

Grey vs. Young Entrepreneurs: Are They Really That Different in Terms of Entrepreneurial Intentions? Empirical Evidence from Italy

Diego Matricano¹

¹ Department of Management, Università degli Studi della Campania “Luigi Vanvitelli”, Capua (CE), Italy

Correspondence: Diego Matricano, Department of Management, Università degli Studi della Campania “Luigi Vanvitelli”, Corso Gran Priorato di Malta - 81043 Capua (CE), Italy. E-mail: diego.matricano@unicampania.it

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Abstract

In the past, entrepreneurship was considered a young person's endeavour, since it was a working choice made after graduation. Social and demographic changes occurring over the last decades have totally modified that assumption so that entrepreneurship is now a phenomenon involving third age people (aged 55 or older) as well. Scholars have started investigating the differences between young and grey entrepreneurs. This topic of research has always been considered halfway between psychological and social studies on the one hand and entrepreneurial studies on the other. Without denying the relevance that psychological and social studies have in the field of entrepreneurship, in the present paper the phenomenon of grey entrepreneurship is only investigated according to an entrepreneurial perspective. Thus, predictors of entrepreneurial intentions are only rooted in entrepreneurial literature and refer to intellectual capital. The results, based on data retrieved from Global Entrepreneurship Monitor (GEM) website for Italy in 2013, indicate that grey and young entrepreneurs are not that different regarding intellectual capital affecting their entrepreneurial intentions. This result enriches previous literature about grey entrepreneurs.

Keywords: grey, older, senior, entrepreneurs, intellectual capital, entrepreneurial intentions

1. Introduction

At a first glance, entrepreneurship seems to only involve young people (Curran & Blackburn, 2001; Blanchflower, 2004; Weber & Schaper, 2004; Jamil, Nasah, & Hassan, 2014). Very often, in fact, high schools, universities and other institutions offer dedicated courses for young would-be entrepreneurs to nurture, improve or modify their entrepreneurial intentions (Gibb, 1993, 1994; Wee, 2004; Matlay, 2005, 2006, 2007; Pittaway and Cope, 2007a, 2007b; Rae, 2007; Fisher, Graham, & Compeau, 2008; Matricano, 2014, 2017).

However, there is a growing body of evidence and literature that aging people are involved in entrepreneurship as well. This seems mainly due to global population increases, impacting the size of workforce and rate of productivity (Weber & Schaper, 2004; Beckett & Frederick, 2011; Backman & Karlsson, 2013). Consequently, several scholars started investigating entrepreneurship in third age (Singh & DeNoble, 2003; Lévesque & Minniti, 2006; Kautonen, Down, & South, 2008; Kautonen, Tornikoski, & Kibler, 2011; Kautonen, Down, & Minniti, 2014) that – by definition – can take place after retirements (Singh & DeNoble, 2003; Jamil et al., 2014) and involves older entrepreneurs (Curran & Blackburn, 2001; Karoly & Zissimopoulos, 2004; Zissimopoulos & Karoly, 2007; Kerr & Armstrong-Stassen, 2011; Small, 2012; Zolin, 2015; Usman, Fan, & Haq, 2016), also called grey entrepreneurs (Weber & Schaper, 2004; Botham & Graves, 2009) or senior entrepreneurs (Kautonen, 2013; Maritz, 2015). Even if some differences emerge among these groups (Baucus & Human, 1994; Blackburn, Hart, & O'Reilly, 2000; Weber & Schaper, 2004), they are synonymous in this paper. Older, grey and senior entrepreneurs are considered as ‘someone over a certain age who begins their own small or medium-sized enterprises’ (Weber & Schaper, 2004, p. 152).

Most scholars share the same starting point: entrepreneurial intentions of third age entrepreneurs depend on previous experiences (Dyer, 1994). As such, this topic has always been considered halfway between psychological and social studies on the one hand and entrepreneurial studies on the other. Without denying the relevance of psychological and social studies have in the field of entrepreneurship (Matricano, 2015), this paper addresses the phenomenon of grey entrepreneurship from an entrepreneurial perspective only. Thus, to determine whether grey and young entrepreneurs differ regarding their entrepreneurial intentions, predictors for

entrepreneurial intentions are gleaned from entrepreneurship literature.

