Chapter 1
The Challenging Dynamics of Nascent Entrepreneurship

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ABSTRACT

Nascent entrepreneurship has long been studied from a variety of perspectives. A major stream of work by psychologists and sociologists suggests that nascent entrepreneurs have distinctive traits and competences. A second focus for research has been studying the environment in which nascent entrepreneurs operates. Recently, the identification and exploitation of entrepreneurial opportunities has emerged as a third focus. In this paper we will address the following questions: (1) what are the individual characteristics of those individuals who are attracted to becoming an entrepreneur? (2) What are the environmental factors contributing to new venture creation? (3) What are the steps in the creation process? We will attempt to answer these three questions by arguing that the central process of nascent entrepreneurship is centred on opportunity recognition, evaluation and exploitation, and influenced by contextual factors (e.g. external knowledge) and personal characteristics and competences (e.g. internal knowledge).

The ones who are crazy enough to think that they can change the world, are the ones who do. Steve Jobs, Apple co-founder

INTRODUCTION

Today, economic experts and national governments are abandoning their traditional approach to economic development based on recruiting large companies with different financial and fiscal inducements, rather they rely more on the small and medium-sized enterprises and new ventures to induce macro-economic

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growth (Tomaa, Grigorea, & Marinescua, 2014). This is due to the fact that entrepreneurship is more and more recognized throughout the world not only as "a good solution to creating jobs and enhancing per capita income growth" but also as "a key mechanism for enhancing economic development" (Shane, 2005, p. 1), and as primary driver of industrial dynamism and economic growth. Shane and Venkataraman (2000) further explain this causal relationship by providing compelling evidence that economic growth occurs as a direct result of the involvement of profit-seeking and innovation-focused entrepreneurs.

Entrepreneurship has been traditionally associated to the creation of organizations (Gartner, 1989). Thus 'entrepreneur' can be defined by a set of personality traits and exceptional qualities, but just as "a basketball player is not only something one is, it is something one does" (Gartner, 1989), an entrepreneur is "an individual who exploits market opportunity through technical and/or organizational innovation" leading to venture creation and/or strategic renewal of an existing organization (Schumpeter, 1934; Carland, Hoy, Boulton, & Carland, 1984). As such, as supported by Agarwal et al. (2010) we also support that entrepreneurial activities structure the birth, growth and demise not only of organizations, but also of industries, regions, and economies.

Entrepreneurship has captivated the interest of academics and businessmen for quite long time (Schumpeter, 1934; Kirzner, 1973; Knight, 1921; Drucker, 1995). Several theories have been used to explain its importance as a driver of job creation, and as a generator of local and regional development (Schumpeter, 1934; Audretsch, 2007; Thurik et al., 2008) with important consequences for economic growth and human wellbeing (Amorós & Bosma, 2014; European Comission, 2013; Dantas, Moreira, & Valente, 2015)

There are various factors that have been used to explain entrepreneurial behavior. For example, the personality traits (e. g. McClelland, 1961; Nicolaou, Shane, Cherkas, Hunkin, & Spector, 2008) have been used to explain why some are more entrepreneurs than others. The human capital of individuals – formed by their investment in improving their productive skills and knowledge stock throughout time – has been used to explain the positive effect in firms' survival (Gimeno et al. 1997), i. e. the entrepreneur's human capital influences the capacity in assessing the industry and the proper entry of the firm into the market. Social capital – which depends on the actions and interactions among multiple individuals (Lin, 2001; Granovetter, 1988) – is also important for entrepreneurship, i.e. entrepreneurs can resort to of social ties to materialize business opportunities that eventually otherwise would not obtain (Mesquita, Lazzarini, & Cronin, 2007). Innovation is important because it allows entrepreneurs to differentiate from competition and to create the foundations of a competitive market that goes beyond the typical price-based competition (Drucker, 1995; Schumpeter, 1934).

Unfortunately, there is no single concept attributed entrepreneurship, although Schumpeter (1932), Knight (1921) and Kirzner (1973) can be considered as the leading contributors to the main theoretical aspects of entrepreneurship. Knight (1921) distinguished himself by emphasizing uncertainty and their management as an intrinsic characteristic of the entrepreneur, Schumpeter (1934) emphasizes innovation (disruptive) as a major element of the process of creative destruction that breaks the balance of the world, creating new markets and new economic development. Finally, Kirzner (1973) distinguishes the entrepreneur by his/her ability of sensing new business opportunities, which separates it from the traditional manager.

Entrepreneurship has also been understood from an economic point of view, with a focus on the creation of new companies. Thus, from an economic point of view, entrepreneurship is seen as an outcome, where countries and regions can be distinguished by new business creation indexes (e. g. Amorós & Bosma, 2014). There is a clear macro perspective where the individual characteristics of entrepreneurs

are hidden and are not analyzed, i.e. what matters is economic performance in terms of growth, firm survival, job creation, cultural differences, among others (Dantas et al., 2015).

From a macro perspective, however, we can witness that countries as Nigeria, Ghana, Ecuador or Malawi (Amorós & Bosma, 2014; Dantas et al., 2015) are among the most entrepreneurial countries. However, some of the most developed ones, as Japan, Italy and France are among the least entrepreneurial ones. Clearly this indicates that we are before two different kinds of entrepreneurship necessity-driven entrepreneurship – motivated by self-employment, with a very low impact on economic growth – as opportunity-driven entrepreneurship – motivated by perceived market opportunities, in which new ventures have more room to growth successfully and to create wealth. The former type of entrepreneurship is normally associated to less developed economies, whereas the latter is associated to more developed countries.

It is also important to refer that technology-based entrepreneurship is also based on the research of new opportunities where breakthrough innovation plays a key role. In this situation universities are of pivotal importance in the incubation of new firms in order to nurture new technology-based firms (Rothaermel, Agung, & Jiang, 2007). The situation is quite different in rural, less developed regions in which the lack of human capital is a serious problem (Moreira & Martins, 2009). Moreover, the distance to main markets and the lack of adequate provision of incubation services for new ideas or firms makes it difficult to implement certain entrepreneurial projects and to add value to the local community (Moreira & Martins, 2009).

As we can see, the creation of new ventures is neither simple nor smooth, as there are a number of context specific factors that entrepreneurs need to address. Moreover, according to Reynolds (2000) the creation of a new venture resembles a biological creation process that involves four stages: conception, gestation, infancy and adolescence. As soon as potential entrepreneurs start to commit time and resources to founding the new firm, we can call them nascent entrepreneurs. As such, nascent entrepreneurs cover the conception and the gestation stage, which can lead to the successful creation of a brand new venture or to the abandonment of the new project before it starts.

