Necessity and/or Opportunity Entrepreneurship: Which Impact on the Firm's Creation?

Olivier Giacomin

Dissertation submitted for the degree of Ph.D.
Louvain School of Management
Université catholique de Louvain
January 2012

Dissertation Advisor :

Frank Janssen, Université catholique de Louvain

Dissertation Committee :

Régis Coeurderoy, Université catholique de Louvain, ESCP-Europe
Marcus Dejardin, Université catholique de Louvain
Pierre-André Julien, Université du Québec à Trois-Rivières
Rachel Shinnar, Appalachian State University

To my mother,

Remerciements

Quel bonheur de pouvoir écrire les seules lignes de ma thèse que mon jury ne pourra ni commenter, ni discuter, ni souhaiter de modifications…quel stress ! Nombre de personnes, de près ou de loin, ont contribué à ce travail. Dès lors, avant de me lancer dans des remerciements plus intimes, je voudrais remercier « TOUT LE MONDE »….vous vous reconnaitrez ☺

Je souhaite remercier le Professeur Frank Janssen, mon promoteur de thèse. Monsieur le Professeur Janssen (on va être formel pour débuter), j'ai toujours pu compter sur votre soutien, votre écoute, votre patience et vos conseils dans le cadre de mon travail doctoral. Sans vous, ma recherche doctorale n'aurait jamais abouti. Pour cela, merci de m'avoir mené au bout de ce long processus. Avec du recul, je me rends compte que cela n'a pas dû toujours être facile d'être mon promoteur ! Frank, combien de fois t'ai-je dit « J'arrête », « J'ai mieux à faire » et je n'oublie pas les mails que j'ai pu t'envoyer dans lesquels je t'annonçais que j'allais postuler pour un autre poste avec l'offre en pièce jointe ? Malgré cela (et bien plus encore), tu es toujours resté serein et présent. Pour cela Frank, merci aussi d'avoir toujours cru en moi. Frank, tu as été bien plus qu'un simple promoteur de thèse sachant (re)motiver ses troupes et les pousser toujours plus loin. Au cours de ces six dernières années, nous avons appris à nous connaître, à nous apprécier et à nous respecter l'un et l'autre. De ton rôle de promoteur, tu es devenu au fil des années un ami et tel un ami, tu étais là dans les moments difficiles (pourtant très éloignés de ma

thèse) que j'ai pu traverser. C'est avant tout pour cela que je tenais à te remercier Maître Jedi !

Mes remerciements s'adressent également envers les autres membres de mon jury final. Merci au Professeur Regis Coeurderoy pour ses conseils et ses remarques depuis le début de mon parcours doctoral. Ses grandes qualités scientifiques m'ont toujours permis de progresser et d'améliorer mon travail. Regis, je n'oublie pas non plus vos visites dans mon bureau. Grâce à votre humour et votre répartie, vos visites furent de véritables moments « récréatifs ». Je remercie également le Professeur Marcus Dejardin, lui aussi, présent depuis le début de mon parcours doctoral. Merci Marcus pour tes relectures, tes commentaires et tes idées. Merci aussi pour ta disponibilité et ta profonde gentillesse. J'espère que dans les mois à venir, nous trouverons enfin le temps d'écrire ensemble cet article dont nous parlons depuis bientôt deux ans. Merci aussi au Professeur Pierre-André Julien d'avoir accepté de participer à mon jury final. Monsieur le Professeur Julien, vous compter parmi mes lecteurs fut pour moi un réel honneur. Votre expertise scientifique a compté, pour beaucoup, dans la qualité finale de mon travail. Je souhaite aussi remercier le Professeur Rachel Shinnar d'avoir accepté de rejoindre mon jury final. Rachel, nos nombreuses collaborations scientifiques ont toujours été un réel plaisir…tout comme nos nombreux échanges Skype ! La rapidité et la qualité de ton travail m'ont toujours ébloui. Nul doute qu'à l'avenir, nous aurons l'opportunité de poursuivre notre collaboration. Pour son rôle de Président de la commission doctorale, je remercie le Professeur Philippe Chevalier. Enfin, je souhaite également remercier

le Professeur Alain Vas, Doyen de la Louvain School of Management, pour son énergie et son dynamisme envers notre école.

Je remercie la Chaire Brederode et tout particulièrement Messieurs Pierre van der Mersch et Gérard Cotton de m'avoir fait confiance durant ces six années.

Je profite de l'occasion qui m'est donnée ici pour remercier Sophie « C. » Bacq et Amélie Jacquemin également doctorantes de Frank. Les filles, comment oublier les moments partagés ensembles ! Jamais, un esprit de compétition ne s'est glissé entre nous. Jamais, nous n'avons été jaloux l'un de l'autre suite à une acceptation dans une revue, à une conférence. Que du contraire, bon ou mauvais, nous avons toujours savouré ou supporté ensemble ces moments. Nos virées nocturnes en conférence vont me manquer tout comme nos longues et constructives discussions (professionnelles et/ou personnelles). Au fil des années, vous êtes devenues de véritables Amies. Merci à vous deux d'avoir toujours été là pour moi ! Merci de m'avoir soutenu (supporté aussi) durant ces années. Vous êtes FORMIDABLES ! Nul doute que l'ET (Entrepreneurship Team pour les non initiés) a de belles années devant elle et pas mal de « A » à produire !

Au cours de mes années passées à la Louvain School of Management, j'ai eu la chance de faire partie du département STOR. Ce département compte nombre de chercheurs-doctorants (dont certains sont aujourd'hui des amis) avec lesquels j'ai connu d'agréables

moments. Je pense, entre autres, au repas de midi partagé dans la salle Finance (ahlala...si ses murs pouvaient parler...) ou au séminaire CRECIS (notre centre de recherche adoré) du jeudi midi. Pour ces nombreux moments (et pour bien d'autres choses) merci à : Nathalie « la Blondasse », Emilie, Florence, Cédric, Tanguy, Christian « Macho Man », Olga, Luc, Christophe, Valérie, Flore, Nicolas, Marine « Marise pour les intimes ou les malentendants », Roxane et Céline « les Kaunas », Thomas « Monsieur fond de salle », Loïc, Yannick « Grand brun », François , Gabriel et mes deux compères Sophie et Amélie. Un merci particulier à Nath, Sophie et Florence de m'avoir toujours accueilli dans leur bureau quand je n'avais pas envie de travailler (bref souvent) et que je venais les empêcher de bosser. Amélie, ce fut un plaisir de partager un bureau avec toi ces quatre dernières années. Nos moments de délires, de fou-rires, de profonde concentration (parfois) resteront parmi mes plus beaux souvenirs. Un grand merci à Clio et à Valérie d'avoir été deux charmantes voisines de bureaux pendant toutes ces années. Vous l'aurez compris, MERCI à toutes et tous pour ces belles années !!

Ensuite, je souhaite remercier et rendre hommage à mes très chers parents. Sans vous, tout ceci n'aurait pas pu avoir lieu. Merci à vous deux de m'avoir donné la possibilité, il y a plusieurs années, de me lancer dans cette aventure. Merci à vous deux de m'avoir apporté tant de choses, merci pour votre amour. Depuis toujours, vous croyez en moi et vous êtes là pour m'épauler. Maman, malgré ta force tu n'as pu être présente jusqu'à l'étape ultime de ce parcours. Je sais pourtant que tu y tenais. Sache, que tu es sans cesse dans mes pensées ! Je ne

doute pas une seconde que, de là où tu es, tu dois être très fière de ton « p'tit bébé » et que tu veilles sur nous. Papa, tu as toujours été ma référence, mon repère ; j'ose espérer devenir un père tel que toi. Je t'aime!

Babou, tu as traversé cette longue aventure à mes côtés. Tu as supporté mes déprimes (souvent), mes doutes (énormément), mes craintes (parfois), et ma passion (les bons jours) envers ma thèse. A chaque fois, tu as réussi à me faire prendre du recul et à relativiser les petits tracas liés à ma recherche. A chaque instant, j'ai su que je pouvais compter sur toi pour m'écouter, me conseiller. C'est donc ensemble que nous sommes arrivés à boucler « cette » thèse. Pour tout cela, elle est autant ta réussite que la mienne. Merci ma « p'tite femme exceptionnelle » de me faire vivre chaque jour « un rêve éveillé ». Enfin, je profite de ces quelques lignes pour te remercier à nouveau de m'avoir donné le plus beau, le plus merveilleux, le plus drôle et le plus têtu des Schtroumpfs ! Nul doute que Romain, « Massimo », Babou et Pilou ont une belle route à faire ensemble dans les années à venir… « parce que c'est toi »

Olivier Giacomin

Louvain-la-Neuve, janvier 2012

Table of Contents

Introduction

"Each of the company formations is the end result of one very personal human process […] The company-formation process begins with a situation in which an individual or group of individuals is forced from or decides to change to a new life path. The situations are as varied as life itself, but more people respond to negative displacements than positive ones. A particular situation, however, elicits different responses from different individuals. […] Entrepreneurship comes about through the interaction between a specific situation and a specific individual or group of individuals. […] Entrepreneurship represents a resilient response to threats or opportunities. […] The way an individual perceives the events that occur and the ways they respond to them is primarily a by-product of their past and present cultural and social environment, […], family, peers, formal education, and life experiences."

Albert Shapero, The Entrepreneurial event (1984)

In the following sections, we will present the motivation, the purpose as well as the outline of our dissertation.

MOTIVATION AND PURPOSE

Over the last quarter of a century, various policies have been implemented to foster the entrepreneurial spirit and to facilitate small businesses creation. This enthusiasm for small businesses has its roots

in the fundamental role they play in the regional economic growth, the number of jobs they generate (Audretsch, 2003; Staber & Bögenhold, 1993), and the fact that they constitute an efficient tool in fighting unemployment.

For those who believe that technological innovation, growth of demand or the introduction of new products are the principal forces behind new venture creation, identifying individual factors underlying creation may, at first, seem straightforward. The same goes for mainstream economists, for whom the birth of small businesses can be explained, as underlined by Storey (1994), by two approaches: on the one hand, industrial economics and its theory of the firm, and, on the other hand, labour economics and its theory of individual's behaviour in the labour market (Schumpeter, 1911; Knight, 1921). Nevertheless, the study of individual determinants of firm creation is far less simple than it initially appears. As Reynolds (1997) emphasizes it, individuals starting a business are unique and/or in distinct situations. Indeed, individuals decide to create a business for various kinds of motivations/reasons.

As Shapero & Sokol (1982) have shown, the circumstances of creation may be negative or positive and can lead to two types of motivations, i.e. *push motivations* (negative circumstances also called necessity) and *pull motivations* (positive circumstances also called opportunity). An entrepreneurial initiative dictated by a push motivation could arise from unemployment, dissatisfaction with the present situation and/or family pressure (Verheul et al., 2010). In

contrast, a pull motivation is at the source of proactive entrepreneurial initiatives, such as strong professional aspirations articulated in an offensive posture, possibly originating in the identification of a market opportunity (Harisson & Hart, 1983). Since the works of Reynolds et al. (2002), these motivations have given rise to the concepts of *necessity entrepreneurship* and *opportunity entrepreneurship*. **Necessity entrepreneurs are driven by push motivations and opportunity entrepreneurs by pull motivations** (Bhola et al., 2006).

The distinction between necessity and opportunity entrepreneurship is becoming increasingly important in entrepreneurship research (Verheul et al., 2010). Previous empirical research has shown that necessity and opportunity entrepreneurs differ both in terms of their socio-economic characteristics and of their entrepreneurial behavior (e.g. Verheul et al., 2010; Block & Sandner, 2009; Caliendo & Kritikos, 2009; Hechavarria & Reynolds, 2009; McMullen et al. 2008, Hessels et al. 2008; Morris et al. 2006; Hughes, 2006). As a result, necessity and opportunity entrepreneurs have distinct impacts on the post-creation characteristics of the firm they create. Even though these studies allow us to better understand the effects of the circumstances that lead an individual to create a firm, we believe that these results should be interpreted carefully.

The methodology used in these studies to classify necessity entrepreneurs versus opportunity entrepreneurs is often too simplistic. When authors classify entrepreneurs in terms of necessity or opportunity, they implicitly work on the premise that an individual is

either the one or the other. Yet, we are still far from having proven that the frontier between necessity and opportunity motivations is so neatly drawn (Solymossy, 1997). In fact, recent studies emphasize the possibility that an individual could be simultaneously driven by necessity and opportunity motivations (Williams & Williams, 2011; Caliendo & Kritikos, 2010; Block & Sandner, 2009). Moreover, as necessity and opportunity motivations depend on the circumstances that the individual faces before creation, some necessity and opportunity motivations could, in fact, be the contrary for some individuals (Hughes, 2003).

To avoid an overly rigid classification of the two types of entrepreneurs based on their motivations, a finer analysis should be conducted to determine whether or not necessity and opportunity entrepreneurs are heterogeneous groups of individuals. Moreover, research could analyze if there are, or not, different sub-profiles of necessity and/or opportunity entrepreneurs.

However, answering this question does not suffice. It is also important for research to analyze more in-depth the creation process implemented by these different profiles of entrepreneurs. Such an approach seems relevant for several reasons. Public policies for necessity-driven entrepreneurs should be different from those for opportunistic entrepreneurs (Bhola et al., 2006). Therefore, it is important both for the scientific and the political debates to better understand the role that motivations can play at the start-up phase in order to improve and/or develop adequate political measures in regard

of the creator's profile. The firm creation process is an important part of both the firm's foundation and its further development and success (Burke et al., 2010; Lichtenstein et al., 2007; Delmar & Shane, 2003).

An individual's behavior is often the result of individual motivations (Carsrud & Brännback, 2011; Liao et al., 2001). Shane et al. (2003) and Korunka et al. (2003) emphasized that motivations play an important role in the entrepreneurial process. These authors argue that, as individuals differ in terms of motivations, these differences could influence the way in which they behave during the entrepreneurial process. According to Gabrielsson & Politis (2009), individual motivations have an impact on his/her decision-making process and on his/her reaction. If we know that necessity and opportunity motivations influence the firm's post-creation development in terms of growth, innovation and success, our knowledge about the impact of necessity and opportunity motivations on the firm's creation process is (almost) inexistent. Rodriguez & Santos (2009) stress that the firm creation process comprises two different stages: the conception stage, also known as precipitating events, and the gestation stage. The precipitating events that we interpret as related to the necessity or opportunity motivations in the sense of Shapero & Sokol (1982) could have an impact on the activities undertaken by entrepreneurs during the creation process (Shane et al., 2003; Guzman & Santos, 2001; Kuratko et al., 1997). Due to the influence of the creation process on the firm's success and to the impact of individual motivations on the entrepreneurial behavior, it seems relevant that research on necessity

and opportunity entrepreneurship explores the link between the individual motivations and the creation process.

OUTLINE

This dissertation consists of four essays: one theoretical essay and three empirical essays.

The first essay offers a review of the literature devoted to necessity and opportunity entrepreneurship, which mainly consists of empirical studies. As the push-pull theory underlies the concept of necessity and opportunity entrepreneurship, we start by presenting the theoretical origins and the main empirical results related to the push-pull theory. After that, we present the empirical results related to the study of necessity and opportunity entrepreneurship, both in terms of the entrepreneurs' socio-economic characteristics and of the firm's characteristics developed by the two profiles of entrepreneurs. Next, we discuss the literature and analyze three main limitations of the methodology used in past researches. In order to do so, we use the *entrepreneurial event theory* (Shapero, 1984), which is the genesis of the push-pull theory. More precisely, we show that empirical studies on necessity and opportunity entrepreneurship do not take three aspects of Shapero's theory into account (1) the multiple significations of the same entrepreneurial event, (2) the mix (in terms of necessity and opportunity motivations) of the entrepreneurial event and (3) the plurality of necessity and opportunity motivations. Based on our discussion, we propose three research avenues introducing our three

empirical essays. The first research avenue is based on our literature's discussion and the two others are based on the gaps that we identified in the literature.

The second essay focuses on the impact of the creator's socio-economic characteristics on his/her necessity-opportunity positioning. The aim of this essay is two-fold. On the one hand, we examine whether it is possible to classify a new venture creation in terms of necessity and/or opportunity. On the other hand, we shed light on the articulations between the entrepreneur's socio-economic characteristics and the alignment of his/her project with opportunity and/or necessity dynamics. We confirm that impact of the individual's socio-economic characteristics in a necessity-opportunity framework should not be limited to this strict dichotomy, as it has generally been the case in past research. Indeed, we demonstrate that there are different necessity and opportunity entrepreneurial dynamics and that necessity and opportunity dynamics can combine within the same individual. The analysis of the impact of the founder's socio-economic characteristics on his/her propensity to be driven by necessity and/or opportunity dynamics, points out that considering an individual as exclusively opportunistic or necessity-driven could be haphazard.

The third and fourth essays analyze the impact of necessity and opportunity motivations on two aspects of the firm creation process. The third essay examines whether or not the necessity and/or the opportunity motivations can have an impact on the choice of the economic sector in which a business is started. As recent literature emphasizes, necessity entrepreneurs are more present, for example, in

the hotel and restaurant or retail sectors in comparison to opportunity entrepreneurs who are more often present in the financial or industry sectors. Despite this fact, we do not know whether these dissimilarities are due to the necessity and opportunity motivations. The fact that necessity entrepreneurs have a lower reservation wage, have lower human and financial capitals and/or are more motivated by economic survival can drive them to start a business in a sector with low profitability – but also with a higher failure rates. In this essay, we demonstrate that both the necessity and opportunity motivations have a significant impact on the sector choice. However, when we take the influence of the creator's socio-economics characteristics into account, it seems that some sectors are more opportunity-driven that others. This essay also shows that a same motivation can have two interpretations – a necessity or an opportunity interpretation – depending the contextual situation of the creator.

The fourth essay focuses on the differences between necessity and opportunity entrepreneurs in terms of the gestation activities, i.e. the activities undertaken by nascent entrepreneurs during the organization's creation process. We argue that the differences between necessity and opportunity entrepreneurs in terms of the firm development (post-creation) and success can result from dissimilarities in terms of the gestation activities. Our theoretical argument is based on the differences between the two profiles of entrepreneurs in terms of the entrepreneurial opportunity costs and of their willingness to adopt a proactive behavior in terms of the gestation activities due to the nature of the motivation underlying the

creation. In this essay, we demonstrate that entrepreneurs significantly differ from one another in terms of the gestation activities and that there are different subgroups of necessity and/or opportunity entrepreneurs. These findings clearly highlight that the necessity-opportunity dichotomy does not correspond to the reality and suggest that policy measures need to be adapted to the entrepreneur's profile.

REFERENCES

Audretsch, D. (2003), Entrepreneurship A Survey of the Literature. Enterprise Papers n°14, Enterprise Directorate-General European Commission.

Bhola, R., Verheul, I., Thurik, R. & Grilo, I. (2006), Explaining engagement levels of opportunity and necessity entrepreneurs, EIM Business and Policy Research, H200610.

Block, J. & Sandner, P. (2009), Necessity and Opportunity Entrepreneurs and Their Duration in Self-employment: Evidence from German Micro Data, *Journal of Industry, Competition and Trade*, 9(2), p. 117-137.

Burke, A., Fraser, S. & Greene, F.J. (2010), The Multiple Effects of Business Planning on New Venture Performance, *Journal of Management Studies*, 47(3), p.391-415.

Caliendo, M. & Kritikos, A.S. (2010), Start-ups by the unemployed: characteristics, survival and direct employment effects, *Small Business Economics*, 35(1), p.71-92.

Carsrud, A. & Brännback, M. (2011), Entrepreneurial Motivations : What Do We Still Need to Know ?, *Journal of Small Business Management*, 49(1), p.9-26.

Delmar, F. & Shane, S. (2003), Does Business Planning Facilitate the Development of New Ventures?, *Strategic Management Journal*, 24(12), p.1165-1185.

Gabrielsson, J. & Politis, D. (2009), Career motives and entrepreneurial decision-making: examining preferences for causal and effectual logics in the early stage of new ventures, *Small Business Economics*, DOI 10.1007/s11187-009-9217-3.

Guzman, J. & Santos, F.J. (2001), The Booster function and the entrepreneurial quality: an application to the province of Seville, *Entrepreneurship & Regional Development,* vol.13 p.211-228.

Harrison, R.T. & Hart, M. (1983), Factors influencing new business formation: a case study of Northern Ireland, *Environment and Planning*, 15(10), p.1395-1412.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity entrepreneurs, *International Entrepreneurship and Management Journal*, 5(4), p.417-437.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, 31(3), p.323-339.

Hughes, K.D. (2006), Exploring Motivation and Success Amongst Canadian Women Entrepreneurs, *Journal of Small Business and Entrepreneurship*, 19(2), p.107-120.

