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## Determinant Factors at an Individual and Environmental Level on Entrepreneurial Intention to Re-Entry

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Research Master's Thesis

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With a view of getting the degrees

Master in Industrial Engineering and Management

Master in Business Engineering

ACADEMIC YEAR 2014 -2015

## **Foreword**

I would like to start by expressing my deepest gratitude and appreciation to Professor Frank Janssen and Professor José Rui Figueira for their valuable and constructive suggestions and continuous support from the inception to the conclusion of this thesis. Their willingness to provide their time is extremely appreciated and recognized.

Also I would like to extend my thanks to Mme. Roxane de Hoe, whose experience and insights on the SPSS software were essential to the statistical techniques applied in this thesis.

To Mme. Estelle Tonon, I would like to express my sincere appreciation and recognition for the continuous support, motivation and encouragement she has provided me during the last academic year. She has most definitely imprinted my future, way beyond this thesis.

To my father, Professor Edgar Cruz e Silva, I cannot find the words to thank and homage your example and inspiration. It is from you that I retain my unswerving motivation, desire to excel and need to outperform myself continuously.

To my mother, Professor Odete Cruz e Silva, and brother, Cristovão Cruz e Silva, thank you for your support, proofreading and revising of all the contents. All your advices and critics were welcomed and critical to the quality of this research project.

Finally, I would like to extend my thanks to the staff of both Université Catholique de Louvain and Instituto Superior Técnico's libraries for their courtesy and politeness. The requisition of certain important and relevant literature was only possible due to their attention and special care.



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## 1 Introduction

The introduction of this study will start by defining the problem under study and stating the research objectives and questions. The motivation for the study of this problem is presented as well as the problem's own significance. A brief outline of the working methods and organization of this research thesis is provided and, finally, some of the main challenges encountered are presented and explained.

### 1.1 Problem

The purpose of this thesis is to explore the intention, of exited entrepreneurs, to re-enter entrepreneurship. Namely, by exploring the determinants, at both individual and environmental level, that are likely to influence re-entry intentions. Besides understanding the dynamics between a recent entrepreneurial exit and subsequent intention to restart, this work will explore to what extent, drivers of entrepreneurial intention to start, are still significant on the development of the restart intention and what distinguishes exited entrepreneurs with restart intentions from those without.

The following research questions will be explored:

- A. Which individual level factors determine entrepreneurial intention subsequent to entrepreneurial exit?*
- B. Which environmental level factors determine entrepreneurial intention subsequent to entrepreneurial exit?*
- C. What distinguishes exited entrepreneurs who intend to restart from those who don't?*
- D. Are the factors conducive to the intention to start a business prevalent on the intention to re-start?*

By environmental factors one contemplates national level variables, such as the Gross Domestic Product (GDP) per capita, the Total early-stage Entrepreneurial Activity (TEA), the unemployment rate, the Global Competitive Index (GCI) or, even, the country itself. The year the information was collected is also included as an environmental level factor.

By individual factors one contemplates those variables closely tied to the entrepreneur and his experience, such as the entrepreneur's attitudes towards entrepreneurship, demographics, entrepreneurial exit, entrepreneurial perception, human capital and social capital.



## 1.2 Motivation/Significance

Nowadays, entrepreneurship is a common term in everyone's dictionary. Cantillon (1775) was the first author to identify the entrepreneur as an independent, unique, entity. He deemed them as one of the main actors, as well as landowners and people working for hire, of a state's economy. His main contribution regarding entrepreneurship was his view on profit and loss as an intrinsic result of the risk taking propensity, and inherent uncertainty, of entrepreneurs. The entrepreneur concept was then, again, analyzed by Say (1855). In his book *A Treatise on Political Economy*, Say identifies that risk of failure is associated to any entrepreneurial endeavor, even when well steered, thus resulting in a loss for the entrepreneur. Say (1855) provided a definition of a successful entrepreneur which is very similar to that we have nowadays and see being widespread by the media. He stated that a successful entrepreneur should have, not only, experience and knowledge to develop the business, but also, be in position to provide the necessary funds. Not meaning that the entrepreneur should, himself, have the funds, but rather, that the entrepreneur should have the skills and reputation necessary to gain access to these funds (thus working under borrowed capital). Say (1855) extended Cantillon's concept of entrepreneur and was the first one to define the managerial role of entrepreneurs, stating that they play an important role in coordinating production and distribution, managing the organization and leading all its internal stakeholders. Later on, Schumpeter (1934) was an important advocate of entrepreneurs' importance to an economy and the society, in his book *The Theory of Economic Development*. The concept of creative destruction was therefore developed, reflecting an entrepreneurs' ability to replace current products through their innovative solutions. This potentiates customers' demand and stimulates economic activity. In fact, in most countries, the largest share of businesses operating within it are, actually, small enterprises with owner-managers and these are additionally responsible for intensifying competition, promoting economic growth, creating new jobs, bringing innovative products and services to market, thus creating positive externalities. Namely, the development of supply chains or greater social inclusion, fostering self-sustainability and independence as well as decentralizing economic production (Barringer & Ireland, 2010; Duane Ireland & Webb, 2007; Parker, 2004b; Thomke, 2006; Thompson & Bolton, 2004). Social and economic trends since the late seventies/early eighties show that advanced economies, among which European countries represent a significant share, are transitioning from a managerial to an entrepreneurial economy. While the managerial model conveys mass production, specialization, certainty, predictability and homogeneity as drivers

of economic growth, the entrepreneurial model conveys a variety of needs, novelty, turbulence, innovation and functioning in networks. The orientation of organizations towards the entrepreneurial economy is crucial in sustaining global economic prosperity (Bonnet, Dejardin, & Madrid-Guijarro, 2012; Carvalho & Costa, 2012). Most countries accept entrepreneurship as key for overcoming stagnating or declining economies given its ability to drive growth, productivity and employment (Albiol, 2014; Dawson & Henley, 2012).

The evolution of industries and economies is greatly driven by the entry and exit process of businesses. This process is, in fact, a determinant of the market performance's underlying productivity and structure (Hessels, Grilo, Thurik, & Van der Zwan, 2011). Some authors have already studied the interaction between entry and exit (Fok, Van Stel, Burke, & Thurik, 2009), how these foster change and innovation (Audretsch, 1995; Bartelsman, Haltiwanger, & Scarpetta, 2004; Baumol, 2002), their variability in time and across industries (Geroski, 1995), and how these relate to business survival and growth in driving economies and industries (Parker, 2004b; Santarelli & Vivarelli, 2007; Shane, 2004). Actually, exits are said to be the least understood part of entrepreneurship. Focus is normally on starting, financing and growing technology oriented ventures (DeTienne, McKelvie, & Chandler, 2014) or on exit from the perspective of the business or the industry (Leroy, Manigart, & Meuleman, 2007). Despite the existence of literature focusing on who enters and exits entrepreneurship (Grilo & Thurik, 2008; Stam, Thurik, & Van der Zwan, 2010), a gap in research exists, when connecting the literature findings and studying how recent entrepreneurial exit affects the restart intention of the individual behind these processes – the entrepreneur (Leroy et al., 2007; Sarasvathy, 2004). This may seem perplexing since the entrepreneur has long been recognized as having a substantial responsibility towards the vitality and renewal of the privately-held firms society (Baumol, 1968).

Habitual entrepreneurs are entrepreneurs who systematically engage in entrepreneurial behaviors and activities. It includes those who, after having owned a business, start, acquire or inherit a subsequent one (serial entrepreneurs) and those who own several ventures (portfolio entrepreneurs). Novice entrepreneurs are those who start, acquire or inherit a business for the first time and have no previous entrepreneurial experience (Hessels et al., 2011; Singer, Amorós, & Moska, 2014). Researchers have identified that habitual entrepreneurs are responsible for a significant share of established businesses and, since they drive the evolution and dynamics of industries, markets and organizations through internal and external learning (also referred to as experience and spillovers), are important to the

economy (Hyytinen & Ilmakunnas, 2007; Metzger, 2006; Westhead, Ucbasaran, Wright, & Binks, 2005). Silicon Valley is the living proof that habitual entrepreneurship and learning from failure are crucial factors in developing dynamic economies (W. F. Miller, Hancock, & Rowen, 2000). Policymakers around the globe are making serious efforts to replicate this environment, thus reducing the stigma associated to exit and simplifying legislation relevant to entrepreneurial and business exit (Armour & Cumming, 2004; Waasdorp, 2001). Empirical research has also shown that exited entrepreneurs are more likely to re-enter entrepreneurship (Hessels et al., 2011; Hyytinen & Ilmakunnas, 2006; Stam, Audretsch, & Meijaard, 2008) and that businesses set up by these entrepreneurs differ greatly by those of novice entrepreneurs (Metzger, 2006; Westhead, Ucbasaran, & Wright, 2003). The entrepreneurial experience acquired, allows these entrepreneurs to develop an entrepreneurial mindset, allowing them to identify more business opportunities and pursue those with more wealth-generating benefits and innovativeness (Baron, 2004; McGrath & MacMillan, 2000; Shane & Venkataraman, 2000; Ucbasaran, Westhead, & Wright, 2009b). MacMillan (1986) argued that, in fact, entrepreneurship is essentially about these habitual entrepreneurs.

Given that not much is known concerning habitual entrepreneurs (Hessels et al., 2011) this work will explore the determinants of the link between entrepreneurial exit and restart intention. This intention is a concrete measure capable of capturing the phase before any actual involvement in new business activities. In this study, re-entry intention is defined as an exited entrepreneur who is, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years (Singer et al., 2014). Note that re-entry intention does not necessarily imply that the subject under observation is a habitual entrepreneur. According to the literature, an habitual entrepreneur must have undertaken some specific actions, which is not assured by having the intention to do so in the next three years (Hessels et al., 2011; Singer et al., 2014). However, the Theory of Planned Behavior (TPB) is a relevant tool to explain and predict behaviors. It has been applied to entrepreneurial engagement only recently, thus consisting of one of the significant advancements of this study (Leroy et al., 2007). Applying this theory is of extreme relevance because it has been proven to be the best predictive tool when considering rare and hard to observe behaviors that may involve unpredictable time delays. Pooling together these findings with Wennberg, Wiklund, DeTienne & Cardon's (2010) argument, concerning entrepreneurial entry and exit processes, where they state that the increased difficulty in measuring these phenomena explains, to some extent, the gap in research towards entrepreneurial re-entry; clearly shows the relevance of

this study. It is also important to explore the similarities and differences between exited entrepreneurs with and without re-entry intention, as well as, between novice and serial entrepreneurs. Such knowledge is of relevance in industrial organization and firm demography research as well as for policymakers, in promoting economic growth and creating employment (Audretsch, Houweling, & Thurik, 2000; Callejon, 2004; Stam et al., 2008; Van Wissen & Van Dijk, 2004). Understanding the dynamics of the entry into habitual entrepreneurship may generate relevant knowledge towards promoting tangible business innovations contributing to social and economic development (Ucbasaran et al., 2009b) and is a timely and interesting field of study (DeTienne & Wennberg, 2014).

### **1.3 Outline of Working Methods**

This research thesis has a descriptive-explanatory purpose, employs survey and archival research as research strategy, a mixed-model research choice and consists of a cross-sectional study. The data used was retrieved from the Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS), Global National and Individual Level, of the GCI reported in the Global Competitiveness Reports (GCR) from the World Economic Forum (WEF), of the GDP per capita provided by the World Bank (WB) national accounts data and the Organization for Economic Co-operation and Development (OECD) National Accounts data files, and the unemployment rates provided by the International Labour Organization (ILO) in the Key Indicators of the Labour Market database. The period that is being studied is from 2007 to 2011. A logit regression model is applied to determine the factors, both individual and environmental, affecting the likelihood of exited entrepreneurs developing re-entry intentions. Part 1 of this research thesis provides an introduction to the study. Providing the problem definition, the motivation behind it, its significance, the outline of the working methods used and the main challenges encountered. Part 2 presents a literature review, with a focus on exit within entrepreneurship, differentiating between business and entrepreneurial exit, on the entrepreneurial process and on the individual and environmental factors that previous literature has found to influence entry and re-entry intentions and behaviors. Part 3 specifies the data and variables used as well as the method applied to execute the study. Part 4 presents all the main results relevant towards answering the research questions. Part 5 builds upon the results and discusses them. It provides an interpretation of the results and their implications. It also reflects on the strengths, weaknesses and limitations of the study. Finally, part 6 concludes and probes into future avenues for research.



## 2 Literature Review

### 2.1 Exit

One of entrepreneurship's unique features is the fact that it explores the intersection between individuals and organizations, as well as, between individuals and opportunities. In simple terms, it consists of entrepreneurial individuals pursuing opportunities, which may result in starting a new organization (DeTienne & Wennberg, 2014; Wennberg, 2011). In entrepreneurship, the term exit represents a multi-faceted and multi-level phenomenon. In other words, it may concern either entrepreneurial exit or business exit (Coad, 2014; Wennberg & DeTienne, 2014; Wennberg, 2011). Entrepreneurial exit consists of the exit of self-employed from a specific entrepreneurial labor activity (Bates, 2005; Hessels et al., 2011; Stam et al., 2010; Van Praag, 2003; Wennberg & DeTienne, 2014; Wennberg, 2011; Westhead et al., 2005). Business exit consists of the exit of an entrepreneurial firm from the marketplace (Balcaen, Manigart, Buyze, & Ooghe, 2012; Becchetti & Sierra, 2003; DeTienne & Wennberg, 2014). Some authors consider business exit to take place only if there is business discontinuance, closure or bankruptcy (Gimeno, Folta, Cooper, & Woo, 1997). This issue is commonly overlooked in research, which might in part be due to the fact that, specially for new small ventures, the organization may be seen as an extension of the founder (DeTienne & Wennberg, 2014; Leroy, Manigart, Meuleman, & Collewaert, 2015; Wennberg, 2011). Formal definitions for both business and entrepreneurial exit will be presented in sections 2.1.1 and 2.1.2, respectively.

Despite the fact that most cases of business exit consist, also, of entrepreneurial exits, this distinction is still relevant. For example, a business may survive even after the entrepreneur exits (for example, a trade sale or an IPO), a portfolio entrepreneur continues being an entrepreneur despite the death of one of his businesses and an entrepreneur may close his business and engage in serial entrepreneurship by starting a new one (Coad, 2014; DeTienne & Wennberg, 2014; Rocha, Carneiro, & Varum, 2015; Wennberg, 2011; Westhead et al., 2005). This distinction makes clear the fact that exit, within entrepreneurship, is multi-faceted. In other words, that there are different types of exit, which may, or may not, imply entrepreneurial and business exit simultaneously (Wennberg, 2011). Wennberg & DeTienne (2014) present a compelling model highlighting the individual and firm factors that influence exit, as well as the outcomes for each level and the effect of firm type. These factors include, at the individual level, intentions, exit strategies, motivation, access to networks, personality

and entrepreneurial characteristics (such as entrepreneurial experience, industry experience and decision making style), and, at the firm level, strategic decisions, resources and capabilities, performance, team's size, management style and characteristics. All these factors contribute to individual and firm level outcomes, in which habitual entrepreneurship is framed as well as different types of exit. This model presents itself as a framework for future research, allowing for the distinction between entrepreneurial and business exit, while still accounting for the intersection between the enterprising individual and his firm.

Economics and sociology either study the exit of self-employed individuals or of firms and organizations. It is very atypical to find research exploring the intersection between individuals and organizations (two levels of analysis that are concurrently relevant in entrepreneurship research). Research in strategy and organization, tend to study the exit of firms and organizations (mostly large ones), disregarding the authority that founders have in the decision making process of the firm (DeTienne & Wennberg, 2014; Leroy et al., 2007; Wennberg & DeTienne, 2014). Entrepreneurship research must, therefore, apply theories and methods allowing for the analysis and examination of this intersection between entrepreneurs and their firms. Namely by adopting a perspective that envisions the importance of the entrepreneurs and how they interact with the opportunity (Sarasvathy, 2004; Wennberg & DeTienne, 2014), as well as applying an interdisciplinary perspective (Leroy et al., 2007).

These bodies of research have provided meaningful insight into the factors influencing firms' mortality, the determinants of exit at the firm level, the effect of funding and innovation on business exit and how human capital affects business and entrepreneurial exit (Balcaen et al., 2012; Van Praag, 2003; Wennberg & DeTienne, 2014). However, to date, they were not able to account for relevant aspects of entrepreneurship. Such as the fact that habitual entrepreneurs are a big share of the entrepreneurial workforce (Westhead et al., 2005)<sup>1</sup> or that entrepreneurs' exit intentions are of importance in entrepreneurship research (DeTienne & Cardon, 2012). Wennberg & DeTienne (2014) argue that until the assumptions behind the definition of these terms are clarified, it will not be possible to build an entrepreneurship's body of knowledge, in what concerns exit, so that new insightful research can be added and discussed.

Chopra (2005) highlighted the importance of clearly defining the exit phenomenon in entrepreneurship with clarity and precision. This research thesis will work to shed light on the conditions, identified by the author, that are required to define the exit phenomenon; namely

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<sup>1</sup> The definition of entrepreneurial exit plays an important role here.

in terms of identifying the object on which the exit phenomenon acts and, to some extent, determining the phenomenon's boundaries. This is relevant for the pursuit of the research objectives of this thesis, but also, since these are two elements that are under researched in the literature, for the theoretical progress of research on exit within entrepreneurship (Chopra, 2005; Wennberg, 2011)

I will provide some important definitions of exits in order to set up the framework for the rest of the literature review. Bankruptcy consists of a legal proceeding concerning a sole trader or a partnership (entrepreneur or the business itself) that are not able to meet all debts and obligations. Both the creditors or the debtor may issue a petition upon which the court takes over the administration of the defaulter's affair(s), and all assets are liquidated. All the proceeds pay the creditors and, if there are any leftovers, these are distributed to shareholders (Barrow, 1987). Voluntary liquidations consist of the same process, however a court of law does not oblige the liquidation. The owners, managers and/or shareholders liquidate the business voluntarily. Employee buy-outs consist of a strategy, restructuring the business, where employees buy a large share of equity of their own firms. Employee buy-outs are commonly used as an alternative to a leverage buy-out. Failure consists of a business not being profitable and/or able to generate enough revenue to cover its costs, thus ceasing its operations. Typically, the terms bankruptcy and failure are used interchangeably. Family succession consists of a family related individual taking over the responsibilities of a retired or deceased owner and/or manager. An initial public offering (IPO) consists of the first sale of stock to the public. Small, young, companies and large, privately held, companies undergo IPOs. The former do so in order to increase capital and the latter in order to become publicly traded. Leveraged buy-out (LBO) is the process through which the buyer of a company takes a share of equity that is large enough to take control over the business. Typically, the capital comes from bank loans secured on the assets of the company, thus replacing equity with debt (Barrow, 1987). A management buy-in (MBI) consists of an external manager or management team being able to acquire the business, thus becoming its new management ("Passport to riches," 2004). Management buy-out (MBO) is the process by which the management of a company (or part of it) becomes the owner. A common method is for the management to set up a new company, which acquires equity of the original company. The money is usually raised from banks, venture capital funds and/or the management itself (or part of it) (Barrow, 1987). Merger and Acquisition (M&A) consists of a bid that is agreed between two companies. The acquirer exchanges the agreed bid for the acquired company and merges it



with another owned business (Barrow, 1987). A private acquisition consists of a takeover, typically of a private company, where no public attention and/or disclosure is necessary (“What Are Private Acquisitions?,” 2015). A private-equity buy-out takes place when investors or a fund acquire a public company, thus delisting it of public stock exchanges (“Private equity buyout,” 2015). Takeover consists of acquiring equity of a company, through a successful bid, against the directors’ will. Reverse takeover is a takeover of a larger company by a smaller one (Barrow, 1987). A strategic buy-out consists of acquiring other businesses in order to increase earnings. These are done with the expectation of creating synergies between two or more businesses (Harvey, 2012). Voluntary disbanding consists of the owners of a business closing down the business. This form of exit is very common in early stage ventures (Dehlen, Zellweger, Kammerlander, & Halter, 2014; DeTienne & Cardon, 2012).