A new focus of entrepreneurship research that creates several intense discussions and motivates numerous empirical analyses is the study of nascent entrepreneurship. Johnson, Parker, and Wijbenga (2006) define 'nascent entrepreneurs' as somebody who is currently (at least in the past 12 months) trying to start a new, independent business and expect to be owner or partner of the new firm. The decision to start a new venture may be influenced by experience and prior knowledge (Mueller, 2006; Wagner, 2004), social networks and contact with other entrepreneurs (Davidsson & Benson, 2003), availability of financial capital or individual wealth (Kim, Aldrich, & Keister, 2007), the legal and institutional support to create the new venture (Honjo & Harada, 2006; Zanakis, Renko, & Bullough, 2012), as well as expected profit and success (Mueller, 2006).

Nascent entrepreneurship has long been studied from a variety of perspectives. A major stream of work by psychologists and sociologists suggests that nascent entrepreneurs have distinctive traits and competences that pre-dispose them to act entrepreneurially. A second focus for research has been studying the environment in which nascent entrepreneurs operates. These studies have sought to relate entrepreneurial activity to factors such as knowledge spillover, technological change, market structure, industry and location (Mason & Harvey, 2013). More recently, the identification and exploitation of entrepreneurial opportunities has emerged as a third focus for nascent entrepreneurship research. Specifically, this focus defines the scholarly field of nascent entrepreneurship that incorporates the sources, processes of discovery, evaluation and exploitation of opportunities (Shane & Venkataraman, 2000).

Johnson et al. (2006) list the main questions concerning this field of research: (1) What are the individual characteristics of those individuals who are attracted to becoming an entrepreneur? (2) What are the environmental factors contributing to new venture creation? (3) What are the steps in the creation process, involving a series of decisions, rather than a single decision taken at a particular point in time? In this chapter we attempt to answer these three questions by arguing that the central process of nascent entrepreneurship is centered on opportunity recognition, evaluation and exploitation, and influenced by contextual factors (e.g. external knowledge) and personal characteristics and competences (e.g. internal knowledge). However, the foundation of a promising new venture is highly intricate, and the main pillars holding up the opportunity development process are internal and external knowledge. Internal knowledge is translated into a set of inherited potentials and acquired competences of the nascent entrepreneur essential to recognize, evaluate and consequently exploit opportunities. While external knowledge refers to the opportunity itself that depends on the presence of a stimulating environment. We propose a conceptual model where individual competences – for example creativity –, and external factors – for example availability of spilled over knowledge – drive each step of the key process of new venture creation from recognizing the opportunity to duly exploiting it.

The chapter is divided in six sections. After the introductions, the second section addresses the concept of nascent entrepreneurship and opportunity spotting. The third section addresses the particularities of biological and psychological drivers of creativity. Section four addresses the creativity and how important the psychological approach is important for nascent entrepreneurs. In the fifth section, we characterize the importance of knowledge when exploiting employee entrepreneurship. Finally, the main conclusions are presented.

NASCENT ENTREPRENEURSHIP AND OPPORTUNITY SPOTTING

In essence, entrepreneurship is a creative human process, where entrepreneurs mobilize resources from one level of productivity to a superior one, which implies the mental ability to identify and exploit high-potential opportunities in complex and hectic environments where chances and pitfalls are dangerously entangled (Tomaa et al., 2014). This may lead to new products, new processes, new modes of organization and new product-market combinations, but they all start with spotting potential opportunities (Wennekers & Thurik, 1999; Bjørnskov & Foss, 2008).

Entrepreneurship literature explicitly distinguishes between opportunity-driven entrepreneurship (pursuit of business opportunities) and necessity-driven entrepreneurship (forced self-employment due to a lack of alternative employment options) (Graham, 2005). There is a general agreement in the literature that opportunity-driven entrepreneurship is more beneficial because it is growth oriented unlike necessity-driven entrepreneurship that is survival-oriented (Acs, 2006). As such, opportunity-driven entrepreneurship improves economic growth, increases productivity, and enhances creativity and innovation (Carree & Thurik, 2010; Sirmon, Hitt, Ireland, & Gilbert, 2010).

Identifying potential opportunities, and finding the best way to exploit them is the core of successful entrepreneurship, specifically in the idea-generating nascent phase (Ward, 2004). According to Alvarez, Barney and Young (2010), there are two key elements of nascent entrepreneurial behavior: the ability to recognize an opportunity or even to create an opportunity, and the exploitation or commercialization of the opportunity. Audretsch (2012) also argues that entrepreneurial behavior is the combination of op-

portunity spotting, and exploitation. However, if nascent entrepreneurs do pursue opportunities (Dimov, 2010), what are 'entrepreneurial opportunities'?

The concept of opportunity has been defined in a wide variety of fields including economics, entrepreneurship, and strategy (Alvarez & Barney, 2007). An entrepreneurial opportunity consists of "a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them" (Sarasvathy, Dew, Velamuri, & Venkataraman, 2010, p. 142). Thus, opportunity in general terms is a chance to meet market needs through a creative combination of resources, whose value is higher than the existing alternatives (Klofsten, 2005).

The research stream has diverging philosophical perspectives on the nature of "opportunities". The first perspective perceives opportunity as a tangible reality to be discovered (Short, Ketchen, Shook, & Ireland, 2010). Thus, opportunities exist when there are competitive imperfections in factor or product markets (Alvarez & Barney, 2007). Nascent entrepreneurs exploit these competitive imperfections to generate economic profits (Schumpeter, 1934). Therefore, the nascent entrepreneurs' duty is to act timely, using any viable resources to discover these opportunities (Alvarez & Barney, 2007). Under this theory, an entrepreneur's goal is to scan the external environment and spot new opportunities in the market earlier than others do (Maine, Soh, & Dos Santos, 2015).

The second perspective perceives opportunity as a set of actions that occur during the entrepreneurial process. This perspective posits opportunity as being created (Short et al., 2010). From a constructivist point of view, Wood and Mckinley (2010) support the idea that opportunities cannot exist apart from the nascent entrepreneur, emerging from entrepreneurial actions influenced by social processes and structures.

Nevertheless, regardless the opportunity being searched for or being the result of a "aha moment", both need *actions*. In other words, nascent entrepreneurs must form and exploit opportunities (Alvarez & Barney, 2007). They need to deploy resources to exploit their opportunities. Pursuing an opportunity is possible only by acting and facing the uncertainty in every stage of the process (Dimov, 2007a).