Hughes, K.D. (2003), Pushed or Pulled? Women's Entry into Self-Employment and Small Business Ownership, *Gender, Work and Organization*, 10(4), p.433-454.

Knight, F. (1921), Risk, Uncertainty, and Profit, Boston: Houghton Mifflin Company.

Koruntka, C., Frank, H., Lueger, M. & Mugler, J. (2003), The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process-A Configurational Approach, *Entrepreneurship Theory and Practice*, 28(1), p.23-42.

Kuratko, D.F., Hornsby, J.S. & Naffziger, D.W. (1997), An Examination of Owner's Goals in Sustaining Entrepreneurship, *Journal of Small Business Management*, vol.35(1), p.24-33.

Liao, J.J., Welsch, H. & Pistrui, D. (2001), Environmental and individual determinants of entrepreneurial growth: an empirical examination, *Journal of Enterprising Culture*, vol.9(3), p.253-272.

Lichtensein, B.B., Carter, N.M., Doley, K.J. & Gartner W.B. (2007), Complexity dynamics of nascent entrepreneurship, *Journal of Business Venturing*, vol.22(2), p.236-261.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, 32(5), p. 875-895.

Morris, M.H., Miyasaki, N.N., Watters, C.E. & Coombes, S.M. (2006), The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs Ownership, *Journal of Small business Management*, 44(2), p.221-244.

Reynolds, P.D. (1997). Who Starts New Firms? – Preliminary Explorations of Firms-in-Gestation, *Small Business Economics*, 9(5), p.449-462.

Reynolds, P.D., Camp, S.M., Bygrave, W.D., Autio, E. & Hay, M. (2002), GEM Global Entrepreneurship Report, 2001 Summary Report, Babson college, p. 1-126.

Rodriguez, M.J. & Santos, F.J. (2009), Women nascent entrepreneurs and social capital in the process of firm creation, *International Entrepreneurship and Management Journal*, 5(1), p.45-64.

Schumpeter, J.A. (1934), *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.

Shane, S., Locke, E.A. & Collins, C.J. (2003), Entrepreneurial motivation in Finland, *Human Resource Management Review*, 13(2), p.257-279.

Shapero, A. & Sokol, L. (1982), The social dimensions of entrepreneurship, In Kent, C., Sexton, D. & Vesper, K. (eds). *The Encyclopedia of Entrepeneurship* (pp. 72-90). Englewood Cliffs, NJ.

Shapero, A. (1984), The entrepreneurial event, Kent, C.A. (ed.) in *The Environment for Entrepreneurship*, Lexington, Mass: Lexington Books, D.C. Heath and Company, p.21-40

Solymossy, E. (1997), Push/Pull motivations: does it matter in venture performance?, *Frontiers*
of Entrepreneurship Research, Babson College, available at:
http://www.babson.edu/entrep/fer/papers97/solomo/soly1.htm

Staber, U. & Bögenhold, D. (1993), Self-employment: a study of seventeen OECD countries, *Industrial Relations Journal*, 24(2), p.126-137.

Storey, D. (1994), *Understanding the Small Business Sector*, Routledge, London.

Verheul, I., Thurik, R., Hessels, J. & van der Zwan, P. (2010), Factors Influencing the Entrepreneurial Engagement of Opportunity and Necessity Entrepreneurs, EIM Research Reports, H201011, march 2010, p. 1-24.

Williams, N. & Williams, C.C. (2011), Beyond necessity versus opportunity entrepreneurship: some lessons from English deprived

urban neighbourhoods, *International Entrepreneurship and Management Journal*, DOI 10.1007/s11365-011-0190-3

Necessity and Opportunity Entrepreneurship: State of the Art and Research Avenues[*]

ABSTRACT

In the past ten years, concepts of opportunity and necessity entrepreneurship have garnered unanimous support among entrepreneurial researchers, especially for their ability to represent, in a simple and coherent manner, both general entrepreneur profiles. However, it would seem that the dichotomous approach of the necessity –opportunity profiles as used in empirical studies is not without question. Recently, certain studies have highlighted the possibility that a person may be motivated simultaneously by necessity and opportunity motivations. In this essay, after recalling the foundation of entrepreneurial event theory and the origin of the push-pull model, we propose a new conceptual model in regards to the necessity and opportunity entrepreneurship that offers a better interpretation of the entrepreneurial event as well as examines the supposedly dichotomous character of necessity and opportunity entrepreneurship. This model enables us to take into account three fundamental elements of the Shapero model. These three elements, absent from empirical studies to this day, are (1) the multiple meanings of the entrepreneurial event, (2) the entrepreneurial event mix, and (3) the plurality of necessity-opportunity motivations. We

[*] Joint work with Frank Janssen

conclude by highlighting the importance of improving the analytical framework used to study necessity and opportunity entrepreneurship and we will propose avenues for future studies.

INTRODUCTION

Entrepreneurial opportunity recognition unfolds as a cognitive process experienced by a specific individual, and so, reflects life experiences (past experiences and history) unique to this individual (Santos et al., 2010). In cases of individual actions, motivations and cognition (such as knowledge) always act together (Locke & Baum, 2007). Gartner et al. (1992) propose that entrepreneurial motivations are individual forces that lead creators towards and through the creation process. Today, and in spite of the complexity of individual motivations, it would seem that concepts of opportunity and necessity entrepreneurship garner unanimous support from researchers in entrepreneurship when it comes to classifying, in a simple and coherent manner, two general profiles of business creators based on their motivation to create (Williams & Williams, 2011). Opportunity entrepreneurship is often linked to first-order entrepreneurship, while necessity entrepreneurship is linked to the second-order entrepreneurship (Henrekson, 2004).

The concepts of necessity and opportunity entrepreneurship originated in the early 80s with the entrepreneurial event model developed by Shapero (1984). He proposes that the individual decision to start a new venture is the fruit of an interaction between a positive or negative triggering event (translated into push and pull motivations) and the individual's situation (namely in regards to socio-economic characteristics). This model lead, in the 80s, to two different patterns that explain new venture creation: on the one hand, push motivations,

and on the other, pull motivations, also known as the push-pull theory (Kirwood, 2009). This theory has been transformed into the concepts of necessity entrepreneurship (push motivations) and opportunity entrepreneurship (pull motivations). The systematic use of these two concepts in the Global Entrepreneurship Monitor (GEM) reports since 2001 (Reynolds et al., 2002) is surely a consequence of the popularity these concepts. Since then, a certain number of studies have shown that an individual's socio-economic characteristics are different whether one is a necessity or opportunity entrepreneur and that these two profiles impact the characteristics of the venture to be developed (Williams & Williams, 2011; Block & Sandner, 2009; McMullen et al., 2008; Van Stel et al., 2007). These studies increase our understanding of the differences that may exist between the two entrepreneur profiles, as well as the effect of these profiles on the venture's development (in regards to growth, exports, job creation, or innovation). We believe, however, that these results must be interpreted with prudence.

In this article, after recalling the foundation of entrepreneurial event theory and the origin of the push-pull model, we will present, each in turn, the main empirical results of studies on the push-pull model as well as necessity and opportunity entrepreneurship using an individual approach. This literature review will set the table to discuss the empirical approach of the push-pull theory as used in studies over the last ten years. After presenting the limits of the approach used, we propose three research propositions related to the interpretation of the entrepreneurial event as well as the supposedly dichotomous character

of necessity and opportunity entrepreneurship. We will conclude by highlighting the importance of improving the analytical framework used to study necessity and opportunity entrepreneurship and propose avenues for future studies.

FROM PUSH-PULL TO NECESSITY-OPPORTUNITY: STATE OF THE ART

Traditionally, reasons to start a new venture have been considered, up until recently, as linked to purely economic objectives (Carsrud & Brännback, 2011). Economic theory explains Small and Medium sized Enterprise (SME) creation through the individual's behavior in the labour market (Knight, 1921). This theory questions the impact the labour market, as well as an economic agent's preferences, have on this agent's choice to either pursue wage employment or self-employment and on an unemployed worker, trapped in unemployment, to continue (or not) to actively look for salaried work or to become self-employed. For Knight (1921), an individual is confronted by three possibilities in regards to professional career. To determine the optimal choice, an individual compares anticipated returns in each of the available options: wage employment, self-employed, and unemployment. Individuals become self-employed when they perceive that the present value of future returns in self-employment exceed other alternatives (Staber & Bögenhold, 1993). For Baumol (1990) and Campbell (1992), individuals create new ventures because they are motivated by economic gains that may be realised through the entrepreneurial activity. According to Baumol's

approach, individuals will decide to become entrepreneurs if their utility, in terms of value, power, and prestige, is maximized through this status compared to the employee status. This explanation of the decision to create, at the individual level, is also defended by Van Praag & Cramer (2001). For Eisenhauer (1995), the decision to create will be the result of both the utility in terms of expected gain and the difference in utility in terms of working conditions between the employee and self-employed statuses. If we limit ourselves to the purely economic approach to understand the entrepreneurial decision, we notice that this decision is solely motivated by expected (often) financial gain linked to the future profitability of the entrepreneurial activity, therefore by the quest to maximize profit. However, explaining new venture creation can not rely solely on the purely economic concept of maximizing profit of expected utility. In the same vein, Vivarelli (2004) highlights that Schumpeter (1934), Knight (1921) and Oxenfeldt (1943) also stressed the importance of the creator's subjective characteristics. These include the individual's personal characteristics as well as personal motivations towards entrepreneurship. Shane (2009), on the other hand, proposes that a majority of individuals do not enter the entrepreneurial adventure for growth, or value creation[1]. The motivations that may explain individual decisions to launch an entrepreneurial activity are many and must be put into the contexts of past experiences, personal dispositions, available information, etc. (Shepherd et al., 2007; Shane, 2000; Gaglio & Katz, 2001).

[1] A group of elements which are, according to us, linked to the creation under constraint of profit maximization.

The idea that the decision to start a new venture cannot be explained solely by maximizing expected profit, as well as the fact that there may exist different motivations or reasons behind an individual's decision to create, was developed in the early 80s by Shapero in his entrepreneurial event theory. For Shapero (1975), the individual decision to start a business is the result of a change, a personal displacement resulting from a negative or positive event. This negative or positive event gives way to creation motivations of a push (negative circumstances) or pull (positive circumstances) nature. The creation process starts with the situation in which the individual finds him/herself and the entrepreneurial act must be considered as the product of the interaction between a specific situation and a specific individual (Shapero, 1984). Push and pull motivations are thus the translation of the creation's triggering event (Kirkwood & Campbell-Hunt, 2007; Herron & Sapienza, 1992). Push (pull) motivations are the result of negative (positive) emotions (Kumar, 2007). For Gilad & Levine (1986) the push-pull theory offers a relevant theoretical framework to explain the entrepreneurial offer. Today, the idea that individuals create according to push or pull motivations is widely accepted in the scientific community (Carsrud & Brännback, 2011; Kobeissi, 2010; Kirkwood, 2009; Schjoedt & Shaver, 2007; Littunen & Virtanen, 2006; Shepherd & DeTienne, 2005; Wagner & Sternberg, 2004; Mueller & Thomas, 2000).

Origin of push-pull theory

Based on studies by Oxenfeldt (1943), Johnson & Darnell (1976) tested an analytical framework for push-pull factors (Harrison & Hart,

1983). Johnson & Darnell (1976) started with the principle that new venture creation is the result of the displacement of salaried or unemployed individuals towards a status of self-employed workers. Such a decision is taken when net monetary, (and non monetary) benefits, that is, utility of the self-employed status as perceived by these individuals, exceeds benefits obtained by maintaining the current salaried or unemployed status. This is consistent with the Knight's (1921) findings. According to Johnson & Darnell (1976), the decision's triggering event can subsequently be interpreted as a result of push or pull forces. These forces may be illustrated as follows:

Given P_s as the utility of opting for self-employment and P_e as the utility of salaried work (or unemployment). I_t and I_{t+1} inform us on the status of the individual at time t and $t+1$. A decrease of P_e, while P_s maintained as constant, will lead the individual towards a status of independent, as shown by the horizontal move of I_t towards I_{t+1} in Figure 1. In this case, $P_e > P_{et+1}$ and $P_s = P_{st+1}$, we will speak of push effect as a deterministic factors of new venture creation.

"Insert Figure 1 Here"

Figure 2 indicates that the decision to become self-employed will be dictated by a positive variation of P_s, while P_e remains constant. In this case, the choice is dictated by the pull effect for $P_{st} < P_{st+1}$ and $P_{et} = P_{et+1}$. The 45° line represents the case where P_s or P_e does not vary, P_e or P_s being constant. In this case, the individual's utility differential between both periods remains constant and the individual has the same status at t and $t+1$ (Harrison & Hart, 1983). It is possible that P_e

and P_s vary together, in which case the individual's situation will remain unchanged between both periods if both variations are of identical sign and amplitude.

"Insert Figure 2 Here"

In Johnson & Darnell's (1976) study, the push factor is relative to the threat to job security an individual feels and, consequently, to the fear of being unemployed or the fear of an unemployed worker, because of employment shortage, to remain unemployed. Harisson & Hart (1983) explain the push effect "fear of being unemployed" as follows: When unemployment increases, fear for job security and stability increases in employed individuals. The desire to affirm one's independence and control one's destiny increases. The choice of becoming self-employed in response to the threat becomes predominant in a recession and the number of new ventures will increase if the utility of the self-employed status does not vary. On the other hand, the pull factor is the result of a favourable perception of the self-employed status, if the utility of the salaried or unemployed status does not vary. This feeling towards self-employed work is the result of the individual's economic perceptions. For example, low unemployment rates that stimulate demand for goods and services. In the beginning, push-pull theory referred solely to unemployment or to higher economic utility of independent status. Although the concept of expected utility (maximizing profit) is still very present in Johnson & Darnell's (1976) model, these authors also introduce the notion of the

fear motivation (in the macroeconomic context) to explain the decision whether or not to launch an entrepreneurial activity.

Since Johnson & Darnell's (1976) studies, the push-pull theoretic framework has highlighted two types of entrepreneurship: push-type entrepreneurship and pull-type entrepreneurship (Amit & Muller, 1995). Studies following the study by Johnson & Darnell (1976) also identified motivations linked to these two types of entrepreneurship.

Push-type motivations and pull-type motivations in the literature[2]

Push-type entrepreneurship occurs when the entrepreneurial decision is a defensive reaction to the labour market and/or to the personal situations of a particular individual. For example, we may talk about push entrepreneurship when the decision to create is motivated by factors such as unemployment, lack of alternatives to meet needs (individual or family), need for professional flexibility, divorce, job insecurity, professional dissatisfaction, glass-ceiling, or immigration (Carsrud & Brännback, 2010; Kobeissi, 2010; Kirkwood, 2009; Kirkwood & Campbell-Hunt, 2007; Kumar, 2007; Noorderhaven et al., 2004; Ritsilä & Tervo, 2002; Mallon & Cohen, 2001; Burke, 1997; Mason, 1989; Evans & Leighton, 1989; Gilad & Levine, 1986; Brockhaus, 1980). Pull entrepreneurship, on the other hand, is driven by a positive exercise on the individual's part. In this case, the entrepreneurial act meets a strong professional aspiration, constructive or aggressive, a desire for independence, an opportunity, the search for profit, or the desire to be one's own boss (Carsrud & Brännback,

[2] In our dissertation, we do not discuss the push-pull literature related to the gender difference.

2011; Caliendo & Kritikos, 2010; Kobeissi, 2010; Kirkwood, 2009; Kirkwood & Campbell-Hunt, 2007; Kumar, 2007; Mallon & Cohen, 2001; Amit & Muller, 1995; Harrison & Hart, 1983). These studies all share the common characteristic of going beyond a purely economic explanation of new venture creation in the sense that they demonstrate that profit maximization is not the only motivation to create. Entrepreneurial activities are thus not all fuelled by identical motivations (Acs, 2006).

Although the study of the push-pull model developed in the 80s helped identify, to a certain extent, the various motivations an individual may have in launching a new venture, it was only twenty years later with studies by the Global Entrepreneurship Monitor (GEM) that researchers began questioning whether differences in socio-economic characteristics existed between individuals with push or pull motivations. Since then, especially thanks to studies by Reynolds et al. (2002), the distinction between push and pull motivations appears only implicitly in studies on decision factors in entrepreneurial creation. This distinction has slowly given way to concepts of necessity entrepreneurship (push) and opportunity entrepreneurship (pull).

Necessity and opportunity

In the last decade, the distinction between necessity and opportunity entrepreneurship has become an important area in entrepreneurial research (Verheul et al., 2010). Vivarelli (2004), based on the GEM 2001 report, states that although most entrepreneurs are opportunity

driven, necessity entrepreneurs still represent a non-negligible share of potential and current creators. Although these two types of entrepreneurship are very present in today's entrepreneurial literature, few studies have examined them according to entrepreneurs' socio-demographic characteristics (such as family environment, education, age, gender, or employment status) (Bhola et al., 2006). One may make the same statement in relation to the influence these motivations may play on a creator's entrepreneurial behaviour (intentions towards growth, innovation, job creation, exports, or sector choice) (Hessels et al., 2008).

The following section presents the main findings of recent studies having examined these two types of entrepreneurship using these particular angles.

Main characteristics of necessity and opportunity entrepreneurs

Concerning age, Block & Sandner (2009), Wagner (2005), and Reynolds et al. (2002) demonstrated that opportunity entrepreneurs are older than necessity entrepreneurs. Conversely, based on the 2002-2004 GEM data for Canada, Robichaud et al. (2006)[3] associate youth with opportunity entrepreneurship. We also find this link in studies by Bhola et al. (2006), and Block & Wagner (2006). However, for Bergmann & Sternberg (2007), age has no impact on the probability of creating by necessity. Studies by Bhola et al. (2006), Djankov et al. (2006), and Wagner (2005) show that *family*

[3] This study focuses on individuals that are in the start-up phase.

environment may have an impact on the entrepreneur's profile. Having parents who are entrepreneurs seems to predispose an individual to create by opportunity rather than necessity. However, Block & Wagner (2006) and Morales & Roig (2005) did not find a difference between the two types of entrepreneurship when factoring in family environment. For Block & Wagner (2006), the creator's *education* does not vary from one type of entrepreneur to the other. Conversely, Bergmann & Sternberg (2007), Bhola et al. (2006) and Wagner (2005), find that opportunity entrepreneurs present a higher level of education than necessity entrepreneurs. Block & Sandner (2009) observe that necessity entrepreneurs have a lower level of education in the field in which they start their venture. As for *gender*, both Bergmann & Sternberg (2007) and Wagner (2005) state that the probability of creating by opportunity is significantly higher among men. However, Block & Sandner (2009) and Block & Wagner (2006) observe no link between these factors. Finally, *unemployment* seems to be much more present in necessity entrepreneurs, as demonstrated by Block & Wagner (2006) and Robichaud et al. (2006). However, findings by Wagner (2005) show that the unemployment variable positively influences both the probability of creating by opportunity or by necessity, even though this factor's influence is more important for necessity entrepreneurs.

Innovation, growth, employment, exports

McMullen et al. (2008) show that opportunity entrepreneurs focus on innovation, growth, and exports more than necessity entrepreneurs do. As for Hessels et al. (2008), they state that opportunity entrepreneurs have exports in mind more than necessity entrepreneurs do.

Hechavarria & Reynolds (2009), and Morris et al. (2006) also observe a difference in growth between these two types of entrepreneurship. In terms of job creation, opportunity entrepreneurs have greater ambitions than necessity entrepreneurs (Reynolds et al., 2002). Other studies have shown that ventures created by opportunity entrepreneurs are more profitable than those created by necessity entrepreneurs (Block & Sandner, 2009; Block & Wagner, 2007). The latter practice "imitative ventures" and their venture's profitability is lower (McMullen et al., 2008).

Sectoral aspiration

It would seem that a difference in sectors exists between these two types of entrepreneurs. Reynolds et al. (2002) show that the percentage of necessity creators is higher in sectors such as agriculture, fishing, and hotel and restaurant, while opportunity creators are more present in the automotive sector and business services. These differences in sectors are also highlighted by Hughes (2006). This author suggests that necessity entrepreneurs, compared to opportunity entrepreneurs, are more present in the trade sector. Caliendo & Kritikos (2009), conclude that necessity entrepreneurs are more common in the trade sector while opportunity entrepreneurs are more likely to be found in the technology sector. For Block & Wagner (2006), since necessity entrepreneurs have a lower reservation wage[4], they may decide to start a venture in sectors with lower revenues. Whatever the reservation wage one may ask, because of the survival aspect reflected by necessity venture creation, necessity entrepreneurs are not more preoccupied with short-term needs compared to real

[4] Salary for which an individual is ready to work.

market needs. This might explain why necessity entrepreneurship is found in sectors where there is no gap between supply and demand and where business creation is rather easy. This proposition is supported by Van Stel et al. (2007) who believe that necessity entrepreneurs, as opposed to opportunity entrepreneurs, do not develop an activity to meet a specific market need.