As shown, both business and entrepreneurial exits can take several forms. Scholars have not yet been successful in unifying the exit terminology used. Some have tried to bring together the literature and provide widely accepted definitions. However, there is still no clear consensus (DeTienne & Wennberg, 2014).

DeTienne et al. (2014) categorize exits into three distinct categories: financial harvest (IPO, M&A, private acquisition or strategic buy-out) stewardship (family succession, employee buy-out or MBO) and voluntary cessation (voluntary disbanding or voluntary liquidation). The purpose, however, is the study of exit strategies. Therefore, exits such as bankruptcies are not contemplated by their typology. Leroy et al. (2015) also provide a framework through which they study entrepreneurial exit. It consists of firm sale (family succession, MBO, MBI, employee buy-out M&A, LBO, among others), voluntary liquidation and bankruptcy. Besides not including all exits identified by the literature on entrepreneurial and business exit (IPO and voluntary disbanding, for example), this categorization pools together intrinsically different types of exit (such as employee buy-out and LBO) (DeTienne, 2010). Wennberg et al. (2010) propose a framework where they distinguish between liquidation and sales as well as between high and low performance. This results in four different types of exits: harvest sale, liquidation, distress sale and distress liquidation. Seemingly this framework considers all types of exits. However it pools together intrinsically different exit routes and does not allow for the distinction between business and entrepreneurial exit; since the authors adapt a firm-level view of exit.

### 2.1.1 *Business Exit*

Some authors refer to business exit as firm (level) exit or organizational exit (Wennberg & DeTienne, 2014). Business exit has been stated to have macroeconomic impacts on countries and industries and to improve competitiveness, given that it may generate industry imbalance, providing different value to the players in the market (Akhigbe, Madura, & Martin, 2003; Albiol, 2014; Audretsch, Houweling, & Thurik, 2004; Bartelsman et al., 2004; Fritsch & Mueller, 2004). Also, business exits promote labor mobility, which is a source of knowledge spillovers and productivity growth (Millán, Millán, Román, & Van Stel, 2013). Most literature on exit within entrepreneurship focuses on the firm level (DeTienne, 2010).

This study adopts the terminology presented and discussed by Coad (2014). The term business death is used to express business exit, in opposition to business survival. Notice how this implies that M&A is not a case of business exit. The findings of Balcaen et al (2012) show the importance, both economically and empirically, of distinguishing between exit types. Also, they show that, despite it being common practice in research, collapsing together voluntary liquidations and bankruptcies as a business failure may lead to unreliable models. Thus, Coad's (2014) model seems to have relevance, since it classifies M&A, voluntary liquidations and bankruptcies very differently. It also accounts for sell-offs. Notwithstanding its singularities, the model seems to be in line with most research on business exit (business deaths) (Balcaen et al., 2012; Headd, 2003; Ronstadt, 1986; Ucbasaran, Shepherd, Lockett, & Lyon, 2013; Watson, 1999; Wennberg et al., 2010)

Most business death situations are not successful events (Coad, 2014; Dawson & Henley, 2012; Gimeno et al., 1997; Headd, 2003). However, Headd (2003) was able to study only new businesses. In this case, only one third of business deaths were not successful. This finding questions the survival of the fittest doctrine (Metzger, 2006). The concept of 'Jovanovich learning', commonly used in the literature<sup>1</sup>, as an argument towards the acceptance of successful business exits, does not invalidate the fact that the precursor of such learning experience was a business death. Even though the outcomes may be of value for the entrepreneur, the industry and the economy, it should not be labeled as a business success (Bates, 2005; Coad, 2014). The previously stated benefits of business exits should not be seen as arguments towards stating that business death is something good. Instead these reveal the positive effects of high performance firms' survival and low performance firms' death. In fact Coad (2014) argues that the emerging trend of facing business exits as something good may

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<sup>1</sup> Interestingly, there is not a strong empirical support to this theory (Coad, 2014).

have nefarious economic consequences. Despite several authors considering that exits may be successful or unsuccessful (DeTienne & Wennberg, 2014; Headd, 2003; Metzger, 2008; Wennberg et al., 2010), another approach may be taken; one where business exits may be seen as relatively unviable or absolutely unviable (Coad, 2014). The latter approach, the one adopted here, takes into account the entrepreneurs' opportunity costs (Gimeno et al., 1997; Grilli, 2011). This distinction between voluntary and involuntary deaths may be extremely relevant within the scope of the emotional consequences for entrepreneurs<sup>1</sup> (Coad, 2014).

This perspective on business exit entails the need to carefully reconsider the widely accepted conception that the re-entry of exited entrepreneurs into entrepreneurship is of value to the economy (Coad, 2014).

### *2.1.2 Entrepreneurial Exit*

Entrepreneurship has long been accepted to be beyond only the creation of new businesses and a single action event. Of particular note, understanding the designer of the firm is a good approach towards understanding its design (Sarasvathy, 2004). Thus, the importance of focusing at the individual level (Amaral & Baptista, 2007; Birley & Westhead, 1993). All firm owners will eventually exit their business (even if it only occurs at the time of their death) and it has been shown that these numbers are increasing. Previous literature has systematically referred to entrepreneurial exit as an indicator of entrepreneurial learning, and its effect on subsequent restart intention as a key driver in the evolution of industries and economies (Hessels et al., 2011; Leroy et al., 2007). Some researchers, however, state that entrepreneurial learning may be subject to a threshold and that the type of previous experience may affect, not only subsequent re-entry, but also the performance of the venture (Metzger, 2008; Ucbasaran et al., 2009b; Westhead et al., 2005). Also, according to some lines of research, designing an exit strategy may be rewarding for the entrepreneur since it allows him to explore further opportunities (DeTienne et al., 2014; DeTienne, 2010; Schutjens & Stam, 2006).

DeTienne (2010) presented a widely adopted definition of entrepreneurial exit. It considers entrepreneurial exit to be the process by which entrepreneurs abandon the organization they created. They can remove themselves from the ownership and decision-making structure, shut down the business (case in which business death also takes place) or discontinue the business'

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<sup>1</sup> This is a clear example of the nature of entrepreneurship as an intersection between individuals and organizations.

activity<sup>1</sup>. Thus, the firm may continue its operations after the entrepreneurial exit (DeTienne & Cardon, 2012). In the work here presented, entrepreneurial exit was defined as selling, shutting down, discontinuing or quitting a partially or totally owned business, any form of self-employment or selling goods or services to anyone, in the last 12 months (Singer et al., 2014).

Entrepreneurial exit is, almost by definition, of importance for the entrepreneur (DeTienne & Cardon, 2012). Despite the possibility of the venture creating wealth for the entrepreneur continuously and/or consistently over time, the entrepreneur's ability to harvest its value at some point in the future is vital to new venture value creation (DeTienne, 2010). Selling equity is an example of how the entrepreneur may (partially) harvest the venture's value. However, one must also account for the implications on the entrepreneur's psyche (Cardon, Zietsma, Saporito, Matherne, & Davis, 2005).

Entrepreneurial exit may infuse the business with cash, resources and/or renewed energy (Haveman & Khair, 2004). When an experienced management team replaces the entrepreneur the organization is infused with management skills and with the ability to raise more capital, increase and/or expand the product portfolio, as well as, increase legitimacy (DeTienne, 2010). Nonetheless, founder succession may also present challenges for the organization. Among these are, for example, the disruption of routines, the decrease of performance and the escalation of employee insecurity (Haveman & Khair, 2004). In fact founder succession has been found to, in some cases, increase organizations' mortality and, even when professional management takes over, the risks are high (DeTienne, 2010).

Similarly, entrepreneurial exit affects the organization's industry. Akhigbe et al. (2003) made some interesting findings regarding the industry effect of an IPO, a M&A and competitive effects of privately-held companies. One of the most compelling findings of the effect on the industry is the fact that the acquisition of privately-held firms presents rivals with positive valuation effects (DeTienne, 2010).

Entrepreneurial exit has impacts on the economy, namely on regional economic development and through wealth redistribution (DeTienne, 2010). Regional economic development is achieved as a result of the entrepreneurial recycling process (Mason & Harrison, 2006), through reinvestment of financial resources into younger companies, reinvestment of

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<sup>1</sup> Notice how, similarly to other authors (Albiol, 2014), we have ignored the type of firm specificity (privately-held firms) originally presented by DeTienne (2010).

knowledge resources into other companies, new venture creation<sup>1</sup>, local infrastructures' strengthening, philanthropy, among others. Wealth created by the entrepreneurs may be redistributed among employees, for example. The entrepreneurial exit allows for the wealth to be redistributed among more people; through an IPO, employee-buy-out, family-succession, among others (Mason & Harrison, 2006). Some authors (DeTienne, 2010) argue that entrepreneurial exits can create, not only, new firms, but also, entire industries or new ways of doing business.

Ronstadt (1986) states that most entrepreneurial exits are financially disappointing. However, entrepreneurs may exit due to several other reasons beyond financial issues. Studying simultaneously the several exit reasons may provide insightful information (DeTienne & Cardon, 2012). Moreover, other scholars found conflicting evidence; Bates (2005) and Headd (2003) found that one third of exited entrepreneurs consider their firms to be 'successful'. Other scholars found entrepreneurial exits not to be mainly driven by financial and economic issues (Balcaen et al., 2012; Harada, 2004).

Unfortunately, most knowledge surrounding entrepreneurial exit is a result of consultants' work (Minor, 2003), whose main priority is not academic rigor. Focusing research on the individual level is believed to have significant value for scholars, practitioners and educators (DeTienne & Cardon, 2012; DeTienne & Wennberg, 2014). Systematic analysis and theoretical rigor must be ensured by researchers studying entrepreneurial exit (DeTienne & Cardon, 2012). Some work has already been done. For example, the transfer of ownership to successors is an important issue that is systematically studied (Dehlen et al., 2014). The choice of a specific exit route has been shown to affect, not only the entrepreneur's self-realization, but also the firm's subsequent prosperity (Dehlen et al., 2014). Moreover, the determinants of owners' choice of a specific exit route are still largely understudied (DeTienne & Cardon, 2012; Wennberg et al., 2010) and, even those that do focus on these issues, are mostly of a conceptual and/or qualitative nature (Dehlen et al., 2014; Mason & Harrison, 2006). Additionally, it is crucial to recognize the distinction between failure and entrepreneurial exit (DeTienne & Wennberg, 2014; Wennberg et al., 2010). Simply put, as stated by DeTienne (2010), there is a gap in the literature in what concerns exit decisions, development of exit strategies and the options available for exit. Wennberg (2011) attempts to explain this by arguing that entrepreneurial exit is probably an understudied research area because of the difficulty in measuring it precisely. This study will contribute towards helping

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<sup>1</sup> Habitual entrepreneurship.

to understand entrepreneurial exits' implications and concerns, the relevance of which has been argued by scholars (DeTienne & Wennberg, 2014)

## **2.2 Entrepreneurial Process**

Section 2.1.2 demonstrated the importance of entrepreneurial exit for the entrepreneur, the firm, the industry and the economy. Therefore, it seems straightforward to consider the entrepreneurial exit under the light of the entrepreneurial process (DeTienne, 2010; Leroy et al., 2007). This means considering, at every stage of the process, exit strategies, reasons and options.

Several authors have stated that the entrepreneurial process finishes with the venture creation, however this would not be able to consider the harvesting of the value of the venture (DeTienne, 2010). In fact the entrepreneurial process has been described as the range of processes going from start-up to harvesting the business (Reynolds & White, 1997). However, surprisingly, research has focused mainly on the nascent and early phases of the entrepreneurial process (DeTienne, 2010). Fortunately some scholars have been successful in accounting for the entire process, thus also accounting for the end of the business and/or entrepreneurial venture of the individual (Cardon et al., 2005; DeTienne & Cardon, 2012; DeTienne et al., 2014; DeTienne & Wennberg, 2014; DeTienne, 2010; Wennberg & DeTienne, 2014; Wennberg et al., 2010). The model of entrepreneurial process proposed by Cardon et al. (2005) will set the frontiers used in this research thesis to study entrepreneurial exit and re-entry. This model, originally, accounts for entrepreneurial exit, allowing it to occur at any stage of the process since the entrepreneur may decide to pursue another opportunity (job, education, another venture, among other). It is even possible for the "entrepreneurial exit" to occur before the venture is founded<sup>1</sup>. The model defines four distinct phases of the entrepreneurial process: Conception and Gestation, Infancy, Adolescence and Maturity.

As the entrepreneur's venture grows, also do his exit options. Initially, in the conception and gestation phase, entrepreneurial exit consists of the entrepreneur(s) aborting the process due to alternative, normative and calculative forces. Afterwards, accounting, also, for the development of an exit strategy, in the infancy phase, entrepreneurial exit appears to be

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<sup>1</sup> According to the definition of entrepreneurial exit, this case would not, in fact, represent and entrepreneurial exit. However this explanation is intended only for conceptual purposes and to enlighten the reader on the flexibility provided by Cardon et al. (2005) model.

frequent and consisting, mainly, of failure and voluntary disbanding. Later, associated to the venture's growth and increase in legitimacy, during the adolescence phase, exit options increase significantly. On the one hand, founders with growth goals are likely to exit, while, on the other hand, founders with lifestyle goals are not as likely to do so. Finally, in the maturity phase, growth oriented entrepreneurs will have, most likely, exited while lifestyle entrepreneurs, or those with income replacement ventures, have, now, much fewer options for exit (Cardon et al., 2005; DeTienne, 2010).

### *2.2.1 Conception and Gestation*

The conception and gestation phase is typically referred to as nascent entrepreneurship<sup>1</sup> (Cardon et al., 2005; Reynolds & White, 1997). This phase consists of the individual identifying an opportunity and deciding, or not, to pursue it (Gaglio & Katz, 2001). It is also possible for the entrepreneur to be pushed into entrepreneurship<sup>2</sup> (Wong, Ho, & Autio, 2005). Curiously, and in line with the argumentation previously presented, research has shown that more than half of entrepreneurs start new ventures with an exit strategy in mind. In fact, the differentiating factor is that growth (or profit) motivated entrepreneurs are likely to engage in strategic planning, thus also planning the exit. Lifestyle or income replacement entrepreneurs do not have the same propensity towards strategic thinking (DeTienne, 2010).

Alternative, calculative and normative forces may play a role in the entrepreneurs' decision to not pursue the venture (Maertz & Campion, 2004). Alternative forces represent alternative opportunities, such as a job opportunity, education or another venture, that may deter the entrepreneur from his current endeavor. Calculative forces represent the entrepreneur's perception of his ability to pursue the endeavor. These forces affect and are affected by market demand, existent products in the market or the competitive environment. Normative forces represent the entrepreneurs' perception of his social networks' expectations on the venture. The expectations of individuals closely tied to the entrepreneur, are very likely to affect his pursuit of the venture (DeTienne, 2010).

Most "exits" in this phase consist of abandonment and or termination. Notice that this does not prevent, in any way, the individual from pursuing another venture at some point in the future.

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<sup>1</sup> Considering the research objective, one could also refer to re nascent entrepreneurship.

<sup>2</sup> The distinction between necessity and opportunity driven entrepreneurship is not one of the focuses of this study.

### 2.2.2 *Infancy*

The infancy phase is the first phase after the entrepreneurs' nascence. Firms, in this phase, are typically subject to both liability of newness and of smallness (Aldrich & Auster, 1986; Stinchcombe, 1965). Therefore the firm is very vulnerable and requires a lot of time from the entrepreneur (Cardon et al., 2005; DeTienne, 2010).

'Imprinting' is an important concept, not only in this phase, but also, to understand the whole entrepreneurial process (DeTienne, 2010; Wennberg & DeTienne, 2014). Decisions made by the entrepreneur in this phase of the entrepreneurial process may have long lasting impacts on the firm, its performance and survival, since they affect the strategic decisions guiding the firm. The development of an exit strategy may be of extreme usefulness in this phase, as it impacts, not only, the ability to exit in the future, but also, the exit routes available (DeTienne & Cardon, 2012; DeTienne, 2010). Goal theory, for example, supports this statement. Hence, entrepreneurs who develop an exit strategy early on are more likely to achieve their exit goals. As the firm grows, equity and psychological ownership play a role in the development of an exit strategy, mostly on growth-oriented entrepreneurs. It is common for entrepreneurs, in the infancy phase, to hold high levels of equity ownership. Thus, there is no or little pressure from other constituents to see a return on investment. Therefore, and taking into account the fact that time restriction pressure the entrepreneurs' day to day activities, entrepreneurs may have a more tactical orientation than strategic one. The focus is on the most pressing demands rather than strategic long-term implication, such as exit strategy.

Alternative, calculative and normative forces also play a role in exit decisions in the infancy phase (Maertz & Campion, 2004). Alternative forces continue to have a strong impact since the level of psychological commitment is still relatively low and the individual might become aware that a career in entrepreneurship is not appropriate for him. Exits due to alternative forces are very common (DeTienne, 2010). In this phase entrepreneurs are more capable of evaluating the venture's viability since have gathered more information about the venture itself, the industry and market. Thus calculative forces may still play a strong role. IP, financing or competing product issues highly influence the exit decisions of entrepreneurs in the infancy phase (DeTienne, 2010). Comparatively to the conception and gestation phase, calculative forces are stronger in the infancy phase. Simply put, as the venture becomes more tangible and less of an abstract concept, the social networks of the entrepreneur are more likely to develop judgments about the venture. Also, by establishing partnerships and working



relationships, it will be harder for the entrepreneur to decide to exit his entrepreneurial career (DeTienne, 2010).

Entrepreneurial exits in the infancy phase consist of, mainly, failure and voluntary disbanding and, according to DeTienne (2010), will occur at a higher rate. Failure and voluntary disbanding, either for personal or other non-financial reasons, have been studied by several scholars and empirical studies show their high prevalence in the infancy phase of the entrepreneurial process (DeTienne, 2010; Mayer & Goldstein, 1962; McGrath, 2006; Ronstadt, 1986).

### *2.2.3 Adolescence*

The adolescence phase is mainly characterized by the venture showing high growth levels (sales, employees, market share and/or resource acquisition) (Cardon et al., 2005; Reynolds & White, 1997). The organization embraces more formal procedures and the institutionalization of procedures and rules (Bamford, Dean, & Douglas, 2004; Lynall, Golden, & Hillman, 2003). Also, options for exit increase significantly.

This is typically associated with a high rate increase of external stakeholder as constituents of the business, due to the entrepreneur's pursuit to infuse more resources into the business and readiness to dispose of some of the equity they own. This implies that, mainly growth entrepreneurs will increasingly be subject to external pressure to devise an exit strategy. Also, the entrepreneur's psychological attachment increases together with the growth of the business. This has a major role in lifestyle or income-replacement entrepreneurs. This reflects and explains the tendency for these types of entrepreneurs not to develop an exit strategy (aggravated by the fact that they do not, normally, plan for exit at the conception and gestation phase nor at the infancy phase) (DeTienne, 2010).

Growth oriented entrepreneurs may be put into a situation where external stakeholders want to bring onboard an experienced professional management team. Moreover, most of the profit-oriented entrepreneurs are not interested in playing a managerial role. Thus, most entrepreneurial exits of these entrepreneurs, during the adolescence phase, consist of forced exit or desire of the entrepreneur not to assume a managerial role (DeTienne, 2010). However, as the business grows and increases its legitimacy, these entrepreneurs have more exit options available, such as private-equity buy-outs, strategic buy-outs and IPOs. Despite private-equity buy-outs growing at a rapid rate, a popular exit route for these entrepreneurs is strategic buy-outs. IPOs are typically regarded as a growth strategy rather than a liquidation/exit strategy; however these allow for wealth to be accumulated in the long-term.