The key entrepreneurial process of opportunity recognition follows a similar logic to the planning processes (Alvarez & Welter, 2015). Nascent entrepreneurs need to recognize different opportunities, depending on their alertness, active search and prior knowledge. Therefore, the first factor of opportunity recognition is alertness, which means having the capacity to recognize an opportunity when it emerges (Arenius & Minniti, 2005; Baron, 2006; Minniti, 2004). Yet, other factors are equally important for opportunity identification: prior knowledge, information asymmetry, networking and personal traits of entrepreneurs (Ardichvili, Cardozo, & Ray, 2003). Opportunity recognition partially depends on nascent entrepreneur's previous life experience (Bryant, 2007), industry and market knowledge, events, cognitive ability to recognize changes and trends in the external world (Baron, 2006), prior knowledge and education (Shane, 2000), motivation (Shane, Locke, & Collins, 2003; Shepherd, McMullen, & Jennings, 2007) and entrepreneurial experience and early planning (Dimov, 2010). Additionally, the identification of opportunities is influenced by learning asymmetries shaped by the combination of three concepts: knowledge, cognition, and creativity (Corbett, 2007). Dimov (2007b) defends that opportunity development is a learning process, mediated by prior knowledge, the specific situation in which the entrepreneur is found, the industrial context and the available resources.

After recognizing an opportunity, nascent entrepreneurs need to make sense of it. At this stage, nascent entrepreneurs can be supported by their close network such as family, friends, classmates, parents, teachers, colleagues, partners, informal and formal investors, consultants, accountants, customers, suppliers, and employees from whom they receive feedback about the viability of an opportunity or idea

(Dimov, 2007b; Wood & Mckinley, 2010). Thus, through these interactions, a clear understanding of the recognized opportunity begins to emerge (Dimov, 2007b).

As soon as the opportunity is structured, nascent entrepreneurs need to step into the next stage, which is to actively engage into focused actions, designed to explore the possibility of gaining stakeholders support to capitalize the opportunity (Wood & Mckinley, 2010). During the gestation period, nascent entrepreneurs undertake several actions, such as the formation of entrepreneurial teams (Klein, 2008), development and testing the technology, evaluating consumer demand (Choi & Shepherd, 2004), leading the team developing the decision-making process, developing human resources practices, strategy, finance and marketing, and sustaining competitive advantage (Alvarez & Barney, 2007). During this stage, nascent entrepreneurs need to gather information to reduce uncertainties and build the firm's resources and capabilities before making the decision to enter the market (Choi & Shepherd, 2004).

Finally, the decision to exploit the opportunity comes after the designing stage, where entrepreneurs decide if they will exploit the opportunity by taking the necessary steps to generate revenue. Opportunity exploitation refers to "building efficient, full scale operation for products or services created by, or derived from, a business opportunity" Choi, Lévesque, & Shepherd, 2008, p. 335).

Ultimately, these actions can lead to a path that nascent entrepreneurs believe no longer attractive or feasible, or result in the emergence of a viable business. In this sense, over time, the nascent venture can move towards either being discontinued or emerging successfully as a fully operating firm (Dimov, 2010).

The entrepreneur will need also others to take on the emerging opportunities and assist in the co-creation of opportunities, like customers, suppliers, and other stakeholders. Once the opportunity and the necessary circumstances are co-created, the entrepreneur can try to capture as much value as possible (Alvarez & Barney, 2014). The process of generating opportunities may involve individuals, firms, universities, and other research institutions, whose research and development activities create new knowledge (Mueller, 2007). Indeed, entrepreneurial actions arise from the entrepreneurs' response to emergent environmental contingencies, alongside with their ability to creatively combine accessible resources, flexible organizational arrangements, and to try alternative paths to commercialization within limited resources (Maine et al., 2015).

BIOLOGICAL DRIVERS OF ENTREPRENEURSHIP

In the last decades researchers started to question how and why some people become entrepreneurs and others do not. The business world seems to be eager about this question and the answer is a promising contribution to the general knowledge about building and leading a firm. Furthermore, entrepreneurial behavior is an important element and driving force behind dynamic changes in modern economies (Schumpeter, 1934). The Irish economist, Richard Cantillon defined entrepreneurship, already in 1732, as the willingness of individuals to carry out forms of arbitrage involving the financial risk of a new venture (Minniti & Levesque, 2008). Therefore, researchers started to look for entrepreneurs' common characteristics, like risk-taking behavior, creativity, identification of entrepreneurial opportunities ability, gender, education, family background and more.

The biological and psychological background of every person plays an important role in entrepreneurship by influencing people's attributes and personality characteristics. The investigation of entrepreneurship considering the psychology and biochemistry of entrepreneurs is a relatively new and an interesting research field. It deals with the fact that nascent creation is an act, or in other words a certain

behavior, which is based on the individual's ability to react to a certain situation. Looking at behavior from the biological point of view, one can claim that it is nothing different than a reaction to a certain external or internal stimulus. Stimuli can cause the creation, or depletion of electrochemical gradients, which lead to a cascade of biochemical reactions (Cacciapuoti & Caleffi, 2016). One possible response is the excretion of a so called "messengers". A commonly well-known type of messenger is hormones, which are released directly into the blood stream and act either stimulating or inhibiting a function and/ or behavior of the body. These reactions to, and interactions between, the hormones are very well understood, including their synthesis and the stimuli behind their excretion. All basic information regarding our body, as the tools for synthesizing and regulating the hormones are encoded in our genome, i. e. the entireness of our genes and their conditions (Ernst & Kellis, 2010). Therefore, recent research is trying to answer two basic questions:

1. Can behavior partly be explained by hormones?
2. To which extent does the genome/ genes play a role in the potential of an individual of becoming an entrepreneur not?

White, Thornhill, and Hampson (2006) did a first attempt towards answering the first question. They analyzed the testosterone levels of male MBA students trying to see if there was a correlation between the testosterone level and risk-propensity, which itself would influence entrepreneurial behavior. Although they found a positive correlation; the study design did not allow a general conclusion. Zhang et al. (2009) developed and tested a new model that focused on the mismatch of testosterone and status in a group as well as the collective group efficacy. White et al. (2006) found a correlation that people with start-up experience present higher levels of testosterone than people with no start-up experience, but again the methodology was not convenient for a broader conclusion. Sapienza, Zingales, and Maestripieri (2009) found that testosterone affects financial risk aversion and career choice differently in men and women, and that there is not a linear relationship between testosterone and risk aversion. Nevertheless, individuals with high testosterone seemed to be more likely to choose risky carriers. The following years were dominated by studies trying to improve the test designs. Stenstrom et al. (2011) added the 2D:4D ratio (digit length ratio), which is accepted to be a marker of prenatal testosterone exposure, as well as "rel2" which describes the relative length of the index finger to all four fingers (2D/ [2D+ 3D+ 4D+ 5D]) and is anti-proportional to the androgen level. Maestripieri et al. (2010) made one step back and analyzed the between and within sex variation of hormonal response to stress, an important but missing information up to that point. However, they included the relation status in the samples. They concluded that single males seem to have a higher testosterone concentration than males in a stable romantic relation.