These results seem to show that an individual' socio-economic characteristics will differ depending on whether one is a necessity or opportunity entrepreneur. It also confirms that both profiles have an impact on the characteristics of the ensuing venture. However, these studies also present contradictory results that should be interpreted with prudence.

DISCUSSION OF THE LITERATURE AND RESEARCH PROPOSITIONS

As stated previously, scholars accept without question the postulate that an individual's decision to create is the result of a negative or positive triggering event that can be translated into push and pull motivations (Kirkwood, 2009). The main idea underlying the theory, that there exist two general types of motivations, is also our argument. However, although the basis of the push-pull theory is not open to criticism; its application may be brought into question. For example, is the dichotomous approach of the push-pull theory used in empirical studies justifiable? Should we always interpret a motivation in the same manner whether it is identified of a necessity or opportunity nature in the literature? Can necessity entrepreneurship be seen as

more than pre-creation unemployment status, as is often the case in the literature? We present and develop in the following section three main reasons to support our questions.

Multiple meanings of the entrepreneurial event

In most studies, the authors establish that, if an individual starts a business because of a motivation identified in the literature as push (pull), then this individual is automatically classified as a necessity (opportunity) entrepreneur. We contend that this methodology goes against Shapero's (1975) argument.

As proposed above, Shapero's entrepreneurial event theory (1975) is at the heart of push and pull motivations. One must note that studies on these motivations do not take into account an essential element of Shapero's theory: the multiple meanings a same entrepreneurial event may have, and consequently, the ensuing push or pull motivation. In fact, as stressed by Shane et al. (2003), entrepreneurs are distinct individuals and may respond in different ways to a similar event.

Shapero (1984) believes the creation process starts with the situation (positive or negative) in which the individual is and the entrepreneurial act must be considered as a product of the interaction between a specific situation and a specific individual. He argues that these specific situations are diverse and a particular situation will provoke different responses according to the type of individual facing the situation. In fact, whether an individual perceives an event as negative or positive, and the way the individual responds to it is the product of that individual's past, present, environment, family,

education, and life experience. When taking the elements developed by Shapero into account, one can only question the legitimacy of the strict necessity-opportunity dichotomy (categorizing an individual on the sole basis of confessed motivations in creating the new venture) as used in studies conducted in the past ten years. Similarly, some studies have recently postulated that a motivation initially identified by the literature as push or pull could be, in the end, interpreted differently according to the individual's situation (Kirkwood, 2009; Schjoedt & Shaver, 2007; Kirkwood & Campbell-Hunt, 2007; Shepherd & De Tienne, 2005, Clark & Drinkwater, 2000).

In fact, one may easily predict that certain individuals originally identified as "necessity" entrepreneurs based on their motivation may finally decide to create their business for opportunity reasons. For example, one may imagine that an individual may perceive unemployment as an opportunity to launch a new venture. In this case, this individual may use this forced period of inactivity as an opportunity to launch a latent entrepreneurial project which this individual was unable (unwilling) to start before because of lack of time due to employment. However, such an individual will more likely be considered as a necessity entrepreneur based on his/her confessed motivation: the unemployment. In addition, an employee suddenly faced with unemployment may, thanks to the experience acquired through professional activities, have identified a market niche. As stressed by Krueger & Brazeal (1994), a negative event can very well be the triggering event that will allow a person to give life to this person's entrepreneurial potential. The same argument may be

developed for entrepreneurs identified as “opportunistic”. For example, one may suppose that creating for profit (a motivation considered as opportunity-type in the literature) may reflect necessity entrepreneurship if, for the individual, profit is synonymous with the ability to meet one’s or one’s family’s needs. In which case, it would be more relevant to speak of necessity entrepreneurship with a focus on survival rather than opportunity entrepreneurship.

These examples show that the same motivation may have different meanings according to a person’s characteristics at the time of the triggering event. It is thus important that the study and interpretation of motivations take into account the individual’s characteristics in order to avoid classifying entrepreneurs too quickly into necessity or opportunity entrepreneurship.

The mix of the entrepreneurial event

Alongside the multiple meanings of the same entrepreneurial event, we may also question ourselves on the mutually exclusive nature of both entrepreneurial profiles. This approach postulates that both types of motivations can not be found simultaneously in the same individual. This being the case, new venture creation is a complex process which involves a multitude of motivations (Birley & Westhead, 1994). In addition, it has not been established that the line between opportunity and necessity is as clear these studies suggest. A number of recent publications (Hughes, 2003; Mallon & Cohen, 2001; Clark & Drinkwater, 2000; Borooah & Hart, 1999) support this proposition arguing that the simplistic approach, even stereotyped, of the necessity-opportunity dichotomy may be questionable.

In fact, it is plausible that the simplistic necessity-opportunity categories do not reflect reality because entrepreneurial motivations are more complex than this dichotomy (Kirkwood & Campbell-Hunt, 2007). Many authors believe that necessity and opportunity motivations may be present simultaneously in the same person (Arias & Penas, 2010; Block et al., 2010; Caliendo & Kritikos, 2010; Verheul et al., 2010; Block & Koellinger, 2009; Kirkwood, 2009; Williams, 2009; Kumar, 2007; Bhola et al., 2006; Block & Sandner, 2006).

The ensuing question is thus to discover if necessity and opportunity entrepreneurs really do form two homogeneous groups. Could we not also ask if sub-categories exist among these two groups? Sarasvathy (2004) stresses, for example, that there might exist different types of necessity entrepreneurs.

Plurality of necessity-opportunity motivations

Despite the fact that the literature has identified many types of necessity and opportunity motivations (see above), a number of studies still link necessity entrepreneurship to the sole "lack of employment" motivation and opportunity entrepreneurship to the "profit/opportunity" motivation. Kautonen & Palmroos (2010), for example, stress that necessity entrepreneurship is generally linked to the sole "unemployment" motivation. It is even more surprising when we know that studies on the impact of unemployment as a triggering event for new venture creation have given contradictory results, where the variable may have a sometimes positive, sometimes negative result on new venture creation (Thurik et al., 2008).

Other motivational factors must be taken into account. Uhlaner & Thurik (2007) consider venture creation as opportunity driven when the individual sees it as a source of profit, material or not, and necessity entrepreneurship when it is the result of a conflict between the creator's current situation and desired one. Necessity or opportunity entrepreneurship cannot be brought down to only two factors: unemployment and monetary profit. However, one must note that studies are too often limited to these two aspects. This raises the question of the relevance of using only one dimension, in this case the non-employment status, to categorise an individual in terms of necessity or opportunity. This is not without recalling, as we have previously stated, the danger of generalising the interpretation of an event by different individuals, without taking into account the characteristics and the individual's specific situation. Finally, as stressed by Shane et al. (2003), it is essential that researchers further clarify the measures used to identify creation motivations.

Opportunity and necessity: Research propositions

As stated previously, the approach used in studies on necessity and opportunity motivations raises a certain number of questions.

Therefore, it seems essential to us to use an approach that enables us to, on the one hand, interpret the entrepreneurial event with more finesse and, on the other hand, verify the supposedly dichotomous nature of necessity and opportunity entrepreneurship. To do so, the entrepreneurial event must be analysed using the individual as a starting point (that is this individual's characteristics) and the

particular situation faced. These characteristics are no independent to certain elements which determine the creator's position in the labour market and the resources objectively available and subjectively exploitable. Not taking these elements into account makes ensuring the intelligibility of different entrepreneurial patterns difficult. In this sense, we support Shapero's (1984) argument that an entrepreneurial event must be seen as the dependant variable and the individual as the independent variable.

In the following section, we propose three research propositions that makes room for such an approach.

Research propositions

The identification of an entrepreneurial opportunity unfolds as a cognitive process, experienced by a specific individual, and therefore reflecting a life path (history and past experiences) unique to this individual (Santos et al., 2010). When considering individual actions, motivations and cognition (such as knowledge) always act together (Locke & Baum, 2007). This is in line with studies by Baron (2004) for whom the entrepreneurial act must be seen as a cognitive process and Gartner et al. (1992) who argue that entrepreneurial motivations are individual forces that lead creators towards and through the creation process. The individual decision of becoming an entrepreneur is the result of a complex cognitive process (Shaver & Scott, 1991).

According to Hisrich & Peters (1998), the act of creation supposes a decisional process about a lifestyle change. It is influenced by factors that make this change *desirable*, such as cultural models, and others

that make it *possible*, such as skills and available resources. The decision to change may be rooted into two elements: disruptive (necessity) elements such as school failure, bankruptcy, retirement, loss of employment, divorce, etc., or opportunities available by the work environment. Katz (1992) and Vesper (1980) both share this point of view on push-pull motivations. The sociological vision of the triggering event supported by Hisrisch & Peters (1998) reminds us of Shapero's (1984) approach for whom creation may be the fruit of negative circumstances (ruptures) or positive circumstances (opportunities). Buenstorf (2009), considers necessity and opportunity as the triggering event of the creation and the entrepreneurial intention. The decision to change lifestyles will be encouraged by a positive perception of the change[5]. This perception will surely have more impact if it matches the individual's representational system as well as values and current cultural references in the individual's social environment.

In this perspective, the creator's socio-economic characteristics impact the way he or she enters into the opportunity or necessity paradigm. It influences modes of perceptions and translations of reality. Certain creation opportunities are perceived by certain individuals and not by others. An individual's interpretation of potentially disruptive situations or events, as defined by Hisrich & Peters (1998), will vary according to these characteristics which will lead to a split in strategies and positions on the opportunity-necessity axis. These different positions will translate into different types of necessity

[5] This lifestyle improvement anticipated by the individual following creation can be found in studies by Uhlaner & Thurik (2007) and Johnson & Darnell (1976).

and/or opportunity modalities. One may suppose that, for example, certain individuals will probably be mainly motivated by necessity or by opportunity reasons, etc. The term “mainly” echoes the number and varying importance of motivations (necessity or opportunity) that incite an individual to create. In fact, starting with the premise that two types of motivations may be present in the same individual, we add that both types of motivations may be present in a “non-balanced” way in an individual. In which case we would refer to creation mainly guided by necessity motivations or creation mainly guided by opportunity motivations.

Based on the discussion so far, we propose that:

- the move into venture creation is the fruit of a decision rooted into a rupture and/or an opportunity;
- the nature of the ruptures and opportunities are influenced by the objective situation of an individual (socioeconomic characteristics); as are the frequency and intensity of the ruptures and opportunities;
- since the way in which reality is translated and constructed is a socio-cultural production and is linked to the social characteristics of an individual and to life experience, the way an individual interacts with ruptures and opportunities is therefore sociologically contingent: the same necessity/opportunity may be invested with different meanings according to socio-economic characteristics;
- finally, these characteristics and trajectories influence the propensity to move into new venture creation and the

positioning of this creation in the necessity and/or opportunity paradigm.

Three propositions can be derived from these links.

Proposition 1: *Individuals who enter into an entrepreneurial process have faced, perceived, and invested a (many) necessity and/or opportunity situation(s) and position themselves at the time with more or less intensity in both types of creation.*

Proposition 2: *Situations that have lead individuals towards creation are of a very diverse nature and may be invested with multiple meanings, which implies that the opportunity and/or necessity model may take on many different forms.*

Proposition 3: *Since socio-economic characteristics influence not only the objective exposure to opportunity and necessity situations, but also their subjective perception, we may expect that a link exists between these characteristics and the positioning in relation to opportunity and necessity entrepreneurship, both in terms of intensity than modality*

CONCLUSION AND RESEARCH AVENUES

In the past decade, concepts of opportunity and necessity entrepreneurship garner unanimous support among entrepreneurial researchers, especially for their ability to represent in a simple and coherent manner both general entrepreneurial profiles. Studies on these two types of entrepreneurship have helped better identify socio-economic characteristics of both entrepreneur profiles as well as their influence on the evolution of the ensuing venture. However, it would seem that the dichotomous approach of the push-pull model, as used in empirical studies, is not without question. Recently, certain studies have highlighted the possibility that a person may be motivated simultaneously by necessity and opportunity motivations (Block & Sandner, 2009; Caliendo & Kritikos, 2010; Williams, 2008). In fact, the creation process is a complex phenomenon that involves different types of motivations (Birley & Westhead, 1994). In addition, the line between necessity and opportunity motivations is not as clear as it would seem (Solymossy, 1997). Today, this argument is supported by a number of authors (Arias & Penas, 2010; Bhola et al., 2006; Block & Sandner, 2006; Block et al., 2010; Block & Koellinger, 2009; Caliendo & Kritikos, 2010; Kirkwood, 2009; Verheul et al., 2010; Williams, 2009; Kumar, 2007). Some authors even conclude that the necessity-opportunity dichotomy is too simplistic and does not reflect reality (Kirkwood & Campbell-Hunt, 2007).

Based on empirical studies conducted to this day and on the entrepreneurial event theoretical model proposed by Shapero that

underlies the necessity and opportunity concepts, we propose to redefine the approach used in the past research related to the necessity and the opportunity entrepreneurship. In order to do so, we propose to take into account three fundamental elements of the Shapero model. These three elements, absent from empirical studies to this day, are (1) the multiple meanings of the entrepreneurial event, (2) the mix of the entrepreneurial event, and (3) the plurality of necessity-opportunity motivations. Based on these elements, we propose three research propositions.

As stated previously, certain studies have identified differences in socio-economic characteristics of necessity and opportunity entrepreneurs. Despite the interest of these studies, they have not examined the individual position according to creator characteristics. In fact, these studies are based on the premise that an individual is either necessity or opportunity driven. Researchers then analyse the characteristics belonging to each profile. In other words, creator characteristics are studied according to the already-chosen supposed belonging to one profile or the other. Regardless of the strict dichotomous nature of these studies, this approach is not very conclusive. If motivations are linked to the triggering event, their interpretation will depend on each individual's own characteristics (Shapero, 1984). In other words, it is the individual's situation and its influence on the perception of the triggering event that will determine the position, and not the triggering event itself. Therefore, it would seem to us more relevant to use a retroactive approach to better interpret all the complexity of a same entrepreneurial event, the

impact of an individual's situation when facing an entrepreneurial event, as well as the interpretation this individual makes and the ensuing position on the necessity-opportunity axis. Such retroactive approach can be beneficial for scientific debate.

Although a better interpretation of the entrepreneurial event is necessary to avoid classifying the creator too quickly, and consequently, to better identify the various creator profiles, it would also seem relevant that future studies on necessity and opportunity entrepreneurship study the creation process according to the various necessity and/or opportunity entrepreneur profiles. Better knowledge of the creator profile is not sufficient; we must also identify the pre-creation process in order to improve pre-creation policy supports. In fact, although it is established that entrepreneur motivations influence growth, job creation, exports, and investments, we do not know if these motivations influence sector choice and the pre-creation process. No study has addressed these types of entrepreneurship from this angle. Nevertheless, disparities exist among individuals when it comes to entrepreneurial success (Evans & Leigthon, 1990; Solymossy, 1997; Vivarelli, 2004; Vivarelli & Audretsch, 1998). A plausible argument enabling us to explain this fact would reside in the fact that, prior to creation, individuals are different when it comes to entrepreneurial motivations and social characteristics (Acs, 2006; Shane et al., 2003). In fact, as presented by Korunka et al. (2003), personal motivations influence both the entrepreneurial decision and the creation process itself. Different creation motivations therefore

probably involve dissimilarities in terms of entrepreneurial success and performance (Kobeissi, 2010).

Concerning sector choice, although Caliendo & Kritkos (2009); Hughes (2006) and Reynolds et al. (2002) observe, from a purely descriptive point of view, differences in sectors between the two types of entrepreneurship, these authors have not determined in a robust and significant way whether these differences may be dictated by the individual's creation motivations. For Shane et al. (2003), however, while motivations play a role in the entrepreneurial process and have an impact on the characteristics of the venture, they may also influence the creator's sector choice. One may suppose that an entrepreneur mainly guided in the creation process by necessity reasons, and so by economic dependence on the venture, will choose a sector in which start-up is quick and easy. For example, this entrepreneur would tend towards a sector where large start-up investments are not necessary, where access to the profession is not or very slightly restricted or regulated (low training), and/or where administrative measures for pre-start-up and start-up are open and fast. On the other hand, opportunity creators may chose, according to their main motivations, a sector more geared towards growth and innovation, requiring a long-term vision, where demand is high, and where competition (present and future) may be limited by costs and/or access conditions to the sector.

In parallel to the probable impact motivations have on sector choice, one may expect that motivations also play a significant role in the entrepreneurial creation process (Shane et al., 2003). In fact, at the

onset of the entrepreneurial process, motivations are a determining factor that acts as a catalyst in the process' development (Santos et al, 2010). For these authors, entrepreneurial motivations, in addition to being an important input in the entrepreneurial process, are also important in the decision phases for they systematically influence them. Rodriguez & Santos (2009), believe the venture creation process has two phases: the triggering event, and the gestation phase. Consequently, it would be interesting to determine if different necessity and/or opportunity entrepreneur profiles differ in terms of the gestation activities. As stated by Liao & Welsch (2008), it would be relevant to study to which extent the triggering event influences the gestation activities. In fact, differences in post-creation entrepreneurial behaviour between the two types of entrepreneurs could also be the result of disparities in the creation process (gestation activities), that is the activities conducted by the individual during the creation process (Carter et al., 1996). The gestation activities has an impact on job growth, the organisation's development, and the venture's success (Burke et al., 2010; Delmar & Shane, 2003). To this day, few studies have looked at the role motivations play in the various aspects of the entrepreneurial process. Within the necessity and opportunity entrepreneurship framework, this fact is even truer when it comes to the gestation activities. In fact, although certain studies have demonstrated that both types of entrepreneurship differ in the post-creation phase, our knowledge of the impact of necessity and opportunity motivations on pre-creation is quite limited, even absent.

In conclusion, we wish to restate that the study of entrepreneurial motivations constitutes an important element to better understand the creation process for it is these motivations that lead/guide the behaviour of the individual (Carsrud & Brännback, 2011; Farmer et al., 2009 ; Naffziger et al., 1994).

REFERENCES

Acs, Z. (2006), How Is Entrepreneurship Good for Economic Growth ?, *innovations*, 1(1), p. 97-107.

Alange, S. & Scheinberg, S. (1988), Swedish entrepreneurship in a cross-cultural perspective, *Frontiers of Entrepreneurship Research*, Babson College, p.1-15.

Amit, R. & Muller, E. (1995), ‘‘push’’ and ‘‘pull’’ Entrepreneurship, *Journal of Small Business and Entrepreneurship*, 12(4), p.64-80

Arias, A. & Penas, I. (2010), The effect of entrepreneurs’ motivation and the local economic environment on young venture performance, *International Journal of Business Environment*, 3(1), p. 38-56.

Audretsch, D. (2003), Entrepreneurship A Survey of the Literature. Enterprise Papers n°14, Enterprise Directorate-General European Commission.

Baron, R.A. (2004), The cognitive perspective: A valuable tool for answering entrepreneurship’s basic “why” questions, *Journal of Business Venturing*, 19(2), p.221-239.

Baumol, W.J. (1996), Entrepreneurship: Productive, unproductive, and destructive, *Journal of Political Economy*, 8(5), p. 893-921.

Bergmann, H. & Sternberg, R. (2007), The Changing Face of Entrepreneurship in Germany, *Small Business Economics*, 28(2-3), p. 205-221.

Bhola, R., Verheul, I., Thurik, R. & Grilo, I. (2006), Explaining engagement levels of opportunity and necessity entrepreneurs, EIM Business and Policy Research, H200610.

Birley, S. & Westhead, P. (1994), A Taxonomy of Business Start-up Reasons and Their Impact on Firm Growth and Size, *Journal of Business Venturing*, 9(1), p.7-31.

Block, J., Sandner, P. & Spiegel, F. (2010), Do risk attitudes differ within the group of entrepreneurs? The role of motivation, available at : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1473989

Block, J. & Koellinger, P. (2009), I Can't Get No Satisfaction-Necessity Entrepreneurship and Procedural Utility, *KYKLOS*, 62(2), p. 191-209.

Block, J. & Sandner, P. (2009), Necessity and Opportunity Entrepreneurs and Their Duration in Self-employment: Evidence from German Micro Data, *Journal of Industry, Competition and Trade*, 9(2), p. 117-137.

Block, J. & Wagner, M. (2006), Necessity and Opportunity Entrepreneurs in Germany: Characteristics and Earnings Differentials, Munich Personal RePEC Archive Paper, n°610.

