic variables – age, gender, years of education and household income as covariates, as well as a set of country dummies, considering the heterogeneity of the data from this point of view and the possibility to account for cultural influences.

Table 4: Logistic regression results (n=2958)

	B	S.E.	Sig.	Exp(B)
H1a: Happiness	0.116	0.049	0.018	1.123
H1b: Need for achievement	-0.051	0.044	0.255	0.951
H1c: Need for power	0.152	0.049	0.002	1.165
H1d: Need for self-direction	-0.164	0.056	0.003	0.849
H2: Community well-being	-0.139	0.049	0.005	0.870
H3a: Economy	0.027	0.052	0.604	1.027
H3b: Satisfaction income	0.141	0.065	0.031	1.152
Age	0.014	0.003	0.001	1.014
Years of education	-0.014	0.011	0.209	0.986
Household income	0.128	0.018	0.001	1.136
Gender (male)	0.346	0.086	0.001	1.414

Note: The dependent variable is an indicator for self-employment with employees (reference group: self-employment without employees or solo self-employment). Country dummies are included in the regression but not reported. Hypotheses in bold are supported.

The results of the statistical test on the ESS sample including 2958 observation are presented in Table 4, showing a good fit for the overall model and significance for most variables included in the model. This procedure helps conclude which variables significantly differ for the two categories of entrepreneurs and whether the variables from the hypotheses have higher values for solo self-employed or for those who also employ other individuals. The next section presents the key results obtained following the statistical analyses, which of the hypotheses were supported, and what the key differences were between the two categories of entrepreneurs.

5. Results

5.1. MANOVA

The results of the overall MANOVA procedure, including the F-value for all four major statistical indices (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, Roy's Largest Root), show significant support ($p < 0.001$) for the model hypothesized. Using MANOVA, we find support for three out of the seven relationships, as shown in Table 3. Among the individual cultural value variables, need for power and need for self-direction vary significantly between the two categories analysed, self-employed with and without employees. However, whereas the level of power value is higher for self-employed with employees, as expected and

supporting hypothesis 1c, the self-direction value shows higher levels for solo self-employed. Achievement is not significantly different between the two groups. The level of happiness is also significant, showing a higher level for self-employed with employees and supporting hypothesis 1a.

Regarding the social domain, the MANOVA analysis does not find significant differences regarding the level of community well-being. In the category of economic and financial variables, the MANOVA results in Table 3 show differences between the two groups of entrepreneurs only when it comes to their household's income, indicating that self-employed individuals with employees have higher levels of satisfaction with income (supporting hypothesis 3b). There are also significant differences between the two groups regarding age, household income and gender.

5.2. Logistic Regression

As shown in Table 4, a logistic regression was performed to ascertain the effects of happiness, three individual cultural values, social factors and economic factors on the likelihood that individuals are self-employed with employees, relative to solo self-employment (reference category). According to the omnibus test, the logistic regression model was statistically significant, $p < 0.0001$. The model explained 16% (Nagelkerke R^2) of the variation in the dependent variable.

When analysing the significance for each of the seven variables taken into consideration, the study finds support for three out of the seven hypothesized relationships. The level of happiness is significant and higher when it comes to the likelihood of becoming self-employed with employees, supporting hypothesis 1a. Among the individual, cultural human value variables, need for power and need for self-direction vary significantly between the two categories analysed, self-employed with and without employees. Table 4 shows that individuals with a higher power value are more likely to be self-employed who also hire other people, as expected in hypothesis 1c. While self-direction is also a variable significant in the model, the direction of the relationship is not as hypothesized, showing a negative association with the likelihood of being self-employed with employees. Need for achievement is not significant, meaning that hypothesis 1b is not supported.

Regarding the social variables, the statistical analysis finds significance for the level of experienced and self-reported community well-being; however, this variable is positively related to the likelihood of being solo self-employed, therefore, showing a different direction than we expressed in hypothesis 2. In the category of economic and financial variables, only one of the two hypotheses has been supported by the data. The statistical test has not found any differences between the two groups in the way they perceive the economy of their country.

The two types of entrepreneurs do differ when it comes to the evaluation of their household's income (hypothesis 3b supported).

From the demographic variables included in the model, gender, age and income level were also significant, as well as the set of country dummies. Overall, the results presented in this analysis underline the significant differences between individuals who prefer solo self-employment and those who are self-employed and hire others and help paint a profile for each of the two categories of entrepreneurs.

6. Discussion

Overall, the statistical results show significant differences between persons who prefer to be self-employed and on their own versus those who prefer to be self-employed and also hire other workers. Variables from the three main categories of factors affecting entrepreneurial career choice (individual, social and economic), have been found to differ between the two categories of respondents. This strengthens the applicability of Dyer's (1994) model and shows that, as expected, a set of variables from the three categories can be used to successfully assess career choices, as well as the potential for business growth and development of entrepreneurial endeavours.

Moreover, the results also underline the significant differences between being solo self-employed and a self-employed individual with employees. The results show that different psychological and social variables, including human values and community relationships, differ between self-employed persons with and without employees. Moreover, their satisfaction with their life and income is also different, an important finding, because it might represent the basis for future decisions.