However, the relationship between testosterone and entrepreneurship remains uncertain. While Greene et al. (2013) and Metha and Josephs (2010) were able to show again a clear positive correlation between testosterone and self-employment and risk taking, van der Loos, Haring, Rietveld, Baumeister, Groenen and Hofman (2013) clearly rejected this hypothesis arguing that there are main problems among the data generation: a) the samples size was too low, b) the studies were not repeated, and c) that the testosterone measurements were not properly done (i.e. using serum instead of saliva, plus additional parameters).

Nevertheless, several studies were analyzing entrepreneurial behavior depended on gender (Gupta, Goktan, & Gunay, 2014; Sapienza, Zingales, & Maestripieri, 2009; Van Anders, Steiger, & Goldey, 2015; Zhang et al., 2009) investigating, if it is likely to assume that entrepreneurial behaviors are in fact influenced by hormones. As the testicles are the main source of testosterone, women have by nature a

lower level of testosterone than men, which might contribute to the clear dominance of men in the economic world. However, at this point it feels necessary to point out that studies that found a correlation of testosterone and firm creation did not include valuable information: are those entrepreneurs successful? In fact, a too high level of risk-taking behavior might cause a high number of new firms, but at the same time it is likely that a high-level of risk-taking behavior may lead to a low success rate. In fact, Miller (2015) raises the question if there might be a counter side to these entrepreneurial behaviors and how likely it is that they turn into aggressiveness, narcissism, ruthlessness, and irresponsibility. Researches also revealed that genetically influenced hormone levels increase the likelihood that people engage in entrepreneurial activity.

One thing is clear, although there are no doubts that hormones do have an effect on behavior in general, yet much is left to be investigated before we are able to really understand the impact of hormones on the entrepreneurial behavior.

The study of genome/genes addresses an even broader approach. Instead of looking at a more or less heterogeneous group of people, scientists preferred to work with twins. It enables the scientists to distinguish between nurture and nature on a high level. Scott Shane and Nicos Nicolaou are two very active researchers in this field with a high number of twin studies. Both are convinced that there is a clear relationship between genes and the likelihood of becoming an entrepreneur.

To sustain the development of the hypothesis, Shane and Nicolaou (2015) present evidence from prior empirical research that both creative personality and entrepreneurial behavior have a genetic component. The tendency to identify entrepreneurial opportunities (Nicolaou, Shane, Cherkas, & Spector, 2009) and the tendency to be an entrepreneur are heritable. Examining a variety of different measures of entrepreneurship, Nicolaou, Shane, Cherkas, Hunkin, and Spector (2008) found heritability estimates ranging from 0.37 to 0.48 depending on whether the measure was: a) starting a business, b) number of businesses started, c) being an owner operator, d) the number of companies owned and operated, e) being self-employed, f) years self-employed, g) having engaged in a start-up effort, and h) the number of start-up efforts undertaken. In a study of Swedish twins, Zhang et al. (2009) found a heritability estimate of 0.60 for entrepreneurship among females while, in a study of U.S. twins, Shane, Nicolaou, Cherkas and Spector (2010) found a heritability estimate of 0.48 for self-employment. Nicolaou et al. (2009) measured opportunity recognition using a five-item scale and found heritability of 0.45. Another study by Nicolaou, Shane, Adi, Mangino, and Harris (2011) showed that a polymorphism of the DRD3-gene is associated with the tendency to start businesses. Shane and Nicolaou (2015) examine whether creative personality and the tendency to recognize entrepreneurial opportunities have a common genetic source – that is, the same genetic factors influencing the predisposition to develop a creative personality and the predisposition to identify entrepreneurial opportunities. According to their results there is no indication that either genes or the environment alone *determine* creative personality and entrepreneurship. However, they show the complementary roles that biology and environment play in accounting for entrepreneurial behavior. Their research suggests that the extent to which genetic factors influence entrepreneurship depends on environmental conditions.

The genome, which defines personal traits and potential, is in a dynamic interplay with its environment and therefore shows a high variability in the tendency of an individual to respond in a certain way. Actions/reactions as well as the environment are not static, the latter does not only influence the individual behavior but can also change the genome (Lapp & Hunter, 2016). Therefore, a whole new branch of bioscience, called epigenetic, is becoming very popular. It deals with the stable and inheritable changes in gene expression patterns, due to environmental influences and individual life experiences (Cortini,

Barbi, & Care, 2016). A highly-simplified model, relating behavior, environmental factors, personality traits and genetics, might help to understand the nature of nascent entrepreneurial behavior.

Summing up, this new research field is facing some problems in what pertains to the right method, as well as some long-term studies on natural and entrepreneurial independent variability are lacking. Furthermore, scientists still need to improve the test design regarding:

- General accepted definitions (e.g. when is an entrepreneur an entrepreneur?);
- Representative parameters;
- Adequate methods/ protocols;
- Control variables.

For example, much of the literature on entrepreneurship studied the creation of new firms, which according to some authors may introduce success bias. A more useful approach would be to study individuals with a propensity to entrepreneurship or nascent entrepreneurs and include a parameter to measure the success of the new firm. In this regard, it is fundamental to examine whether people with creative personalities are more likely than others to recognize entrepreneurial opportunities and to start new businesses, as well as if there is a biosocial pattern behind it. Nevertheless, the study of human nature is far from an easy answer. As the individual and basic reactions of each process are quite easy to understand, the result of those interactions partly remains unpredictable. However, if part of the individual genetic composition is influencing entrepreneurship by mediating them through an individual attribute such as the creative personality, a further comprehension of the concept is required. Thus, it is crucial to understand the psychological and biological point in the assessment of creativity and personality.