Borooah, V.K. & Hart, M. (1999), Factors Affecting Self-Employment among Indian and Black Caribbean Men in Britian, *Small Business Economics*, 13(2), p.111-129.

Brockhaus, R.H. (1980), The effect of job dissatisfaction on the decision to start a business, *Journal of Small Business Management*, 18(1), p. 37-43.

Buenstorf, G. (2009), Opportunity spin-offs and necessity spin-offs, *International Journal of Entrepreneurial Venturing*, 1(1), p.22-40.

Burke, A., Fraser, S. & Greene, F.J. (2010), The Multiple Effects of Business Planning on New Venture Performance, *Journal of Management Studies*, 47(3), p.391-415.

Burke, A. (1997), Small Firm Start-up by Composers in the Recording Industry, *Small Business Economics*, 9(6), p.463-471.

Buttner, H.E. & Moore, D.P. (1997), Women's Organizational Exodus to Entrepreneurship: Self-Reported Motivations and Correlates with Success, *Journal of Small Business Management*, 35(1), p.34-46.

Caliendo, M. & Kritikos, A.S. (2010), Start-ups by the unemployed: characteristics, survival and direct employment effects, *Small Business Economics*, 35(1), p.71-92.

Campbell, C.A. (1992), A Decision Theory Model for Entrepreneurial Acts, *Entrepreneurship: Theory and Practice*, 17(1), p.21-27.

Carsrud, A. & Brännback, M. (2011), Entrepreneurial Motivations: What Do We Still Need to Know ?, *Journal of Small Business Management*, 49(1), p.9-26.

Carter, N.M., Gartner, W.B. et Reynolds, P. (1996), Exploring Start-up Event Sequences, *Journal of Business Venturing*, 11(3), p.151-166.

Clark, K. & Drinkwater, S. (2000), Pushed out or pulled in? Self-employment among ethnics minorities in England and Wales, *Labour Economics*, 7(5), p.603-628.

Delmar, F. & Shane, S. (2003), Does Business Planning Facilitate the Development of New Ventures?, *Strategic Management Journal*, 24(12), p.1165-1185.

Djankov, S., Miguel, E., Qian, Y., Roland, G. & Zhuravskaya E. (2006), Entrepreneurship : First Results from Russia, CEPR Discussion papers 5707, p.1-19.

Douglas, E.J. & Shepherd, D.A. (2002), Self-Employment as a Career Choice : Attitudes, Entrepreneurial Intentions, and Utility Maximization, *Entrepreneurship Theory and Practice*, 26(3), p.81-90.

Duchéneaut, B. (1997), Women entrepreneurs in small and medium enterprises: a major force for innovation and job creation, report for the OECD conference, Paris, 16-18 april (cited by Orhan et Scott, 2001).

Eisenhauer, J.G. (1995), The entrepreneurial decision: Economic theory and empirical evidence, *Entrepreneurship Theory and Practice*, 19(4), p.67-79.

Evans, D.S. & Leighton, L.S. (1990), Small Business Formations by Unemployed and Employed Workers, *Small Business Economics*, 2(4), p.319-330.

Evans, D.S. & Leighton, L.S. (1989), Some Empirical Aspects of Entrepreneurship, *American Economic Review*, 79(3), p.519-535.

Farmer, S.M., Yao, X. & Kung-Mcintyre, K. (2009), The Behavioral Impact of Entrepreneur Identity Aspiration and Prior Entrepreneurial Experience, *Entrepreneurship Theory and Practice*, 33(6), p.1-29.

Gartner, W.B., Bird, B.J. & Starr, J.A. (1992), Acting As If: Differentiating Entrepreneurial from Organizational Behavior, *Entrepreneurship Theory and Practice*, 16(3), p.13-31.

Gaglio, C.M. & Katz, J.A. (2001), The psychological basis of opportunity identification: entrepreneurial alertness, *Small Business Economics*, 16(2), p.95-111.

Gilad, B. & Levine, P. (1986), A behavioral model of entrepreneurial supply, *Journal of Small Business Management*, 24(4), p.45-51.

Harrison, R.T. & Hart, M. (1983), Factors influencing new business formation: a case study of Northern Ireland, *Environment and Planning*, 15(10), p.1395-1412.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity entrepreneurs, *International Entrepreneurship and Management Journal*, 5(4), p.417-437.

Henrekson M. (2004), Is More Self-Employment Good or Bad? Comment on David Blanchflower", presented at the Self-employment and the Entrepreneurship Conference, Stockhlom (Sweden), mars 22, 2004.

Herron, L. & Sapienza, H.J. (1992), The Entrepreneur and the Initiation of New Venture Launch Activities, *Entrepreneurship Theory and Practice*, 17(1), p.49-55.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, 31(3), p.323-339.

Hisrich, R. & Peters, M. (1998), *Entrepreneurship*, Chicago, Irwin.

Hughes, K.D. (2006), Exploring Motivation and Success Amongst Canadian Women Entrepreneurs, *Journal of Small Business and Entrepreneurship*, 19(2), p.107-120.

Hughes, K.D. (2003), Pushed or Pulled? Women's Entry into Self-Employment and Small Business Ownership, *Gender, Work and Organization*, 10(4), p.433-454.

Johnson, P. & Darnell, A. (1976), New firm formation in Great Britain, WP-5, Department of Economics, University of Durham, Durham, England (cited by Harrison et Hart, 1983).

Katz, J.A. (1992), A Psychosocial Cognitive Model of Employment Status Choice, *Entrepreneurship Theory and Practice*, 17(1), p.29-37.

Kautonen, T. & Palmroos, J. (2010), The impact of a necessity-based start-up on subsequent entrepreneurial satisfaction, *International Entrepreneurship and Management Journal*, 6(3), p.285-300.

Kirkwood, J. (2009), Motivational factors in a push-pull theory of entrepreneurship, *Gender in Management: An international Journal*, 25(5), p.346-364.

Kirkwood, J. & Campbell-Hunt, C. (2007), Using multiple paradigm research methodologies to gain new insights into entrepreneurial motivations, *Journal of Enterprising Culture*, 15(3), p.219-241.

Knight, F. (1921), Risk, Uncertainty, and Profit, Boston: Houghton Mifflin Company.

Kobeissi, N. (2010), Gender factors and female entrepreneurship: International evidence and policy implications, *Journal of International Entrepreneurship*, 8(1), p.1-35.

Koruntka, C., Frank, H., Lueger, M. & Mugler, J. (2003), The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process-A Configurational Approach, *Entrepreneurship Theory and Practice*, 28(1), p.23-42.

Krueger, N.F. & Brazeal, D.V. (1994), Entrepreneurial Potential and Potential Entrepreneurs, *Entrepreneurship Theory and Practice*, 18(3), p.91-104

Kumar, M. (2007), Explaining entrepreneurial success: a conceptual model, *Academy of Entrepreneurship Journal*, 13(1), p.57-77.

Lafuente, A. & Salas, V. (1989), Types of Entrepreneurs and Firms: The case of New Spanish Firms, *Strategic Management Journal*, 10(1), p.7-30.

Liao, J.J. & Welsch, H. (2008), Patterns of venture gestation process: Exploring the differences tech and non-tech nascent entrepreneurs, *Journal of High Technology Management Research*, 19(2), p.103-113.

Littunen, H. & Virtanen, M. (2006), Differentiating growing ventures from non-growth firms, *International Entrepreneurship and Management Journal*, 2(1), p.93-109.

Locke, E.A. & Baum, J.R. (2007), Entrepreneurial Motivation", In J.R. Baum, M. Frese et R.A. Baron (eds.), *The Psychology of Entrepreneurship*, Erlbaum, Mahwah (New Jersey), p.93-112.

Orhan, M. & Scott, D. (2001), Why women enter into entrepreneurship: An explanatory model, *Women in Management Review*, 16 (5), p.232-243.

Oxenfeldt, A.R. (1943), New Firms and Free Enterprise (American Council on Public affairs, Washington, Dc) (cited by Harrison et Hart, 1983).

Mallon, M. & Cohen, L. (2001), Time for a Change? Women's Accounts of the Move from Organizational Careers to Seolf-Employment, *British Journal of Management*, 12(3), p.217-230.

Mason, C. (1989), Explaining Recent Trends in New Firm Formation in the UK: Some Evidence from South Hampshire, *Regional Studies*, 23(4), p.331-46.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, 32(5), p. 875-895.

Morales-Gualdron, S.T. & Roig, S. (2005), The new venture creation decision: an analysis based on the GEM project database. *International Entrepreneurship and Management Journal*, 1(4), p.479-499.

Moreno, J.J, Castillo, L. & Masere, E. (2007), Influence of entrepreneur type, region and sector effects on business self confidence: Empirical evidence from Argentine firms, *Entrepreneurship and Regional Development*, 19(1), p.25-48.

Morris, M.H., Miyasaki, N.N., Watters, C.E. & Coombes, S.M. (2006), The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs Ownership, *Journal of Small business Management*, 44(2), p.221-244.

Mueller, S.L. & Thomas, A.S. (2000), Culture and entrepreneurial potential: a nine country study of locus of control and innovativeness" *Journal of Business Venturing*, 16(1), p.51-75.

Naffziger, D.W., Hornsby, F.S. & Kuratko, D.F. (1994), A Proposed Research Model of Entrepreneurial Motivation, *Entrepreneurship Theory and Practice*, 18(3), p.29-42.

Noorderhaven, N., Thurik, R., Wennekers, S. & Van Stel, A. (2004), The Role of Dissatisfaction and per Capita Income in Explaining Self-Employment across 15 European countries, *Entrepreneurship Theory and Practice*, 28 (5), p.447-466.

Reynolds, P.D., Camp, S.M., Bygrave, W.D., Autio, E. & Hay, M. (2002), GEM Global Entrepreneurship Report, 2001 Summary Report, Babson college, p. 1-126.

Ritsilä, J. & Tervo, H. (2002), Effects of Unemployment on New Firm Formation: Micro-level Panel Data Evidence from Finland, *Small Business Economics,* 19(1), p. 31-40.

Robichaud, Y., LeBrasseur, R., Riverin, N. & Zinger, J.T. (2006), L'influence des motivations pression-attraction (« push-pull ») sur la conduite d'une petite entreprise lors de la phase de création : une comparaison hommes/femmes, proceedings of 8° Congrès International Francophone en Entrepreneuriat et PME (CIFEPME), Fribourg (Switzerland), p.1-19.

Rodriguez, M.J. & Santos, F.J. (2009), Women nascent entrepreneurs and social capital in the process of firm creation. *International Entrepreneurship and Management Journal*, 5(1), p.45-64.

Santos, S.C., Curral, L. & Caeatno, A. (2010), Cognitive maps in early entrepreneurship stages From motivation to implementation, *Entrepreneurship and Innovation*, 11(1), p.29-44.

Sarasvathy, S.D. (2004), Constructing corridors to economic primitives. Entrepreneurial opportunities as demand-side artifacts, Butler, J.E. (ed.) In *Opportunity Identifiaction and Entrepreneurial Behavior*, Information Age Publishing Inc, p.291-312.

Schjoedt, L. & Shaver, K.G. (2007), Deciding on an Entrepreneurial Career: A Test of the Pull and Pull Hypotheses Using the Panel Study of Entrepreneurial Dynamics Data. *Entrepreneurship Theory and Practice*, 31(5), p.733-752.

Schumpeter, J.A. (1934), *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.

Shane, S. (2009), Why encouraging more people to become entrepreneurs is bad public policy, *Small Business Economics*, 33(2), p.141-149.

Shane, S., Locke, E.A. & Collins, C.J. (2003), Entrepreneurial motivation in Finland, *Human Resource Management Review*, 13(2), p.257-279.

Shane, S. (2000), Prior Knowledge and the discovery of entrepreneurial opportunities, *Organization Science*, 11(4), p.448-469.

Shapero, A. (1984), The entrepreneurial event, Kent, C.A. (ed.) In *The Environment for Entrepreneurship*, Lexington, Mass: Lexington Books, D.C. Heath and Company, p.21-40

Shapero, A. (1975), The Displaced, Uncomfortable Entrepreneur, *Psychology Today*, 9(6), p.83-88.

Shaver, K.G. & Scott, L.R. (1991), Person, process, choice: The psychology of new venture creation, *Entrepreneurship Theory and Practice*, 16(2), p.23-45.

Shepherd, D.A, McMullen, J.S. & Jennings, P.D. (2007), Formation of opportunity beliefs: a coherence theory perspective, *Strategic Entrepreneurship Journal*, 1(1-2), p.75-95.

Shepherd, D.A. & DeTienne, D.R. (2005), Prior Knowledge, Potential Financial Reward, and Opportunity Identification, *Entrepreneurship Theory and Practice*, 29(1), p.91-112.

Smith, N.R. & Miner, J.B. (1983), Type of Entrepreneur, Type of Firm and Managerial Motivation: Implications for Organizational Life Cycle Theory, *Strategic Management Journal*, 4(4), p.325-340.

Smith, N.R. (1967), *The Entrepreneur and His Firm: The Relationship Between type of Man and Type of Company*, Bureau of Business and Economic Research, Michigan State University.

Solymossy, E. (1997), Push/Pull motivations: does it matter in venture performance?, *Frontiers of Entrepreneurship Research*, Babson College, available at: http://www.babson.edu/entrep/fer/papers97/solomo/soly1.htm

Staber, U. & Bögenhold, D. (1993), Self-employment: a study of seventeen OECD countries, *Industrial Relations Journal*, 24(2), p.126-137.

Thurik, R.A., Carree, M.A., van Stel, A. & Audretsch, D.B. (2008), Does self-employment reduce unemployment?, *Journal of Business Venturing*, 23(6), p.673-686.

Uhlaner, L. & Thurik, R. (2007), Postmaterialism influencing total entrepreneurial activity across nations, *Journal of Evolutionary Economics*, 17(2), p.161-185.

Van Praag, C.M. & Cramer, J.S. (2001), The Roots of Entrepreneurship and Labor Demand: Individual Ability and Low Risk Aversion, *Economica*, 68(269), p.45-62.

Van Stel, A., Storey, D.J. & Thurik, R. (2007), The effect of Business Regulations on Nascent and Young Business Entrepreneurship, *Small Business Economics*, 28(2), p.171-186.

Verheul, I., Thurik, R., Hessels, J. & van der Zwan, P. (2010), Factors Influencing the Entrepreneurial Engagement of Opportunity and Necessity Entrepreneurs, EIM Research Reports, H201011, march 2010, p. 1-24.

Vesper, K.H. (1980), *New Venture Strategies*, Englewood Cliffs, NJ: Prencice Hall.

Vivarelli, M. (2004), Are all the Potential Entrepreneurs So Good? Owners, *Small Business Economics*, 23(1), p. 41-49.

Vivarelli, M. & Audretsch, D.B. (1998), The Link between the Entry Decision and Post-entry Performance: Evidence from Italy, *Industrial and Corporate Change*, 7(3), p.485-500.

Wagner, J. (2005), Nascent Necessity and Opportunity Entrepreneurs in Germany Evidence from the Regional Entrepreneurship Monitor (REM), Working Paper n°10, University of Lüneburg Working Paper Series in Economics, p.1-24.

Wagner, J. & Sternberg, R. (2004), Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data, *The Annals of Regional Science*, 38(2), p.219-240.

Williams, C.W. (2009), The motives of off-the-book entrepreneurs: necessity-or opportunity driven?, *International Entrepreneurship and Management Journal*, 5(2), p.203-217.

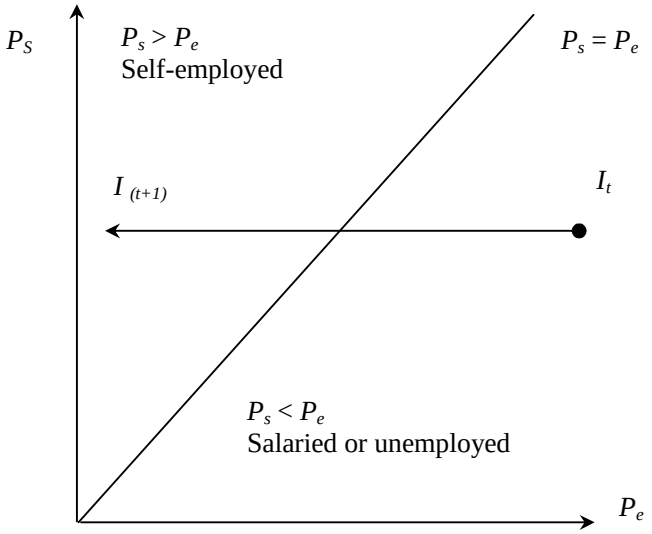


Figure 1: Push factors as decisional determinants

(Source: Harrison & Hart, 1983)

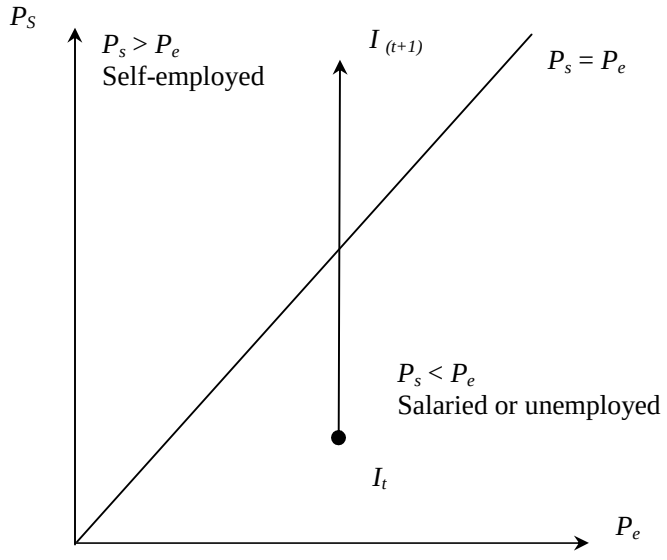


Figure 2: Pull factors as decisional determinants

(Source: Harrison & Hart, 1983)

Opportunity and/or Necessity Entrepreneurship?

The Impact of Socio-economics Characteristics of Entrepreneurs[*†]

ABSTRACT

Few studies have tried to identify the impact of the socio-economic characteristics of entrepreneurs on their opportunity-necessity positioning. Based on a sample of 538 entrepreneurs, we point out that individuals who get involved in an entrepreneurial process, have encountered a situation of necessity and/or opportunity and that the latter can take on various forms. We show the impact of the socio-economic characteristics of entrepreneurs on the alignment of their projects with a necessity or opportunity entrepreneurial dynamic. The existence of sub-profiles of entrepreneurs within the necessity-opportunity typology is also highlighted. We stress, for instance, that not all jobseekers are necessity entrepreneurs and that new venture creation based on family influence may convey both a necessity and an opportunity dimension. Finally, our study reveals a new kind of entrepreneurship, i.e. hobby entrepreneurship.

[*] Joint work with Frank Janssen, Louvain School of Management, Université Catholique de Louvain, Jean-Luc Guyot, Institut Wallon de l'Evaluation, de la Prospective et de la Statistique (IWEPS, Belgium) and Olivier Lohest (IWEPS, Belgium).

[†] An early version of this second essay has been accepted for presentation at the 2006 Congrès Francophone en Entrepreneuriat et PME and the 2007 International Council for Small Business conference.

INTRODUCTION

The push-pull theory offers an interesting interpretative model for the analysis of the entrepreneurial supply (Amit & Muller, 1995 ; Gilad & Levine, 1986). According to Uhlaner and Thurik (2007), new venture creation obeys to a pull dynamic when it is considered by the individual as a source of profit, be it material or not, and to a push dynamic when the creation results from a conflict between the situation the individual actually finds himself in and the one he/she looks for. Since Reynolds et al. (2002), the distinction between these two dynamics appears only implicitly in the studies dealing with the decisional factors of new venture creation. As a matter of fact, there has been a semantic shift towards the terms *necessity entrepreneurship* (push) and *opportunity entrepreneurship* (pull) (Verheul et al., 2010). Up to now, few empirical studies have tried to highlight the impact of the socio-economic characteristics of the founder on his positioning in terms of necessity or opportunity entrepreneurship. This issue is important because it is essential to be able to identify the different profiles of potential entrepreneurs in order to adapt start-up assistance measures to the creators' profile(s). Current policies aimed at (future) entrepreneurs seldom make a distinction between opportunistic and necessity-driven entrepreneurial dynamics. As highlighted by Bhola et al. (2006), efficient policies for necessity-driven entrepreneurs are likely to be unhelpful to opportunity-driven entrepreneurs as well. Our study could be a first step towards a refinement of new venture creation policies based on a

subtler knowledge of the socio-economic characteristics of both profiles of entrepreneurs and their subcategories.