According to the above, the paper is structured as it follows. In section two of this paper, the main contributions on older entrepreneurs are recalled and analysed. The review aims to disclose the relevant variables for investigating the phenomenon. The heterogeneity of variables seems to compel scholars to search a new theoretical framework that – according to the recent evolution of entrepreneurship studies – can be related to intellectual capital (section three). Human capital, structural capital, and relational capital are the factors investigated to predict entrepreneurial intentions for each age cohort. In section four, it is argued the choice to utilize secondary data derived from the Global Entrepreneurship Monitor (GEM) website. Regarding 2013 for Italy, the results show that grey and young entrepreneurs are not that different in terms of intellectual capital affecting their entrepreneurial intentions. For both age cohorts, only human capital is relevant, even if the intensity of this variable increases as would-be entrepreneurs age. In the last section, the results are discussed and some suggestions for future research are provided.

2. Literature Review

This paper focuses on the entrepreneurial intentions of grey entrepreneurs who, as Backman and Karlsson (2013, pg. 3) argue, ‘do not transition from career employment to retirement but to self-employment, which might provide the flexibility in hours and type of work that older workers desire’. As already said, some scholars call them older entrepreneurs (Curran & Blackburn, 2001; Karoly & Zissimopoulos, 2004; Zissimopoulos & Karoly, 2007; Kerr & Armstrong-Stassen, 2011; Small, 2012; Zolin, 2015; Usman et al., 2016), while other scholars label them as grey entrepreneurs (Weber & Schaper, 2004; Botham & Graves, 2009) or senior entrepreneurs (Kautonen, 2013; Maritz, 2015). Even if some differences emerge between the above groups (Baucus & Human, 1994; Blackburn et al., 2000; Weber & Schaper, 2004), they are synonymous in this paper. Older, grey and senior entrepreneurs are considered ‘someone over a certain age who begins their own small or medium-sized enterprises’ (Weber & Schaper, 2004, p. 152).

More than twenty years ago, Dyer (1994) authored one of the earliest papers on the entrepreneurial intentions of grey entrepreneurs. Dyer (*ibidem*) investigated whether previous working experiences could affect individual intentions and impact entrepreneurial behaviour. Shane (2000) reinforced the idea that the recognition of entrepreneurial opportunities depends on previous work experience, thus leading other scholars to investigate the factors that influence older entrepreneurs. Carr and Sequeira (2007), for example, tested and confirmed the influence of previous working experiences and entrepreneurial intentions.

As noted by Backman and Karlsson (2013), despite the interest in entrepreneurship, scholars investigating grey entrepreneurship have often used an approach rooted in psychological and social studies (Weber & Schaper, 2004). Jamil et al. (2014) maintained that two models could be used to investigate the entrepreneurial intentions of grey entrepreneurs: the theory of planned behaviour (TPB), as proposed by Ajzen (1991), and Shapero’s model of entrepreneurial event (1982). Entrepreneurship scholars tend to prefer the TPB. Kautonen et al. (2011) used this model to test the impact of perceived age norms. Alternatively, Kautonen, Luoto and Tornikoski (2010) addressed their attention toward the role previously held by older entrepreneurs. They tested whether previous roles of industrial workers, employees in the public sector or small business affected entrepreneurial intentions in third age. They based their analysis on Ajzen’s TPB (1991). Both studies demonstrate the strong influence that psychological and sociological studies have on grey entrepreneurship literature.

Lévesque and Minniti (2006) proposed another model to explain how individuals allocate their time between work and leisure, waged labour and entrepreneurship. This model was modified and applied by Kautonen et al. (2014) regarding grey entrepreneurship.

Unquestionably, both the psychological and sociological approaches have enriched this field of research, but it seems that the phenomenon must also be properly framed from an entrepreneurial point of view. In fact, over the years, scholars have become aware that entrepreneurial factors – which can be combined or not with psychological and social factors – need to be considered when investing grey entrepreneurship. In this vein, several studies have investigated entrepreneurial variables on the topic.