Lifestyle or income replacement entrepreneurs, given their high psychological attachment, prefer exit routes allowing them to remain involved with the firm or ensuring the business' continuity and the recognition of loyal employees – such as family succession, employee buy-out or MBO. It is less common to see lifestyle or income-replacement entrepreneurs with the same orientation than growth-oriented entrepreneurs, where the purpose is to harvest the value and move-on to the next opportunity (DeTienne, 2010; Minor, 2003). The former are more likely to develop emotional ties and relationships with employees, customers and suppliers, thus being more concerned with what will happen to the business after their exit (Mason & Harrison, 2006).

#### *2.2.4 Maturity*

The maturity phase typically is seen in businesses where bureaucracy and formalization of processes are deeply entrenched into its way of doing business (Lester, Parnell, & Carraher, 2003). According to Haveman & Khaire (2004), it is uncommon to see businesses of growth-oriented entrepreneurs reach this phase of the entrepreneurial process still with the founder involved in the organization. Thus, many founders who have considered an exit strategy in the beginning of the entrepreneurial process may have already exited. However, lifestyle or income replacement entrepreneurs may still be involved in the business. These, given the high levels of psychological attachment, early phase imprinting and little or no outside pressure, may continue without any exit strategy. Exit options are scarcer (DeTienne, 2010).

Even these lifestyle and income replacement entrepreneurs will, ultimately, exit the entrepreneurial process. The entrepreneurial exit may be due to an investment harvesting, need for liquidity, retirement or even death.

Exit due to failure, for both growth-oriented entrepreneurs and lifestyle or income replacement entrepreneurs, is much less common, since during the maturity phase the likelihood of bankruptcy being lower than in any other phase (DeTienne, 2010). Entrepreneurial exits in this phase consist mainly of family succession, private acquisition, strategic buy-out or voluntary liquidation (DeTienne & Cardon, 2012; Minor, 2003).

### **2.3 Empirical Evidence of Nascent and Habitual Entrepreneurship Research**

It is widely accepted that entrepreneurship is a behavior and not a personality trait, hence the difficulty in successfully describing the “typical” entrepreneur. Barrow (1987) describes an entrepreneur as “someone who recognizes an opportunity, raises the money and other resources needed to exploit that opportunity, and bears some or all of the risk associated with

executing the ensuing plans”. Casson (2003) also provides his own definition of an entrepreneur “someone who specializes in taking judgmental decisions about the coordination of scarce resources”. These descriptions have in common the fact of recognizing the entrepreneur as an individual (not a team or an institution) and that the entrepreneur is responsible for the efficient allocation of resources. Schumpeter (1934) bridged the gap between entrepreneurship and classical economic models<sup>1</sup> allowing for the extensive study of entrepreneurship. This research thesis adopts Schumpeter’s view.

As previously stated, entrepreneurship is much more than a single-action event (Birley & Westhead, 1993; Westhead & Wright, 1998). Given the importance to focus on the individual level of entrepreneurship (the entrepreneur), Birley & Westhead (1993) emphasize the heterogeneity of entrepreneurship. Recently, the study of habitual entrepreneurs has been gaining the interest of researchers (Amaral & Baptista, 2007).

Individuals who established, inherited or purchased more than one business are defined as habitual entrepreneurs. Novice entrepreneurs have established, inherited or purchased only one business. Within the scope of habitual entrepreneurship, one can also distinguish between serial and portfolio entrepreneurs. Serial entrepreneurs are those entrepreneurs who, after experiencing entrepreneurial exit, start, acquire or inherit another business. Portfolio entrepreneurs are those who own several businesses at the same time (Amaral & Baptista, 2007; Birley & Westhead, 1993; Hessels et al., 2011; Westhead & Wright, 1998).

This chapter will look at the entrepreneur with a focus on what current literature identified as drivers and/or factors contiguous and pertinent to entrepreneurs and their entrepreneurial activity. The existent literature will be explored in such way as to help develop hypothesis towards answering the research questions. In order to achieve the research objectives it is necessary to delve into the individual and environmental factors that may guide entrepreneurial re-entry intention, the differing traits, among exited entrepreneurs, between entrepreneurs who intend to restart and those who do not and, finally, in line with a still narrow stream of research (Amaral & Baptista, 2007; Westhead et al., 2003, 2005), the factors driving entrepreneurial entry and re-entry intentions; in order to build a parallelism between the former and the latter (Wagner, 2002). This work adopts the approach that entrepreneurs’ intention can, quite accurately, predict their behaviors (Davidsson, 2006; DeTienne &

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<sup>1</sup> Schumpeter’s (1934) view excludes most new business start-ups from entrepreneurial activity. The crucial factor distinguishing entrepreneurs from small-business owners is the extent to which innovation, reallocation of resources and productivity increase are present.

Cardon, 2012; Hessels et al., 2011; Lau & Busenitz, 2001; Leroy et al., 2015; Schutjens & Stam, 2006; Wennberg & DeTienne, 2014), which stems from the TPB, which has only recently been applied to entrepreneurial activity (Leroy et al., 2007). This theory argues that intentions are the most powerful predictors of a behavior.

In this study the term intentional restarter refers to an exited entrepreneur with entrepreneurial re-entry intentions and the term non-restarter refers to an exited entrepreneur without entrepreneurial re-entry intentions. All hypotheses were coded alphanumerically; in other words, the letter makes reference to the research question it relates to, and the number were attributed sequentially as each sub-hypothesis was developed. Thus, three main hypotheses were devised and, in order to allow a deeper and better understanding of the re-entry intention phenomenon, sub-hypotheses, relating to each individual and environmental factor, were also constructed. These sub-hypotheses are presented in page 28 through Table 1, Table 2 and Table 3.

### *2.3.1 Individual Factors*

Individual level characteristics of the entrepreneur have been shown to largely influence entrepreneurial intentions (Davidsson, 2006; Rocha et al., 2015). These characteristics include the entrepreneur's attitudes towards entrepreneurship, demographics, entrepreneurial exit specificities, entrepreneurial perceptions, human capital and social capital. According to the literature reviewed and commented ahead, Hypothesis A was constructed.

*Hypothesis A      Individual factors significantly affect the probability of developing re-entry intentions.*

#### *2.3.1.1 Attitudes towards Entrepreneurship*

The social values of a country towards entrepreneurship, here referred to as attitudes towards entrepreneurship, have an influence on the entrepreneurial behavior of individuals (Singer et al., 2014). These social values are, to some extent, a proxy of the country's (perceived) entrepreneurial culture. These are the extent to which an entrepreneurial career is well perceived, the status provided by such career and the role of media in developing this entrepreneurial culture. Table 1 presents the sub-hypotheses of Hypothesis A related to attitudes towards entrepreneurship.

#### *2.3.1.2 Demographics*

Research on nascent entrepreneurship has provided ambiguous findings on the effect of age. While some authors found that older people are more likely to enter entrepreneurship, others

found that entrepreneurship is concentrated among younger individuals (Amaral & Baptista, 2007; Diochon, Gasse, & Menzies, 2002; Lévesque & Minniti, 2006; Metzger, 2006, 2008; R. A. Miller, 1984; Rees & Shah, 1986; Reynolds, Carter, Gartner, & Greene, 2004; Rocha et al., 2015; Schutjens & Stam, 2006; Stam et al., 2008; Wagner, 2003). Wagner (2002) found that, among exited entrepreneurs, those who restart are younger than those who do not. An interesting finding regarding age is the fact that it has been shown to have a curvilinear relationship with entry into entrepreneurship, thus showing a non-monotonic relationship (Grilo & Thurik, 2008; Nielsen & Sarasvathy, 2011; Parker, 2004a; Ruef, 2010). This relationship may be due to the fact that, as individuals age, their human capital decreases, thus requiring an investment to maintain its value. Therefore, assuming that the investment decreases with age, it is possible to find a concave relationship (Cressy, 1996). The different findings regarding age may, to some extent, be due to confounding factors and its correlation with other relevant variables. For example, Schutjens & Stam (2006) argue that younger individuals are more likely to re-enter entrepreneurship because they have lower opportunity costs and have been brought up in an entrepreneurial society. Moreover, older individuals have income security needs.

Age has also been found to reduce the probability of entrepreneurs exiting entrepreneurship and to increase the likelihood of firm survival (Headd, 2003; Van Praag, 2003). One possible explanation is the fact that young people have better business or job opportunities, thus higher opportunity costs to remain in entrepreneurship (Headd, 2003). Notice how Headd's (2003) argumentation is against that of Schutjens & Stam (2006). Furthermore, it has been argued that older individuals have had more time to identify valuable opportunities (Calvo & Wellisz, 1980; DeTienne & Cardon, 2012). Several authors argue that age can be seen as a proxy to accumulated life experience (Davidsson & Honig, 2003; Gimeno et al., 1997; Ucbasaran, Wright, & Westhead, 2003). However, other scholars have found that younger individuals identify more business opportunities (Ucbasaran, Westhead, & Wright, 2009a). Another interesting finding is that older people are considered to be more risk averse (Hallahan, Faff, & McKenzie, 2003; Lévesque & Minniti, 2006; R. A. Miller, 1984; Morin & Suarez, 1983; Stam et al., 2008). Age also has effects on the sense of self-efficacy of individuals (Gecas, 2003; Lorence & Mortimer, 1985; Loscocco & Kalleberg, 1988; Moen, 2003). Regarding social capital, Calvo & Wellisz (1980) argue that older individuals, due to their larger lifetime, were able to build better social networks. Similarly, Blanchflower &

Oswald (1998) argue that older individuals are more likely to have more capital to invest in setting up a business, either as owners/managers or investors.

Intentional restarters are younger than non-restarters. Gender has been shown to be of interest in entrepreneurial studies. Scholars have found that women are a minority in entrepreneurship and, also, less likely to become novice entrepreneurs as well as to re-engage in entrepreneurship, after entrepreneurial exit (Bosma, Hessels, Schutjens, Van Praag, & Verheul, 2012; Diochon et al., 2002; Hessels et al., 2011; Kolvereid & Bullvag, 1993; Metzger, 2006; Nielsen & Sarasvathy, 2011; Parker, 2004a; Reynolds et al., 2004; Stam et al., 2008; Wagner, 2005; Westhead & Wright, 1998). In fact, some scholars found that the share of males engaged in entrepreneurship is even higher in habitual entrepreneurship than in novice entrepreneurship (Wagner, 2002). However, despite this fact, some literature has found gender to have no explanatory power on the probability of entrepreneurial re-engagement (Wagner, 2002, 2003). Some authors have argued that male and female entrepreneurs must be studied separately. This is, partly, due to them having different entrepreneurial motivations<sup>1</sup> (Stephan, Hart, & Drews, 2015; Wennberg, 2011). Gender also has influence on entrepreneurial perceptions. Among nascent entrepreneurs, women, on average, have lower risk tolerance thresholds (Davis & Shaver, 2012; Langowitz & Minniti, 2007), which may be related to the findings that women identify less entrepreneurial opportunities (Ucbasaran et al., 2009a). Table 1 presents the sub-hypotheses of Hypothesis A related to demographics.

### 2.3.1.3 *Entrepreneurial Exit*

Several authors have explored the importance of entrepreneurial exit on subsequent entrepreneurial decisions (Albiol, 2014; Amaral & Baptista, 2007; Audretsch, 1995). Entrepreneurial exit seems to positively impact subsequent entrepreneurial engagement, at both micro and macro economic levels (Hessels et al., 2011; Nielsen & Sarasvathy, 2011; Pe'er & Vertinsky, 2008; Schutjens & Stam, 2006).

It is very important to distinguish between entrepreneurial exit and failure, thus the need to identify the reasons leading to the exit (DeTienne & Cardon, 2012; Wennberg et al., 2010). Considering that several authors still merge failure and entrepreneurial exit, it may seem surprising that scholars have found empirical evidence showing that most entrepreneurial exit

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<sup>1</sup> Mainly due to data issues, this work will not explore entrepreneurial motivations. Thus it will not analyze males and females separately.

are not due to financial or economic reasons (Balcaen et al., 2012; Harada, 2004). The entrepreneurial exit path may, in fact, affect the level of potential entrepreneurial engagement after exit (DeTienne & Cardon, 2012; Headd, 2003; Metzger, 2008; Stam et al., 2008).

Previous venture survival seems not to influence entrepreneurial re-entry (Amaral & Baptista, 2007; Metzger, 2008; Nielsen & Sarasvathy, 2011; Stokes & Blackburn, 2002). In fact, in some cases, business death increases the likelihood of re-entering entrepreneurship<sup>1</sup> (Stam et al., 2008; Ucbasaran, Westhead, & Wright, 2006). This is in line with Hessels' et al. (2011) argumentation. Business exit implies that the entrepreneur is no longer involved in the ownership and/or decision-making structure of the business, thus allowing the entrepreneur to fully focus on his new venture. Table 1 presents the sub-hypotheses of Hypothesis A related to entrepreneurial exit.

#### *2.3.1.4 Entrepreneurial Perceptions*

Entering entrepreneurship does not come without a risk; uncertainty is a common denominator when describing entrepreneurship. The risk of failure is much higher than that of wage-employment. It is, therefore, only logical that some individual's may abstain themselves from entering (or re-entering) into entrepreneurship given the uncertainty associated with it. Several scholars have argued that fear of failure is an important obstacle to entrepreneurship (Arenius & Minniti, 2005; DeTienne & Wennberg, 2014; Driga, Lafuente, & Vaillant, 2009; Hessels et al., 2011; Koellinger, Minniti, & Schade, 2007; Lafuente, Vaillant, & Rialp, 2007; Metzger, 2006; Wagner, 2003). Wagner (2002) found that, among exited entrepreneurs, it was less likely for those re-entering entrepreneurship to state that fear of failure would prevent them from pursuing a venture. Others tackle the same issue studying entrepreneurs' confidence (or, even, overconfidence). The findings are aligned with those of fear of failure; habitual entrepreneurs are more confident (DeTienne & Cardon, 2012). A possible explanation is the fact that previous entrepreneurial experience provides entrepreneurs with confidence that helps them tackle the liabilities of newness (Hessels et al., 2011). Schutjens & Stam (2006) have an interesting finding concerning this issue. They found that risk taking propensity has no significant impact on the intention to re-enter entrepreneurship.

The decision to become an entrepreneur, nascent and/or habitual, has been shown to be affected by the perceived entrepreneurial skills of individuals (Arenius & Minniti, 2005;

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<sup>1</sup> Amaral & Baptista (2007) actually found that business death increased the likelihood of becoming a direct serial entrepreneur.

Davidsson & Honig, 2003; Driga et al., 2009; Hyytinen & Ilmakunnas, 2007; Kim, Aldrich, & Keister, 2006; Schutjens & Stam, 2006; Ucbasaran, Westhead, & Wright, 2008; Vaillant & Lafuente, 2007). Furthermore, habitual entrepreneurs are widely expected to have higher levels of entrepreneurial skills, acquired through learning by doing, also referred to as episodic knowledge (Davidsson, Low, & Wright, 2001; DeTienne & Cardon, 2012; Hessels et al., 2011; McGrath & MacMillan, 2000; Mueller & Shepherd, 2014; Schutjens & Stam, 2006; Shane, 2004; Ucbasaran et al., 2009a, 2003). It is important to notice that the perceived entrepreneurial skills, as a subset of perceived behavioral control theory, are influenced by several factors (such as age, gender or education, among others<sup>1</sup>). In this sense, other scholars have argued that there exists a threshold on the extent to which entrepreneurial skills heighten the probability of re-entry into entrepreneurship (Ucbasaran et al., 2009b)<sup>2</sup>.

Higher levels of perceived entrepreneurial skills have been argued to allow entrepreneurs to identify more business opportunities (Ucbasaran et al., 2009a). Since scholars have found habitual entrepreneurs to have higher levels of, at least perceived, entrepreneurial skills, this concurs to habitual entrepreneurs' ability to identify more business opportunities than novice entrepreneurs. Accordingly, habitual entrepreneurs should be better equipped to identify and take advantage of opportunities (McGrath & MacMillan, 2000; Mueller & Shepherd, 2014; Shane, 2004; Ucbasaran et al., 2003). Hessels et al. (2011) hypothesize that exited entrepreneurs are better equipped than novice in identifying opportunities. Table 1 presents the sub-hypotheses of Hypothesis A related to entrepreneurial perceptions.

#### *2.3.1.5 Human Capital*

DeTienne & Wennberg (2014), Ucbasaran et al. (2003) and Westhead et al. (2005) state that habitual entrepreneurship indicates higher levels of human capital, and as being one of its drivers. Human capital can be viewed in terms of attributes, cognitive characteristics and skills (Ucbasaran et al., 2009a). In fact, it is very common to link entrepreneurship and human capital (Stam et al., 2008). This study will delve into connecting human capital and habitual entrepreneurship.

Education is the most commonly used operationalization of human capital (Nielsen & Sarasvathy, 2011). It appears to positively influence decisions into entrepreneurship.

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<sup>1</sup> Notice that this work explores these relationships, as stated along section 2.3.1.

<sup>2</sup> This issue will, to some extent, be ignored, since the amount of previous experience and/or entrepreneurial skills are not quantified nor operationalized in this study.



Education is seen as a tool allowing individuals to better adapt to uncertainty, deal with complex problems and to effectively explore business opportunities (Ucbasaran et al., 2008). Furthermore, the same reasoning is applied to habitual entrepreneurship (Amaral & Baptista, 2007; Block, Hoogerheide, & Thurik, 2013; Davidsson, 2006; Kim et al., 2006; Kolvereid & Bullvag, 1993; Lucas, 1978; Metzger, 2006; Robinson & Sexton, 1994; Stam et al., 2008). Wagner (2002) found that, among exited entrepreneurs, restarters are more highly educated. However, some scholars did not find any relationship between educational attainment and habitual entrepreneurship (Davidsson & Honig, 2003; Hessels et al., 2011; Wagner, 2003). Stephan et al. (2015) argue that the role of education on entrepreneurial engagement is somewhat dependent on the age and gender of the (potential) entrepreneur.

Higher educated individuals have shown evidence to be more likely to survive (Headd, 2003). Moreover, it has been argued that better educated individuals are more efficient in identifying opportunities worth pursuing (Arenius & DeClercq, 2005; Davidsson & Honig, 2003; Nielsen & Sarasvathy, 2011; Rees & Shah, 1986; Ucbasaran et al., 2009a). However, some of these findings are only of weak significant and Amaral & Baptista (2007) argue that education may, in fact, not have a direct impact on individuals ability to identify and pursue opportunities. Education is commonly looked at as providing individuals with knowledge. In line with the objectives of this study, some scholars argue that education has a positive impact on entrepreneurs perception over their entrepreneurial skills (Ucbasaran et al., 2009a). Scholars have not yet agreed if education bids higher levels of self confidence (Arenius & DeClercq, 2005; Parker, 2004a). However, higher levels of education have been argued to be positively correlated to the social capital of individuals, since it allows individuals to leverage the social contacts developed during their academic path through the education system (Arenius & DeClercq, 2005).

An interesting finding, reflecting, to some extent, the opportunity cost discussion, already presented, is the fact that, among exited entrepreneurs, there is a higher share of unemployed individuals among restarters (Wagner, 2002). Table 1 presents the sub-hypotheses of Hypothesis A related to human capital.

#### *2.3.1.6 Social Capital*

It is widely accepted that social networks play a significant role in entrepreneurship. The entrepreneur is not an isolated individual and must be analyzed as an actor active within a context, in which he is embedded. The entrepreneur's position, connections and centrality in the network may facilitate, constrain and/or inhibit certain behaviors or, even, intentions

(Aldrich & Auster, 1986; Leroy et al., 2007). Several authors expect habitual entrepreneurs to have well developed networks of contacts (McGrath & MacMillan, 2000; Shane, 2004; Wagner, 2002, 2003). This is relevant since most literature recognizes the positive effect of having a role model/known an entrepreneur on entrepreneurial activities (Bosma, Coduras, Litovsky, & Seaman, 2012; Davidsson & Honig, 2003; DeTienne & Wennberg, 2014; Driga et al., 2009; Hessels et al., 2011; Nanda & Sorensen, 2010; Nielsen & Sarasvathy, 2011; Stam et al., 2008; Vaillant & Lafuente, 2007; Wagner, 2003, 2002). A small share of research has not been able to find any relationship between knowing an entrepreneur/having role model and entrepreneurial engagement (Stam et al., 2008). Accordingly to former stream of research, the entrepreneur's social network was found to have a positive impact on his ability to identify opportunities in the market (Ardichvili, Cardozo, & Ray, 2003; Ucbasaran et al., 2009a). This may be due to the argument, presented by some scholars, that social networks may replace experience in the opportunity identification process.