The aim of this paper is to examine whether it is possible to classify a new venture creation in terms of necessity and/or opportunity entrepreneurship on one hand, and to shed light on the articulations between the entrepreneur's socio-economic characteristics and the alignment of his project with opportunity and/or necessity dynamics, on the other hand. In order to achieve this, we use a sample of 538 individuals.

This paper is structured as follows. Section 1 presents the literature regarding the push-pull model as well as the concepts of opportunity and necessity entrepreneurship. Section 2 specifies our research hypotheses. Section 3 describes the methodological framework that has been mobilized. Sections 4 and 5 present our discussion and findings. Finally, the last section draws the conclusions of this study, highlights its political and scientific implications and suggests some directions for future research.

FROM THE PUSH-PULL MOTIVATIONS TO THE NECESSITY-OPPORTUNITY DICHOTOMY: EVOLUTION OF RESEARCH

To the profane, for whom technological innovation, the growth of demand for goods and services or the introduction of new products are the main drivers of business creation, identifying the triggering factors

hereof may appear as evident. However, business creation may be the fruit of a diversity of circumstances and motivations (Hechavarria & Reynolds, 2009 ; Kirkwood, 2009 ; Bhola et al., 2006). As highlighted by Shapero & Sokol (1982), the circumstances of business creation can be negative or positive elements which lead an individual to the decision to found a new start-up. According to Audretsch & Thurik (2000), an individual can create a start-up either because he fears unemployment or because he discovers an opportunity. This vision of business creation is presented by Bhola et al. (2006) as a two 'types of dynamics' one: either push or pull. Since Reynolds et al. (2002), this dichotomy has given birth to the concept of necessity entrepreneurship (push motivation) and opportunity entrepreneurship (pull motivation).

Nowadays, it seems that the concepts of opportunity and necessity entrepreneurship have unanimous support from researchers in entrepreneurship because of their capacity to bring together, in a simple and coherent way, the two general profiles of entrepreneurs (Gurtoo & Williams, 2009 ; Acs et al., 2008 ; Hessels et al., 2008). Their systematic use in the reports of the Global Entrepreneurship Monitor (GEM) since 2002, following Reynolds studies, has undoubtedly contributed to the popularity of these two concepts.

As highlighted above, the classification of entrepreneurial behaviour in terms of opportunity and necessity implicitly results from the push-pull concepts. Therefore, we will start our literature review by presenting the current knowledge on these two concepts before examining the concepts of opportunity and necessity entrepreneurship.

By the end of our literature review, we will present the push-pull indicators that will be used to analyze the necessity and opportunity entrepreneurial dynamics[1].

The Push-Pull Dichotomy

In 1976, Johnson & Darnell, building on the work of Oxenfeldt (1943), developed and tested a push-pull model in order to identify the explanatory factors of new venture creation (Harrison & Hart, 1983). Johnson & Darnell's (1976) starting point is the assumption that new venture creation underpins the shift from salaried work or unemployment towards self-employment. Such a decision is taken when the net monetary and non-monetary payoffs resulting from being self-employed surpass those derived from keeping an employee or unemployed status. According to these authors, the trigger of such a decision may be then interpreted as a function of two types of forces: push or pull. For Uhlaner & Thurik (2007), new venture creation follows a pull dynamics when it is considered by the individual as a source of profits, be they material or not, and a push dynamic when it results from a conflict between the current situation of the 'aspiring' entrepreneur and the one he would like to experience.

A situation of unemployment can stimulate new business creation (Ritsilä & Tervo, 2002; Mason, 1989; Evans & Leighton, 1989). Mason (1989), for example, has conducted a study on the motivations of two groups of entrepreneurs. The first group comprises individuals who had started their business during the 1976-1979 period (a pre-

[1] When examining the literature on this distinction and on the opportunity-necessity dichotomy, we shall favour an individual approach and shall address only those studies which adopt this perspective.

recession one), whereas the second group is made up by individuals who had founded their firm during the post-1979 period (a recession one). While the entrepreneurial decisions of individuals during the pre-recession period were predominantly motivated by pull factors such as market opportunities, financial purposes, or a new product, the recession entrepreneurs were rather motivated by push factors such as unemployment, a lay-off or work-related insecurity. Ritsilä and Tervo (2002), in their study on the impact of unemployment on new venture creation, notice that short-term (1 to 8 months) unemployed individuals have a higher propensity to start their own business than long-term (9 to 12 months) jobseekers. Gilad & Levine (1986) have also pointed out that individual short-term (15 to 26 weeks) unemployment has a positive effect on new business creation by these individuals. On top of the unemployment factor, Evans & Leigthon (1989) notice that individuals who have changed jobs frequently, have precarious jobs or low salaries, are more likely to become self-employed. The absence of professional prospects is considered by Burke (1997) as the main motivation behind new music artists' desire to create their own labels and distribution channels. For Brockhaus (1980), the absence of satisfaction in the current job is seen has a push dynamic that leads individuals to start an entrepreneurial activity.

Opportunity and Necessity Entrepreneurship

Since Reynolds et al. (2002) works, the distinction between push and pull motivations does not appear explicitly in the studies dealing with new venture creation decision-making factors anymore. This

distinction has been replaced by the concepts of *necessity* (push) and *opportunity* (pull) *entrepreneurs*.

However, until now, few studies have examined opportunity and necessity entrepreneurship in an individual approach based on the socio-economic characteristics of entrepreneurs (Bhola et al., 2006). Hereafter, we present the main results of the few recent studies that have dealt with that question.

Vivarelli (2004), referring to the 2001 GEM global report, highlights that opportunity entrepreneurs are predominant, but also that necessity entrepreneurs represent a significant part of potential and actual business founders. Of course, the type of entrepreneurship is dependent on the institutional and the economic development, as well as the environment at large (Henrekson & Sanandaji, 2011; Bosma & Levie, 2010; Wennekers et al., 2010; Noorderhaven et al., 2004). As these authors emphasized, the economic environment and the institutional development impact the relative importance of these types of entrepreneurship. A low level of economic development and of institutional infrastructures tend to increase the number of necessity entrepreneurs and to decrease the number of opportunity entrepreneurs. The country's per capita income is also positively (negatively) correlated to the level of opportunity (necessity) entrepreneurs (Acs, 2006). Concerning the culture's impact, Baum et al. (1993) stressed that a "non-entrepreneurial culture" could increase the proportion of necessity entrepreneurship.

Despite these facts, Wennekers et al. (2010) pointed out that the level of necessity entrepreneurs in the OECD countries is non anecdotical, meaning that necessity entrepreneurship is not only important in the underdeveloped countries.

Reynolds et al. (2002) show that opportunity entrepreneurs are older (35-44 years) than necessity entrepreneurs (18-24 years). Conversely, based on the 2002-2004 GEM data for Canada, Robichaud et al. (2006)[2] associate youth with opportunity entrepreneurship. The same association can be found in the works of Block and Sandner (2009), Bhola et al. (2006), Block & Wagner (2006) and Wagner (2005). However, for Bergmann & Sternberg (2007), age does not seem to have an impact on the probability of necessity entrepreneurship.

The studies of Bhola et al. (2006), Djankov et al. (2004) and Wagner (2005) show that having entrepreneurial parents, predisposes to opportunity rather than necessity entrepreneurship. Taking advantage of an entrepreneurial network is more specific to opportunity entrepreneurs (Robichaud et al., 2006).

The educational level of the entrepreneur does not seem to be a discriminatory factor between the two types of entrepreneurs. According to Block & Sandner (2009) and Block & Wagner (2006), there are no differences between these two types of entrepreneurs. On the other hand, Bhola et al. (2006) and Robichaud et al. (2006), find that opportunity entrepreneurs are characterized by a higher level of

[2] This study is about individuals who are in a business creation phase.

education. Bergmann & Sternberg (2007) emphasize that the level of education does have an impact, but on opportunity entrepreneurship only. These studies have thus led to contradictory conclusions.

Finally, and unsurprisingly, unemployment seems to be a predominant feature among necessity entrepreneurs, as shown by Block & Wagner (2006) and Robichaud et al. (2006). However, Wagner's (2005) findings show that the unemployment variable has a positive impact on the probability of both necessity and opportunity new venture creations, although the impact is more important for necessity entrepreneurs.

Towards a More Complex Interpretation of Reality

The above-mentioned studies suggest that the socio-economic characteristics of the founder have an impact on his/her entrepreneurial dynamics. However, these findings should be considered with caution. In fact, the methodology used to make such classifications could be criticized as it implicitly postulates that an entrepreneur is either opportunistic or necessity-driven. For instance, in Robichaud's et al. (2006) study, only the "Are you involved in a new venture creation process because you want to take advantage of a business opportunity or because you have no other employment choice?[3]" item was used to distinguish between push and pull motivations. Wagner (2005) used a similar item[4]. Block & Wagner

[3] Translated from French to English.

[4] "....104 of the 349 people...in our survey stated that they start their own business because they do not have a better alternative to earn a living; these nascents are labeled nascent necessity entrepreneurs. 217 agreed that they start a new venture to realize a business idea, and they are labeled nascent opportunity entrepreneurs"

(2006) who examined a group of entrepreneurs who were previously unemployed, have made a classification based on the reasons of this situation: "Those who reported to have left their job in paid employment on their own were classified as opportunity entrepreneurs, whereas those who were either dismissed by their employer or laid off because their place of work closed down are classified as necessity entrepreneurs". Finally, in the survey of Bhola et al. (2006), the distinction between opportunity and necessity entrepreneurs was based on the following question: "All in all, would you say you started, or are starting, your business because you saw an opportunity or you started it out of necessity?".

In our opinion, the necessity/opportunity entrepreneurship dichotomy is too limitative. Indeed, it has not been established that the boundary between opportunity and necessity dynamics is as clear-cut as the aforementioned authors pretend. This view is shared by Arias & Penas (2010), Hughes (2003) and Solymossy (1997).

Hence, the question to be asked is whether entrepreneurs obey exclusively to one or the other dynamic. As Williams (2009) and Block & Sandner (2006) have emphasized, it is worthwhile asking whether necessity and opportunity entrepreneurs are actually homogenous groups. Shouldn’t we examine whether or not there are different subcategories within these two groups? Following Block & Koellinger (2009), Block & Sandner (2006), Bhola et al. (2006) and Solymossy (1997), we consider the possibility of a simultaneous belonging to both dynamics.

H1: *Individuals position themselves with more or less intensity on both types of entrepreneurial dynamics;*

Measuring Entrepreneurial Motivations

As highlighted above, the empirical examination of the opportunistic or necessity-driven nature of an entrepreneurial endeavour is not an easy task insofar as few studies offer a set of indicators enabling their identification. Moreover, as stressed by Kautonen & Palmroos (2010), necessity entrepreneurship is generally associated with a sole motivation: "unemployment". And yet, other factors are likely to originate this kind of entrepreneurship.

On the basis of these observations, we have used indicators which are either supported by previous research, or can be justified with no need for too restrictive assumptions. We have, in a first stage, classified the items of our questionnaire regarding new venture creation motivations depending on whether we considered them as obeying to an opportunity or necessity dynamic. The function of this classification is purely heuristic, all the more so, as Hughes (2003) emphasizes, as the meaning of an event or situation in terms of opportunity or necessity may vary depending on the individual and the specific circumstances he/she faces before start-up. The following table presents this classification.

"Insert Table 1 Here"

Regarding the *get out of unemployment* indicator, our classification is based on previous work by Block & Wagner (2006); van Praag (2003) ; Ritsilä & Tervo (2002) ; Evans & Leighton (1989) ; Mason (1989) and Harrison & Hart (1983). The absence of personal development in one's work and/or the need for recognition are generally associated with professional or personal dissatisfaction and thus with necessity entrepreneurship (Noorderhaven et al., 2004). Therefore, we have classified the *obtaining prestige* and *being socially recognized* indicators in the necessity section. The *meeting family expectations* and *perpetuating the family tradition* indicators have been classified in the necessity section because they correspond to situations where individuals have been pushed to start or take over a business by their family circle. In addition, this choice echoes back to the work of Bhola and al. (2006) who demonstrate that an individual can be pushed into entrepreneurship because of the obligation to take over the family business. Our choices to classify the indicators[5] *earning big money, increasing one's income, being autonomous, creating one's own job, having no boss anymore, developing new products,* and *developing new manufacturing processes* into the opportunity indicators notably relies on previous research by Cassar (2007); Carter et al. (2003); Kolvereid (1992); Mason (1989); Harrison & Hart (1983).

[5] The *creating one's own job* and *having no boss anymore* indicators refer to the desire of autonomy and independence. These two motivations are generally classified as indicators of opportunity entrepreneurship (Carter et al., 2003).

OPPORTUNITY OR/AND NECESSITY: WHAT POSITIONING AND WHY?

In order to interpret the origin of the founder's positioning, it seems relevant to take his/her socio-economic characteristics into consideration. These characteristics determine the position of the founder in the professional sphere, as well as the resources that he objectively possesses and those that he can subjectively mobilize. Without taking these elements into consideration, it seems difficult to fully understand the various entrepreneurial dynamics.

This is also what Hisrich & Peters (1998) highlight. According to these authors, the venture creation act presupposes a decision-making process on a change of lifestyle. This process is impacted by factors that make this change *wanted*, i.e. cultural models, and other factors that make it *possible* (notably with respect to the available skills and resources). The decision to change can be enrooted in two kinds of elements: disruptive (necessity) elements such as school failure, bankruptcy, retirement, job loss, divorce, etc. or opportunities revealed by the professional context. This sociological vision of the triggering element of new venture creation is close to Shapero & Sokol's (1982) approach according to whom starting a new business can be the consequence of negative (disruptive) or positive (opportunities) circumstances. For Buenstorf (2009), the necessity and opportunity motivations must be considered as the triggering element of new venture creation and of entrepreneurial intention.

The decision to change one's lifestyle will be encouraged by a positive perception of this change[6]. This perception will have more impact if it is simultaneously in agreement with the individual's representation system and values as well as with the cultural references prevailing in his social environment.

In this perspective, the socio-economic characteristics of the potential entrepreneur influence the opportunity or necessity dynamics to which the entrepreneurial process obeys. In addition, they have an impact on the perception and interpretation mechanisms of reality. Some entrepreneurial opportunities will be spotted by some individuals and not by others. Similarly, the interpretation of potentially disruptive situations or events, as defined by Hisrich and Peters (1998), will vary depending on these characteristics and this will result in different strategies and positioning along the opportunity-necessity axis.

> H2: *the socio-economic characteristics influence the positioning of the entrepreneur in terms of opportunity and necessity entrepreneurship both in intensity and modality.*

METHODOLOGICAL FRAMEWORK

Presentation of the Database[7]

To identify our population (new businesses started ex nihilo), we have first used the information available in the administrative index of

[6] This improvement of the lifestyle anticipated by the individual as a consequence of new venture creation is found notably in Uhlaner & Thurik (2007) and Johnson & Darnell (1976).
[7] IWEPS database.

Belgian businesses (*Eurodb*[8] index) in order to isolate ventures started between June 1 1998 and May 31 2000[9]. On the basis of these criteria, 12,748 businesses within the *Eurodb* index have been indentified as new ventures.

In a second stage, all 12,748 businesses were contacted by mail between September 15 and October 30 2001 in order to isolate the businesses created ex nihilo and to identify their founders, as well as their previous experience regarding venture creation. This survey was conducted between October and November 2001. Out of 12,748 businesses which were contacted, 4,562 responded to this survey, which corresponds to a response rate of 35.8%. Among the respondents, 7 out of 10 corresponded to *ex nihilo* creations. The rest had been created through mergers, subsidiary creations or demergers. Out of 4,562 firms, we have been able to identify 6,392 founders, among which 4,322 were first business founder; this represents a little bit more than 70%.

In a third stage, we looked at the socio-economic characteristics of business founders. Between September and October 2004, all founders identified in the previous stage, were invited to take part in a socio-

[8] This is an administrative database which comprises a set of non-confidential data (mainly coming from the trade register) on all businesses located in Belgium. The notion of business is here considered at its broadest meaning insofar as both firm and self-employed people are listed. Each business is characterized by its industry, date of foundation, legal form, address of the headquarters, employment size, its VAT number or the number in the national register of legal entities, its last legal situation, etc.

[9] These dates were chosen in order to favour some homogeneity of the context and at the same time they comprise a large enough population of new businesses. The information collection concerned only for-profit incorporated firms.

economic survey[10] (through mail and phone reminders). The questionnaire was structured in 4 main sections. The first section dealt with the characteristics of the business at the time of its creation, i.e. between June 1 1998 and May 31 2000 (date of foundation, name of the company, industry, etc.). The second section was about the process of business creation. This section was particularly aimed at identifying the "temporality" between the idea and the actual creation of the new venture, the personal and professional triggers during this phase, the kind of steps taken, the support obtained or hoped for, and the potential barriers encountered by the business founders. The third section dealt with the financial resources that were mobilized during the creation and the main strategic orientations that were adopted. The fourth and last section focused on the founder and his circle. The questions about the founder concerned his age, academic background, socio-professional and socio-economic situation at start-up. One question was about the personal motivations the entrepreneur was pursuing through the act of business creation.

This questionnaire was sent to 3,520 business founders out of 4,322 that were identified in the previous phase. This difference was due to lacking addresses or phone numbers of 800 founders. After a phase of phone reminders, 538 valid questionnaires were finally received, which corresponds to a response rate of 12.4%[11]

[10] The questionnaire was pre-tested on a sub-sample.

[11] This rate is already high for this kind of survey and for the method used. The response rate is actually higher than 12.4% because this rate has been calculated on the basis of all questionnaires sent and thus, does not take into account those which found no addressee (e.g. firms having closed down, moved, etc), or which cannot be exploited (off deadline, blank questionnaires or unexploitable responses, etc.). If we take into account these elements, the response rate reaches 23%.

The absence of an official index on the population of interest (the founders) makes the estimation and correction of potential biases due to survey participation impossible (Heckman, 1976). Nevertheless, we can highlight the convergence of our results on the characteristics of founders with other surveys conducted at an international level (The Panel Study of Entrepreneurial Dynamics (PSED) research program (Gartner et al., 2004)).

Methodology

Regarding the data processing, we use a two step method. First, we will try to identify the necessity and opportunity entrepreneurial dynamics. In order to do this, we will apply a principal component analysis (PCA) to the data on the necessity-opportunity indicators (see table 1). By doing this, we will be able to identify the individual positioning of founders in terms of necessity and opportunity entrepreneurial dynamics. In a second stage, we construct a system of equations that explains the variations of the founders' different individual opportunity-necessity positionings depending on the socio-economic characteristics. The latter analysis is based on the estimation of the equations system through the SUR method ('Zellner's Seemingly Unrelated Regressions Estimation, 1971).

The regression model

Our empirical analysis is thus based on a *n* equations regression model. This model retains the *n* variables identified by PCA as independent variables.

In order to take potential interdependencies between equations into account, we estimate the effects of socio-economic characteristics on these components by using a *SUR*[12] model. This econometric approach is justified by the fact that nothing guarantees that the dynamics that have driven the founders have been formulated independently from one another. Indeed, it is possible that the founder can be simultaneously driven by a dominant necessity creation dynamics but also by a secondary opportunity dynamic. In addition, the presumption of a correlation between the error terms is reinforced because the *n* estimated equations have the same structure, which supports the possibility that some explanatory variables common to the equations could be omitted. Under these various assumptions, the errors of the *n* equations will be correlated with one another at a given time[13]. In this context, the SUR model allows us to take the interactions that may exist between the different motivations into account (Williams, 2008) through the potential correlations between the perturbations of the different equations which make up the system of equations. Based on determinants relative to the founder(s) characteristics, and by considering the positioning of the founders around our *n* necessity-opportunity axes, we test the following SUR model made of *n* equations:

$$y_j = X_j \beta_j + \varepsilon_j \ , \ j = 1,....,n, \text{ where } n = 6 \qquad (1.1)$$

[12] For a detailed presentation, the reader can refer to Srivastava & Giles (1987).

[13] In this context, the assumption $Cov(X_i,\varepsilon_i)=0$ is violated and the independent variable is no more independent of perturbations. Therefore, the application of OLS to each of the equations taken separately will produce biased and non-convergent estimators as well as biased t-stat.

where y_j is a vector of T observations of the dependent variable, X_j is the full rank matrix of explanatory variables ($T \times k_j$), β_j is the vector of the k_j unknown coefficients and $\varepsilon_j = (\varepsilon_{1j}, \varepsilon_{2j}, ..., \varepsilon_{Tj})'$ is the column vector $T \times 1$ of random errors. In this system, the interdependence between equations is simply carried out by the error terms that are correlated between the different equations. The SUR model is thus an extension of a linear regression where the error terms of the equations are correlated with one another. This kind of model uses Generalized Least Square (GLS) to estimate the parameters of the system. In the context of our estimations, we present the complete model, i.e. the model which considers both significant and insignificant variables.