First, Beckett and Frederick (2011) tried to synthesize the dynamics and motivations of older entrepreneurs by highlighting the differences between business and social entrepreneurship by relying on entrepreneurial studies. Botham and Graves (2009) listed the personal characteristics of grey entrepreneurs and the business characteristics. As such, scholars have underlined that older entrepreneurs are less likely to engage in high-tech industries, but instead tend to launch improved products into markets. They prefer financial, professional, business and agricultural industries to retail and consumers services since they aim to ‘balance work with leisure’ (*ibidem*, pg. 52). Eventually, Curran and Blackburn (2011) demonstrated the main reasons older people do not

prefer to be entrepreneurs. The missing guarantee of income (an economic aspect) and the idea of feeling too old (a psychological one) are at the top of the list.

Backman and Karlsson (2013) considered a list of factors that influence the entrepreneurial intentions of grey entrepreneurs. The first group of factors included human capital, financial capital, the role of networks and previous experience. The second group of factors was related to risk propensity and level of education. In their view, these economic aspects contributed to a clearer understanding of the phenomenon. Zolin (2015) focused on the effect of industry and start-up experience, hours worked and financial assets to test if grey entrepreneurs were more inclined to work harder or smarter. Kautonen (2013) addressed three main factors: lack of financial support, complexity of administrative procedures and lack of information. Kautonen et al. (2014) considered the influence of the parents' occupations, financial support and the risk of failure. Eventually, Singh and DeNoble (2003) examined entrepreneurial paths of older entrepreneurs that can be constrained, rational, or reluctant.

Even if each of these contributions advanced studies on grey entrepreneurship, the heterogeneity of variables has not framed the phenomenon in a clear or comprehensive way. For this reason, a framework rooted in entrepreneurial literature needs to be utilized.

3. Theoretical Framework and Research Hypotheses

Several scholars (Kautonen et al., 2008; Usman et al., 2016) proposed using a framework that included push and pull factors to test the entrepreneurial intentions of grey entrepreneurs. Pull factors are those that positively affect a phenomenon, while push factors negatively affect it. What emerges from some studies (Curran & Blackburn, 2001; Zissimopoulos & Karoly, 2007) was the difficulty to classify each factor as either push or pull for grey entrepreneurs. Psychological aspects can modify individual perceptions so that some factors, like health (Curran & Blackburn, 2001), can both push and pull. This complicates the ongoing of dedicated studies.

For that reason, another framework – preferably rooted in entrepreneurial studies – is required. In recent years, one of the most used frameworks for investigating entrepreneurial intentions is related to intellectual capital (IC). Broadly, IC represents the intangible assets companies leverage for their competitive advantage (Bontis, 1996, 1998, 2001; Sveiby, 1997; Petty & Guthrie, 2000; Hormiga, Batista-Canino, & Sánchez-Medina, 2011). Some entrepreneurship scholars referred to IC regarding start-ups (Peña, 2002; Hayton, 2005; Hormiga et al., 2011; Link & Ruhm, 2011; Musteen & Ahsan, 2013) and provided useful implications for investigating entrepreneurial intentions as well (Matricano, 2016).

IC is made up of human capital, structural capital, and relational capital (Sullivan, 1999; Brennan & Connell, 2000; Petty & Guthrie, 2000; Sanchez, Chamichade, & Olea, 2000; Roos, Brainbridge, & Jacobsen, 2001; Peña, 2002; Kaufmann & Schneider, 2004; Boedker, Guthrie, & Cuganesan, 2005; Hormiga et al., 2011; Musteen & Ahsan, 2013). By human capital, management scholars refer to intellectual agility, knowledge and personal capabilities (Bontis, 1998; Bontis, Dragonetti, Jacobsen, & Roos, 1999; Bontis, Keow, & Richardson, 2000; Khalique, Bontis, Shaari, & Isa, 2015; Subramaniam & Youndt, 2005; Montequín, Fernández, Cabal, & Gutierrez, 2006; Tovstiga & Tulugurova, 2007; Wu, Chang, & Chen, 2008; Hsu & Fang, 2009). These features differentiate managers and non-managers, and talented from unsuccessful workers. Similarly, entrepreneurship scholars argue that these characteristics help distinguish between entrepreneurs and non-entrepreneurs (MacMillan, 1986; Low & MacMillan, 1988; McGrath & MacMillan, 2000; Ucbasaran, Wright, & Westhead, 2003; Ucbasaran, Westhead, & Wright, 2006; Westhead, Ucbasaran, & Wright, 2005).