Some authors have argued that exited entrepreneurs tend to, either fund their own ventures, or invest, as a business angel, in other ventures (Mason & Harrison, 2006). This experience as an informal investor has been shown to have a positive impact on habitual entrepreneurship (Hessels et al., 2011).

Furthermore, these two dimensions of social capital (knowing an entrepreneur and informal investor experience) may impact each other positively (Hessels et al., 2011). Table 1 presents the sub-hypotheses of Hypothesis A related to social capital.

### 2.3.2 *Environmental Factors*

Entrepreneurial re-entry intentions are deeply influenced by national contexts and institutional, social and economic pressures (Simmons, Wiklund, & Levie, 2014). The analysis will focus on the GDP per capita, the GCI, the unemployment rate, the TEA as well as the year and the country itself. Based in the analyzed literature Hypothesis B was built.

*Hypothesis B      Environmental factors significantly affect the probability of developing re-entry intentions.*

It is quite intuitive that in wealthier countries there are better business opportunities. National wealth is typically measured through the GDP per capita of the country and may be considered a proxy for the availability of resources (Stephan et al., 2015). Some scholars were able to demonstrate the relationship between GDP per capita and habitual entrepreneurship (Armour & Cumming, 2008; Evans & Jovanovic, 1989; Van Stel, Storey, & Thurik, 2007).

The GDP per capita has been used to reflect country's economic development (Albiol, 2014). GDP per capita has also been shown to be positively related to higher levels of human capital (Burke & Van Stel, 2014; Van Stel et al., 2007; Wong et al., 2005).

Some authors have hypothesized that entrepreneurial activity is negatively affected in underdeveloped and developing countries (Albiol, 2014; Van Stel et al., 2007). The argument is based on the assumption that the level of economic development affects the amount of opportunities (Thurik, Carree, Van Stel, & Audretsch, 2008).

Most relevant literature on entrepreneurship and, specifically, entrepreneurial exit and re-entry, provide support towards the need to apply a territorial approach in order to account for, in the case of this study, country specific influences (Albiol, 2014; Hessels et al., 2011). This may be relevant since the nature and intensity of entrepreneurial activity may differ greatly between geographies, due to different institutional and regulatory environments. Social capital factors, fear of failure and level of education suffer largely from cross-country variation (Hessels et al., 2011).

Despite the fact that this study will not focus on the heterogeneity of entrepreneurs, in what concerns their motives (opportunity versus necessity driven), unemployment rates may reflect this dichotomy between motivation, since it can act as a push factor towards entrepreneurship (Audretsch et al., 2000; Koellinger & Thurik, 2012; Millán et al., 2013; Wennekers, Van Wennekers, Thurik, & Reynolds, 2005; Wong et al., 2005). Also, habitual entrepreneurs have been found to be concentrated in low unemployment rate regions (Metzger, 2006). Hessels et al. (2011) argue that the closure of an entrepreneur's previous business in fact promotes entrepreneurial re-engagement. This may be seen as an indication that unemployment, at a macro level, can promote entrepreneurship.

Temporal differences may also represent an important control issue. However, literature has yet to report any relevant impact, with respect to the year, on entrepreneurial intentions (Hessels et al., 2011). Since the sample data covers the 2008 economic crisis as well as the previous and following time period, temporal differences may show to be more significant than in other studies.

The entrepreneurial culture of a country has been shown to be an influencing factor, generally speaking, for entrepreneurs and exited entrepreneurs (Metzger, 2006). Table 2 presents the sub-hypotheses of Hypothesis B related to the GDP per capita, GCI, country of origin, unemployment rates, year under analysis and TEA.

### 2.3.3 Summary of Developed Hypotheses

Based on the literature review presented above, Table 1 and Table 2 were constructed. These present the list of sub-hypotheses that were constructed. Table 3 is a result of analyzing the literature, and previously devised hypothesis, as a whole. Thus Hypothesis C was built.

*Hypothesis C      Intentional restarters differ significantly from non-restarters.*

Table 3 presents the sub-hypotheses of Hypothesis C. These are based, mainly, but not only, on the literature review on the empirical evidences on individual factors.

**Table 1** Summary of Sub-Hypotheses related to Individual Factors

| Individual Factors                 |                                                                                                                                                                                  |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | Hypothesis A      Individual factors significantly affect the probability of developing re-entry intentions.                                                                     |
| Attitudes towards Entrepreneurship |                                                                                                                                                                                  |
|                                    | Hypothesis A.1. Perceiving that people prefer everyone had a similar standard of living reduces the probability of developing re-entry intentions.                               |
|                                    | Hypothesis A.2. Perceiving that people consider starting a new business a desirable career choice increases the probability of developing re-entry intentions.                   |
|                                    | Hypothesis A.3. Perceiving that those successful in starting a new business have a high level of status and respect increases the probability of developing re-entry intentions. |
|                                    | Hypothesis A.4. Perceiving that public media often showcases stories about successful new businesses increases the probability of developing re-entry intentions.                |
| Demographics                       |                                                                                                                                                                                  |
|                                    | Hypothesis A.5. Younger individuals are more likely to develop re-entry intentions. <sup>1</sup>                                                                                 |
|                                    | Hypothesis A.6. Females are less likely to develop re-entry intentions.                                                                                                          |
| Entrepreneurial Exit               |                                                                                                                                                                                  |
|                                    | Hypothesis A.7. The entrepreneurial exit reason affects the likelihood of developing re-entry intentions.                                                                        |
|                                    | Hypothesis A.8. Previous firm survival reduces the likelihood of developing re-entry intentions.                                                                                 |
| Entrepreneurial Perceptions        |                                                                                                                                                                                  |
|                                    | Hypothesis A.9. Fear of failure reduces the likelihood of developing re-entry intentions.                                                                                        |
|                                    | Hypothesis A.10. Perceived entrepreneurial skills increase the likelihood of developing re-entry intentions.                                                                     |
|                                    | Hypothesis A.11. Perceiving that there are good opportunities in the next 6 months increases the likelihood of developing re-entry intentions.                                   |
| Human Capital                      |                                                                                                                                                                                  |
|                                    | Hypothesis A.12. Educational attainment increases the likelihood of developing re-entry intentions.                                                                              |
|                                    | Hypothesis A.13. An individual's main occupation affects the likelihood of developing re-entry intentions.                                                                       |
| Social Capital                     |                                                                                                                                                                                  |
|                                    | Hypothesis A.14. Knowing an entrepreneur increases the likelihood of developing re-entry intentions.                                                                             |
|                                    | Hypothesis A.15. Informal investor experience increases the likelihood of developing re-entry intentions.                                                                        |

<sup>1</sup> Despite not being hypothesized this study will also explore for the possibility of a non-monotonic relationship between re-entry intentions and age.

**Table 2** Summary of Sub-Hypotheses related to Environmental Factors

| Environmental Factors |                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------|
|                       | Hypothesis B Environmental factors significantly affect the probability of developing re-entry intentions.        |
| GDP per Capita        |                                                                                                                   |
|                       | Hypothesis B.1. GDP per capita has a positive relationship with the likelihood of developing re-entry intentions. |
| GCI                   |                                                                                                                   |
|                       | Hypothesis B.2. The GCI affects the likelihood of developing re-entry intentions.                                 |
| Country               |                                                                                                                   |
|                       | Hypothesis B.3. The country of origin of the individual affects the development of re-entry intentions.           |
| Unemployment Rate     |                                                                                                                   |
|                       | Hypothesis B.4. Unemployment rates affect the development of re-entry intentions.                                 |
| Year                  |                                                                                                                   |
|                       | Hypothesis B.5. The development of re-entry intentions is influenced by the year under analysis.                  |
| TEA                   |                                                                                                                   |
|                       | Hypothesis B.6. The TEA affects the development of re-entry intentions.                                           |

**Table 3** Summary of Sub-Hypotheses comparing Intentional Restarters to Non-Restarters

| Intentional Restarters and Non-Restarters |                                                                                                                                                                           |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | Hypothesis C Intentional restarters differ significantly from non-restarters.                                                                                             |
| Gender                                    |                                                                                                                                                                           |
|                                           | Hypothesis C.1. There is a larger share of men among intentional restarters than among non-restarters.                                                                    |
| Entrepreneurial Exit                      |                                                                                                                                                                           |
|                                           | Hypothesis C.2. There is a larger share of intentional restarters than non-restarters among exited entrepreneurs.                                                         |
| Entrepreneurial Perceptions               |                                                                                                                                                                           |
|                                           | Hypothesis C.3. Intentional restarters have lower levels of fear of failure than non-restarters.                                                                          |
|                                           | Hypothesis C.4. Intentional restarters have higher levels of perceived entrepreneurial skills than non-restarters.                                                        |
|                                           | Hypothesis C.5. There is a larger share of individuals perceiving there will be good opportunities in the next 6 months among intentional restarters than non-restarters. |
| Human Capital                             |                                                                                                                                                                           |
|                                           | Hypothesis C.6. Intentional restarters are more educated than non-restarters.                                                                                             |
|                                           | Hypothesis C.7. Intentional restarters have higher levels of unemployment than non-restarters.                                                                            |
| Social Capital                            |                                                                                                                                                                           |
|                                           | Hypothesis C.8. There is a larger share of individuals knowing an entrepreneur among intentional restarters than non-restarters.                                          |
|                                           | Hypothesis C.9. Intentional restarters have higher levels of informal investor experience than non-restarters.                                                            |

### **3 Data and Method**

This research thesis has a descriptive-explanatory purpose (Saunders, Lewis, & Thornhill, 2009). On the one hand it intends to successfully describe intentional restarters and compare them with non-restarters. On the other hand it intends to understand which and how individual and environmental level factors explain re-entry intentions, as well as if those conducive to the entry intention of novice entrepreneurs are still prevalent for habitual entrepreneurs.

The research strategy employed was both survey and archival research (Saunders et al., 2009). The data used consists of a merge of the GEM APS, Global National and Individual Level, of the GCI reported in the GCR from WEF, of the GDP per capita provided by the WB national accounts data and the OECD National Accounts data files, and the unemployment rates provided by ILO in the Key Indicators of the Labour Market database. The period that is being studied is from 2007 to 2011. The used sample has a total of 2,451 observations.

This study applies a mixed-model research choice (Saunders et al., 2009). Both quantitative and qualitative data are analyzed statistically through the SPSS software, version 22, 64-bit edition. Applying a multiple method typically provides better opportunities to answer the research questions developed (Saunders et al., 2009).

A cross sectional study will be applied. The data collected from 2007 to 2011 was pooled, following the methodology most prevalent in the related literature (Hessels et al., 2011; Kwon & Arenius, 2010; Schutjens & Stam, 2006; Simmons et al., 2014; Stam et al., 2008).

A logit regression model was applied in order to try to understand which individual and environmental level factors affect the probability of an exited entrepreneur having the intention to re-entry into entrepreneurship. Since the dependent variable is binary, a binary logit regression model was used. To study the relationship between the several independent variables Chi-square tests, independent t-tests and Mann Whitney U tests were applied. To measure these (sometimes potential) relationships Cramer's V, Phi, Spearman's rho and Point-biserial correlation coefficients were used.

#### **3.1 Data**

This chapter is dedicated to defining which datasets were explored to build the sample used in this research thesis. The GEM APS datasets, the GCI dataset, the WB and OECD National accounts datasets and ILO Key Indicators of the Labor Market dataset are explored.

### 3.1.1 *GEM APS Data*

The GEM database was conceptualized as a tool to provide worldwide comparable data regarding entrepreneurship (Bosma, Coduras, et al., 2012). It measures differences in entrepreneurial attitudes, activity and aspirations of individuals, uncovers factors determining the nature and levels of entrepreneurial activity and allows identifying policy implications in terms of entrepreneurship.

The socio-economic approach of GEM as well as the fact that it focuses on the individual, differentiates GEM from other databases measuring new business registrations. Moreover, it defines entrepreneurship as “Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business”, thus extending the concept of entrepreneurship well beyond new business registrations. The approach stems from the fact that, since the establishment of GEM, the link between entrepreneurship and economic development has been explored (Z. Acs, 2006; Audretsch, 2007; Carree & Thurik, 2003). Also, more recently, GEM incorporated the principle that entrepreneurs’ contribution to the economy is dependent on the stage of development of the country’s economy (Porter, Sachs, & McArthur, 2002; Wennekers et al., 2005). Therefore, this revised GEM model is dynamic, since it is able to account for the development of economies and its impact on entrepreneurship and economic development (Bosma, Coduras, et al., 2012). Further, the GEM database recognizes the entrepreneurial process, commonly used by scholars (Bosma, Coduras, et al., 2012; DeTienne, 2010; Hessels et al., 2011; Reynolds & White, 1997).

On one hand, GEM analyses entrepreneurial framework conditions in each country, individually, participating in the consortium. It does so through harmonized surveys of experts. On the other hand it analyses the components of entrepreneurship using the APS. It is important to note that the data is harmonized across countries and that the GEM APS is of a statistical nature. The latter implying that all results taken from the GEM APS must be treated as statistical results, explaining to what extent these are statistically significant (Bosma, Coduras, et al., 2012).

National teams are responsible for undertaking the surveys in their respective countries. However the GEM Data Team coordinates the quality control processes. They examine the appropriateness and reliability of the sampling frame, sample size, sample design, processes employed, timing, call back procedures, and the possibility of using sample strata. At least 2,000 adults are surveyed in each country, through either telephone or door-to-door surveys.

Besides being harmonized, the data resultant from the surveys is also subject to coding and weighting, thus allowing for the use of representative random samples of all countries (Bosma, Coduras, et al., 2012).

The data here used, retrieved from GEM, consists of the individual level data for 87 countries, provided that individuals have, in the past 12 months, sold, shut down, discontinued or quit a business they owned and managed, any form of self-employment, or selling goods or services to anyone. The national level data was also used in order to factor in environmental issues (such as the TEA or the GCI, when available). When pooling together data from 2007 to 2011 (Hessels et al., 2011; Kwon & Arenius, 2010; Schutjens & Stam, 2006; Simmons et al., 2014; Stam et al., 2008) it was necessary to ensure that data was coded equally across the years. This required the use of SPSS's functionality to compare dataset and, subsequently, changing both the variables' definition and their recorded values, when applicable. The sample ended up with a total of 28,911 observations<sup>1</sup>.

### 3.1.2 *Global Competitiveness Index*

The WEF has, for more than 30 years, examined the factors enabling countries to achieve sustainable economic growth. A benchmark for businesses and policymakers is provided, thus allowing them to identify economic growth and competitiveness obstacles (Porter et al., 2002; Porter & Schwab, 2008; Schwab & Porter, 2006; Schwab, 2009, 2010, 2011).

GCI is the index used by the WEF to quantify its competitiveness analysis. This measure intends to capture both the microeconomic and macroeconomic contexts of country's competitiveness. Competitiveness is defined as the set of institutions, policies and factors concurring towards productivity, which defines the prosperity threshold of a country. This will affect other macroeconomic issues, such as the rate of return on investments. It is a mix of static and dynamic components. The *Global Competitiveness Reports* base competitiveness, and, also, the GCI on what they call the twelve pillars of competitiveness (Schwab, 2011).

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<sup>1</sup> It is important to note that no observations were excluded. Even those having missing values in some of the used variables were kept. Given the research objectives and questions, this will be beneficial since it will allow the analysis to be based on the biggest amount of data available. However, it also has the undesired effect of reducing the sample size each time an extra variable is included in any analysis, due to the fact that missing values are not pair-wise along all variables.



The stages of development are accounted for, in the GCI, through their weighting. Among the twelve pillars, those that are more relevant for each development stage are attributed higher relative weights. This is operationalized through the usage of three sub indexes; each one is of critical importance for a specific stage of development (factor-driven, efficiency-driven and innovation-driven economies). The allocation of countries into a specific stage of economic development is done through two criteria. Firstly, through the GDP per capita at market exchange rates and, secondly, by measuring to what extent the economy is factor-driven (through exports of mineral products). Countries may be considered to fall in between categories. In such case they are classified as being in transition between stages.

The data available for the period between 2007 and 2011 was added to the 28,911 observations in the study sample. Both a 3 category and a 5 category GCI was used, whereas the 5 category allows transition economies to be represented, the 3 category does not. Note that, for the period between 2009 and 2011 this was not necessary since this data was already available in the GEM APS. However, for the data referent to 2007 and 2008 SPSS's recoding functionality was used, using as reference the country code for each individual.

### *3.1.3 Gross Domestic Product per Capita*

Data on GDP per capita was obtained through the WB and OECD National accounts data files. Weighted averages were used as an aggregation method. GDP per capita was obtained by the division of the GDP of a country by its midyear total population. The value for the GDP was obtained by summing the gross value added by all producers in the economy residing in the country with product taxes, minus any relevant subsidies. The GDP is in current American dollars. This is achieved by converting the GDP figures from domestic currencies using single year official exchange rates ("The World Bank," 2015). The total population of a country consists of all nationals present in the country as well as aliens settled in it ("OECD Data," 2015).

The procedure used to incorporate this data into the dataset was the same as the one for the GCI. However, this data had to be incorporated in all five years (2007 to 2011).

### *3.1.4 Unemployment Rates*

The unemployment rate was retrieved from the ILO Key Indicators of the Labor Market database. It refers to the share of the labor force that does not have work but is available to work and actively seeking employment. In order to ensure comparability and representativeness, countries have provided the data whilst respecting the International

Standard Classifications of Industry, ISIC-68 or ISIS Rev.3 and International Standard Classification of Occupations, ISCO-68 or ISCO 88 (“Main statistics (annual) - Unemployment,” 2015). Once again, the data was introduced in the same way as the GDP per capita.

### 3.2 Variable Description

Literature on entrepreneurial occupational choice, self-employment and entrepreneurship and, specifically, on habitual entrepreneurship and re-entry into entrepreneurship guided the selection of variables applied to the model. Three main dimensions were used to classify the variables: dependent variable and independent variables, which are partitioned into individual and environmental level variables.

Re-entry intention will be the dependent variable of the model. Individual and environmental level variables will be explored in order to understand to what extent these, individually, and collectively, affect the likelihood of an exited entrepreneur having the intention to re-entry entrepreneurship.

Individual level variables include attitudes towards entrepreneurship, demographics, issues related to the entrepreneurial exit, entrepreneurial perceptions, human capital and social capital.

Environment level variables are always relevant to the country from where the respondent is from. They also include the GCI, GDP per capita, the TEA, the unemployment rate and the year the survey was undertaken.

#### 3.2.1 Re-entry Intention

Re-entry intention owes its relevance to the fact that it is able to measure the phase immediately before any new business activities. Note that the intention to restart is not the same as nascent entrepreneurship. Nascent entrepreneurship requires that actions have already been undertaken to start the business (Bosma, Coduras, et al., 2012). The following definition of re-entry intention does not imply the same level of commitment.

The dependent variable, re-entry intention (*futsup*), is a binary variable taking the value 0 or 1. Respondents who have answered affirmatively to the question “Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?” were assigned a value of 1. Respondents who answered negatively were assigned a value of 0. Since our sample is made up of only exited entrepreneurs, this variable was called re-entry intention. Exited entrepreneurs who responded they didn’t know or that

refused were coded with either 8 or 9. These are defined in SPSS as missing values, thus meaning that these individuals will not be used when analysis are carried out on the *futsup* variable.

### 3.2.2 *Independent Variables*

As previously stated, the independent variables are divided into individual and environmental level variables.

#### 3.2.2.1 *Individual Level*

##### *Attitudes towards Entrepreneurship*

Variables reflecting attitudes of respondents towards entrepreneurship consist of an assessment, made by the individual, on what is the national belief in respect to the topic covered. The attitudes towards entrepreneurship are operationalized through four variables.