The analysis found that self-employed persons with employees have higher scores regarding the human value of power (Schwartz, 1992, 1994). The confirmation of this hypothesized difference might present the reason why some entrepreneurs decide to take higher risks and develop their own business, by hiring people and growing their business. This also suggests that some categories of self-employed individuals might consider the development of their business as a way to gain power and recognition through their entrepreneurial decisions than under solo self-employment circumstances (Ahmad, 2010; Benz and Frey, 2008; Berglund et al., 2015; Hessels et al, 2008; Kolvereid, 1996).

However, we did not find any significant differences in the individual factors regarding the need for achievement, while for self-direction we found a negative association with the likelihood of being self-employed with employees. Regarding the negative relationship between the value of self-direction and the likelihood of being self-employed with employees, this might reflect that self-

employed persons who highly value self-direction might not want the responsibility and managerial implications of having employees.

In the social category, the level of community well-being is significant in the logistic regression analysis; however, contrary to hypothesis 2, it does not lead to a higher likelihood of becoming self-employed with employees. More research is required to shed light on this particular result. When it comes to satisfaction with the household's income, there is a higher likelihood for individuals happy with their income to be entrepreneurs with employees, rather than just solo self-employed. This variation might not only reflect that business owners with employees have the capacity for higher incomes, but also that they might work harder and take higher risks. Besides the significant effect related to satisfaction with income, the study also confirms a significant relationship between self-employment status and the level of household income, a control variable included in the model. Regarding other demographic variables used as covariates, we don't find a significant impact of education, while older and male entrepreneurs appear to be more likely to employ others.

To summarise, the logistic regression analysis shows that entrepreneurs with a higher need for power are more likely to employ other workers. Moreover, the level of overall happiness is higher for self-employed with employees, even when controlling for their higher incomes. On the other hand, entrepreneurs attaching a high importance to self-direction (including job autonomy) were more often found to be working on their own (i.e., solo self-employed).

7. Conclusions

The most important contribution of this study is to show the different characteristics of persons who are solo self-employed and those who are self-employed and have employees. While many studies do not make a distinction between the two categories of entrepreneurs, the results of this study show that, in many aspects, individuals who are self-employed on their own have distinct characteristics from those who are running their own small business with employees. Overall, there are significant differences between the two groups regarding their levels of self-reported happiness and need for power. There are also differences in the level of satisfaction with household income, where self-employed individuals that also hire other persons show higher satisfaction with their earnings. Moreover, there are also important demographic factors that influence the likelihood of being self-employed with employees, including age, gender and income level. At the macro-level, the country of residence has proven a significant influence on the likelihood of being solo vs. self-employed with employees. Overall, relative to solo self-employed, self-employed with employees tend to be happier, with higher values of need for power, and higher income satisfaction and income levels. They also tend to be older and more often

male than their solo counterparts. At the same time, self-employed individuals who are on their own have a higher need for self-direction, where autonomy in their work is highly valued.

Regarding future research, the significance of the country dummies calls for studies focusing on macro-level variables, including cultural dimensions and their effect on entrepreneurial career options and opportunities. Overall, the key conclusion of this study, the fact that there are significant differences between different groups of self-employed persons and numerous variables that influence the likelihood of being in one group or another, contributes to the current literature on entrepreneurship, and shows that future research should warrant more attention to these issues. The article concludes that self-employed with and without employees have distinct psychological and social traits and perceptions, an important topic that should receive more attention in entrepreneurship research.

A main limitation of this study is the fact that the analysis does not allow for causal interpretations, and hence that it is not possible to say whether certain characteristics stimulate business ownership with employees (versus solo self-employment), or, conversely, whether business ownership (relative to solo self-employment) stimulates certain characteristics. Studying the causality relationship using longitudinal data can be a helpful topic for future research. Studies on this issue can enrich not only entrepreneurship research, but can also contribute useful information regarding the stimulation of entrepreneurial initiatives. Moreover, instead of focusing only on the general category of entrepreneurs, studies should also ask questions related to different entrepreneurial categories. Do solo self-employed individuals have special genes? How do self-employed persons with employees become successful?

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Appendix 1

Factor analysis and reliability

Happiness

Variable	Loading	Variance	Eigenvalue	Cronbach's alpha
How satisfied with life as a whole	0.854	66.98	2.009	0.721
How happy are you	0.885			
Were happy, how often past week	0.704			

Community well-being

Variable	Loading	Variance	Eigenvalue	Cronbach's alpha
Most people can be trusted or you can't be too careful	0.803	43.066	2.153	0.668
Most people try to take advantage of you, or try to be fair	0.803			
How many people with whom you can discuss intimate and personal matters	0.426			
Take part in social activities compared to others of same age	0.364			
Most of the time people helpful or mostly looking out for themselves	0.742			

State of economy

Variable	Loading	Variance	Eigenvalue	Cronbach's alpha
How satisfied with present state of economy in country	0.811	56.77	2.27	0.744
How satisfied with the national government	0.813			
State of education in country nowadays	0.695			
State of health services in country nowadays	0.685			

Achievement	Important to show abilities and be admired Important to be successful and that people recognize achievements
Power	Important to be rich, have money and expensive things Important to get respect from others
Self-direction	Important to think new ideas and being creative Important to make own decisions and be free