Structural capital refers to the competences that companies acquire, such as patents or organizational culture (Sveiby, 1997; Bontis et al., 2000; Subramaniam & Youndt, 2005; Cabrita & Bontis, 2008; Wu et al., 2008; Hsu & Fang, 2009; Hormiga et al., 2011). These competences stand independent of the people working in those companies. Entrepreneurship scholars translate the concept of structural capital into entrepreneurial opportunities. Despite different proposals (Shane, 2000; Sarasvathy, Dew, Velamuri, & Venkataraman, 2005; Alvarez & Barney, 2008), McMullen and Shepherd (2006) argue that some entrepreneurial opportunities are third-person opportunities since they are not linked to the person identifying them or to the context they are in. These opportunities exist by themselves and can represent structural capital in entrepreneurial studies.

Lastly, relational capital refers to networking activities initiated and managed by companies (Bontis, 2001; Montequín, Fernández, Cabal, & Gutierrez, 2006; Cabrita & Bontis, 2008; Wu et al., 2008; Hsu & Fang, 2009). These activities are valuable if they provide missing resources (both tangible and intangible). Also, entrepreneurship scholars have investigated and confirmed the relevance of networking activities (Birley, 1985; Aldrich & Zimmer, 1986; Johannisson, 1986, 1988; Starr & MacMillan, 1990). In the field of entrepreneurial studies, scholars studied the involvement of relatives, friends or previous employers in networks (Greve, 1995; Greve & Salaff, 2003) due to the effect of their trusting relationships (Johannisson, 1988; Larson & Starr, 1993;

Greve, 1995; Smith & Lohrke, 2008).

The relevance that human, structural and relational capital assume in entrepreneurial studies suggests they can affect entrepreneurial intentions of would-be entrepreneurs (Krueger, Reilly, & Carsrud, 2000; Baron, 2004; Lee & Wong, 2004) and thus, comprise the theoretical framework in this paper (Table 1).

Table 1. The Theoretical Framework.

Independent variables		Dependent variable
Human capital	➔	Start-up intentions of
Structural capital	➔	would-be entrepreneurs
Relational capital	➔	

To test if grey and young entrepreneurs differ in term of IC regarding their entrepreneurial intentions, human, structural and relational capital (considered as predictors of entrepreneurial intentions) are tested through three research hypotheses. Each one has corresponding rival hypotheses.

As for human capital (H1), the rival hypotheses offered herein are:

H1a: Human capital affects the start-up intentions of younger entrepreneurs rather than older entrepreneurs.

H1b: Human capital affects the start-up intentions of older entrepreneurs rather than younger entrepreneurs.

In reference to structural capital (H2), the rival hypotheses offered herein argue:

H2a: Structural capital affects the start-up intentions of younger entrepreneurs rather than older entrepreneurs.

H2b: Structural capital affects the start-up intentions of older entrepreneurs rather than younger entrepreneurs.

Regarding relational capital (H3), the rival hypotheses offered herein predict:

H3a: Relational capital affects the start-up intentions of younger entrepreneurs rather than older entrepreneurs.

H3b: Relational capital affects the start-up intentions of older entrepreneurs rather than younger entrepreneurs.

4. Methodology, Data and Results

At first, it is important to define the geographical boundaries of the research. Even though some cross-border studies were carried out for international comparisons of the phenomenon – Beckett & Frederick (2011), for example, considered GEM data from 79 countries, while Kautonen et al. (2014) investigated the phenomenon over 27 European countries – management scholars prefer conducting their research in reference to a single country. This guarantees that macroeconomic and cultural variables are the same, thus reinforcing the economic concept of *ceteris paribus*. In the same vein, some scholars focused on European countries. Kautonen et al. (2010, 2011) investigated grey entrepreneurship in Finland, Backman and Karlsson (2013) investigated the Swedish case and Curran and Blackburn (2001), Parker and Rougier (2007), Small (2012), and Kautonen (2013) investigated the phenomenon in the United Kingdom. Other scholars chose non-European countries. Rogoff (2007), for example, investigated the phenomenon in the United States, Jamil et al. (2014) analysed the case in Malaysia, Usman et al. (2016) analysed Pakistan, and Maritz (2015) investigated the phenomenon in Australia. However – to the knowledge of the author – a study about grey entrepreneurship in Italy is still missing, which is why this research focuses only on the Italian context.