The variable *equalinc* is a binary variable and it reflects if the respondent thinks that in his country “most people would prefer that everyone had a similar standard of living”. If yes the answer is coded with a 1, if not with a 0.

The variable *nbgoodc* is a binary variable and it reflects if the respondent thinks that in his country “most people consider starting a new business a desirable career choice”. If yes the answer is coded with a 1, if not with a 0.

The variable *nbstatus* is a binary variable and it reflects if the respondent thinks that in his country “those successful at starting a new business have a high level of status and respect”. If yes the answer is coded with a 1, if not with a 0.

The variable *nbmedia* is a binary variable and it reflects if the respondent thinks that in his country one “will often see stories in the public media about successful new businesses”. If yes the answer is coded with a 1, if not with a 0.

For all these variables, respondents who state they don’t know or refuse to answer are coded with 8 and 9 respectively, thus consisting of missing values within the SPSS software.

##### *Demographics*

Two demographic variables were included: gender and age. Regarding age, however, it was also recorded as its squared value and in intervals.

Gender (*gender*) is a binary variable. Respondents coded with a 0 are female while those coded with a 1 are male. It is also possible for respondents answering that they don’t how or

refuse to answer, thus being coded with 8 and 9, respectively, and defined as missing values in SPSS.

Age (*age*) is a numerical variable reflecting the age of the respondent. If the respondent answered that he did not know or refused to answer this answer, it was coded with 998 or 999 respectively. These were defined as missing values in SPSS. The variable age squared (*agesq*) was obtained by computing the squared value of all answers to the variable age in SPSS. Note that 998 and 999 were missing values and that their squared root is not an integer. Therefore, these values were copied from the variable *age* to the variable *agesq* and used as missing values. The variable *age9c* is a categorical variable. A value 117 corresponds to an individual between 0 and 17 years old, a value 1824 corresponds to an individual between 18 and 24 years old, a value 2534 corresponds to an individual between 25 and 34 years old, a value 3544 corresponds to an individual between 35 and 44 years old, a value 4554 corresponds to an individual between 45 and 54 years old, a value 5564 corresponds to an individual between 55 and 64 years old and a value 6598 corresponds to an individual between 65 and 120 years old. Having the variables *age*, *agesq* and *age9c* allows the study to explore for a linear, a non-linear and a non-monotonic relationship between the individual's age and his entrepreneurial intentions (Hessels et al., 2011).

### *Entrepreneurial Exit*

Entrepreneurial exit consists of the process by which founders of private firms leave the firm they created or helped create; removing themselves, in varying degrees, from the primary ownership and decision-making structure of the firm (DeTienne, 2010). Note how entrepreneurial exit does not imply business death (Coad, 2014). Variables relative to business survival and entrepreneurial exit reason were created.

The business survival variable (*exbusconbin*) is binary. A value of 0 means that the business did not survive after the entrepreneurial exit, while a value of 1 means it did. This variable reflects the answers given by respondents to the question: "Did the business continue its business activities after you quit?". Once again, values of 8 and 9 correspond to don't know answers and people who refused to answer, respectively, and are classified as missing values in SPSS.

A categorical variable operationalizes the exit reason (*exreason*). It answers the question: "What was the most important reason for quitting the business?". Available answers are "An opportunity to sell the business" (coded with 1), "The business was not profitable" (coded with 2), "Problems getting finance" (coded with 3), "Another job or business opportunity"

(coded with 4), “The exit was planned in advance” (coded with 5), “Retirement” (coded with 6), “Personal reasons” (coded with 7), “An incident” (coded with 8) and “Other” (coded with 97). All these possible exit reason were also operationalized into binary variables. Having value 1 means the exit reason was the as referred by variable, in opposition to a value 0. These variables are called *exreason\_sell*, *exreason\_prof*, *exreason\_fin*, *exreason\_jobbus*, *exreason\_plan*, *exreason\_retire*, *exreason\_person*, *exreason\_incid* and *exreason\_other*, respectively. For all these variables the values 98 and 99 represent don’t know answer and refused to answer, classified as missing values in SPSS.

### *Entrepreneurial Perceptions*

Perceptions consist of the respondent’s individual belief on himself and the surrounding environment (Bosma, Coduras, et al., 2012). Three variables were created to operationalize entrepreneurial perceptions.

Individual perception of opportunities (*opport*) is a binary variable. It takes the value 1 if the respondent answers yes to the following question: “In the next six months, will there be good opportunities for starting a business in the area where you live?”. If not it takes the value of 0.

Individual perception of self-efficacy (*suskill*) is a binary variable. It takes the value 1 if the respondent answers yes to the following question: “Do you have the knowledge, skill and experience required to start a new business?”. If not it takes the value of 0.

Individual perception of fear of failure (*fearfail*) is a binary variable. It takes the value 1 if the respondent answers yes to the following question: “Would fear of failure prevent you from starting a business?”. If not it takes the value of 0.

For all these variables, respondents who state they don’t know or refuse to answer are coded with 8 and 9 respectively, thus consisting of missing values within the SPSS software.

### *Human Capital*

Human capital variables intend to reflect the stock of knowledge and habits embodied in the ability to perform labor activities (in this case entrepreneurship) in order to produce economic value (Bosma, Coduras, et al., 2012).

The education variable (*GEMEDUC*) is a categorical variable consisting of 5 categories, and it consists of the GEM harmonized educational attainment. These categories of education are “None” (coded with 0), “Some secondary” (coded with 11), “Secondary degree” (coded with 1212), “Post secondary” (coded with 1316) and “Graduate experience” (coded with 1720).

When it is not possible to code the data a code of 9999 is used, which is classified as missing value in SPSS.

The GEM harmonized work status (*GEMWORK3*) is also a categorical variable reflecting the respondents' main occupation. It is coded into three categories: "Work: Full-time or Part-time" (10), "Not working" (20) and "Retired, students" (30). When data is missing or it is not able to classify a respondent within one of these categories it is coded with 99, and added to the missing values in SPSS.

### *Social Capital*

The social capital variables refer to the value of the social networks a respondent has developed, and the inclinations/predispositions that result from these (Bosma, Coduras, et al., 2012).

Knowing an entrepreneur, or the existence of a role model, (*knowent*) is a binary variable. The variable takes the value 1 if the respondent answers affirmatively to the question: "Do you know someone personally who started a business in the past 2 years?". If not, it takes the value 0.

Informal experience as an investor (*busang*) is also a binary variable. Similarly, it takes the value 1 if the respondent answers affirmatively to the question: "Have you, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds". If not, it takes the value 0.

Both variables take the values 8 or 9 if the respondent does not know the answer or refuses to answer.

#### *3.2.2.2 Environmental Level*

Each respondent was assigned a country code. A list of the country codes is provided in **Error! Reference source not found.** This variable (*country*) is categorical. All observations are associated to a country; therefore, no missing values exist in SPSS.

The GCI variables differ in the fact that one (*CAT\_GCRI*) accounts for transitioning economies while the other (*CATGCR2*) forces all countries into one of the three stages of economic development (Bosma, Coduras, et al., 2012; Porter et al., 2002). The *CAT\_GCR5I* variable classifies economies into "Stage 1: factor driven" (coded with 1), "Transition between stage 1 (factor) and stage 2 (efficiency)" (coded with 2), "Stage 2: efficiency driven" (coded with 3), "Transition between stage 2 (efficiency) and stage 3 (innovation)" (coded with 4) and "Stage 3: innovation driven" (coded with 5). For *CAT\_GCR2* the transition stages

are merged into the previous stage thus leaving three categories that are coded with 1, 2 and 3 respectively. For both variables, if data is not available it is coded with 9, and considered missing value in SPSS.

The GDP per capita (*gdp*) is a numerical variable reflecting the value of the GDP per capita of the respondent's country.

The TEA variable (*TEA*) is also a numerical variable reflecting the value of the TEA for the respondent's country.

The unemployment rate (*unemployment*) is a numerical value and reflects the unemployment rate of the respondent's country.

A value of 0 for *gdp*, *TEA* and *unemployment* means that data is not available, and is considered a missing value by SPSS.

The year the survey was taken (*yrsurv*) will be treated as a categorical variable. This allows the study of the impact of a different year, relatively to a reference year. All observation have a year associated with them, no missing values exist in SPSS.

### 3.3 Method

This study applies an econometric model to study those factors affecting re-entry intentions. A binary logit regression model is estimated, relating entrepreneurial re-entry intentions and the individuals and environmental factors, previously identified, through SPSS. In other words, a binary logit regression model is used to analyze the likelihood of an exited entrepreneur developing re-entry intentions. Consider  $p$  the probability of being an intentional restarter. Therefore,  $q = 1 - p$  is the probability of being a non-restarter. The quotient  $\frac{p}{q} = odds$  is called the odds of being an intentional restarter. The binary logit regression

model tries to predict the value of  $\log\left(\frac{p}{q}\right) = logit(p)$ . The regression equation used is  $logit(p) = BX$ , where  $B$  is a matrix of scalars, to be estimated, with dimension  $1 \times n$  and  $X$  is the matrix of the independent variables, with dimension  $n \times 1$ . Simply put, it consists of an ordinary linear regression where  $logit()$  is the response variable. This study will define that  $x_1 = 1$ , thus using a constant. By developing the model the following expression is obtained:  $odds = \prod_{i=1}^n e^{b_i x_i}$ . The term  $e^{b_i x_i}$  is called the odds ratio of the independent variable  $i$ .

A forward stepwise entry method based on the Likelihood Ratio (LR) was applied. This method is believed to be the one less prone to error. However, applying a forward stepwise entry method blindly may rely too much on mathematical criteria. Therefore, after analyzing

the results of this initial model, a final model was developed; through a normal enter entry method.

Direct interpretation of the model is difficult; however by analyzing the odds ratio one is able to identify what is the individual impact of a variable on the relative likelihood of, in this study, developing entrepreneurial re-entry intentions. A small remark is necessary, the logit regression, when dealing with categorical, or even, binary variables, considers one of the values as a reference value. Thus, the odds ratios are relevant to that reference value of the variable.

Additionally, when exploring issues related to the differences between intentional restarters and non-restarters, statistical tests and measures are applied. This study applies Chi-square tests, independent t-tests and Mann Whitney U tests and Cramer's V, Phi, Spearman's rho, Kendall's tau-b and Pearson's product moment correlation coefficient measures.





## 4 Results

Results of the study, carried out as described above, are presented in this chapter. It is divided into two parts. The first addresses the descriptive statistics of the study, while the second is concerned with the binary logit regression.

### 4.1 Descriptive Statistics

Table 4 presents the descriptive statistics for all variables used. It provides the number of observations, mean and standard deviation for each variable<sup>1</sup>.

**Table 4** Descriptive Statistics **Source** SPSS Statistics Software

|                                    | N     | Mean       | Std. Deviation |
|------------------------------------|-------|------------|----------------|
| Dependent Variable                 |       |            |                |
| <i>futsup</i>                      | 27659 | 0.49       | 0.500          |
| Independent Variables              |       |            |                |
| Individual Level                   |       |            |                |
| <i>age</i> (years)                 | 28911 | 40.46      | 13.359         |
| <i>agesq</i> (years <sup>2</sup> ) | 28911 | 1815.1426  | 1176.15438     |
| <i>busang</i>                      | 28743 | 0.18       | 0.387          |
| <i>country</i>                     | 28911 | 250.20     | 291.558        |
| <i>equalinc</i>                    | 25770 | 0.64       | 0.479          |
| <i>exbusconbin</i>                 | 27381 | 0.36       | 0.480          |
| <i>exreason</i>                    | 24280 | 3.98       | 2.204          |
| <i>exreason_fin</i>                | 27021 | 0.16       | 0.362          |
| <i>exreason_incid</i>              | 27021 | 0.04       | 0.200          |
| <i>exreason_jobbus</i>             | 27021 | 0.08       | 0.275          |
| <i>exreason_other</i>              | 27021 | 0.08       | 0.275          |
| <i>exreason_person</i>             | 27021 | 0.19       | 0.395          |
| <i>exreason_plan</i>               | 27021 | 0.03       | 0.181          |
| <i>exreason_prof</i>               | 27021 | 0.31       | 0.461          |
| <i>exreason_retire</i>             | 27021 | 0.05       | 0.209          |
| <i>exreason_sell</i>               | 27021 | 0.04       | 0.197          |
| <i>fearfail</i>                    | 27804 | 0.33       | 0.470          |
| <i>GEMEDUC</i>                     | 27810 | 901.52     | 604.695        |
| <i>GEMWORK3</i>                    | 27692 | 14.81      | 6.953          |
| <i>gender</i>                      | 28902 | 0.56       | 0.497          |
| <i>knowent</i>                     | 28136 | 0.59       | 0.491          |
| <i>nbgoodc</i>                     | 26039 | 0.71       | 0.453          |
| <i>nbmedia</i>                     | 26267 | 0.64       | 0.481          |
| <i>nbstatus</i>                    | 26170 | 0.73       | 0.446          |
| <i>oport</i>                       | 25461 | 0.53       | 0.499          |
| <i>suskill</i>                     | 27824 | 0.81       | 0.390          |
| Environmental Level                |       |            |                |
| <i>CAT_GCR1</i>                    | 28870 | 3.29       | 1.435          |
| <i>CAT_GCR2</i>                    | 28870 | 2.04       | 0.769          |
| <i>gdp</i> (\$)                    | 28505 | 17613.8041 | 18828.55923    |
| <i>TEA</i> (%)                     | 28911 | 14.6490    | 9.57530        |
| <i>unemployment</i> (%)            | 28365 | 8.974      | 5.4690         |
| <i>yrsurv</i>                      | 28911 | 2009.18    | 1.330          |

<sup>1</sup> The variable *age9c* is excluded, since it does not add any relevant information.

Considering the independent variable (*futsup*), 49% of the sample of exited entrepreneurs is an intentional restarter.

In terms of attitudes towards entrepreneurship, which can also be referred to as social values and/or national beliefs, 64% of the sample used considers that in their country people would prefer for everyone to have a similar standard of living, 71% considers that starting a new business is perceived as a good career choice, 64% considers that media is perceived to showcase successful new businesses and 73% considers that starting a new business is perceived to have a high level of status and respect. Furthermore, the variable *equalinc* showed significant (significance below 0.030) correlations with the variables *agesq*, *busang*, *country*, *fearfail*, *gender*, *knowent*, *nbgoodc* and *opport*. The level of association had the value of 0.015, -0.021, 0.231, 0.053, -0.036, -0.024, 0.122 and 0.024, respectively. These levels of association were obtained, mostly through Phi correlation; however one corresponds to a Cramer's V correlation (*country*) and another to a Point-biserial correlation (*agesq*). The variable *nbstatus* showed significant correlations (significance below 0.010) with the variables *futsup* (Phi of 0.067), *agesq* (Point-biserial correlation of -0.047), *country* (Cramer's V of 0.226), *fearfail* (Phi of 0.018), *knowent* (Phi of 0.020), *nbgoodc* (Phi of 0.211), *opport* (Phi of 0.112) and *suskill* (Phi of 0.021). Finally, the variable *nbmedia* showed significant correlations (significance below 0.001) with the variables *futsup* (Phi of 0.085), *agesq* (Point-biserial correlation of -0.038), *busang* (Phi of 0.021), *country* (Cramer's V of 0.282), *gender* (Phi of -0.039), *knowent* (Phi of 0.062), *nbgoodc* (Phi of 0.167), *opport* (Phi of 0.151) and *suskill* (0.031).

Looking at the demographics variables, one concludes that exited entrepreneurs have an average age of 40.46 with a standard deviation of, roughly, 13.36. Table 5 reveals that intentional restarters are, in average, 37.12 years old, while non-restarters are 43.79. Since the age distributions of these two groups are not symmetric, a Mann-Whitney U test was applied and had a significance of 0.000<sup>1</sup>.

Furthermore, according to Table 4, 56% of the sample of exited entrepreneurs is male. Table 6 shows, among other things, that the share of male individuals among non-restarters is 54.3%

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<sup>1</sup> A t-test could not be applied since the age of intentional restarters and non-restarters does not follow a symmetric distribution. Moreover, a Mann-Whitney U test is applicable since the dependent variable (*age*) is continuous, the independent variable (*futsup*) is made of two categorical independent groups, observation are independent and, as previously stated, the distribution of the dependent variable within the two categorical groups are not symmetric.

while among intentional restarters it is 56.8%. A Pearson Chi-square test revealed a significance of 0.000 regarding the relationship between the variables *gender* and *futsup* and these variables presented a Phi correlation of 0.025<sup>1</sup>.

**Table 5** Descriptive Statistics (*age*) of Intentional Restarters and Non-Restarters **Source** SPSS Statistics Software

|            |   | <i>futsup</i> | Mean  | Std. Deviation |
|------------|---|---------------|-------|----------------|
| <i>age</i> | 0 |               | 43.70 | 13.866         |
|            | 1 |               | 37.12 | 12.003         |

**Table 6** Cross-Tab of the Variables *gender* and *futsup* **Source** SPSS Statistics Software

|               |   | <i>futsup</i> |        | Total  |
|---------------|---|---------------|--------|--------|
|               |   | 0             | 1      |        |
| <i>gender</i> | 0 | 45.7%         | 43.2%  | 44.5%  |
|               | 1 | 54.3%         | 56.8%  | 55.5%  |
| Total         |   | 100.0%        | 100.0% | 100.0% |

Regarding the specificities of the entrepreneurial exit of the exited entrepreneurs, one concludes that 16% exited due to problems related to obtaining finance, 4% due to an incident, 8% due another job or business opportunity, 8% due to other reasons, 19% due to personal reasons, 3% because the exit had been planned, 31% due to profitability issues, 5% due to retirement and 4% because of a selling opportunity. Furthermore, 36% of the exited entrepreneurs exited a business that survived after their entrepreneurial exit. The variable *exbusconbin* showed significant correlations (significance below 0.020) with the variables *futsup* (Phi of 0.014), *agesq* (Point-biserial correlation of -0.018), *busang* (Phi of 0.045), *country* (Cramer's V of 0.195), *exreason\_retire* (Phi of 0.071), *fearfail* (Phi of -0.020), *gender* (Phi of 0.039), *knowent* (0.043) and *opport* (Phi of 0.038).

Considering the entrepreneurial perceptions of the exited entrepreneurs, 33% state that fear of failure would prevent them from pursuing a business opportunity. Furthermore, Table 7 shows that the share of individuals who do not state that fear of failure would prevent them from pursuing business opportunities is 63.1% among non-restarters and 71.4% among

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<sup>1</sup> A Pearson Chi-square could only be applied because one was dealing with two nominal variables with two, or more, categorical, independent, groups and there were no more than 20% of cells with less than 5 count.

intentional restarters. The variables *futsup* and *fearfail* have a significant relationship (Pearson Chi-square significance of 0.000) and present a Phi correlation of -0.088.

The share of exited entrepreneurs perceiving that they have the skills required to start a new business is 81%. According to Table 8, this value for intentional restarters is 86.5% and, for non-restarters, 76.2%. There is a significant relationship between the variables *futsup* and *suskill* (Pearson Chi-square significance of 0.000) and they present a Phi correlation of 0.132.

**Table 7** Cross-Tab of the Variables *fearfail* and *futsup* **Source** SPSS Statistics Software

|                 |   | <i>futsup</i> |        | Total  |
|-----------------|---|---------------|--------|--------|
|                 |   | 0             | 1      |        |
| <i>fearfail</i> | 0 | 63.1%         | 71.4%  | 67.1%  |
|                 | 1 | 36.9%         | 28.6%  | 32.9%  |
| Total           |   | 100.0%        | 100.0% | 100.0% |

**Table 8** Cross-Tab of the Variables *suskill* and *futsup* **Source** SPSS Statistics Software

|                |   | <i>futsup</i> |        | Total  |
|----------------|---|---------------|--------|--------|
|                |   | 0             | 1      |        |
| <i>suskill</i> | 0 | 23.8%         | 13.5%  | 18.7%  |
|                | 1 | 76.2%         | 86.5%  | 81.3%  |
| Total          |   | 100.0%        | 100.0% | 100.0% |

53% of the sample of exited entrepreneurs believes that in the next 6 months there will be a good business opportunity. However, as shown in Table 9, among non-restarters only 40.2% believes so. Contrarily, 65.6% of intentional restarters believe in the existence of such a business opportunity. The variables *futsup* and *opport* show a significant relationship (Pearson Chi-square significance of 0.000) and a Phi correlation of 0.255.