CREATIVITY AND ENTREPRENEURS: A PSYCHOLOGICAL APPROACH

Creativity and innovation are acknowledged as decisive to foster an entrepreneurial culture, driving forward socio-economic development (Edwards-Schachter, García-Granero, Sánchez-Barrioluengo, Quesada-Pineda, & Amara, 2015). Aside of the genetically studies, Shane and Nicolaou (2015) show, that part of the non-genetic influence in entrepreneurship is mediated through an individual attribute not previously looked at: creative personality. They demonstrated that people with creative personalities are more likely to recognize entrepreneurial opportunities and to start new businesses. They also indicate that some people have an innate predisposition to both develop creative personalities and to become entrepreneurs. Moreover, they show that creativity is influenced by situational, contextual and cognitive factors as well as individual factors related to personality. Therefore, the results are complementary to other approaches analyzing the role of creativity in entrepreneurship, including those that show that learning and cognitive structures affect creativity or opportunity recognition. In fact, in a continuously changing world the predominant role of creativity, is highlighted by scholars and practitioners, as a core competence required for individuals in several areas (Gundry, Ofstein, & Kickul, 2014; Sacco & Segre, 2009; Ward, 2004). Contemporary global competitive endeavor establishes creativity as an urgent requirement for interdisciplinary and cross-cultural management (Kaufman & Sternberg, 2006; Ko & Butler, 2007). Florida (2002) stated that creativity is undeniably the most important economic resource of the 21st century, as it promotes individual task performance, organizational innovation and effectiveness, and it helps to address future challenges (Amabile, 1996). Researchers agree that creativ-

ity is linked to entrepreneurship since it promotes the identification of new opportunities and, among the literature research, entrepreneurs are portrayed as creative individuals who search for new solutions, in order to create added value (Gielnik, Frese, Graf, & Kampschulte, 2012). Creativity and knowledge acquisition have indeed a positive effect on the perceived viability of the business idea (Heinonen, Hytti, & Stenholm, 2011)

Zhao et al. (2010) stated that in terms of personality, entrepreneurs do differ from managers. The human personality is a dynamic construct and is related to certain persistent qualities in human behavior undertaking individuals as dispositional entities (McAdams, 1996). Several empirical studies based on the person-environment fit theory (Judge & Kristof-Brown, 2004; Kristof-Brown, Zimmerman, & Johnson, 2005) and the career choice theory (Lent, Brown, & Hackett, 1994; Holland, 1997) provide empirical evidence that people tend to select a work environment that meet their interests, personality and values. The requirements to start and manage a business venture requires an entrepreneur to present certain unique traits such as innovation, risk taking behavior, executive risk reducer behavior, and goal achiever behavior (Chen et al., 1998) that can be translated into openness to experience, neuroticism, agreeableness, conscientiousness and extraversion.

Nevertheless, fewer studies explore how the different pieces of the creativity puzzle fit together. For long, the scientific analysis of creativity has gathered great attention from researchers and numerous approaches have been adopted in the study of creativity from different research fields, (Chen, Chang, & Lo, 2015; Edwards-Schachter et al., 2015; Heinonen et al., 2011; Mumford, 2003; Runco, 2004; Ward, 2004).

Empirical psychological studies on creativity vary between the creativity investment theories and the divergent production approach (Sternberg & Lubart, 1999). Authors like Simonton (1999) consider that the creative behavior is depersonalized and externalized from the individual, attributing the renewal of ideas to social and historical circumstances or contingencies. However, O' Sullivan and Haklay (2000) locate the determination of behavior within the isolated individual.

Currently, the interactionist assessments take in consideration both the social nature of behavior and individual differences (Gruber & Wallace, 1999). This approach in particular develops an intensive and contextualized study of individual cases where social factors assume an important role.

Being creative implies having some personal characteristics, such as taste for risk, sense of humor, persistence, tolerance, and autonomy. However, possessing a creative personality is not guarantee of being creative (Barron & Harrington, 1981; Sawyer, 2006).

Current studies suggest that people with creative personalities are more likely to recognize entrepreneurial opportunities and to start new businesses (Shane & Nicolau, 2015) and center their scope on creative individuals that change paradigms (Csikszentmihalyi, 1996; Gardner, 1994; Klonoski, 2012; Simonton, 2000; Sung & Choi, 2009; Ward, 2004). However, the fundamentals of creativity and its relation to nascent entrepreneurs are not well understood.

Several studies suggest that creativity and entrepreneurship are correlated (Kirzner, 2009; Edwards-Schachter *et al*., 2015; Ward, 2004). Entrepreneurship is considered as one of the domains in which people with creative personalities are more likely to exercise their creative nature (Chen, Chang, & Lo, 2015; Shane & Nicolaou, 2015). Consistent with previous literature, creativity is the result of interaction between internal factors such as intrinsic motivation, individual traits (extraversion, gentleness, openness to experience, emotional stability and awareness) and the environment (Sung & Choi, 2009).

At the individual level, creative skills have been extensively measured by creativity researchers both as part of a personality dimension and a cognitive dimension. Creativity is independently predicted by

personality and motivation as well as cognitive and non-cognitive factors – intellectual abilities, knowledge, intellectual styles (Sternberg & Lubart, 1995). Creative performance requires a set of individual skills such as broad interests, attraction to complexity, intuition, self-confidence, persistence, curiosity, energy, and intelligence and initiative (Amabile, 1988; 1996; Shalley & Gilson, 2004; Zhou & Shalley, 2003) that will impact the ability to generate novel responses and solutions.

Considerable consensus has emerged that five personality dimensions – neuroticism, extraversion, openness to experience, agreeableness, conscientiousness – capture the basic structure of human personality. The Big Five taxonomy is considered among consumer behavior researchers the psychometric that enjoys the broader agreement (Baumgartner, 2002; Zhao, 2010). The model is organized by personality descriptors grouped together using a factor analysis.

A study developed by Zhao et al. (2010) states that entrepreneurial intentions and entrepreneurial performance are related to most of the Big Five personality dimensions.

The expression of high levels of extraversion, strong extrinsic motivation, and openness to experience denote a high level of creative performance. High levels of agreeableness, and low extrinsic motivation is a positive predictor of creative performance (Sung & Choi, 2009).

Individuals with high levels of extraversion are gregarious, outgoing, warm, and friendly; they are energetic, active, assertive, and dominant in social situations; they experience more positive emotions and are optimistic; and they seek excitement and stimulation. Optimism, energy and assertiveness are traits that have been associated with people's perception of entrepreneurs (Locke, 2000, Zhao et al., 2010).

Openness to experience reflects originality, open-mindedness and it is associated to an active imagination, aesthetic sensitivity, independent judgement and intellectual curiosity. It relates with divergent thinking, one of the features of intelligence related to creativity (McCrae, 1987). It is related with entrepreneurship and artistic and scientific creativity, since professionals within these fields, scored higher when compared with members of the general population (Feist, 1998; Ko & Butler, 2007).

High levels of openness to experience refer to individuals curious about the internal and external world, are always open to accept new ideas and values and usually present a very rich range of life experiences. In the other side of the spectrum, individuals that present low scores in this specific trait are considered more conventional and conservative with a limited choice of interests.

Neuroticism evaluates the individual's ability for adaptation, or the contrary, the emotional instability. The academic literature considers entrepreneurs as resilient, optimistic, and steady in the face of stress, uncertainty, and social pressure (Locke, 2000). Thus, low levels of this neuroticism, relates to calm, secure emotionally stable and satisfied-with-himself individuals that deals with stressful situations in a more adaptive way. The opposite side reveals negative affectivity or nervousness.