The measurement of the explanatory variables

Different explanatory variables[14] that could have an impact on the opportunity or necessity positioning of founders will be tested. These variables are:

- The *age of the founder* which is measured on the basis of the number of years since the birth of the founder;
- *The gender of the founder*. We insert a dichotomous variable in the model which equals 1 if the founder is a man;
- In order to assess the effect of the *founder's level of education*, three dichotomous variables are included in the model. They measure the highest degree obtained by the founder at start-up. Through these dichotomous variables, three levels of education

[14] We refer, inter alia, to the work of Bhola et al. (2006) and Djankov et al. (2004).

are taken into account: 1) no qualifications or at best a junior high school diploma 2) high school graduate, 3) university degree, post-graduate or PhD;

- *The impact of the founder's professional background*. Several dichotomous variables have been developed in order to take the socio-professional background of the founder into account: a dichotomous variable which equals 1 if the founder was self-employed before start-up, a dichotomous variable which equals 1 if the founder was unemployed before start-up, a dichotomous variable which equals 1 if the founder was a blue-collar worker before start-up, a dichotomous variable which equals 1 if the founder was an executive in the private sector, a dichotomous which equals 1 if the founder was an employee in the private sector, a dichotomous variable which equals 1 if the founder was an employee in the public sector.
- *The founder's wealth level*. This dimension is captured by a variable which measures the average after-tax monthly income of the founder's household at start-up. At the same time, our model takes the number of people who lived on this income into account;
- *Entrepreneurial family*. We have created a dummy variable which equals 1 if the founder personally knew (parents, uncles, friends) an entrepreneur.
- *Same industry as parents.* We have created a dummy variable which equals 1 if the founder's parents had a business in the same industry as the one in which the founder wants to start his own business.

EMPIRICAL ANALYSIS

Main Characteristics of Founders

The analysis of our database on founders highlights several of their characteristics and of the creation process. Although an in-depth examination of the results of the survey goes beyond the object of the present paper, we shall nevertheless try to highlight the most striking characteristics.

First, we observe a strong male presence within the sample: some 77% of the founders are men, whereas they represent only 50% of the population[15]. Secondly, within the sample, the portion of founders between 32 and 38 years old is the highest (25%), whereas this age bracket only represents 18% of the total population. Founders over 46 are underrepresented in our sample in comparison with the total population: 24% of the founders versus 36% of the population.

Regarding the correlation between the level of education and new venture creation, we observe that the degree appears as a differentiating factor on whether to start a new business or not. In comparison with the working population, founders are noticeably better educated. In fact, graduates (college, university and post-graduates) represent some 61% of our founders whereas they represent only 15% of the working population.

[15] Data based on the 2001 census.

The second part of the survey identifies the motivations supposed to impact the creation process. The most frequent motivations concern the material and financial aspects as well as the individuals' need for autonomy and independence. 'Increasing income' is the most common motivation among founders. Indeed, some 80% of them consider this motivation as important for their creation process. The motivations concerning independence such as 'being autonomous', 'creating one's own job' and 'having no boss anymore' play also a predominant role in the creation process. On the other hand, getting out of unemployment seems to be a rare motivation[16].

Motivations and Necessity-Opportunity Dynamics: Towards a Multidimensional Understanding

Before our empirical analyses, we verify the internal validity of our classification of push-pull (see supra) indicators by using the Cronbach alpha. We have obtained a 0.879 alpha for the push classification and a 0.907 one for the pull classification[17].

Subsequently, we wanted to examine whether it is possible to interpret the involvement in entrepreneurship in necessity-opportunity terms and if necessary, to characterize it. As in other studies such as Carter et al. (2003), Birley and Westhead (1994), Alänge and Scheinberg (1988) and Scheinberg and MacMillan (1988) which deal with new venture creation decision-making factors, we use a PCA. It is applied to all push-pull indicators retained. The objective is to verify if the

[16] This result must be moderated insofar as the portion of founders who were jobseekers before start-up was very low (17%).

[17] In their study on entrepreneurial career choices, Carter et al. (2003) retain Cronbach values ranging between 0.58 and 0.78 in order to justify the classification obtained by PCA.

indicators presented in table 1 combine with one another along the presupposed opportunity-necessity axis.

When looking at table 2, we observe that 6 factors have an eigen value higher than 1 and that they explain 79.915% of the total variance explained by PCA.

"Insert Table 2 Here"

The VARIMAX procedure that has been used redistributes the variance in a more even way between the different factors and facilitates their interpretation. In order to be able to interpret the final results of PCA, we used a "component after rotation" matrix.

"Insert Table 3 Here"

The analysis of table 3 allows us to draw the following conclusions. For axis 1 (Cronbach's alpha: 0.818), the motivations *being autonomous, having no boss anymore* and *creating one's own job* are the most representative. The nature of these 3 motivations suggests that axis 1 represents the **desire for independence** as motivation for new venture creation. The analysis of axis 2 (Cronbach's alpha: 0.760) shows that the motivations *perpetuating the family tradition* and *meeting family expectations* are the most correlated with this axis. The latter can be interpreted as referring to the creation motivation resulting from **family influence.** The motivations *developing new manufacturing processes* and *developing new products* are correlated the most with axis 3 (Cronbach's alpha: 0.710). This refers to **market**

opportunity as a creation motivation. The motivations *increasing one's income* and *earning big money* are correlated the most with axis 4 (Cronbach's alpha: 0.725). The latter can be interpreted as the creation motivation resulting from "**profit research".** The **search for social recognition** as the creation motivation is identified in axis 5 (Cronbach's alpha: 0.651)[18]. The motivations *obtaining prestige* and *being socially recognized* are the most correlated to this axis. Finally, **unemployment** as a reason for creation is clearly identified by the analysis of axis 6[19] and the *get out unemployment* motivation.

In terms of necessity-opportunity motivations, our PCA has allowed us to indentify 3 kinds of necessity motivations (family influence, social recognition and unemployment) and 3 kinds of opportunity motivations (market opportunity, the desire for independence and profit search).

Personal characteristics and necessity-opportunity positioning: what articulations?

We have just shown that necessity and opportunity dynamics can take different forms. Now we need to explore the assumption that the socio-economic characteristics of founders have an impact on their necessity and opportunity entrepreneurial dynamics, both in intensity and modality and hereby on their positioning in terms of necessity and opportunity entrepreneurship.

[18] The value of Cronbach's alpha obtained for this axis can be explained by the fact that a high Cronbach value is sometimes difficult to obtain when an axis is only made of two items (Carter et al. 2003).

[19] The Cronbach's analysis cannot be conducted on this axis because it includes only one item.

Our empirical analysis, using the SUR model, is based on a regression model with 6 equations. This model considers the 6 variables highlighted in the previous section as dependent variables, i.e. the desire for independence, family influence, market opportunity, profit search, social recognition and unemployment.

Results

Table 4 provides a summary of the results of the complete SUR model (*with all significant and insignificant variables*).

"Insert Table 4 Here"

- The necessity dynamics

Creation motivated by a 'search for social recognition' is impacted by age, by the education level, by the fact that the founder's parents were/are active in the same industry and by the fact that the founder has been previously employed in the public sector.

Age has a negative impact on this kind of creation. An older individual will not start a business because of a search for social recognition. This can be explained by the fact that an older person has already reached some level of social recognition through his/her professional career and/or personal fulfilment. Similarly, holding a university degree has a negative impact on this kind of creation. For university graduates, creation will thus not be induced by a 'search for social recognition' dynamic. This result can probably be explained by the difference in terms of opportunity cost between starting one's own business in order to be socially recognized and accepting a salaried job, the latter seemingly being a more important source of social promotion and recognition for a university graduate. Moreover, the graduate status itself can be synonymous of sufficient social

recognition. The fact that parents are active in the same sector has also a negative impact on creation for recognition motives. A possible explanation for this result would be that these individuals are more conscious of the lack of social recognition regarding the entrepreneur status specific to their industry. Conversely, civil servants seem to search some kind of social recognition in starting their own business. The low social recognition of civil servants can help understand this result.

Regarding new venture creation due to 'family influence', five variables seem to have a significant impact: gender (male), having entrepreneurs in one's social circle, the fact that parents are active in the same industry as the founder, being a jobseeker and being self-employed. Gender has a positive impact on this entrepreneurial dynamic. Thus, men start more often their business because of family constraints. This could mean that men are more often influenced by their family circle in order to perpetuate the family tradition and/or that they are more sensitive to this constraint. As one might expect, this entrepreneurial dynamic is impacted positively by the fact that the individual has an entrepreneurial family circle. The fact that the individual wants to start a business in the same industry as his/her parents also has a positive impact. Two mechanisms may explain these results. On one hand, the 'family influence' dynamic could be interpreted in opportunity terms: the *aspiring* entrepreneur could benefit from the advice of his family and would have the possibility to articulate his entrepreneurial project with an existing family business. On the other hand, it could also correspond to a necessity: the

individual starts an entrepreneurial career because he/she is pushed by his family to perpetuate the entrepreneurial tradition. The 'family influence' entrepreneurial dynamics could also correspond to a combination of necessity and opportunity elements. An individual who is already self-employed will be positively influenced by the 'family influence' dynamic to start his business. Through this activity, he will already have had the opportunity to test his/her entrepreneurial skills and this can be a positive signal vis-à-vis his/her family. In this last example, the entrepreneurial dynamic resulting from a family constraint could be considered as an opportunity dynamic, rather than as a necessity one. Finally, being a jobseeker has a negative impact on the 'family influence' entrepreneurial dynamics. This could mean that being unemployed within an entrepreneurial family is seen as a bad signal for taking over the family business.

As far as the 'get out unemployment' entrepreneurial dynamic is concerned, five variables have a significant impact: gender (male), age, presence of entrepreneurs in the family circle, the level of income and being a jobseeker. Unlike women, male jobseekers seem to be more prone to start a business to quit inactivity. This could be explained by the existence of cultural norms that attribute the role of head of the household to men. Although there are more necessity entrepreneurs among women (Wagner, 2005 ; Orhan & Scott, 2001 ; Reynolds et al., 2002 ; Hisrich & Brush, 1985), being unemployed might be a more important source of stigmatization for men. Moreover, the studies of Hughes (2003), Orhan and Scott (2001), Duchéneaut (1997), Buttner and Moore (1997) and Hisrich and Brush (1985) show that unemployment does not constitute a predominant

entrepreneurial motivation among women. Age, on the other hand, has a positive impact. Like Block and Sandner (2007), Bhola et al. (2006), Block and Wagner (2006) and Wagner (2005), we observe that age has a positive impact on necessity entrepreneurship, here only in the case of unemployment. The greater difficulties that older jobseekers face in finding a job do probably partially explain why these individuals start a business in order to escape this situation. A jobseeker from an entrepreneurial family will be less prone to start a venture when facing an unemployment situation. The fear of the family's judgment in case of failure could be one explanation for this result. This confirms the results of Bhola et al. (2006); Wagner (2005) and Djankov et al. (2004) who stress that necessity entrepreneurship is negatively impacted by the family circle. The negative impact of the income level on this kind of entrepreneurship is both surprising and interesting. We believe that there are two possible explanatory factors for this negative correlation: the impact of illegal work and a too generous welfare support[20]. Since the Belgian welfare system corresponds to the latter criterion, these jobseekers are probably not always encouraged to consider starting their business for financial reasons despite their precarious status. This could explain to some extent the low level of necessity entrepreneurship in Belgium (Reynolds et al., 2002). Finally and unsurprisingly, similarly to the observations of Block and Wagner (2006), Robichaud et al. (2006) and Wagner (2005), a jobseeker will be positively impacted by his workless status in his decision to start a new venture.

[20] Unemployment benefits and minimum income for integration.

- Opportunity dynamics

The only characteristic with a significant impact on the 'desire for independence' entrepreneurial dynamics is age. The negative impact hereof could be explained by the fact that often an older individual has already gained some financial and social independence and, were he to start a business, this aim will not be predominant. The negative impact of age on this opportunity dynamic confirms Reynolds et al's. (2002) findings regarding the higher propensity of older people among opportunity entrepreneurs[21].

The 'market opportunity' entrepreneurial dynamic is positively impacted by the 'executive in the private sector' and 'employee in the public sector' variables. The positive impact of the first variable is not surprising. Because of his very function, an executive in a company is more likely to detect market opportunities. He may be part of informative networks which facilitate this detection. In their study on risk and success factors during the seed phase, Van Gelderen et al. (2005) highlight the fact that experience in a given industry can help spotting and assessing new business ideas. More surprising is the observation that being an employee in the public sector has a positive impact opportunity entrepreneurship. This could mean that, contrary to some stereotypes, the public sector can also foster the discovery and exploitation of niches.

[21] At least because of a desire for independence

Four variables have a significant impact on the 'profit search' entrepreneurial dynamics: age, being an executive or employee in the private or public sector. The impact of age is negative. This result corroborates our observations on the impact of age on new venture creation motivated by a need for independence or a search for social recognition. This could mean that an older entrepreneur is often wealthy enough and thus is not motivated by profit. Being an executive or an employee in the private or public sector also has a negative impact. Thus, we can assume that either they face no financial constraint or that these individuals have a utility function in which profit is not predominant. The first hypothesis is more likely for executives, whereas the second one is more likely for employees.

DISCUSSION

In this study we have tried to shed light on the articulations, at an individual level, between socio-economic characteristics and the adoption of an opportunity and necessity entrepreneurial dynamic. The motives of our research were threefold. First, studies on entrepreneurial motivations often classify an individual as opportunistic or necessity-driven based on his push or pull motivation(s) upstream of any analysis of the individual. Yet, this approach has a limit because the same motivation can be a push one for one individual and a pull one for another (Hughes, 2003). Second, up to now, few studies have been interested in the impact of socio-economic characteristics of individuals on their opportunity or necessity positioning (Hessels et al., 2008; Bhola et al., 2006). There

are, however, significant differences between these two entrepreneurial profiles (Block & Sandner (2009); Bergmann & Sternberg (2007) ; Robichaud et al. (2006) ; Bhola et al. (2006) ; Block & Wagner (2006) ; Wagner (2005) ; Djankov et al.(2004) and Reynolds et al. (2002)). Third, building on the observations of Hughes (2003) and Block & Sandner (2006), it seemed relevant to investigate whether there are subcategories among the opportunity and necessity entrepreneurs.

Based on these motives, we have elaborated two hypotheses. The first one (H1) consisted in verifying whether individuals who get involved in an entrepreneurial process have encountered, perceived and invested in a necessity and/or opportunity situation(s) and thus chosen, with more or less intensity, a necessity and/or opportunity entrepreneurial dynamic. If we refer to our PCA results, H1 is verified. Indeed, we can observe that entrepreneurs' motivations correspond to necessity and opportunity entrepreneurial dynamics. Our PCA results also show that the necessity and/or opportunity entrepreneurial dynamics can take different forms. This finding reveals the diversity of necessity and opportunity entrepreneurial dynamics. Our results demonstrate that necessity and opportunity dynamics are not subtended by a single axis that opposes the two dynamics. The analysis suggests that this bipolar opposition does not always exist as such, in a monolithic way, but that the underlying oppositions and dimensions are subtler. Our findings confirm that a dichotomy is insufficient and, maybe, wrong. According to our second and last hypothesis (H2), the socio-economic characteristics of

founders could have an impact on the entrepreneurs' positioning within the opportunity or necessity dynamics both in intensity and modality. Based on the results of our regressions, we can draw 2 important conclusions. First, the socio-economic characteristics do affect the entrepreneur's positioning in terms of opportunity and necessity entrepreneurship: this confirms the findings of previous studies (Bhola et al., 2006). Second, and it is here lies the originality of our approach, we also observe that the socio-economic characteristics of an individual and their impact on his necessity-opportunity positioning also determine his belonging to potential subcategories of these two types of entrepreneurship. We found, for instance, that a jobseeker could not start a business because of a necessity motivation following a 'family influence'. More generally speaking, new venture creation resulting from 'unemployment' necessity dynamics will not necessarily lead a jobseeker to necessity entrepreneurship if this individual is protected by a welfare system. This last finding does confirm to some extent the idea that a protective welfare system can reduce entrepreneurial intent (Hessels et al., 2008). Our results also show that young people can be driven in their entrepreneurial motivation by both necessity (search for social recognition) and opportunity (search for profit or desire for independence) dynamics. As far as older entrepreneurs are concerned, it seems that older jobseekers are driven solely by a 'get out unemployment' entrepreneurial dynamic and, thus, by necessity entrepreneurship. The findings regarding older non-unemployed entrepreneurs such as (early) retirees are also interesting. These individuals are concerned neither by the necessity nor by the

opportunity dynamics that have been identified. This makes us think that another kind of entrepreneurship is possible, i.e. hobby entrepreneurship. This finding paves the way for the hypothesis of an 'opportunity-necessity-hobby' entrepreneurial *trinomial*. Another interesting finding concerns founders with an entrepreneurial family background or those who start a business in the same industry as their parents. For some entrepreneurs, this dynamic seems to correspond simultaneously to necessity and opportunity entrepreneurship. Finally, our findings show also that a same group of individuals can be driven by both necessity and opportunity motivations. We particularly point out the simultaneous positive impact of the 'employee in the public sector' status on the necessity entrepreneurial dynamic driven by a search for 'social recognition' and on the opportunity dynamic driven by a 'market opportunity'.

CONCLUSION

The findings of our research confirm the idea that the study of the impact of socio-economic characteristics of an individual in a necessity-opportunity framework should not be limited to this strict dichotomy, as it has generally been the case in previous research.

Indeed, we have shown that there are different necessity and opportunity entrepreneurial dynamics and that these two dynamics can combine within the same individual. The analysis of the impact of the socio-economic characteristics of the founder on his propensity to be driven by necessity and/or opportunity dynamics, has pointed out that

considering an individual as exclusively opportunistic or necessity-driven, could be haphazard. The opportunity-necessity entrepreneurial typology should be refined. It is essential that in future research, the two profiles be examined separately because they obey to different mechanisms (Hechavarria & Reynolds, 2009). According to Gabrielsson & Politis (2009), the motivations of an individual have an impact on his decision-making process and on his way to react. Despite these observations, up to now, no study on necessity and opportunity dynamics has examined whether the latter have an impact on the founder's entrepreneurial strategy regarding resources (financial, human, etc.) used in the creation process stage and the kind of venture created. We consider that such a survey could be a significant contribution for a better understanding of the various implications of necessity and/or opportunity dynamics on new venture creation.

LIMITATIONS

We believe that developing an adequate theoretical framework to study necessity and opportunity entrepreneurs would allow us to take the entire set of factors that could both influence the individual's positioning in terms of necessity and/or opportunity and its possible evolution (e.g. necessity changing into opportunity and vice versa) into account. As Audretsch (2003) argues, the studies looking at firm creation motivations do not consider the whole set of factors likely to influence individuals' decision to set up a business. Therefore, we believe that an appropriate theoretical and empirical framework that

would allow us to consider several aspects of necessity and opportunity entrepreneurship would be very useful.

REFERENCES

Acs, Z.J., Desai, S. & Hessels, J. (2008), Entrepreneurship, economic development and institutions, *Small Business Economics*, vol.31(3), p.219-234.

Acs, Z.J. (2006), How is entrepreneurship good for economic growth?, *Innovations: Technology, Governance, Globalization*, vol.1(1), p.97-107.

Amit, R. & Muller, E. (1995), "Push and Pull " entrepreneurship, *Journal of Small Business and Entrepreneurship*, vol.12(4), p.64-80.

Arias, A. & Pena, I. (2010), The effect of entrepreneurs' motivation and the local economic environment on young venture performance, *International Journal of Business Environment*, vol.3(1), p.38-56.

Audretsch, D. & Vivarelli, M. (1995), New-firm formation in Italy: a first report, *Economics Letters*, vol.48(1), p.77-81.

Audretsch, D. & Thurik, R. (2000), Capitalism and democracy in the 21st Century: from the managed to the entrepreneurial economy, *Journal of Evolutionary Economics*, vol.10(1), p.17-34.

Audretsch, D. (2003), Entrepreneurship A Survey of the Literature, Enterprise Papers n°14, Enterprise Directorate-General European Commission.

Bergmann, H. & Sternberg, R. (2007), The Changing Face of Entrepreneurship in Germany, *Small Business Economics,* vol.28(2-3), p.205-221.

Bhola, R., Verheul, I., Thurik, R. & Grilo, I. (2006), Explaining engagement levels of opportunity and necessity entrepreneurs, EIM Business and Policy Research, H200610.

Birley, S. & Westhead, P. (1994), A Taxonomy of Business Start-up Reasons and Their Impact on Firm Growth and Size, *Journal of Business Venturing*, vol.9(1), p.7-31.