**Table 9** Cross-Tab of the Variables *opport* and *futsup* **Source** SPSS Statistics Software

|               |   | <i>futsup</i> |        | Total  |
|---------------|---|---------------|--------|--------|
|               |   | 0             | 1      |        |
| <i>opport</i> | 0 | 59.8%         | 34.4%  | 47.2%  |
|               | 1 | 40.2%         | 65.6%  | 52.8%  |
| Total         |   | 100.0%        | 100.0% | 100.0% |

Concerning the human capital variables, from Table 10 one can deduce that, 10.2% of exited entrepreneurs had no formal education, 23.6% have some secondary education, 32% have a secondary degree, 25% have post-secondary education and 9.2% have graduate experience. The mean rank for intentional restarters is 12,910.03 and 13,683.58 for non-restarters. A

Mann-Whitney U test was applied, since the distribution of educational attainment is not symmetric for either group of exited entrepreneurs. The test had a significance of 0.000. A significant relationship between the variables *GEMEDUC* and *opport* was found (Pearson Chi-square significance of 0.000) with a Cramer's V correlation of 0.082. A significant relationship was also found between the variables *GEMEDUC* and *suskill* (Pearson Chi-square significance of 0.000) with a Cramer's V correlation of 0.060. Finally, another significant relationship was identified between the variables *GEMEDUC* and *knowent* (Pearson Chi-square significance of 0.000) with a Cramer's V correlation of 0.071. Moreover, significant correlations (significance below 0.010) were found between the variable *GEMEDUC* and the variables *futsup* (Cramer's V of 0.056), *agesq* (Spearman's Rho of -0.003), *busang* (Cramer's V of 0.050), *country* (Cramer's V of 0.297), *exreason\_retire* (Cramer's V of 0.023), *fearfail* (Cramer's V of 0.033), *gender* (Cramer's V of 0.071), *knowent* (Cramer's V of 0.071), *nbgoodc* (Cramer's V of 0.113), *opport* (Cramer's V of 0.082) and *suskill* (Cramer's V of 0.060).

**Table 10** Educational Attainment (*CEMEDUC*) Frequencies for all Exited Entrepreneurs **Source** SPSS Statistics Software

|                |                     | Percentage | Cumulative |
|----------------|---------------------|------------|------------|
| <i>GEMEDUC</i> | None                | 10.2%      | 10.2%      |
|                | Some secondary      | 23.6%      | 33.8%      |
|                | Secondary degree    | 32.0%      | 65.8%      |
|                | Post-secondary      | 25.0%      | 90.8%      |
|                | Graduate experience | 9.2%       | 100.0%     |

Still referent to the human capital variables, Table 11 shows that 63.6% of all exited entrepreneurs work, either full or part-time, 24.6% are not working (unemployed) and 11.8% are retired or students. The mean rank of the work status variable for intentional restarters is 12,722.51 and 13,748.51 for non-restarters. Again, given that non-symmetric distributions are involved, a Mann-Whitney U test was applied and had a significance of 0.000.

**Table 11** Work Status (*GEMWORK3*) Frequencies for all Exited Entrepreneurs **Source** SPSS Statistics Software

|                 |                   | Percentage | Cumulative |
|-----------------|-------------------|------------|------------|
| <i>GEMWORK3</i> | Work: F-T, P-T    | 63.6%      | 63.6%      |
|                 | Not working       | 24.6%      | 88.2%      |
|                 | Retired, students | 11.8%      | 100.0%     |

In terms of the social capital variables, 59% of the sample knows an entrepreneur who started a business in the last 2 years, and, 18% has informal investor experience. Table 12 shows that 67.7% and 23.5% of intentional restarters know an entrepreneur and have informal investor experience, respectively. The same figures for non-restarters are 51.2% and 13.3%, respectively. Furthermore a significant relationship between the variables *knowent* and *futsup* was found (Pearson Chi-square significance of 0.000), with a Phi correlation of 0.169, the same values were obtained for the relationship between the variables *knowent* and *opport*. Regarding the informal investor experience variable (*busang*), a significant relationship with the variable *futsup* was evident (Pearson Chi-square significance of 0.000), with a Phi correlation of 0.132.

**Table 12** Cross-Tab of the Variables *knowent/busang* and *futsup* **Source** SPSS Statistics Software

|                |   | <i>futsup</i> |        | Total  |
|----------------|---|---------------|--------|--------|
|                |   | 0             | 1      |        |
| <i>knowent</i> | 0 | 48.8%         | 32.3%  | 40.7%  |
|                | 1 | 51.2%         | 67.7%  | 59.3%  |
| Total          |   | 100.0%        | 100.0% | 100.0% |
| <i>busang</i>  | 0 | 86.7%         | 76.5%  | 81.7%  |
|                | 1 | 13.3%         | 23.5%  | 18.3%  |
| Total          |   | 100.0%        | 100.0% | 100.0% |

Finally, in what concerns the environmental level variables, the average GDP per capita is 17,613.80\$, the average TEA is 14.65% and the average unemployment rate is 8.97%. Table 13 shows that 27.9% of exited entrepreneurs are in a factor driven economy (this includes 11.2% which are already in transition to the next stage), 40.6% in an efficiency driven economy (including 10.7% in transition) and 31.5% in an innovation driven economy. Furthermore, it also illustrates the distribution through the years surveyed. **Error! Reference source not found.** shows the distribution of the observations, discussed above, across countries.

The variable *gdp* shows significant correlations (significance below 0.000) with the variables *futsup* (Point-biserial correlation of -0.290), *agesq* (Spearman's rho of 0.270), *busang* (Point-biserial correlation of -0.094), *exreason\_retire* (Point-biserial correlation of 0.155), *fearfail* (Point-biserial correlation of 0.003), *gender* (Point-biserial correlation of 0.068), *knowent* (Point-biserial correlation of -0.129), *nbgoodc* (Point-biserial correlation of -0.165), *opport* (Point-biserial correlation of -0.202) and *suskill* (Point-biserial correlation of 0.009).

The variable *TEA* shows significant correlations (significance below 0.000) with the variables *futsup* (Point-biserial of 0.314), *opport* (Point-biserial of 0.252) and *CAT\_GCRI* (Point-biserial of -0.710).

**Table 13** Frequencies for all Exited Entrepreneurs in terms of *CAT\_GCRI*, *CAT\_GCR2* and *yrsurv* Source SPSS Statistics Software

|                 |                 | Percentage | Cumulative |
|-----------------|-----------------|------------|------------|
| <i>CAT_GCRI</i> | Stage 1         | 16.7%      | 16.7%      |
|                 | Transition: 1-2 | 11.2%      | 27.9%      |
|                 | Stage 2         | 29.9%      | 57.8%      |
|                 | Transition: 2-3 | 10.7%      | 68.5%      |
|                 | Stage 3         | 31.5%      | 100.0%     |
| <i>CAT_GCR2</i> | <i>Stage 1</i>  | 27.9%      | 27.9%      |
|                 | <i>Stage 2</i>  | 40.6%      | 68.5%      |
|                 | <i>Stage 3</i>  | 31.5%      | 100.0%     |
| <i>yrsurv</i>   | <i>2007</i>     | 14.8%      | 14.8%      |
|                 | <i>2008</i>     | 17.8%      | 32.6%      |
|                 | <i>2009</i>     | 21.6%      | 54.2%      |
|                 | <i>2010</i>     | 26.7%      | 80.9%      |
|                 | <i>2011</i>     | 19.1%      | 100.0%     |

## 4.2 Binary Logit Regression

The binary logit regression applied in SPSS, through the forward stepwise LR entry method, identified 14 variables explaining the likelihood of developing entrepreneurial re-entry intentions. The variables included were *country*, *opport*, *agesq*, *suskill*, *busang*, *knowent*, *exreason\_retire*, *gender*, *nbgoodc*, *fearfail*, *exreason\_fin*, *yrsurv*, *CAT\_GCRI* and *equalinc*. However, further analysis of this model led to the decision of removing the *exreason\_fin*, *yrsurv*, *CAT\_GCRI* and *equalinc* variables. This decision was based on the fact that these variables did not increase the explanatory strength of the model and significantly increased its complexity. This issue was measured through the -2 Log likelihood, the Nagelkerke  $R^2$ , the Omnibus tests of model Chi-square coefficient and the models' overall percentage. The -2 Log likelihood is a test of the relationship between the independent variables and a grouping of dependent variables, the Nagelkerke  $R^2$  is similar to the typical  $R^2$  applied to linear regression, the Omnibus tests of model Chi-square coefficient shows the statistical evidence of a relationship between the dependent and the used combination of independent variables, and, finally, the models' overall percentage corresponds to the percentage of outcomes the model can successfully predict, based on the used sample.



However, a secondary step of preliminary analysis showed that the variables GEMWORK3 and *CAT\_GCR1* should be included in the final model. Thus, the final binary logit model was applied using the enter entry method with the previously stated 12 variables. Table 14 shows the initial classification table of the binary logit model. It refers to the initial model, not including any variables, just a constant term. This ‘baseline’ model predicts 51% of entrepreneurial re-entry intentions. From it, one can extract that the chance accuracy rate and the usefulness rate. Thus, the chance accuracy rate is 50.01% and the usefulness rate is 62.51%.

The final model was able to achieve a Nagelkerke  $R^2$  of 0.310 and explains 71.1% of the entrepreneurial re-entry intentions. This is considerably above the usefulness rate of the initial model. Table 15 shows the classification table of the final model.

**Table 14** Classification Table (Step 0) Binary Logit Regression **Source** SPSS Statistics Software

| Observed           |               |     | Predicted     |      |                       |
|--------------------|---------------|-----|---------------|------|-----------------------|
|                    |               |     | <i>futsup</i> |      | Percentage<br>Correct |
|                    |               |     | No            | Yes  |                       |
| Step 0             | <i>futsup</i> | No  | 0             | 9602 | 0.0                   |
|                    |               | Yes | 0             | 9974 | 100.0                 |
| Overall Percentage |               |     |               |      | 51.0                  |

**Table 15** Classification Table (Step 1) Binary Logit Regression **Source** SPSS Statistics Software

| Observed           |               |     | Predicted     |      |                       |
|--------------------|---------------|-----|---------------|------|-----------------------|
|                    |               |     | <i>futsup</i> |      | Percentage<br>Correct |
|                    |               |     | No            | Yes  |                       |
| Step 1             | <i>futsup</i> | No  | 6547          | 3055 | 68.2                  |
|                    |               | Yes | 2606          | 7368 | 73.9                  |
| Overall Percentage |               |     |               |      | 71.1                  |

**Table 16** Binary Logit Regression Model **Source** SPSS Statistics Software

|        |               | B      | S.E.  | Wald    | df | Sig.  | Exp (B) |
|--------|---------------|--------|-------|---------|----|-------|---------|
| Step 1 | United States |        |       | 865.837 | 82 | 0.000 |         |
|        | Russia        | -0.156 | 0.452 | 0.120   | 1  | 0.730 | 0.855   |
|        | Egypt         | 1.208  | 0.462 | 6.843   | 1  | 0.009 | 3.347   |
|        | South Africa  | 0.389  | 0.435 | 0.799   | 1  | 0.371 | 1.475   |
|        | Greece        | -0.182 | 0.200 | 0.828   | 1  | 0.363 | 0.833   |
|        | Netherlands   | -0.410 | 0.228 | 3.234   | 1  | 0.072 | 0.664   |
|        | Belgium       | -0.248 | 0.259 | 0.917   | 1  | 0.338 | 0.780   |
|        | France        | -0.021 | 0.243 | 0.008   | 1  | 0.930 | 0.979   |
|        | Spain         | -0.558 | 0.133 | 17.580  | 1  | 0.000 | 0.572   |
|        | Hungary       | -0.264 | 0.436 | 0.368   | 1  | 0.544 | 0.768   |
|        | Italy         | -0.455 | 0.280 | 2.654   | 1  | 0.103 | 0.634   |
|        | Romania       | 0.627  | 0.459 | 1.866   | 1  | 0.172 | 1.873   |

|                        | B      | S.E.      | Wald   | df | Sig.  | Exp (B)        |
|------------------------|--------|-----------|--------|----|-------|----------------|
| Switzerland            | -0.330 | 0.257     | 1.651  | 1  | 0.199 | 0.719          |
| Austria                | -0.741 | 0.595     | 1.550  | 1  | 0.213 | 0.477          |
| United Kingdom         | -0.437 | 0.138     | 10.082 | 1  | 0.001 | 0.646          |
| Denmark                | -0.507 | 0.293     | 2.993  | 1  | 0.084 | 0.602          |
| Sweden                 | -0.808 | 0.285     | 8.052  | 1  | 0.005 | 0.446          |
| Norway                 | -0.466 | 0.218     | 4.543  | 1  | 0.033 | 0.628          |
| Poland                 | 0.534  | 0.503     | 1.128  | 1  | 0.288 | 1.705          |
| Germany                | -0.118 | 0.178     | 0.441  | 1  | 0.507 | 0.888          |
| Peru                   | 0.424  | 0.417     | 1.037  | 1  | 0.308 | 1.528          |
| Mexico                 | 0.803  | 0.418     | 3.692  | 1  | 0.055 | 2.232          |
| Argentina              | 0.796  | 0.418     | 3.625  | 1  | 0.057 | 2.217          |
| Brazil                 | 0.186  | 0.417     | 0.200  | 1  | 0.655 | 1.205          |
| Chile                  | 1.016  | 0.402     | 6.401  | 1  | 0.011 | 2.762          |
| Colombia               | 1.582  | 0.413     | 14.692 | 1  | 0.000 | 4.864          |
| Malaysia               | 0.194  | 0.457     | 0.181  | 1  | 0.671 | 1.215          |
| Australia              | -0.448 | 0.275     | 2.651  | 1  | 0.103 | 0.639          |
| Thailand               | 0.911  | 0.440     | 4.292  | 1  | 0.038 | 2.487          |
| Japan                  | 0.110  | 0.280     | 0.154  | 1  | 0.694 | 1.116          |
| Korea                  | 0.568  | 0.191     | 8.847  | 1  | 0.003 | 1.765          |
| China                  | 1.040  | 0.420     | 6.127  | 1  | 0.013 | 2.830          |
| Turkey                 | 0.540  | 0.440     | 1.507  | 1  | 0.220 | 1.717          |
| India                  | 0.294  | 0.466     | 0.399  | 1  | 0.528 | 1.342          |
| Pakistan               | 1.592  | 0.525     | 9.197  | 1  | 0.002 | 4.911          |
| Iran                   | 0.499  | 0.425     | 1.376  | 1  | 0.241 | 1.647          |
| Morocco                | -1.055 | 0.554     | 3.622  | 1  | 0.057 | 0.348          |
| Algeria                | 0.867  | 0.447     | 3.771  | 1  | 0.052 | 2.380          |
| Tunisia                | 0.260  | 0.504     | 0.265  | 1  | 0.607 | 1.296          |
| Ghana                  | 1.521  | 0.454     | 11.235 | 1  | 0.001 | 4.576          |
| Nigeria                | 21.543 | 4818.666  | 0.000  | 1  | 0.996 | 2269265775.023 |
| Angola                 | 1.418  | 0.455     | 9.694  | 1  | 0.002 | 4.129          |
| Barbados               | 21.466 | 12421.924 | 0.000  | 1  | 0.999 | 2100831049.957 |
| Uganda                 | 1.487  | 0.447     | 11.064 | 1  | 0.001 | 4.423          |
| Zambia                 | 1.915  | 0.472     | 16.440 | 1  | 0.000 | 6.786          |
| Portugal               | 0.466  | 0.290     | 2.579  | 1  | 0.108 | 1.594          |
| Ireland                | -0.398 | 0.222     | 3.216  | 1  | 0.073 | 0.672          |
| Iceland                | 0.330  | 0.192     | 2.948  | 1  | 0.086 | 1.391          |
| Finland                | -0.486 | 0.245     | 3.931  | 1  | 0.047 | 0.615          |
| Latvia                 | 0.090  | 0.446     | 0.040  | 1  | 0.841 | 1.094          |
| Serbia                 | 0.917  | 0.452     | 4.112  | 1  | 0.043 | 2.503          |
| Montenegro             | 0.942  | 0.462     | 4.162  | 1  | 0.041 | 2.566          |
| Croatia                | -0.024 | 0.431     | 0.003  | 1  | 0.956 | 0.977          |
| Slovenia               | -0.582 | 0.249     | 5.461  | 1  | 0.019 | 0.559          |
| Bosnia and Herzegovina | 0.794  | 0.428     | 3.433  | 1  | 0.064 | 2.211          |
| Macedonia              | 1.179  | 0.453     | 6.774  | 1  | 0.009 | 3.252          |
| Slovakia               | 0.348  | 0.445     | 0.614  | 1  | 0.433 | 1.417          |
| Guatemala              | -0.217 | 0.444     | 0.240  | 1  | 0.624 | 0.805          |
| Costa Rica             | 0.230  | 0.560     | 0.168  | 1  | 0.681 | 1.258          |
| Panama                 | -0.133 | 0.625     | 0.045  | 1  | 0.831 | 0.875          |
| Venezuela              | 1.469  | 0.547     | 7.214  | 1  | 0.007 | 4.346          |
| Bolivia                | 1.635  | 0.468     | 12.206 | 1  | 0.000 | 5.131          |
| Ecuador                | 0.770  | 0.424     | 3.291  | 1  | 0.070 | 2.159          |
| Uruguay                | 0.253  | 0.413     | 0.374  | 1  | 0.541 | 1.287          |
| *Azores                | 0.116  | 0.562     | 0.043  | 1  | 0.836 | 1.123          |
| Tonga                  | 0.897  | 0.562     | 2.551  | 1  | 0.110 | 2.452          |
| Vanuatu                | 1.976  | 0.484     | 16.675 | 1  | 0.000 | 7.217          |
| Kazakhstan             | 0.151  | 0.494     | 0.094  | 1  | 0.760 | 1.163          |
| Shenzhen*              | 1.326  | 0.530     | 6.261  | 1  | 0.012 | 3.765          |
| Dominican Republic     | 0.781  | 0.417     | 3.513  | 1  | 0.061 | 2.184          |
| Hong Kong              | 0.640  | 0.267     | 5.727  | 1  | 0.017 | 1.896          |

|                           | B                  | S.E.               | Wald    | df | Sig.               | Exp (B)            |
|---------------------------|--------------------|--------------------|---------|----|--------------------|--------------------|
| Trinidad and Tobago       | 0.761              | 0.468              | 2.641   | 1  | 0.104              | 2.140              |
| Jamaica                   | 0.149              | 0.422              | 0.124   | 1  | 0.725              | 1.160              |
| Bangladesh                | 3.946              | 0.870              | 20.578  | 1  | 0.000              | 51.735             |
| Taiwan                    | 1.225              | 0.252              | 23.609  | 1  | 0.000              | 3.403              |
| Lebanon                   | -0.205             | 0.498              | 0.169   | 1  | 0.681              | 0.815              |
| Jordan                    | 0.465              | 0.451              | 1.063   | 1  | 0.303              | 1.592              |
| Syria                     | 1.158              | 0.479              | 5.839   | 1  | 0.016              | 3.184              |
| Saudi Arabia              | -0.685             | 0.458              | 2.233   | 1  | 0.135              | 0.504              |
| Yemen                     | -0.492             | 0.643              | 0.585   | 1  | 0.445              | 0.612              |
| Gaza Strip & West Bank    | 0.547              | 0.461              | 1.409   | 1  | 0.235              | 1.729              |
| United Arab Emirates      | 0.458              | 0.163              | 7.885   | 1  | 0.005              | 1.581              |
| Israel                    | 0.466              | 0.199              | 5.495   | 1  | 0.019              | 1.594              |
| <i>opport</i>             | 0.630              | 0.035              | 327.098 | 1  | 0.000              | 1.878              |
| <i>agesq</i> <sup>1</sup> | 0.000 <sup>2</sup> | 0.000 <sup>3</sup> | 277.513 | 1  | 0.000 <sup>4</sup> | 1.000 <sup>5</sup> |
| <i>suskill</i>            | 0.587              | 0.046              | 164.443 | 1  | 0.000              | 1.799              |
| <i>busang</i>             | 0.441              | 0.044              | 101.045 | 1  | 0.000              | 1.555              |
| <i>knowent</i>            | 0.378              | 0.035              | 116.579 | 1  | 0.000              | 1.459              |
| <i>exreason_retire</i>    | -0.830             | 0.110              | 57.022  | 1  | 0.000              | 0.436              |
| <i>gender</i>             | 0.211              | 0.035              | 35.834  | 1  | 0.000              | 1.235              |
| <i>nbgoodc</i>            | 0.223              | 0.038              | 33.714  | 1  | 0.000              | 1.250              |
| <i>fearfail</i>           | -0.217             | 0.036              | 36.307  | 1  | 0.000              | 0.805              |
| <i>Stage 1</i>            |                    |                    | 23.589  | 4  | 0.000              |                    |
| <i>Transition: 1-2</i>    | 0.517              | 0.183              | 8.006   | 1  | 0.005              | 1.677              |
| <i>Stage 2</i>            | 0.212              | 0.168              | 1.595   | 1  | 0.207              | 1.237              |
| <i>Transition: 2-3</i>    | 0.486              | 0.192              | 6.372   | 1  | 0.012              | 1.625              |
| <i>Stage 3</i>            | 0.175              | 0.424              | 0.170   | 1  | 0.680              | 1.192              |
| <i>Working (F-T;P-T)</i>  |                    |                    | 8.553   | 2  | 0.014              |                    |
| <i>Not working</i>        | 0.032              | 0.041              | 0.622   | 1  | 0.430              | 1.033              |
| <i>Retired, student</i>   | -0.158             | 0.060              | 6.831   | 1  | 0.009              | 0.854              |
| Constant                  | -1.537             | 0.446              | 11.896  | 1  | 0.001              | 0.215              |

Table 16 presents the final logit regression. Attention will focus, mainly, on the significance and the odds ratio (*Exp (B)*). Of note, United States, stage 1 of economic development (factor driven) and working (full-time or part-time) as the main occupation, is considered to be the reference. This means that, the odds ratio of all other countries, stages of economic development and main occupation must be interpreted comparatively this reference point.