High levels of neuroticism are found to be more accentuated in people who are worried, nervous, and emotionally insecure, with tendency to feel negative affection and to develop inappropriate coping responses.

Agreeableness dimension assesses one's attitude and behavior towards others'. It is related with the level of interpersonal orientation that varies in a continuum from sympathy to antagonism in thoughts, feelings, and actions. Individuals with a high score in agreeableness are altruistic, cooperative, trustworthy, and kind to others. On the other side, those who present low score in agreeableness are usually characterized as being, rude, unpleasant, suspicious, unhelpful, vindictive, manipulating, and more competitive than cooperative.

The conscientious individual has strong will force, is determined, scrupulous, punctual, organized, hard-working, self-disciplined, ambitious, persevering, and trustworthy, Conscientiousness reflects control or constraint in behavior directed toward a certain objective. This trait relates to the degree of organization, persistence, and motivation.

A low score in this characteristic depicts individuals who are careless in the pursuit of their objectives, unconcerned, negligent and with a weak will force.

Hence, creativity is considered imperative to entrepreneurial behavioral since it relates to identification of opportunities that leads to new businesses and ventures. Chen et al. (2015) define creative entrepreneurs as the founders who establish and remain in charge of a business. Opportunity recognition is considered a creative process involving different steps of preparation, incubation, and insight (Lumpkin & Lichtenstein, 2005). Entrepreneurs who are able to generate more original ideas (openness to experience) are more successful in terms of venture growth. Openness to experience and conscientiousness appear to be the personality constructs most strongly and consistently associated with entrepreneurial intentions and entrepreneurial performance. The study presented by Zhao et al. (2010) disclosures as well that entrepreneurial intentions and entrepreneurial performance explain the existence of personality differences among entrepreneurial and managerial populations. Entrepreneurship not only relates to creativity and innovation but also requires knowledge and business competence (Heinonen et al., 2011).

According to the presented literature there are in fact evidences for a correlation between hormone concentration and/or genetic background to entrepreneurial behavior (Greene et al., 2013; Mehta & Josephs, 2015; Stenstrom et al., 2011).

ENVIRONMENTAL FACTORS OF NASCENT ENTREPRENEURSHIP: AVAILABLE AND ACCESSIBLE KNOWLEDGE

Knowledge is the foundation, where both firms' competitive advantage (Agarwal, Audretsch, & Sarkar, 2010; Moreira, 2009) and nations' macro-economic growth stand (Romer, 1990); it also plays an exceptional role in motivating new venture creation (Schumpeter, 1934) and facilitating its success (Davidsson & Benson, 2003). Entrepreneurship is the mechanism that converts knowledge into growth (Acs, Audretsch, Braunerhjelm, & Carlsson, 2012; Acs & Sanders, 2013), because based on the knowledge-based perspective, the fundamental principle of an organization is the generation, combination, recombination and exploitation of knowledge (Conner & Prahalad, 1996).

In a previous section, we have seen the importance of opportunity spotting and exploitation for nascent entrepreneurs, in this section we argue along with Qian, Acs, and Stough (2013) that identifying available and accessible novel knowledge is one of the environmental sources of entrepreneurial opportunities leading to new venture creation.

The mechanism, by which an individual or a firm accesses others' knowledge, is described as knowledge sourcing (Gray & Meister, 2004). Organizations can rely on internal knowledge (e.g. employees, departments within the firm) and external knowledge (e.g. competitors, alliance networks, market feedback) to draw profitable information from (Agarwal et el., 2004; Moreira, 2009). The ability to recognize the value of new information, assimilate it, and apply it to commercial ends is critical to success, and implies innovative capabilities or absorptive capacity (Cohen & Levinthal, 1990). The higher one's absorptive capacity is, the more and richer knowledge one can take in (Aghion & Jaravel, 2015).

The knowledge spillover theory of entrepreneurship identifies new knowledge as a source of entrepreneurial opportunities. However, new knowledge does not automatically lead to entrepreneurship. Qian and Acs (2013) defend that the level of entrepreneurship based on spillover knowledge is highly dependent on entrepreneurial absorptive capacity. They define entrepreneurial absorptive capacity "*as the ability of an entrepreneur to understand new knowledge, recognize its value, and subsequently commercialize it by creating a firm*" (Qian & Acs, 2013:191). Hence, they suggest that entrepreneurs' absorptive capacity is critical to new venture creation.

Applying the above arguments for the domain of nascent entrepreneurship, a founder can draw knowledge from two sources: (1) working in an organization and learning "on the job" incorporating available tacit and explicit knowledge, and (2) participating and observing in the practices of an industry and learning from others' innovations and mistakes; in both cases by recognizing and exploiting the opportunity through the available and accessible knowledge. Furthermore, nascent entrepreneurs can source knowledge by two means: knowledge transfer – where available knowledge is transferred in a market-like transaction involving the cross-party compensation of the value of the knowledge (Agarwal et el., 2010) – and knowledge spillover – where knowledge created by one agent is "flowing freely" and can be used by someone else without compensation, or with a compensation lower than the value of that knowledge (Jaffe, 1998; Marshall, 1920).

We will focus our attention on knowledge spillover or "unintended knowledge transfer" (Agarwal et al., 2004). As a rich source, we argue that it is the most worthwhile source of opportunities for new venture creation. Furthermore, we target knowledge spillover that is originated from within the firm (from the employer organization) rather than from the market, as organizations, compared to markets, are conceptualized as superior settings for the transfer and integration of knowledge (Argote, McEvily, & Reagans, 2003; Davenport & Klahr, 1998).

KNOWLEDGE INHERITANCE AND EMPLOYEE ENTREPRENEURSHIP

New knowledge is the fountainhead of new venture creation (Schumpeter, 1934), and inheriting knowledge is one of the most efficient ways to gain the required innovativeness to start a business (Agarwal et al., 2004).

Knowledge inheritance is (tacit and explicit) knowledge that employees of an incumbent organization acquired (spilled-in) while working at the firm and utilized it afterwards (without compensation) after leaving their employer to create a new venture of their own (Agarwal et al., 2004). This inherited knowledge incorporates both technological knowledge – ability to generate new scientific discoveries and technological breakthroughs –, and market know-how – ability to seize new opportunities or withstand threats, and commercialize technological innovations before competitors do.