Block, J. & Koellinger, P. (2009), I Can't Get No Satisfaction-Necessity Entrepreneurship and Procedural Utility, *KYKLOS*, vol.62(2), p.191-209.

Block, J. & Sandner, P. (2009), Necessity and Opportunity Entrepreneurs and Their Duration in Self-employment: Evidence from German Micro Data, *Journal of Industry, Competition and Trade*, vol.9(2), p.117-137.

Block, J. & Sandner, P. (2006), The Effect of Motivation on Self-Employment Duration in Germany : Necessity versus Opportunity Entrepreneurs, Munich Personal RePEC Archive Paper, n°215.

Block, J. & Wagner, M. (2006), Necessity and Opportunity Entrepreneurs in Germany: Characteristics and Earnings Differentials, Munich Personal RePEC Archive Paper, n°610.

Bosma, N & Levie J. (2010), Global Entepreneurship Monitor, 2009 Global Report, Babson College.

Brockhaus, R.H. (1980), The effect of job dissatisfaction on the decision to start a business, *Journal of Small Business Management*, vol.18(1), p.37-43.

Buenstorf, G. (2009), Opportunity spin-offs and necessity spin-offs, *International Journal of Entrepreneurial Venturing*, vol.1(1), p.22-40.

Burke, A. (1997), Small Firm Start-up by Composers in the Recording Industry, *Small Business Economics*, vol.9(6), p.463-471.

Buttner, H.E. & Moore, D.P. (1997), Women's Organizational Exodus to Entrepreneurship: Self-Reported Motivations and Correlates with Success, *Journal of Small Business Management*, vol.35(1), p.34-46.

Carter, N.M., Gartner, W.B., Shaver, K.G. & Gatewood, E.J. (2003), The career reasons of nascent entrepreneurs, *Journal of Business Venturing*, vol.18(1), p.13-39.

Cassar, G. (2007), Money, money, money? A Longitudinal investigation of entrepreneur career reasons, growth preferences and

achieved growth, *Entrepreneurship and Regional Development*, vol.19(1), p.89-107.

Davidsson, P., Lindmark, L. & Olofsson, C. (1994), New Firm Formation and Regional Development in Sweden, *Regional Studies*, vol.28(4), p.395-410.

Djankov, S., Miguel, E., Qian, Y., Roland, G. & Zhuravskaya E. (2006), Entrepreneurship : First Results from Russia, CEPR Discussion papers 5707, 1-19.

Duchéneaut, B. (1997), Women entrepreneurs in small and medium enterprises: a major force for innovation and job creation, Report prepared for the OECD Conference, Paris, 16-18 April (cited by Orhan & Scott, 2001).

Evans, D. & Leighton, L. (1989), Some Empirical Aspects of Entrepreneurship, *American Economic Review*, vol.79(3), p.519-535.

Fotti, A. & Vivarelli, M. (1994), An Econometric Test of the Self-employment Model: The Case of Italy, *Small Business Economics*, vol.6(2), p.81-93.

Fritsch, M. (1992), Regional Differences in New Firm Formation: Evidence from West Germany, *Regional Studies*, vol.26(3), p.233-241.

Gabrielsson, J. & Politis, D. (2009), Career motives and entrepreneurial decision-making: examining preferences for causal and effectual logics in the early stage of new ventures, *Small Business Economics*, DOI 10.1007/s11187-009-9217-3.

Garofoli, G. (1994), New Firm Formation and Regional Development: The Italian Case, *Regional Studies*, vol.28(4), p.381-393.

Georgellis, Y. & Wall, H.J. (2000), What makes a region entrepreneurial? Evidence from Britain, *The annals Regional Science*, vol.34(3), p.385-403.

Gilad, B. & Levine, P. (1986), A behavioral model of entrepreneurial supply, *Journal of Small Business Management*, vol.24(4), p.45-51.

Gurtoo, A. & Williams, C.C. (2009), Entrepreneurship and the informal sector: Some lessons from India, *Entrepreneurship and Innovation*, vol.10(1), p.1-8.

Hamilton, R.T. (1989), Unemployment and business formation rates: reconciling time series and cross-section evidence, *Environment and Planning*, vol.21(2), p.249-255.

Harrison, R.T. & Hart, M. (1983), Factors influencing new business formation: a case study of Northern Ireland, *Environment and Planning*, vol.15(10), p.1395-1412.

Hart, M. & Gudgin, G. (1994), Spatial Variations in New Firm Formation in the Republic of Ireland, 1980-1990, *Regional Studies*, 28(4), 367-380.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity entrepreneurs, *International Entrepreneurship and Management Journal*, vol.5(4), p.417-437.

Henrekson, M. & Sanandaji, T. (2011), The interactions of entrepreneurship and institutions, *Journal of Institutional Economics*, vol.7(1), p.47-75.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, vol.31(3), p.323-339.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Drivers of entrepreneurial aspirations at the country level: the role of start-up motivations and social security, *International Entrepreneurship and Management Journal*, vol.4(4), p.401-417.

Hisrich, R. & Peters, M. (1998), *Entrepreneurship*, Chicago, Irwin.

Hughes, K.D. (2003), "Pushed or Pulled? Women's Entry into Self-Employment and Small Business Ownership, *Gender, Work and Organization*, vol.10(4), p.433-454.

Johnson, P. & Darnell, A. (1976), New firm formation in Great Britain, WP-5, Department of Economics, University of Durham, Durham, England (cited by Harrison & Hart, 1983).

Kautonen, T. & Palmroos, J. (2010), The impact of a necessity-based start-up on subsequent entrepreneurial satisfaction, *International Entrepreneurship and Management Journal*, vol.6(3), p.285-300.

Kariv, D., Menzies, T.V., Brenner, G.A. & Filion, L.J. (2009), Transnational Networking and Business Performance: Ethnic Entrepreneurs in Canada, *Entrepreneurship & Regional Development*, vol.21(3), p.239-264.

Kirkwood, J. (2009), Motivational factors in a push-pull theory of entrepreneurship, *Gender in Management: An international Journal*, vol.25(5), p.346-364.

Kolvereid, L. (1992), Growth aspirations among Norwegian entrepreneurs", *Journal of Business Venturing*, vol.7(3), p.209-222.

Mason, C. (1989), Explaining Recent Trends in New Firm Formation in the UK: Some Evidence from South Hampshire, *Regional Studies*, vol.23(4), p.31-46.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, vol.32(5), p.875-895.

Moyes, A. & Westhead, P. (1990), Environments for New Firm Formation in Great Britain, *Regional Studies,* vol.24(2), p.123-136.

Noorderhaven, N., Thurik, R., Wennekers, S. & Van Stel, A. (2004), The Role of Dissatisfaction and per Capita Income in Explaining Self-Employment across 15 European countries, *Entrepreneurship Theory and Practice*, vol.28(5), p.447-466.

Orhan, M. & Scott, D. (2001), Why women enter into entrepreneurship: An explanatory model, *Women in Management Review*, vol.16(5), p.232-243.

Oxenfeldt, A.R. (1943), New Firms and Free Enterprise (American Council on Public affairs, Washington, Dc) (cited by Harrison & Hart, 1983).

Reynolds, P.D., Camp, S.M., Bygrave, W.D., Autio, E. & Hay, M. (2002), GEM Global Entrepreneurship Report, 2001 Summary Report, 1-126. Accessed December 22, 2010 http://www.gemconsortium.org/download/1293023015823/Summary%20Report%20Version%208%2002%20April%2002.pdf

Ritsilä, J. & Tervo, H. (2002), Effects of Unemployment on New Firm Formation: Micro-level Panel Data Evidence from Finland, *Small Business Economics*, vol.19(1), p.31-40.

Robichaud, Y., LeBrasseur, R., Riverin, N. & Zinger, J.T. (2006), L'influence des motivations pression-attraction (« push-pull ») sur la conduite d'une petite entreprise lors de la phase de création : une comparaison hommes/femmes, presented at the 8th Congrès International Francophone en Entrepreneuriat et PME (CIFEPME), Fribourg (Switzerland), 1-19.

Robson, M. (1996), Macroeconomic Factors in the Birth and Death of UK Firms: Evidence form Quarterly VAT Registrations, *Manchester School of Economic and Social Studies*, vol.64(2), p.170-188.

Scheinberg, S. & MacMillan, I.C. (1988), An 11 country study of motivations to start a business, *Frontiers of Entrepreneurship Research,* Editions Babson College.

Shapero, A. & Sokol, L. (1982), The social dimensions of entrepreneurship. In Kent, C., Sexton, D. & Vesper, K. (eds). *The Encyclopedia of Entrepeneurship,* Englewood Cliffs, NJ, p.72-90.

Solymossy, E. (1997), Push/Pull motivations: does it matter in venture performance?, *Frontiers of Entrepreneurship Research,* Editions Babson College.

Srivastava, V.K & Giles, D.E.A (1987), *Seemingly Unrelated Regression Equation Models,* Marcel Dekker, New-York.

Staber, U. & Bögenhold, D. (1993), Self-employment: a study of seventeen OECD countries, *Industrial Relations Journal*, vol.24(2), p.126-137.

Uhlaner, L. & Thurik, R. (2007), Postmaterialism influencing total entrepreneurial activity across nations, *Journal of Evolutionary Economics*, vol.17(2), p.161-185.

Van Gelderen, M., Thurik, R. & Bosma, N. (2005), Success and Risk Factors in the Pre-Startup Phase, *Small Business Economics*, vol.24(4), p.365-380.

Van, Praag, M.C. (2003), Business Survival and Success of Young Small Business Owners, *Small Business Economics*, vol.21(1), p.1-17.

Verheul, I, Thurik, R., Hessels, J. & van der Zwan, P. (2010), Factors Influencing the Entrepreneurial Engagement of Opportunity and Necessity Entrepreneurs, EIM Research Reports, H201011, March 2010, 1-24.

Vivarelli, M. (2004), Are all the Potential Entrepreneurs So Good?, *Small Business Economics*, vol.23(1), p.41-49.

Wennerkers, S., van Steel, A., Carree, M. & Thurik, R. (2010), The relationship between entrepreneurship and economic development: is it U-shaped?, EIM Research Reports, H200824.

Wagner, J. (2005), Nascent Necessity and Opportunity Entrepreneurs in Germany Evidence from the Regional Entrepreneurship Monitor (REM), Working Paper n°10, University of Lüneburg Working Paper Series in Economics, 1-24.

Williams, C.W. (2009), The motives of off-the-book entrepreneurs: necessity-or opportunity driven?, *International Entrepreneurship and Management Journal*, vol.5(2), p.203-217.

Williams, C.W. (2008), Beyond necessity-driven versus opportunity-driven entrepreneurship. A study of informal entrepreneurs in England, Russia and Ukraine, *Entrepreneurship and Innovation*, vol.9(3), p.157-165.

Table 1. Classification of Indicators of Necessity-Opportunity Entrepreneurship

Necessity	*Opportunity*
Escaping unemployment	Earning big money
Obtaining prestige	Increasing income
Being socially recognized	Being autonomous
Meeting family expectations	Creating one's own job
Perpetuating the family tradition	Having no boss anymore
	Developing new products/services
	Developing new manufacturing process

Table 2. PCA : Eigenvalue and Percentage of Variance Explained by Each Component After Rotation

Components	Eigenvalue and Variances After Rotation		
	Total	% of Variance	% Cumul. Variance
1	2,303	19,195	19,195
2	1,638	13,651	32,846
3	1,611	13,429	46,275
4	1,541	12,843	59,117
5	1,478	12,315	71,433
6	1,018	8,482	79,915

Table 3. PCA Component Matrix after Rotation

Necessity-opportunity indicators	*Components*					
	1	*2*	*3*	*4*	*5*	*6*
Obtaining prestige	.308	.242	.273	.269	**.777**	.143
Creating one's own job	**.783**	.144	.262	.284	.170	.140
Being autonomous	**.815**	.160	.333	.197	129	.107
Developing new manufacturing process	.280	.245	**.785**	.167	.248	.102
Developing new products/services	.253	.217	**.842**	.160	.124	.143
Being socially recognized	.446	.359	.276	.240	**.525**	.206
Increasing income	.243	.230	.184	**.856**	.170	.140
Earning big money	.401	.329	.201	**.642**	.282	.184
Having no boss anymore	**.773**	.260	.115	.149	.295	.162
Perpetuating the family tradition	.242	**.763**	.283	.295	.205	.192
Meeting family expectations	.211	**.847**	.229	.194	.180	.183
Escaping unemployment	.225	.259	.176	.190	.154	**.889**

Table 4: SUR model estimation – dependent variable = necessity-opportunity component

	Component 'desire for independence'			Component 'family influence'			Component 'market opportunity'		
Explanatory variables	Coefficients	Std.	P-value	Coefficients	Std.	P-value	Coefficients	Std.	P-value
Gender	0.0519	0.090	0.564	0.2216***	0.082	0.007	-0.1038	0.093	0.264
Age	-0.0231***	0.006	0	-0.0021	0.005	0.687	-0.0077	0.006	0.188
Age squared	0.0000***	0.000	0	0.0000	0.000	0.660	0.0000	0.000	0.213
High school graduate	0.0053	0.189	0.978	0.1515	0.172	0.379	-0.0562	0.195	0.773
University graduate	-0.0003	0.179	0.998	-0.2476	0.162	0.128	-0.2155	0.184	0.242
Entrepreneurial family	-0.0625	0.101	0.534	0.4783***	0.091	0	0.0939	0.104	0.365
Same industry as parents	-0.1276	0.117	0.277	0.4659***	0.107	0	-0.0720	0.121	0.552
After-tax monthly income	0.0852	0.076	0.265	-0.0902	0.069	0.196	0.0688	0.079	0.383
Number of people living on the income	-0.0204	0.037	0.585	0.0140	0.034	0.681	-0.0286	0.039	0.459
Jobseeker	0.2938	0.220	0.183	-0.3374*	0.201	0.094	0.1428	0.228	0.531
Executive in the private sector	0.2419	0.162	0.136	-0.0431	0.148	0.817	0.4104***	0.168	0.014
Employee in the public sector	-0.0328	0.183	0.857	0.1147	0.166	0.491	0.3394*	0.188	0.072
Employee in the private sector	0.2080	0.138	0.131	-0.1184	0.125	0.925	0.1811	0.142	0.203
Blue-collar worker	0.2978	0.222	0.179	-0.2585	0.202	0.201	-0.0235	0.229	0.918
Self-employed	0.1218	0.135	0.366	0.21184*	0.122	0.085	0.1072	0.139	0.440
Constant	0.7330*	0.362	0.043	-0.2687	0.330	0.0.416	0.3744	0.373	0.316
R2	0.082			0.211			0.044		
N° observations	378			378			378		

	Component 'profit search'			Component 'search for social recognition'			Component 'unemployment'		
Explanatory variables	Coefficients	Std.	P-value	Coefficients	Std.	P-value	Coefficients	Std.	P-value
Gender	-0.0521	0.092	0.572	0.0712	0.089	0.426	0.2475**	0.080	0.002
Age	-0.0100*	0.006	0.088	-0.0292***	0.006	0	0.0097*	0.005	0.056
Age squared	0.0000*	0.000	0.088	0.0000***	0.000	0	0.0000*	0.000	0.061
High school graduate	0.0555	0.194	0.774	-0.2511	0.188	0.181	0.0342	0.167	0.838
University graduate	0.0782	0.183	0.669	-0.2934*	0.177	0.098	-0.0293	0.158	0.853
Entrepreneurial family	0.0375	0.103	0.716	-0.0962	0.100	0.335	-0.1492*	0.089	0.095
Same industry as parents	0.1528	0.120	0.204	-0.2535**	0.117	0.030	0.0769	0.104	0.461
After-tax monthly income	-0.0888	0.078	0.257	-0.0628	0.076	0.408	-0.1198*	0.067	0.078
Number of people living on the income	0.0517	0.038	0.178	-0.0135	0.037	0.716	- 0.0455	0.033	0.172
Jobseeker	-0.0480	0.226	0.832	-0.1234	0.219	0.573	2.0053***	0.196	0
Executive in the private sector	-0.2996*	0.166	0.072	0.1707	0.161	0.290	0.1908	0.144	0.186
Employee in the public sector	-0.4519**	0.187	0.016	0.4657**	0.181	0.010	- 0.705	0.162	0.664
Employee in the private sector	-0.3296**	0.141	0.020	-0.1308	0.137	0.339	0.0547	0.122	0.655
Blue-collar worker	-0.3113	0.227	0.170	-0.0736	0.220	0.738	0.1181	0.197	0.549
Self-employed	0.1334	0.138	0.333	-0.0896	0.134	0.503	-0.0274	0.119	0.819
Constant	0.5538	0.371	0.135	1.7056***	0.359	0	-0.3946	0.321	0.220
R2	0.064			0.108			0.280		
N° observations	378			378			378		

*p < 0,10 ; **p < 0,05 ; ***p< 0,001

Necessity and Opportunity Entrepreneurship:

What impacts on entrepreneur's sector choice?[*†]

ABSTRACT

The objective of this study is to highlight the influence of necessity and opportunity motivations on the choice of the economic sector in which a business is started. To do this, we use a sample of 538 entrepreneurs. Our results first show that there are significant differences in terms of sectors of activity with respect to necessity and opportunity motivations. Second, our research also clearly shows that the necessity and opportunity motivations have a significant impact on the sector choice of the entrepreneur. Trade, Hotel, Restaurant, and services sector correspond to necessity entrepreneurship and financial, industry or health sectors to an opportunity entrepreneurship.

[*] Joint work with Frank Janssen, Louvain School of Management, Université Catholique de Louvain, Jean-Luc Guyot, Institut Wallon de l'Evaluation, de la Prospective et de la Statistique (IWEPS, Belgium) and Olivier Lohest (IWEPS, Belgium).

[†] An early version of this third essay has been accepted for presentation at the 2008 Congrès Francophone en Entrepreneuriat et PME and the 22° Research in Entrepreneurship and Small Business conference (2008). A french version of this essay entitled "Entrepreneuriat contraint et volontaire: quel impact sur le choix sectoriel des entrepreneurs?" has been accepted for publication in the *Revue Internationale PME* (forthcoming).

INTRODUCTION

In the last ten years, the distinction between necessity and opportunity entrepreneurship, as defined by Reynolds et al. (2001), is used in numerous studies on the characteristics of entrepreneurs. This typology implicitly refers to the individual's motivation to engage in entrepreneurial activity. These motivations are either of a "push" or "pull" nature (Thurik et al., 2008; Acs, 2006). Necessity or push entrepreneurship occurs when an individual creates a business because, among other factors, of a lack of other employment alternatives and/or because of family responsibilities. Opportunity or pull entrepreneurship occurs when an individual creates a business to pursue an opportunity and/or because of a desire for independence (Verheul et al., 2010; Bhola et al., 2006). Since Reynolds et al. (2002), numerous studies having adopted an individual approach to necessity and opportunity entrepreneurship have shown the existence of many socio-economic differences between necessity and opportunity entrepreneurs in terms of education, professional experience, age, gender, or role models (Verheul et al., 2010; Block & Sandner, 2009; Williams, 2009; Schjoedt & Shaver, 2007; Uhlaner & Thurik, 2007; Bhola et al., 2006; Wagner, 2005; Noorderhaven et al., 2004; Vivarelli, 2004; Carter et al., 2003; Ritsilä & Tervo, 2002; Orhan & Scott, 2001).

Today, many authors have called for more studies on the impact an entrepreneur's necessity or opportunity may have on his or her decisions or entrepreneurial aspirations (Zhao et al., 2010; Shane et

al., 2003). In fact, an individual's entrepreneurial decisions may be linked to this individual's motivations (Hechavarria & Reynolds, 2009). Furthermore, Shane et al. (2003) highlight that individual motivations may have an influence on the value of the developed activity. According to these authors, individuals, because of their different motivations, are not all created equal when it comes to their ability to identify high added-value opportunities. Moreover, necessity entrepreneurship is sometimes considered as having a limited impact on economic development as opposed to opportunity entrepreneurship (Acs, 2006). These findings may be explained by the fact that the personal motivations of necessity entrepreneurs, who depend on their daily activity to survive, limit their contribution to innovation, employment growth, and exports (Hessels et al., 2008). Shane et al. (2003) suppose that if motivations play a role in the business' evolution, they may also influence the industry sector chosen by the entrepreneur. In spite of this hypothesis, no study has analysed the influence necessity or opportunity motivations may have on the choice of sector. It may be conceived that an entrepreneur motivated to start a business mainly for survival and who is economically dependant on the new business, will choose a sector where start-up is quick and easy. On the other hand, the opportunity creator may choose a sector geared on growth and innovation with a long-term perspective.