The variables *opport*, *agesq*, *suskill*, *busang*, *knowent*, *exreason\_retire*, *gender*, *nbgoodc* and *fearfail* have all shown to be significant; with odds ratio of 1.878, 1, 0.9997, 1.799, 1.555, 1.459, 0.436, 1.235, 1.250 and 0.805, respectively. The *country*, *CAT\_GCRI* and *GEMWORK3* variables, due to their categorical nature are not as straightforward. However,

<sup>1</sup> Some of the values were rounded and may provide misleading information.

<sup>2</sup> Should read  $2.7 \times 10^{-4}$ .

<sup>3</sup> Should read  $1.6 \times 10^{-5}$ .

<sup>4</sup> Should read  $2.6 \times 10^{-62}$ .

<sup>5</sup> Should read 0.9997.

the most important issue to retain is the fact that their inclusion in the model is significant. The odds ratios are dependent on each category of the variable. The odds ratio for some categories may not be significant, even though the inclusion of the categorical variable in the whole model is.



## 5 Discussion

Chapter 5 focuses on the interpretation of the results; stating the relationship that these have with the research objectives and questions, as well as the hypothesis developed. Implications for managers, entrepreneurs and policy makers will also be presented. The discussion closes with an analysis of the strengths and weaknesses of this study, thus identifying the main limitations.

This study has focused on building a significant explanatory model of entrepreneurial re-entry intentions. The inclusion of variables that did not add explanatory power to the model was not considered. However, these variables, and respecting hypothesis will also be analyzed.

### 5.1 Descriptive Statistics

Regarding Hypothesis C.1 the results have shown that intentional restarters are, in average, younger than non-restarters. While intentional restarters are 37.12 years old in average, non-restarters are 43.79. Moreover, the Mann-Whitney U test applied has shown that the mean ranks of the age of these two groups of exited entrepreneurs are significantly different. Therefore,  $H_0$  is supported; by randomly picking an intentional restarter he is more likely to be younger than a randomly picked non-restarter. This finding is in line with Wagner's (2002) work. It is also in line with the argumentation of both Cressy (1996) and Schutjens & Stam (2006) regarding the decline of human capital as individuals age and the lower opportunity costs for younger individuals to enter (or re-enter) entrepreneurship. This implies that this finding is somewhat against Headd's (2003) work as well as that of those who argue that, given that age is a proxy of accumulated life experience, older individuals are able to identify more business opportunities (Calvo & Wellisz, 1980; Davidsson & Honig, 2003; DeTienne & Cardon, 2012; Gimeno et al., 1997; Ucbasaran et al., 2003). A Mann-Whitney U test was applied and it was found that by randomly picking an exited entrepreneur who does not believe there to be a business opportunity in the next 6 months he is more likely to be older than a randomly picked exited entrepreneur who does (significance of 0.000). Therefore, the finding of this study regarding  $H_0$  is completely aligned with the work of Ucbasaran et al. (2009a). Additionally, it may reflect, to some extent, the validity of other findings in the literature on the fact that older individuals are more risk averse (Hallahan et al., 2003; Lévesque & Minniti, 2006; R. A. Miller, 1984; Morin & Suarez, 1983; Stam et al., 2008), which was confirmed through a Mann-Whitney U test with significance of 0.003.

Table 6 provides information that seemingly agrees with Hypothesis C.1. There is, in fact, a larger share of males among intentional restarters (56.8%) than among non-restarters (54.3%). However, the difference is small. A Pearson Chi-square test was applied to see if there was a significant relationship between the variables *futsup* and *gender*. Despite it being significant (0.000) they reported a phi correlation of 0.025, which is very weak and not acceptable to draw conclusions. Therefore, Hypothesis C.1 is rejected. This finding is not in line with Wagner's (2002, 2003) work. Furthermore, the variables *gender* and *fearfail* have shown a significant relationship (0.000) but with a very weak Phi correlation (0.042), which is not in line with some of the literature used to build Hypothesis C.1 (Davis & Shaver, 2012; Langowitz & Minniti, 2007). Also, the variables *gender* and *opport* have shown no significant statistical relationship (0.647), which is, once again, not in line with the used literature (Ucbasaran et al., 2009a).

Hypothesis C.2 is also rejected. This study found that, roughly speaking, half of the exited entrepreneurs developed re-entry intentions. This is, to some extent, not in line with the used literature on entrepreneurial exit research (Hessels et al., 2011; Nielsen & Sarasvathy, 2011; Pe'er & Vertinsky, 2008; Schutjens & Stam, 2006).

Notwithstanding Table 7 showing that the percentage of intentional restarters, stating that fear of failure would prevent them from starting a business, is lower than the share of non-restarters, the variables *futsup* and *fearfail*, despite having a significant relationship (0.000), are not correlated, presenting a very weak value (Phi correlation of -0.088). Thus, Hypothesis C.3 is not confirmed. This finding is not in line with Wagner's (2002) work.

Table 8 shows a larger share of intentional restarters perceiving they have the required skills to start a business than non-restarters. However, despite there being a significant relationship (Pearson Chi-square significance of 0.000), the level of association is very weak (Phi correlation of 0.132). Thus, Hypothesis C.4 is not corroborated. This finding is partially in line with Ucbasaran et al.'s (2009b) work but goes against a large body of the literature (Davidsson et al., 2001; DeTienne & Cardon, 2012; Hessels et al., 2011; McGrath & MacMillan, 2000; Mueller & Shepherd, 2014; Schutjens & Stam, 2006; Shane, 2004; Ucbasaran et al., 2009a, 2003).

Hypothesis C.5 is supported. Table 9 gives first evidence towards the propensity of intentional restarters being able to identify more business opportunities. Furthermore, the relationship between the variables *futsup* and *opport* is significant (Pearson Chi-square significance of 0.000) and the level of association is moderately strong (Phi correlation of

0.255), thus presenting a desirable level of association (McGrath & MacMillan, 2000; Mueller & Shepherd, 2014; Shane, 2004; Ucbasaran et al., 2003).

Concerning educational attainment, the results have shown that the mean ranks of intentional restarters and non-restarters are significantly different (Mann-Whitney U test significance of 0.000). Thus, by randomly picking an intentional restarter he is more likely to be less educated than a randomly picked non-restarter. Therefore, Hypothesis C.6 is refuted. In fact, intentional restarters have less formal education than non-restarters, which goes against Wagner's (2002) work. Additionally, the association between the variables *GEMEDUC* and *opport*, despite significant (Pearson Chi-square significance of 0.000), was very weak (Cramer's V correlation of 0.082), thus this is not in line with Hypothesis C.6, nor the literature used to build it (Arenius & DeClercq, 2005; Block et al., 2013; Davidsson & Honig, 2003; Davidsson, 2006; Kim et al., 2006; Kolvereid & Bullvag, 1993; Lucas, 1978; Metzger, 2006; Nielsen & Sarasvathy, 2011; Rees & Shah, 1986; Robinson & Sexton, 1994; Stam et al., 2008; Ucbasaran et al., 2008, 2009a). However, it is completely aligned with the findings of Amaral & Baptista (2007). Still related to Hypothesis C.6, a very weak (Cramer's V correlation of 0.060) but significant relationship (Pearson Chi-square significance of 0.000) between the variables *GEMEDUC* and *suskill* exists. Thus it is not reasonable to draw any conclusions, which is in line with the fact scholars have not yet been able to agree if formal education affects entrepreneurs' levels of confidence (Arenius & DeClercq, 2005; Parker, 2004a; Phan, Wright, Ucbasaran, & Tan, 2009). Education does not seem to have a relevant association with knowing an entrepreneur who started a business in the last two years. A significant (Pearson Chi-square significance of 0.000) but very weak association (Cramer's V correlation of 0.071) between *GEMEDUC* and *knowent* was found. This is not in line with Arenius & DeClercq (2005) findings.

Hypothesis C.7 is refuted. The Mann-Whitney U test showed a significant difference between the work status of intentional and non-restarters (significance of 0.000). By randomly picking an intentional restarter he is more likely to be employed than a randomly picked non-restarter. This finding goes against Wagner's (2002) work.

Based on Table 12, and on the fact that knowing an entrepreneur who started his own business in less than two years and having re-entry intention are significantly associated (Pearson Chi-square significance of 0.000) with a weak level of association; minimally acceptable evidence to support Hypothesis C.8 exists. This is in line with the literature examined in this study (McGrath & MacMillan, 2000; Shane, 2004; Wagner, 2002, 2003).



The same significant, and weak, association was found between *knowent* and *opport*, thus also in line with the research stream arguing that social capital may act as a substitute for experience (Ardichvili et al., 2003; Ucbasaran et al., 2009a).

Table 12 concurs to the support of Hypothesis C.9. However, a very weak (Phi correlation of 0.132), not acceptable, relationship was found between the informal investor experience variable (*busang*) and entrepreneurial re-entry intention variable (*futsup*). Therefore, despite being a significant relationship (Pearson Chi-square significance of 0.000), Hypothesis C.9 cannot be confirmed. This finding goes against Mason & Harrison's (2006) work.

## 5.2 Binary Logit Regression

The final binary logit model provides a lot of information regarding research questions A and B. Firstly, the individual factors included in the model will be analyzed and, only after that, will the environmental factors be looked at. Finally, research question D will be studied by further exploring the hypotheses related to the variables not included in the model.

### 5.2.1 Individual Factors

Based on Table 16, Hypothesis A.2, Hypothesis A.5, Hypothesis A.6, Hypothesis A.7, Hypothesis A.9, Hypothesis A.10, Hypothesis A.11, Hypothesis A.13, Hypothesis A.14 and Hypothesis A.15 are tackled. All these hypotheses are supported.

Regarding Hypothesis A.2, the variable *nbgoodc* has shown to be significant with a significance of 0.000. If one perceives that people in the country of origin of the individual consider starting a new business a good career, the odds of being an intentional restarter are 1.250 times higher. Therefore, one can state that perceiving that people consider starting a new business a desirable career choice increases the probability of developing re-entry intentions. This finding is in line with the work of Singer et al. (2014).

The odds ratio for the variable *agesq* is extremely close to 1. However, it is slightly lower. This makes sense since the *age* variable was subject to quadratic transformation in order for the *agesq* value to be obtained. Therefore, younger individuals are more likely to develop re-entry intentions; supporting Hypothesis A.5. This is in line with most of the literature on novice and serial entrepreneurship (Amaral & Baptista, 2007; Diochon et al., 2002; Lévesque & Minniti, 2006; Metzger, 2006, 2008; R. A. Miller, 1984; Rees & Shah, 1986; Reynolds et al., 2004; Rocha et al., 2015; Schutjens & Stam, 2006; Stam et al., 2008; Wagner, 2003). By testing the variables *age*, *agesq* and *age9c* it was possible to explore the possibility of a linear, a non-linear or a non-monotonic relationship between age and re-entry intentions. A non-

linear, curvilinear, relationship was found. However it is not monotonic, thus going against the work of scholars who identified this trend (Grilo & Thurik, 2008; Nielsen & Sarasvathy, 2011; Parker, 2004a; Ruef, 2010).

The gender of the exited entrepreneur has a significant effect on the model (significance of 0.000). The odds ratio is 1.235, which mean that being a male makes the odds of being an intentional restarter 24% higher. Thus, Hypothesis A.6 is supported; females are less likely to develop re-entry intentions. This is in line with published literature on novice and habitual entrepreneurship (Bosma, Hessels, et al., 2012; Diochon et al., 2002; Hessels et al., 2011; Kolvereid & Bullvag, 1993; Metzger, 2006; Nielsen & Sarasvathy, 2011; Parker, 2004a; Reynolds et al., 2004; Stam et al., 2008; Wagner, 2005; Westhead & Wright, 1998). However, this finding goes against the work of Wagner (2002, 2003).

Literature on entrepreneurial exit and entry has argued that the entrepreneurial exit path may affect subsequent entrepreneurial engagement (DeTienne & Cardon, 2012; Headd, 2003; Metzger, 2008; Stam et al., 2008). This study has found this to be true. In fact, exiting entrepreneurship due to retirement reasons has shown to decrease the odds of being an intentional restarter (odds ratio of 0.436). Hypothesis A.7 is supported. However, one could take it further and state that retirement reduces the probability of becoming an intentional restarter, which is a more concrete finding than stating that the entrepreneurial exit reason affects the likelihood of developing re-entry intentions<sup>1</sup>.

Fear of failure has shown to reduce the likelihood of developing re-entry intention; thus, Hypothesis A.9 is supported. With a significant (significance of 0.000) odds ratio of 0.805, this finding is in line with most literature on fear of failure and confidence (Arenius & Minniti, 2005; DeTienne & Cardon, 2012; DeTienne & Wennberg, 2014; Driga et al., 2009; Hessels et al., 2011; Koellinger et al., 2007; Lafuente et al., 2007; Metzger, 2006; Wagner, 2003). However, it is not in line with the work of Schutjens & Stam (2006).

Perceived entrepreneurial skills positively affect the decision to re-enter entrepreneurship. An odds ratio of 1.799 proves this statement. Note also that this finding is highly significant (significance of 0.000). Hypothesis A.10 is supported. Recall that this study did not explore

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<sup>1</sup> From the initial forward stepwise entry method, one can conclude that, despite the variable *exreason* being relevant for the model, once within, only the category referent to retirement maintained its significance. This was the reason why the variable *exreason* was excluded from the regression and only the binary variables, corresponding to each exit reason, were considered. From this exercise, as expected, only *exreason\_retire* remained significant.

the existence of threshold value on the perceived entrepreneurial skills (Ucbasaran et al., 2009b). Despite that, this finding is in line with all the reviewed literature (Arenius & Minniti, 2005; Davidsson & Honig, 2003; Driga et al., 2009; Hyytinen & Ilmakunnas, 2007; Kim et al., 2006; Schutjens & Stam, 2006; Ucbasaran et al., 2008; Vaillant & Lafuente, 2007).

An individual perceiving that there are good opportunities in the next 6 months increases the likelihood of developing re-entry intentions. This significant finding (significance of 0.000) is evident due to an odds ratio of 1.878; which means that perceiving that there are good opportunities in the next 6 months increases by 87.8% the odds of becoming an intentional restarter. In line with the literature (McGrath & MacMillan, 2000; Mueller & Shepherd, 2014; Shane, 2004; Ucbasaran et al., 2003), Hypothesis A.11 is supported.

Hypothesis A.13 is also supported. The *GEMWORK3* variable showed to be significant (significance below 0.010) over two of the three categories. The “Not working” category is the only one that is not significant (significance of 0.430). In line with the literature (Wagner, 2002) an odds ratio of 1.033, although not significant, is found on the “Not working” category. Also, an odds ratio of 0.854 was found for the “Retired, student” category, which is in line with the finding regarding the variable *exreason\_retire*.

Curiously, no significant influence of the variable *exreason\_plan* was found. This finding implies that planning an exit strategy has no effect (positive or negative) with subsequent entrepreneurial engagement. This is clearly against a stream of research focusing on entrepreneurial exit strategies (DeTienne & Cardon, 2012; DeTienne et al., 2014; DeTienne & Wennberg, 2014; DeTienne, 2010).

This study has found social capital to have a relevant role in entrepreneurship (Aldrich & Auster, 1986; Leroy et al., 2007). Knowing an entrepreneur and having informal investor experience affect, significantly (both with significance of 0.000), the probability of developing entrepreneurial re-entry intentions. Knowing an entrepreneur increases the odds of developing re-entry intentions by 45.9% (odd ratio of 1.459) thus supporting Hypothesis A.14 (Bosma, Coduras, et al., 2012; Davidsson & Honig, 2003; DeTienne & Wennberg, 2014; Driga et al., 2009; Hessels et al., 2011; Nanda & Sorensen, 2010; Nielsen & Sarasvathy, 2011; Stam et al., 2008; Vaillant & Lafuente, 2007; Wagner, 2003, 2002). Stam et al.’s (2008) findings are against this study. Additionally, Hypothesis A.15 is also supported; informal investor experience has shown to increase the likelihood of developing re-entry intentions. An odds ratio of 1.555 shows that this finding is in line with the literature on social capital and entrepreneurial entry/re-entry (Hessels et al., 2011).

### 5.2.2 Environmental Factors

Regarding the environmental level variables, Hypothesis B.2 and Hypothesis B.3 are supported.

The GCI affected the development of re-entry intentions. Three out of the five categories of the variable *CAT\_GCRI* were shown to have significant explanatory power (significance below 0.020). Economies in transition between factor and efficiency-driven and between efficiency and innovation-driven, significantly increase the odds of developing re-entry intentions, with odds ratios of 1.677 and 1.625, respectively. Economies in an efficiency and innovation-driven stage have shown, non-significantly, to increase the odds to do so. One should recall that these values are all in relationship to a factor-driven economy. These findings are partially aligned with those of Albiol (2014) and Van Stel et al. (2007). The present study identified that levels of entrepreneurial activity might be inhibited in underdeveloped economies. Thus Hypothesis B.2 is supported, which is in line with Thurik et al.'s (2008).