The data for this study are retrieved from the GEM website and refer to 2013 (the last data-set available on the website). The predictors (human, structural and relational capital) and the dependent variable (the start-up intentions) are expressed by some proxies and catalogued as binomial. Thus the binomial logistic regression model is used. All the variables are labelled as 1 if the interviewee leverages human, structural and relational capital and shows entrepreneurial intentions. Otherwise they are labelled as 0. This is ‘Model A’ to be tested.

Before proceeding with statistical elaborations, it is appropriate to wonder about robustness of results. Firstly, it is important to check the amount of available responses. Secondary data retrieved from GEM website guarantee a numerically significant dataset (2,052 responses), which enhances robustness of this study. Respondents are divided into three age cohorts: 18 to 34 years old, 35 to 54 years old, and older than 55. The number of respondents for each cohort is displayed in Table 2.

Table 2. Samples of Respondents by Age Cohorts.

Age cohort	Sample size
18 – 34 years old	601
35 – 54 years old	1,031
more than 55 years old	420
Total	2,052

Secondly, it is important to introduce some control variables to ensure the robustness of the results. Control variables are linked to the dependent variable (i.e. entrepreneurial intentions) but from another perspective. The control variables in this study are the idea that entrepreneurship is a desirable career choice and the level of competition. They both affect entrepreneurial intentions but are not related to intellectual capital. Also, the control variables are binomial, and are thus labelled as 1 if the respondents consider entrepreneurship as a desirable career choice and perceive a high level of competition. Otherwise, they are labelled as 0. The model, including control variables, is ‘Model B’.

The last aspect to wonder about is collinearity. According to statisticians, some collinearity statistics – such as tolerance and variance inflation factor (VIF) – and some collinearity diagnostics (condition index) need to be calculated preliminarily. In Table 3, collinearity statistics (values of tolerance) are shown.

Table 3. Tolerance of Models A and B by Age Cohorts.

	18 – 34 years old		35 – 54 years old		aged 55 or older	
	Model A	Model B	Model A	Model B	Model A	Model B
Human capital	0.972	0.954	0.951	0.930	0.942	0.910
Structural capital	0.963	0.963	0.969	0.965	0.973	0.969
Relational capital	0.958	0.918	0.960	0.956	0.926	0.911
Carrier choice		0.987		0.989		0.988
Level of competition	0.934			0.975		0.948

Theoretically, values of tolerance are expected to be greater than 0.50. Each value in Table 3 respects the above threshold and thus tolerance does not represent a problem in the proposed models. In Table 4, collinearity statistics (values of VIF) are shown.

Table 4. VIF of Models A and B by Age Cohorts.

	18 – 34 years old		35 – 54 years old		aged 55 or older	
	Model A	Model B	Model A	Model B	Model A	Model B
Human capital	1.029	1.048	1.052	1.075	1.062	1.099
Structural capital	1.038	1.038	1.032	1.036	1.028	1.032
Relational capital	1.043	1.089	1.042	1.046	1.080	1.098
Carrier choice		1.013		1.011		1.012
Level of competition	1.071			1.026		1.054

Theoretically, values of VIF are expected to be less than 2. Each of the values in Table 4 respects the above threshold and thus VIF does not represent a problem in the proposed models. Eventually, to be sure there is no collinearity among independent variables, it is appropriate to consider the values of condition index (Table 5).

Table 5. Condition Index of Models A and B by Age Cohorts.

	18 – 34 years old		35 – 54 years old		aged 55 or older	
	Model A	Model B	Model A	Model B	Model A	Model B
Constant	1.000	1.000	1.000	1.000	1.000	1.000
Human capital	2.228	2.109	2.247	1.949	2.029	2.016
Structural capital	1.786	1.958	1.823	1.943	1.816	1.838
Relational capital	1.759	1.701	1.703	1.724	1.631	1.635
Carrier choice		2.257		2.273		2.147
Level of competition		4.038		3.559		3.683

Values of condition index need proper evaluation. If they are higher than 30, they disclosed a strong collinearity. If they are between 15 and 30, then they reveal a suspected collinearity. Eventually, if they are less than 15, they do not show any collinearity among predictors. Values of condition index included in Table 5 are less than 5 and thus it is possible to argue there is no collinearity among independent variables. At this stage, binomial logistic regression models are calculated. Elaborations are based on the forward Wald approach (see Table 6).