A firm's knowledge is not only embedded in the organizational culture, but also makes up the individual human capital (Smith, 2001). As human capital is inherently mobile (Coff, 1997), and knowledge is appropriable by anyone who possess it (Arrow, 1962), employees by "learning on job" and working "in industry" are in a potential position to use their knowledge to create new ventures. Said differently, employees can utilize the knowledge spillover of their former employing organization to establish their own (possibly competing) firm. Campbell, Ganco, Franco and Agarwal (2012) as well as Gambardella and Giarratana (2010) support this view by providing compelling evidence that the more skilled and higher-ability employees are, the more likely to create new ventures. The inclination for nascent entre-

preneurship is also sparked by the incumbents having imperfect and permeable knowledge repositories (Kotha, 2010). Previous studies have additionally suggested that spin-outs may be triggered by organizational crisis, change in leadership, or lack of promotional prospects for employees (Garvin, 1983), however scholars do not yet agree on the exact reasons, why some incumbent environments tend to be more prone to spin-outs than others (Burton, Sorensen, & Beckman, 2002).

Knowledge is indeed essential for the success of any organization. However, through employee mobility, it can be highly mobile (Fiol, 1991) from the incumbent organization to a new firm. Based on this argument, Agarwal et al. (2004) have developed a theoretical framework linking knowledge inheritance to spin-out formation, development and survival. Building on this framework we provide a brief literature review supporting our claim that rich knowledge inheritance is the main determining factor for the success of nascent entrepreneurship.

1. Industries/firms with abundant know-how are more likely to be associated with a higher potential to generate spin-outs.

Firms being abundant in knowledge could enhance potential entrepreneurs' ability and sensitivity both to recognize market opportunities and to creatively extend (technological and marketing) knowledge in new ways. Since knowledge asymmetry lies at the heart of entrepreneurship (Venkataraman, 1997), such access to valuable knowledge can be a source of competitive advantage a new venture can rely on.

The knowledge inheritance can also incorporate the benefits the nascent entrepreneurs can gain from the affiliation with the incumbent firm through the transfer of status. This positive association can legitimize new ventures in the market, and provide a better access to resources (e.g. finance) through the (inherited) social capital of the incumbent firm.

There is a final layer of the incumbent's knowledge that can motivate employees for spin-out: it is the how well the incumbent firm utilizes its own knowledge internally. The unexploited opportunities, like new scientific breakthroughs that are not commercialized, marketing insights into emerging and unfulfilled customer needs, underutilized technological inventions can lead to employee frustration, lowering job satisfaction and demising commitment, which can drive employees away (Christensen, 1993). However unexploited opportunities can provide employees not only with an excellent reason to leave, but also to pursue these available prospects for themselves through entrepreneurship (Agarwal et al., 2010). Klepper and Thompson (2007) also found that disagreement within incumbent firms provide a great motivation for employee spin-outs in knowledge-intense industries.

Liu, Wright, Filatotchev, Dai and Lu (2010) argue along the same lines that former employees of multinational companies are a great source of innovative knowledge benefiting the local industry as well as the national economy. On one hand, they enhance the innovation capacity of any potential firms they are employed by later, and on the other hand, in case they pursue new venture creation themselves, their firm can encourage the innovation of other firms in the industry through cooperation and/or competition.

Mueller (2006) provides further empirical evidence that previous work experience and knowledge acquired during employment is a more substantial decisive factor than formal education for the likelihood of being a nascent entrepreneur. Zanakis, Renko and Bullough (2012) also found further supporting evidence for these results.

2. The richer the parent firm's knowledge is at the time of the spin-out's inception, the richer the spin-out firm's capabilities likely to be at start and so increase over time.

We also have to mention here that besides the explicit knowledge of the firm (like scientific formulae, technical specifications, blue-prints, strategy reports, hardware, etc.), the tacit knowledge, the competences and the values of the organizational culture held by individual employees also "imprint" on the core of new venture. Moreover, it determines the new firm's knowledge absorptive capacity (i.e. the ability, efficiency and aspiration to learn, discover, and acquire new knowledge).

Since starting with a good model can affect subsequent firm performance, superior knowledge endowments at birth can result in longer-term knowledge superiority (Cyert, Kumar, & Williams, 1993).

3. Spin-outs (as a type of nascent entrepreneurs) will have higher levels of capabilities than other types of potential entrants.

Nascent entrepreneurs can be "original entrants" and spin-outs, while spin-outs can also be divided further between incumbent backed-up new ventures (e.g. subsidiaries) and independent spin-outs. Agarwal et al. (2004) argue that while both incumbent-backed ventures and spin-outs benefit from knowledge transfers from incumbents, the spin-outs are at an advantage, because their agents of knowledge transfer are the founders as opposed to recruited employees in subsidiaries. The authors explain this advantage by contrasting the founders' holistic leadership style and influential position with employees' limited vision and status to transfer and reinforce knowledge flow across different departments of a new organization. They also add that since power in organizations depend on having non-replicated knowledge, hired employees could prefer not to lose their knowledge monopolies, thus be discouraged to share and fully utilize their capabilities; on a different perspective founders have high incentives and motivation to share their knowledge and transform it into best practices, to appropriate full benefits for the firm as a whole. Finally, Agarwal et al. (2004) defend that when multiple employees from diverse organizational, industrial, and social backgrounds come together to start a new firm, the synergy of their different capabilities, experiences, and social capital can greatly increase the potential value of their combined know-how. Other studies also support the importance of social capital in entrepreneurial adventuring (Mueller, 2006).

Employee entrepreneurs are also better aware of the R&D developments and the essence of the industry knowledge due to their work within the industry. As a result, nascent employee-entrepreneurs are in a better position to re-combine knowledge and to create valuable innovation (Yang & Steensma, 2014) than others without this "insider information". Dahl and Sorenson (2013) go one step further arguing that new entrepreneurs with previous industry experience have higher performance than those without this prior experience.

4. The likelihood of survival will be greater for spin-out entrants than for all other types of entrants.

Spin-outs benefit from entrepreneurial mindset (effective opportunity-seeking behavior), and are also armed with insider industry knowledge; this combination makes them superior to other types of market entrants.

In addition to having technological and marketing knowledge, spin-out founders are likely to benefit from their previous employer's contacts and network ties, while their own social capital is possibly

closely related to the industry they have worked for. Moreover, spin-outs bring with them routines and processes along with links to customers that enable them to better overcome liabilities of newness in the market *vis-à-vis* other entrants.

There is a big difference in the leadership style of managers and entrepreneurs (McGrath & MacMillan, 2000), because managers of incumbent-backed spin-outs are likely to be evaluated on the basis of how closely they adhere to a corporate plan, while spin-out founders are motivated by the ends achieved, as their livelihood is tied to their ventures' performance. Therefore spin-out founders are more flexible and faster to change strategic direction if needed, thus enhancing their chances of survival.

The findings of Dencker, Gruber, and Shah (2009) also suggest that pre-entry knowledge and management experience increase firm survival through the moderating the effects of subsequent learning activities.