As previously stated, an interpretation of Table 16 regarding the variable *country* is not as straightforward as the previously presented individual level variables. Recall that the United States is the reference country. Being from Finland, Norway, Slovenia, Spain, Sweden or the United Kingdom significantly reduces the likelihood of developing re-entry intentions. The findings regarding these countries are all significant (significance below 0.050). The country with the highest negative impact on the likelihood of developing re-entry intentions is Sweden, with an odds ratio of 0.4446. Contrarily, being from Angola, Bangladesh, Bolivia, Chile, China, Colombia, Egypt, Ghana, Hong Kong, Israel, Korea, Macedonia, Montenegro, Pakistan, Serbia, Shenzhen, Syria, Taiwan, Thailand, Uganda, United Arab Emirates, Vanuatu, Venezuela or Zambia significantly increases the likelihood of being an intentional restarter. These findings have significance below 0.050. Bangladesh is the country with the highest positive impact on the likelihood of becoming an intentional restarter; with odds ratio of 51.735. It is important to note that not all countries had significant impacts. For example, Nigeria had an odds ratio over two thousands of millions; however, this finding is not significant at all (significance of 0.996). This study has reinforced previous arguments on the need to apply a territorial approach on entrepreneurship studies and on the need to account for country specific influences (Albiol, 2014; Hessels et al., 2011). This seems to be aligned with the arguments, and, in some cases, findings, stating that social capital factors and fear of

failure (which have been shown to influence re-entry intentions) suffer from cross-country variations (Hessels et al., 2011). Hence, Hypothesis B.3 is supported.

### 5.2.3 Non-explanatory variables

It is now important to analyze the variables that were not included in the binary logit model. Despite not adding any explanatory power to the model they may still be significantly related to it and/or to other variables included in the model. This may reflect some of the consideration identified in chapter 2.3 based on the literature review.

#### 5.2.3.1 Individual Level

As previously explained, the variable *equalinc* was included in the model built by the forward stepwise entry method through SPSS. This may be interpreted as evidence that *equalinc* may have, to some extent, a relationship with the development of entrepreneurial re-entry intentions. This variable was the 14<sup>th</sup> and last to be included through the forward stepwise entry method. If one forces the entry of *equalinc* into the binary logit model, despite its inclusion not being statistically recommended (significance of 0.443), the explanatory power of the model reduces. It also does not have a significant explanatory power (significance of 0.118). If included, it presents an odds ratio of 0.951, thus agreeing with the direction of the relationship stated in Hypothesis A.1. By evaluating the association of *equalinc* with the explanatory variables of the binary logit model, one relevant association was identified. A significant and moderate correlation (Cramer's V of 0.231) with *country* was found. In other words, perceiving that people prefer that everyone should have a similar standard of living is somewhat dependent on the country of origin of the individuals. Thus, the impact of the variable *equalinc* is already, to some extent, included in the binary logit model. However, there is no evidence concurring towards the support of Hypothesis A.1; contrary to Singer et al.'s (2014) work.

The variable *nbstatus*, when forced into the existent binary logit model, despite its inclusion in the model being significant, reduces the model's explanatory power. It is associated with an odds ratio of 1.047, suggesting it would increase the probability of developing re-entry intentions. However, aggravated by the fact that its explanatory power is not significant, one cannot accept its inclusion in the model. Relevant correlations were found with the variables *country* and *nbgoodc*. Both are moderate correlations (with a level of association above 0.20), thus meaning that perceiving that those successful in starting a new business have a high level of status and respect is moderately associated to perceiving that people consider starting a

new business a desirable career choice and the country of origin of the exited entrepreneur. Thus, there is some evidence that Hypothesis A.3 may have some fundament. However it cannot be supported. Hence, no evidence against the arguments of Singer et al. (2014) were found.

The variable *nbmedia* is significant within the model (and its inclusion is also significant) but reduces the explanatory power as well as the Nagelkerke  $R^2$ . It presents an odds ratio of 1.155, but cannot be considered in the model. However it presented a moderate significant relationship with the variable *country* and a weak significant relationship with *nbgoodc* and *opport*. In other words, perceiving that public media often showcases stories about successful new businesses is weakly associated to perceiving that people consider starting a new business a desirable career choice and to perceiving that there are good opportunities in the next 6 months, as well as moderately associated to the country of origin of the exited entrepreneur. Once again, there is some evidence that Hypothesis A.4 may have some fundament. However it cannot be supported, therefore this study is partially aligned with the argumentation of Singer et al. (2014).

The *exbusconbin* variable's in the logit model is not significant nor has it a significant explanatory power, individually. It presented an odds ratio of 1.057, which goes against Hypothesis A.8. The variable *exbusconbin* presented a weak significant relationship with the variable *country*, thus meaning that previous firm survival is weakly associated to the country of origin of the exited entrepreneur. Hypothesis A.8 is in no way supported, however not enough information exists to significantly reject it. Consequently, this study is in line with research finding that previous venture survival has no influence on subsequent entrepreneurial re-entry (Amaral & Baptista, 2007; Metzger, 2008; Nielsen & Sarasvathy, 2011; Stokes & Blackburn, 2002), but not with the research finding that business death increase subsequent entrepreneurial engagement (Hessels et al., 2011; Stam et al., 2008; Ucbasaran et al., 2006).

The inclusion of *GEMEDUC* in the model is slightly more complex to analyze. However, it reduces explanatory power of the model and its Nagelkerke  $R^2$ . Its inclusion in the model is significant for some categories but not for others, as well as their individual explanatory power. Thus it should not be used as an explanatory variable. A strong significant association exists between the variables *GEMEDUC* and *country*. Thus, educational attainment is strongly associated to the country of origin of the exited entrepreneur. Hypothesis A.12 is not supported, but strong evidence that educational attainment affects, indirectly, the development of re-entry intentions was found. Educational attainment has, therefore, no power in

predicting entrepreneurial re-entry intentions (Amaral & Baptista, 2007; Davidsson & Honig, 2003; Hessels et al., 2011; Wagner, 2003).

#### 5.2.3.2 *Environmental Level*

The *gdp* variable adds no explanatory power to the model and its explanatory power is not significant at all (significance of 0.604). It presents an odds ratio slightly below 1, which goes against what was hypothesized. Also, given that the variable represents the GDP per capita of the country of the surveyed exited entrepreneur, one can assume that its impact on entrepreneurial re-entry intention is already considered in the model. Thus *gdp* shall not be included. The fact that *gdp* has a significant weak relationship with *exreason\_retire* and *nbgoodc*, a significant moderate relationship with *opport* and a significant strong relationship with *futsup* and *agesq*, shows that it embodies a lot of information that may, to some extent, influence entrepreneurial re-entry intentions. In fact it may reflect relationships like the one identified in the literature (Burke & Van Stel, 2014; Van Stel et al., 2007; Wong et al., 2005) regarding the positive impact of GDP per capita on human capital, among others. However, Hypothesis B.1 is rejected. All the evidence found, even though not particularly significant, shows that GDP per capita has a negative impact on entrepreneurial re-entry intentions<sup>1</sup>.

The variable *unemployment*, when considered in the logit model, showed an odds ratio of 0.987. However, despite its inclusion in the model being significant, its explanatory power is not. Nevertheless, one could argue that some evidence of the impact of unemployment rates on the development of re-entry intentions exists; the higher the unemployment rate, lower the odds of developing entrepreneurial re-entry intention<sup>2</sup>. No significant level of association was found between the variable *unemployment* and other variables. Thus, Hypothesis B.4 cannot be confirmed, nor rejected. However the findings of Metzger (2006) are somewhat in line with those of this study, regarding unemployment. However, the argument presented regarding the fact that unemployment at the macro level may promote entrepreneurship is refuted.

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<sup>1</sup> Maybe this reflects the existence of necessity-driven intentional entrepreneurs. To what extent this concept is logical, is arguable.

<sup>2</sup> In this case, it could reflect the existence of a higher share of opportunity-driven intentional restarters among the sample. This is not in line with the findings regarding the GDP per capita.

The year the survey was undertaken could also be considered in the model, since its entry is significant over all years. However, it has no significant explanatory power and, in fact, reduces the model's explanatory power as a whole. The variable *yrsurv* does not show any significant level of association with other variables, either. Thus, as in all reviewed literature, no relevant impact of the year has been found on entrepreneurial intentions (Hessels et al., 2011). Hypothesis B.5 is rejected.

The TEA seems to increase the odds of developing re-entry intention, with an odds ratio of 1.006. However, it reduces the model's explanatory power, while also showing no significant individual explanatory power. The variable *TEA* showed a moderately strong significant relationship with *opport*, a strong significant relationship with *futsup* and a redundant negative significant relationship with *CAT\_GCRI*. This redundancy is, most probably, due to the fact that each TEA value corresponds to a specific country as well as the GCI values. However the signal of the level of association (negative) allows arguing that TEA levels are lower in developed countries, as stated by Albiol (2014) and Van Stel et al. (2007). However the significant relationships with *futsup* and *opport* provide evidence towards Hypothesis B.6. Thus, the TEA is correlated to the development of re-entry intention, however one cannot argue that it explains these intentions. Given this, Hypothesis B.6 is neither supported, nor rejected.

### 5.3 Implications

Policy makers aiming to have a significant impact on the economy, or specific industries, generate employment and increase competitiveness, through entrepreneurship, can use the findings of this study in order to better identify clusters of individuals likely to engage in habitual entrepreneurship. Thus, providing the knowhow to facilitate encouraging and sustaining habitual entrepreneurship. This will increase the effectiveness and efficiency of any policies towards these exited entrepreneurs, thus positively improving the return on (typically, public) investment. A concrete example would be to stimulate individuals into entering entrepreneurship earlier in their life. This relates to the findings that intentional restarters are younger than non-restarters and, also, that age has a negative impact on developing entrepreneurial re-entry intentions.

Developing an exit strategy did not show any significance in the model used. This may entail that exit planning is not as relevant as some scholars state (DeTienne, 2010; Wennberg & DeTienne, 2014). According to this study, entrepreneurs should be aware that 64% of exited entrepreneurs left a business that died. This sheds light on an interesting fact. The vast



majority of exited entrepreneurs, most likely did not benefit financially from the exit. Only 36% may have benefited from an M&A, employee buy-out or a MBO, among others. However, one should recall that a business may continue its activities, after entrepreneurial exit, through processes that do not benefit the exited entrepreneur; for example through a LBO or a MBI. Also of relevance is the fact that 51.3% of the sample exited entrepreneurship either due to financial reasons or because the business was not profitable. Furthermore, this study shows the importance of entrepreneurs developing strong social networks and capitalizing on these to successfully engage in entrepreneurship.

Venture capitalists, business angels and, even, private equity funds may benefit from knowing the, here discussed, characteristics that promote serial entrepreneurship, statistically speaking. Additionally, the understanding of the impact of the environmental level factors can allow big groups of investors and funds to steer their geographic focus and scope in terms of investment.

#### **5.4 Advantages**

This study benefits from a clear operationalization and distinction between entrepreneurial and business exit. Also, despite DeTienne & Wennberg (2014) arguing that survey data, typically, presents underreporting biases, one must be aware that the GEM database is managed and built by a worldwide team of experts on entrepreneurship. It is, undoubtedly, the most reliable source within entrepreneurship research. It is also the only, simultaneously, individual and environmental level source of information (Simmons et al., 2014). Furthermore, in comparison to most of the literature, this study used a big dataset, which allowed for more statistically significant findings. Not only that, but also, this research thesis is one of the few studies applying both international comparisons towards entrepreneurial re-entry and an analysis towards how human capital factors affect entrepreneurial re-entry (DeTienne & Cardon, 2012; Hessels et al., 2011). Furthermore a logit model was applied, which has been identified, in the literature, as a preferable type of model to apply in entrepreneurial exit research (Wennberg et al., 2010). Since the research problem is, simply put, the relationship between entrepreneurial exit and subsequent entry intention; this is seen as an advantage. Besides the model itself, association, and their strength, between variables was accounted for which is recommended but not easily found in the literature (Stephan et al., 2015). This allows for a better understanding of the interplay between, for example, gender, education and age. Considering some limitations identified in the literature (Leroy et al.,

2015), the fact that intentions, rather than behaviors, were measured and operationalized may provide this study with an advantage in terms of producing new scientific knowledge.

### 5.5 Limitations

As widely identified in the literature, this study may have been somewhat limited by the heterogeneity of entrepreneurs (Wennberg et al., 2010). Also, applying a cross-sectional design may, in some cases, not provide the most insightful results. Likewise, as previously stated, missing values were not excluded from the study's sample. This had the advantage of allowing a much bigger dataset than most studies. However, it also entailed a negative outcome. Every time an extra variable was included in any type of analysis the size of the sample was reduced; since missing values are not pair-wise along all variables. Unfortunately the GEM database does not allow for the differentiation between serial and portfolio entrepreneurs (in terms of intention). Moreover, one cannot study differences between direct and latent serial (intentional) entrepreneurs. Furthermore, as previously stated, this study adopted the view of Schumpeter (1934) towards entrepreneurship. However, the used *futsup* variable does not allow for a clear distinction between *de facto* entrepreneurs and small business owners. The entrepreneurial process framework, and respective stages, used as a setting for the analysis applied in this thesis lacks empirical confirmation. In fact, life stage theories have not yet been able to be empirically validated (Levie & Lichtenstein, 2010). This might be an important limitation to take into account. Applying a stream of the TPB was commented as an advantage of this study. However, one must be conscious that it may also be limitative to some extent. The findings only relate and explain intentions, not actual new business creation. Of note, the non-findings in the study here presented must be very carefully interpreted and, ideally, subject to further research.

One of the main challenges found in developing this study was the fact that there is abundant literature on both the intention and the behavior of becoming a novice entrepreneur; which produces ambiguous results (Amaral & Baptista, 2007). A clear distinction between intentions and behaviors must be assured. Also, as identified by DeTienne & Wennberg (2014), scholars have not been able to reach a consensus on the interpretation and specification of exit within entrepreneurship. This results in several different findings that may, to some extent, seem contradictory. However, the definition and operationalization of exit (from an individual or firm level perspective) may deeply influence the representativeness and relevance of the findings. Another issue identified by these authors was the fact that many scholars rely on data (typically survey data) with underreporting biases. These issues and limitations made the

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extrapolation exercise of building hypothesis for the drivers of the intention to re-entry entrepreneurship more challenging.

## 6 Conclusion

Research question A, inquired which individual level factors determine entrepreneurial intention subsequent to entrepreneurial exit. On one hand, this study has determined that perceiving that people consider starting a new business a desirable career choice (Hypothesis A.2), being a male (Hypothesis A.6), perceiving that one has the required entrepreneurial skills (Hypothesis A.10), perceiving that there are good opportunities in the next 6 months (Hypothesis A.11), knowing an entrepreneur (Hypothesis A.14) and having informal investor experience (Hypothesis A.15) increases the likelihood of developing re-entry intentions subsequent to entrepreneurial exit. On the other hand, it has determined that retirement as the previous entrepreneurial exit reason (Hypothesis A.7), fear of failure (Hypothesis A.9) and age (Hypothesis A.5) have a negative effect on the re-entry intention of exited entrepreneurs. Also, it found that the exited entrepreneur's main occupation affects the development of re-entry intentions. Non-significant evidence that being unemployed, but not retired or a student, increases the likelihood of having re-entry intentions was found. Regarding the age of the exited entrepreneur, the relationship found was non-linear; however monotonic.

The environmental level factors determining entrepreneurial intention subsequent to entrepreneurial exit were also identified. The GCI had a relevant impact on the development of re-entry intentions (Hypothesis B.2). Developing economies presented higher positive impacts on the probability of an exited entrepreneur becoming an intentional restarter. The country of origin of the exited entrepreneur presented very strong explanatory power on the development of entrepreneurial re-entry intentions (Hypothesis B.3). Additionally, the study found that the GDP per capita does not have a positive relationship with the likelihood of developing re-entry intentions (rejection of Hypothesis B.1) and that re-entry intentions are not affected by the year under analysis (rejection of Hypothesis B.5).

Research question C inquired towards the differences between exited entrepreneurs who develop re-entry intentions and those who do not. This study found that intentional restarters are younger (0.), more capable in identifying business opportunities (Hypothesis C.5), have less formal education (rejection of Hypothesis C.6<sup>1</sup>) and have better-developed networks of contacts (Hypothesis C.8) than exited entrepreneurs who do not have re-entry intentions. It found; no evidence towards a larger share of males (Hypothesis C.1) or unemployed

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<sup>1</sup> Not only rejected; evidence towards the contrary relationship was found.

(Hypothesis C.7) among intentional restarters; nor towards differences in terms of fear of failure (Hypothesis C.3), perceived entrepreneurial skills (Hypothesis C.4) or informal investor experience (Hypothesis C.9). Additionally, the study found that the share of intentional restarters is not larger than non-restarters among exited entrepreneurs.

Finally, this study concludes, based on previous findings, that the factors concurring towards novice entrepreneurial intentions are still relevant in fostering re-entry intentions.

### **6.1 Avenues for Future Research**

Interestingly, the logit model built in this study included both the variables referent to the country and the GCI. However, other environmental level variables were not included. This is in line Hessels et al. (2011) reasoning. This study was still not able to disentangle completely all the relevant factors behind cross-country variations in terms of entrepreneurial intentions. However it has shown that the GCI is a very relevant factor. Future research should focus attention on trying to further understand the reasoning behind country differences. Another, related, possible avenue for future research would be to try to decompose and further understand the impact of GDP per capita and unemployment on re-entry intentions. This study found, somewhat, contradicting evidence. The former suggested a larger share of necessity driven entrepreneurs within the sample, while the latter suggested a larger share of opportunity driven entrepreneurs. Certainly, there are some confounding factors at play. Also, the role of TEA on the development of entrepreneurial re-entry intention may be more complex than previously thought and identified in the literature. The usage of time lags and panel data may be able to identify if there are any time dependent relationships between these two issues. Other issues such as corruption, stigma or amount of exited entrepreneurs in the region could also be included (Simmons et al., 2014; Stephan et al., 2015; Wagner, 2002).

Several individual level variables could be included in the analysis of re-entry intentions. This study did not do so because the database does not allow accounting for them. These are, for example, previous business' industry, size of entrepreneurial team, operationalization of past entrepreneurial, managerial and/or technical experience, family status (married or number of children), household income<sup>1</sup>, or others. Scholars can only wait and hope on the improvement of the surveys and databases.

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<sup>1</sup> GEM already includes a variable called *GEMHHINC*, which reflects the household's income. However it was not available before 2007. Future research may be able to explore this issue.

Future research could likewise try to distinguish between opportunity and necessity driven restarters. It is generally accepted that these two types of motivation portray important differences in novice entrepreneurship. To what extent can a serial entrepreneur be necessity driven? Does this impact the individual and/or environmental factors affecting the re-entry intention? Also, motivations may be operationalized on multiple dimensions (Stephan et al., 2015). Once again, to what extent is this applicable on serial entrepreneurship and how does it affect the re-entry intention drivers? Although Stephan et al. (2015) alert to the fact that the interplay of motivations with other variables (such as gender) introduces an increased complexity to understanding these phenomena; it is deemed useful and insightful to apply such approach.

Since one is studying intentions, a whole stream of research may arise from these findings. Understanding the differences between intentions and behaviors, thus defining the predictive power of these intentions, might be of interest to scholars. The role of several factors as moderators between the relationship between intentions and behaviors, regarding entrepreneurial restart, could be explored. These could be individual, environmental or institutional level factors.

This study accounted for the entrepreneurial exit reason but not for the type of business exit. This could provide interesting insights since it would allow seeing the impact of harvest and distressing exit strategies on subsequent entrepreneurial entry. Also, it may be the missing part of the puzzle to understand the impact of exit planning of serial entrepreneurship.

Generally speaking, the usage of longitudinal analysis and broader timelines may allow differentiating between periods of economic expansion or recession. It is clear, from the literature and from this study, that the year of analysis by itself has not shown to be significant in explaining any kind of entrepreneurial engagement. Also, within the same reasoning, time-to-event modeling may help to account for these time lags that are present in the real world economy. Furthermore, the study of intentions through a time-to-event approach may entail several advantages. This would allow accounting for issues such as the impact of additional information on entrepreneurs' intentions.



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