Table 6. Estimated Binomial Logistic Regression Models by Age Cohorts.

	18 – 34 years old		35 – 54 years old		aged 55 or older	
	Model A	Model B	Model A	Model B	Model A	Model B
Constant	0.123 (0.000)	0.118 (0.000)	0.033 (0.000)	0.022 (0.000)	0.025 (0.000)	0.008 (0.000)
Predictors						
Human capital	3.679 (0.000)	3.387 (0.000)	5.876 (0.000)	5.573 (0.000)	8.154 (0.000)	5.894 (0.000)
Structural capital	0.097 (0.755)	0.028 (0.867)	1.951 (0.009)	1.936 (0.011)	0.018 (0.8939)	0.147 (0.702)
Relational capital	0.002 (0.967)	0.661 (0.416)	1.722 (0.032)	3.743 (0.053)	2.037 (0.153)	0.582 (0.445)
Control variables						
Carrier choice		0.559 (0.454)		2.105 (0.004)		4.325 (0.040)
Level of competition			4.375 (0.002)	2.078 (0.002)		4.754 (0.002)
Model diagnostics						
Number of cases	601	601	1,031	1,031	420	420
Percentage of correct predictions	83.2%	82.7%	90.6%	91.0%	94.3%	94.3%
χ^2 of Omnibus test	0.000	0.000	0.000	0.000	0.000	0.000
Degree of freedom of Omnibus test	1	2	3	4	1	3
Nagelkerke R ² (pseudo R ²)	0.090	0.114	0.172	0.200	0.151	0.248

5. Discussion and Conclusions

By leveraging data retrieved from the GEM website, an empirical investigation for Italy in 2013 has been conducted about intellectual capital affecting entrepreneurial intentions of young and grey people. The results, achieved using estimated binomial logistic regression models, are twofold.

First, empirical evidence (related to Model B, with control variables) shows that grey and young entrepreneurs are not that different. Regarding the three sub-components of IC, human capital is the only relevant factor for either of them. Neither structural nor relational capital is. The result is intriguing if attention is also paid over middle-aged entrepreneurs (35–54 years old) whose structural capital – instead – affects entrepreneurial intentions as well. This evidence discloses that young entrepreneurs only leverage human capital. When they become middle-aged, they leverage human and structural capitals. Finally, when entrepreneurs are 55 or older,

they only leverage human capital. Therefore, grey and young entrepreneurs are not that different.

Secondly, empirical evidence also suggests that a difference exists between grey and young entrepreneurs. The human capital held by grey entrepreneurs affects their entrepreneurial intentions more than young entrepreneurs (respectively, the values were 5.894 and 3.679 so only H1b is confirmed). This means that intellectual agility, knowledge and personal capabilities – which are expected to be more developed in grey entrepreneurs – have a significant effect on entrepreneurial intentions. This result is aligned with some previous studies. According to Kautonen et al. (2010), some differences exist between young and third age entrepreneurs and, in particular, according to Zolin (2015), senior entrepreneurs display an exceptionally shrewd approach to entrepreneurship.

Despite some limitations that necessarily occur when carrying out empirical studies (the main limitations in this case stem from the use of secondary data and with the impossibility to disclose specific insights from the results), this paper can offer some hints for future research. Regarding the Italian case, grey and young entrepreneurs are not that different. They both leverage human capital, although the impact of human capital on entrepreneurial intentions increased as entrepreneurs grew older. Further investigations should be carried out to investigate the causes of this difference. Experience on field might be considered one of the main causes (MacMillan, 1986) but more focused research should be conducted to demonstrate this.

Hopefully, forthcoming researches will be rooted in entrepreneurial literature and enriched by psychological and sociological factors in order to provide more insights about young and grey entrepreneurs, their similarities and differences.

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