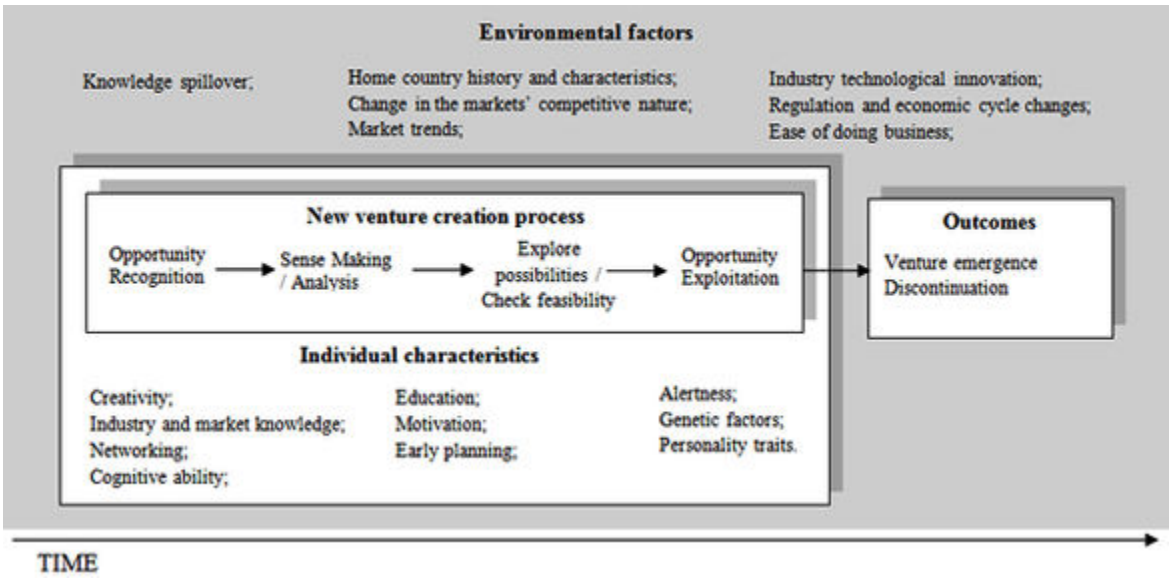
CONCLUSION

In the introduction of this chapter, based on Johnson et al. (2006), we raised three important questions we wanted to address regarding nascent entrepreneurship: (1) the individual characteristics of nascent entrepreneurs; (2) the environmental factors contributing to new venture creation; and (3) the steps in the creation process. Clearly, new venture creation involves indeed a series of decisions centered on opportunity exploration, evaluation and exploitation. This process of nascent entrepreneurship is surrounded and determined by external and internal factors. While we reviewed several distinct factors that affect nascent entrepreneurs, we conclude that, among internal qualities, creativity plays the most important role when it comes to identifying and utilizing opportunities. Moreover, a stimulating environment, abundant with available and accessible knowledge, drives successful formation and growth of new ventures.

Based on the thoughts described in the chapter, one can conclude that there are significant managerial implications:

- As entrepreneurial leadership style entails higher success rate, as concluded above, some of the entrepreneurial notion could be considered in general management, like the example of nascent entrepreneurs who are intensively pursuing new market opportunities; investing money in their ventures or seeking for investment in order to accomplish the opportunities spotted; and trying to generate profits from ventures' revenues;
- Both managerial and academic researchers should take into consideration that if biology plays a role on entrepreneurship, the creation of new firms is certainly a wrong indicator of "success" as testosterone plays a role on the creation of new firms. As such, male entrepreneurs may have a more natural drive to embark on new business venture, not to only as a consequence of their opportunity driven behavior, but as a result of their testosterone level that influences risk taking behavior;
- As available and accessible knowledge plays a significant role among nascent entrepreneurs, it is important to introduce a knowledge-based perspective to make nascent entrepreneurs aware of important environmental factors so that they could explore and exploit new opportunities more successfully. As such, education and training of nascent entrepreneurs need to be tuned to environmental factors and blended with creativity in order to facilitate the transition from nascent entrepreneurs to read entrepreneurs.

Figure 1. Opportunity development process



FUTURE RESEARCH DIRECTIONS

Based on our findings we propose a model incorporating all three aspects of nascent entrepreneurship: opportunity spotting and exploitation, individual creativity, and available external knowledge. Research has shown that regardless of whether opportunities exist in the environment or emerge as a creative act, individuals need to identify and exploit them, engaging in a process of opportunity development. Academic literature and practical knowledge also support the idea that the intention of creating new ventures is influenced by contextual stimulus and individuals' internal traits, skills and abilities. Conceptually, the opportunity development model build on the above assumptions is shown in Figure 1.

Although the model incorporates the key process of new venture creation embedded in the main drivers of nascent entrepreneurship, there might be several factors that need to be addressed by the literature as gender issues, as biological characteristics, that are not yet clearly covered by the academia.

It would be also interesting to invest time and effort in a longitudinal study rather than analyzing a snapshot of the nascent entrepreneurial stage, as new venture creation is a decision carefully deliberated and refined over time and through a series of stages. As such, a longitudinal study incorporating all the preceding decisions would be of added value in analyzing and understanding the evolving nature of nascent entrepreneurship.

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KEY TERMS AND DEFINITIONS

Creativity: It is the process of bringing something new into being. It is an essential part of entrepreneurs to drive new opportunities into the market. As creativity requires passion and commitment, it is believed to be part of the entrepreneurial behavior that is necessary to mobilize resources and implement new projects.

Entrepreneurial Behavior: It is the capacity of the individuals to spot opportunities in the market and to turn them into profitable businesses. For that individuals need to adopt a risk taking behavior and to deploy all necessary resources to develop, organize and manage the new business venture profitably.

Entrepreneurship: There are several understandings about this concept. It is known as the capacity and willingness to develop, organize and manage new business ventures profitably. The concept it is normally associated to an innovative, risk-taking behavior, which is essential to spot new opportunities in the market and to adapt to an ever changing and increasingly competitive global marketplace. Economically, it has been associated to the creation of new jobs, the enhancement of per capita income growth, and as primary driver of industrial dynamism.

Epigenetic: It deals with the stable and inheritable changes in gene expression patterns, due to environmental influences and individual life experiences.

Nascent Entrepreneurship: It is closely associated to individuals who are actively engaged in creating new own or co-owned ventures. This venture has not paid salaries, wages, or any other payments to the owners for more than three months.

Necessity-Driven Entrepreneurship: It is understood as the type of entrepreneurship motivated by self-employment, or as a result of absent or unsatisfactory work options, normally with a very low impact on economic growth.

Opportunity Development: It is a necessary process so that individuals develop new competitive businesses in the market.

Opportunity-Driven Entrepreneurship: It is understood as motivated by perceived market opportunities, i.e. entrepreneurs are pulled to entrepreneurship out of a choice.