Using these observations as a starting point, the object of this article will be to determine the influence necessity or opportunity motivations have on the entrepreneur's choice of sector. To do so, a sample of 538 entrepreneurs has been used.

The article is structured as follows. Section 1 summarizes the literature relevant to different entrepreneurial aspirations and presents our hypotheses. Section 2 describes the database and the methodology used. Section 3 presents our study's findings, which will be discussed in section 4. Finally, we conclude with what can be learned from this study and offer avenues for future studies.

LITERATURE REVIEW AND HYPOTHESES

Studies by Smith & Miner (1983) or more recently by Cassar (2007), Van stel et al. (2007), and Baum & Locke (2004), have shown that a creator's profile influences the nascent venture or its strategy. These studies have established a link between the creator's profile and the type of venture created including in terms of job creation, size, growth, and exports. Differences also seem to exist between necessity and opportunity entrepreneurs (Hessels et al., 2008). The following section presents findings of studies having recently touched on this question.

Innovation, growth, exports, and motivation

McMullen et al. (2008) show that the motivations of opportunity entrepreneurs push them towards innovation, growth, and exports as opposed to necessity entrepreneurs. Hessels et al. (2008) highlight that opportunity entrepreneurs, as opposed to necessity entrepreneurs, have exports as an objective. Hechavarria & Reynolds (2009), as well as Morris et al. (2006) also observe a difference in business growth between these two types of entrepreneurship. When it comes to

entrepreneurship, opportunity entrepreneurs are more ambitious than necessity entrepreneurs (Reynolds et al., 2002). Other studies have shown that ventures created by opportunity entrepreneurs are more profitable than those created by necessity entrepreneurs (Block & Sandner, 2009; Block & Wagner, 2007). The later engage in "imitative ventures" and their firm has lower profitability than the former (McMullen et al., 2008).

Sectoral aspiration and motivation

It would seem that sector differences exist between these two types of entrepreneurs. Reynolds et al. (2002) demonstrated that the percentage of necessity entrepreneurs is more important in agriculture, forestry, fishing and the hotel and restaurants sectors, compared to opportunity creators who seem to be more present in the automotive and business services sector. These sector differences are also highlighted by Hughes (2006). According to this author, "forced" entrepreneurs are more prevalent in the trade sector than "classic" entrepreneurs. Caliendo & Kritikos (2009) conclude that the trade sector has a higher percentage of necessity entrepreneurs, while opportunity entrepreneurs are more present in the technology sectors. For Block & Wagner (2006), since necessity entrepreneurs have a lower reservation wage[1], they may decide to create businesses in economic sectors with lower revenues. Whatever the reservation wage level one may ask whether because of the survival aspect reflected by necessity business creation, necessity entrepreneurs are not more preoccupied with short-

[1] Salary for which an individual is ready to work.

term needs rather than real market needs. This might explain why necessity entrepreneurship is found in sectors where there is no gaps between supply and demand and where business creation is rather easy. This proposition is supported by Van Stel et al. (2007). For these authors, necessity entrepreneurs, as opposed to opportunity entrepreneurs, do not develop an activity to meet a specific market need.

Although it is well established that entrepreneurial motivations (whether necessity or opportunity) influence growth, job creation, exports, and investments, we do not know if these motivations influence the choice of sector. In fact, if Caliendo & Kritkos (2009); Hughes (2006), and Reynolds et al. (2001) observe, in a purely descriptive point of view, differences in sector according to the type of entrepreneurship, these authors have not determined in a robust and significant way whether these differences may be dictated (to some extent) by the individual's motivation to create. However, for Shane et al. (2003), while motivations play a role in the entrepreneurial process and have an impact on the venture's characteristics, they may also influence the sector choice made by the entrepreneur. Let us note, at this time, that it is not excluded that an individual can be guided by both necessity and opportunity motivations (Williams, 2009). We will thus speak of creation mainly guided by necessity motivations and creation mainly guided by opportunity motivations.

It may be supposed that an entrepreneur motivated to create a venture mainly by survival, and so, by economic dependence towards this

venture, will choose and sector that offers a quick and easy creation process. For example, this entrepreneur would tend towards a sector where large start-up investments are not necessary, where access to the profession is not or very slightly restricted or regulated (lower level education), and/or where administrative measures for pre-start-up and start-up are open and fast. On the other hand, opportunity creators may chose, according to their main motivations, a sector more geared towards growth and innovation, requiring a long-term vision, where demand is high, and where competition (present and future) may be limited by costs and/or access conditions to the sector.

These findings lead us to formulate the following hypotheses:

> H1: *Entrepreneurs mainly guided by necessity motivations have a higher probability of creating in sectors with low entry barriers such as trade, hotel and restaurant and service sectors.*

> H2: *Entrepreneurs mainly guided by opportunity motivations have a higher probability of creating in innovative sectors, with high profitability, and/or high growth, such as finance and industrial sectors.*

As noted by Hughes (2003), necessity and opportunity motivations are the result of an individual's situation and specific circumstances at the time of creation. It is probable that the motivations' influencing the

choice of sector be tempered by certain individual characteristics. For example, education, as well as prior knowledge of the sector may be elements that determine the sector choice. According to Block & Sandner (2009) human capital, that is education and experience, is very important in entrepreneurial decisions. Moreover, it has been established that previous experience in the same sector plays a significant role in the creator's sector choice (Buenstorf, 2009). Role models also influence an individual's entrepreneurial decision (Van Auken et al., 2006). In fact, contacts with other entrepreneurs may allow the creator to get familiar with a particular sector (suppliers, and/or potential clients, entry barriers, etc.) and influence the final sector choice. Finally, it is possible that an individual's gender may also influence sector choice. Certain authors do not hesitate to speak of a male stereotype in entrepreneurship (Gupta et al., 2008). In fact, characteristics associated with entrepreneurs, such as independence, aggressiveness, autonomy, courage, etc., are often associated with the men (Gupta et al., 2009). The influence of such a stereotype may lead individuals to develop a negative perception of their entrepreneurial skills, which may explain the difference in entrepreneurial behaviour between women and men (Krueger, 2007). This stereotype may also impact an individual's sector choice. Some studies have shown that women tend to choose trade and services sectors (Brush et al., 2004). On the other hand, men are more present in industrial or construction sectors (Allen et al., 2008). These personal characteristics may modify the influence motivations have on the sector choice.

These findings lead us to formulate the following hypothesis:

H3: *The influence creation motivations have on the sector choice is linked to personal characteristics.*

METHODOLOGICAL FRAMEWORK

Presentation of the Database

To identify our population (new businesses started ex nihilo), we have first used the information available in the administrative index of Belgian businesses (*Eurodb* index) in order to isolate ventures started between June 1, 1998 and May 31, 2000. On the basis of these criteria, 12,748 businesses within the *Eurodb* index have been indentified as new ventures. In a second stage, all 12,748 businesses were contacted by mail between September 15, and October 30, 2001 in order to isolate the businesses created ex nihilo and to identify their founders, as well as their previous experience regarding venture creation. This survey was conducted between October and November 2001. Out of 12,748 businesses which were contacted, 4,562 responded to this survey, which corresponds to a response rate of 35.8%. Among the respondents, 7 out of 10 corresponded to *ex nihilo* creations. The rest had been created through mergers, subsidiary creations or demergers. Out of 4,562 firms, we have been able to identify 6,392 founders, among which 4,322 were first business founder; this represents a little bit more than 70%. In a third stage, we looked at the socio-economic characteristics of business founders. Between September and October 2004, all founders identified in the previous stage, were invited to take part in a survey (through mail and phone reminders). The questionnaire was structured in 4 main

sections. The first section dealt with the characteristics of the business at the time of its creation, i.e. between June 1, 1998 and May 31, 2000 (date of foundation, name of the company, industry, etc.). The second section was about the new venture creation process. This section was particularly aimed at identifying the "temporality" between the idea and the actual creation of the new venture, the personal and professional triggers during this phase, the kind of steps taken, the support obtained or hoped for, and the potential barriers encountered by the business founders. The third section dealt with the financial resources that were mobilized during the creation and the main strategic orientations that were adopted. The fourth and last section focused on the founder and his circle. The questions about the founder concerned his age, academic background, socio-professional and socio-economic situation at start-up. One question was about the personal motivations the entrepreneur was pursuing through the act of business creation. This questionnaire was sent to 3,520 business founders out of 4,322 who were identified in the previous phase. This difference was due to lacking addresses or phone numbers of 800 founders. After a phase of phone reminders, 538 valid questionnaires were finally received, which corresponds to a response rate of 12.4%.

Methodology

Before describing the statistical procedure used in this research, we present the indicators used in order to identify the necessity and the opportunity entrepreneur's profile and the activity sectors.

Measuring Entrepreneurial Motivations

As highlighted above, the empirical examination of the opportunistic or necessity-driven nature of an entrepreneurial endeavour is not an easy task insofar as few studies offer a set of indicators enabling their identification. Moreover, as stressed by Kautonen & Palmroos (2010), necessity entrepreneurship is generally associated with a sole motivation: "unemployment". And yet, other factors are likely to originate this kind of entrepreneurship.

On the basis of these observations, we have used indicators which are either supported by previous research, or can be justified with no need for too restrictive assumptions. We have, in a first stage, classified the items of our questionnaire regarding new venture creation motivations depending on whether we considered them as obeying to an opportunity or necessity dynamic. The function of this classification is purely heuristic, all the more so, as Hughes (2003) emphasizes, as the meaning of an event or situation in terms of opportunity or necessity may vary depending on the individual and the specific circumstances he/she faces before start-up. The following table presents this classification.

"Insert Table 1 Here"

Regarding the *get out of unemployment* indicator, our classification is based on previous work by Block & Wagner (2006); van Praag (2003) ; Ritsilä & Tervo (2002) ; Evans & Leighton (1989) ; Mason (1989) and Harrison & Hart (1983). The absence of personal

development in one's work and/or the need for recognition are generally associated with professional or personal dissatisfaction and thus with necessity entrepreneurship (Noorderhaven et al., 2004). Therefore, we have classified the *obtaining prestige* and *being socially recognized* indicators in the necessity section. The *meeting family expectations* and *perpetuating the family tradition* indicators have been classified in the necessity section because they correspond to situations where individuals have been pushed to start or take over a business by their family circle. In addition, this choice echoes back to the work of Bhola et al. (2006) who demonstrate that an individual can be pushed into entrepreneurship because of the obligation to take over the family business. Our choices to classify the indicators[2] *earning big money, increasing one's income, being autonomous, creating one's own job, having no boss anymore, developing new products,* and *developing new manufacturing processes* into the opportunity indicators notably relies on previous research by Cassar (2007); Carter et al. (2003); Kolvereid (1992); Mason (1989); Harrison & Hart (1983).

Industry sector identification

The database grouped creators into 15 different sectors[3]. To avoid any problems of sample representativeness, we chose to eliminate sectors with low percentages (below 1.5% of responses). Also, certain sectors

[2] The *creating one's own job* and *having no boss anymore* indicators refer to the desire of autonomy and independence. These two motivations are generally classified as indicators of opportunity entrepreneurship (Carter et al., 2003).

[3] These sectors are: Agriculture, hunting and sylviculture ; Extractive industry ; Manufacturing industry ; Electricity, gas, and water production and distribution ; Construction ; Trade and marketing, automotive and domestic item repair; Hotel and restaurant ; Communication and transport ; Finance and insurance ; Public administration ; Education and training ; Health and social action ; Collective, social, and personal services ; Real estate, rent and business services ; Other.

were eliminated because of their (quasi) monopolistic characteristics (Electricity, gas, and water production and distribution) or representation of the state (Public administration). This operation left us with the nine most representative sectors: Agriculture, Manufacturing, Construction, Trade, Hotel and restaurant, Finance, Real estate, Health, and Services (See Table 2 below). These represent 94.7% of the creators originally included in the database. Table 2 indicates that the best represented sector is the Real estate sector with 26.8% of creators belonging to this sector.

"Insert Table 2 Here"

Statistical procedure

Data treatment was done using a three-step method. Firstly, necessity and opportunity motivations are identified. A principle component analysis (PCA) is applied to the data according to the necessity-opportunity indicators (see Table 1). It will thus be possible to identify the individual position of creators relative to the two types of motivations. During the second step, using an ANOVA-type[4] univariate analysis, we analyse the differences in sensitivity between the various sectors relative to the necessity-opportunity motivations identified during the PCA. The hypothesis (*Ho*)[5] tested by the ANOVA is that, on average, importance of necessity and opportunity motivations is identical among the various sectors. In conjunction with

[4] The normality hypothesis is respected.
[5] The alternative hypothesis (*H1*) was that for at least one of the groups (sectors), the average importance of one (or many) of the motivations is significantly different from the other groups.

the ANOVA, we conduct a multiple comparison analysis to determine which sectors present different sensitivities according to creation motivation. Although we suppose that the data follows a normal distribution, we prefer Levene's test to Bartlett's test to check for homogeneity of variances. Levene's test is less prone to type I error (rejection of the null hypothesis when it is correct) in case of lack of data normality. When homogeneity of variances cannot be proven, we use Welch's test. In fact, in cases where homogeneity of variances is absent, Fischer's test used for the ANOVA is not totally robust and the results may be incorrect. Welch's test has the advantage of giving ANOVA results that are more reliable while allowing for non homogeneity of variances. During the last step of our analysis, to check our hypotheses, we conduct an analysis using a multinomial logit model. The main interest behind this modelling is that it allows us to take into account the multiple sector choices business creators will often make. From a more formal point of view, in this type of modelling, we pose as a hypothesis that an individual *i* must choose one and only one alternative (*n*) among a group of *N* alternatives. For each of these *N* alternatives (indicated y n=1, …, N), corresponds a utility function that may be written as follows:

$$U_{i,n} = X'_{i,n}\beta + \varepsilon_{i,n}$$

Where $X'_{i,n}\beta$ *is* the vector of observable variables and $\varepsilon_{i,n}$ is the vector of independent random variables. The individual is supposed to choose the modality that maximises its utility. The probability of choosing *n* comes down to estimating the following model by likelihood maximum:

$$P(y_i = n) = \frac{\exp(X_i \beta_n)}{1 + \sum_{n=1}^{N} \exp(X_i \beta_n)}$$

In our model, the dependant variable has nine categories according to the creation sector: i) agriculture, ii) manufacturing, iii) construction, iv) trade, v) hotel and restaurant, vi) finance, vii) real estate, viii) health, and ix) services. The reference category is made up of the group of creators whose business was created in real estate. As for the explanatory variables used, in addition to the six motivations identified[6], we used four moderator variables. These variables are linked to certain socio-economic characteristics of the creator that may have played a role on the choice of sector. As mentioned previously, an individual's necessity and opportunity motivations are function of situation and particular circumstances at the time of creation (Hughes, 2003). From then on, it is probable that the influence motivations may have been moderated by certain creator characteristics.

Based on this, we propose to estimate two models. The first (model 1) aims to verify hypotheses H1 and H2 by determining the strict influence of only the necessity and opportunity motivations on the sector choice of the creator. The second (model 2) aims to check the third hypothesis H3 by examining if the influence motivations have on the sector choice, identified in model 1, is moderated by the creator's characteristics. To do so, we use four moderator variables in the second model:

[6] As opposed to ANOVA and in multiple comparisons, necessity and opportunity motivations are treated here as continuous variables.

- Education level: three dichotomous variables are included in the model. They measure the highest diploma obtained by the creator at the time of creation. Through these dichotomous variables, three levels of education are identified: 1) no qualifications or at best a junior high school diploma, 2) high school graduate, 3) university degree, post-graduate or PhD;
- The sector of the creator before creation: a dichotomous variable with a value of 1 if the sector prior to creation is identical to the sector of creation, and of 0 if not;
- Entrepreneurial entourage: a dichotomous variable with a value of 1 if the creator knows a business leader personally (parents, uncle, friends);
- Gender of creator: a dichotomous variable with a value of 1 if the creator is a man.

The analyses were conducted using the SPSS 18.0 software.

RESULTS

Before proceeding with the empirical analyses, we wished to verify the internal validity of our classification of the necessity-opportunity indicators (see supra) using a Chronbach's alpha. We obtained an alpha of 0.879 for the necessity item and of 0.907 for the opportunity item.

We then determined if, for the individuals in our sample, it were possible to translate their move towards business creation in terms of necessity-opportunity entrepreneurship. To do so, we used a PCA, as

done by Carter et al. (2003) and Birley & Westhead (1994) in studies on decision factors in business creation. This analysis was conducted on all the necessity-opportunity indicators used. The purpose was to verify if these indicators combine following the presupposed axis of necessity entrepreneurship and opportunity entrepreneurship. The PCA lead us to six factors with an eigenvalue above 1 and explaining 79.915% of the total variance explained by the PCA. Final results of the PCA[7] are presented in Table 3 below.

"Insert Table 3 Here"

The analysis of table 3 allows us to draw the following conclusions. For axis 1 (Cronbach's alpha: 0.818), the motivations *being autonomous, having no boss anymore* and *creating one's own job* are the most representative. The nature of these 3 motivations suggests that axis 1 represents the **desire for independence** as motivation for new venture creation. The analysis of axis 2 (Cronbach's alpha: 0.760) shows that the motivations *perpetuating the family tradition* and *meeting family expectations* are the most correlated with this axis. The latter can be interpreted as referring to the creation motivation resulting from **family influence.** The motivations *developing new manufacturing processes* and *developing new products* are correlated the most with axis 3 (Cronbach's alpha: 0.710). This refers to **market opportunity** as a creation motivation. The motivations *increasing one's income* and *earning big money* are correlated the most with axis

[7] In order to be able to interpret final results of the PCA, we based ourselves on the matrix of "components after rotation". The VARIMAX procedure used redistributes more equally the variance between factors and facilitates their interpretation.

4 (Cronbach's alpha: 0.725). The latter can be interpreted as the creation motivation resulting from "**profit research".** The **search for social recognition** as the creation motivation is identified in axis 5 (Cronbach's alpha: 0.651)[8]. The motivations *obtaining prestige* and *being socially recognized* are the most correlated to this axis. Finally, **unemployment** as a reason for creation is clearly identified by the analysis of axis 6[9] and the *get out unemployment* motivation.

In terms of necessity-opportunity motivations, our PCA has allowed us to indentify 3 kinds of necessity motivations (family influence, social recognition and unemployment) and 3 kinds of opportunity motivations (market opportunity, the desire for independence and profit search).

Importance of motivations in sectors

In the first phase, to determine the possible links between industry sector and the necessity-opportunity nature of the creation, we transformed each of the 6 elements identified by the PCA into binary variables (0, 1) for each individual. To transform the PCA scores into binary variables we used the median cut method (Bair et al., 2006). This method consist in calculating the median value of each variable and attributing the value 0 to the variable when the value is inferior to the median and 1 when the value is superior to the median.

[8] The value of Cronbach's alpha obtained for this axis can be explained by the fact that a high Cronbach value is sometimes difficult to obtain when an axis is only made of two items (Carter et al. 2003).

[9] The Cronbach's analysis cannot be conducted on this axis because it includes only one item.

Table 4 below, with a purely descriptive point of view, allows us to determine for each motivation the sector where it is the most (or least) represented, and the most important (or least important) motivation for each sector.

Firstly, when it comes to the importance of motivations, we note that lack of employment is more (less) present in the hotel and restaurant sector (health sector). Family influence is more (less) important in agriculture (real estate and health). The search for social recognition is more (less) important in trade (manufacturing). The market opportunity motivation is more (less) important in manufacturing (health). Finally, the search for profit is more (less) important in the health sector (hotel and restaurant).

Secondly, if we examine the most (least) important motivation for each sector we find family influence (unemployment) for agriculture, market opportunity (unemployment) for manufacturing and services, desire for independence (unemployment) for construction, finance, and real estate, search for profit (market opportunity) for trade, unemployment and family influence (market opportunity and search for profit) for hotel and restaurant, as well as search for profit (unemployment) for health.

These descriptive results confirm the idea that necessity and opportunity motivations are more important in certain sectors than others. These findings match results by Caliendo & Kritkos (2009), Hughes (2006), and Reynolds et al. (2001).

"Insert Table 4 Here"

During the second step, in order to determine if a significant difference in sensitivity exists between the sectors when linked with the six types of necessity-opportunity motivations identified, we conducted an ANOVA followed by a multiple comparison analysis. Before conducting the ANOVA, we checked for homogeneity of variances for all identified motivations. When homogeneity was not present we used Welch's test to determine if a difference in sensitivity did indeed exist.

Table 5 below presents the results for the homogeneity test. Let us note that for the unemployment, family influence, social recognition and desire for independence motivations, homogeneity of variance was not proven. The interpretation of the ANOVA results (Table 6) for these four motivations will therefore be conducted using Welch's t test. For informational purposes, results from Fischer's test are also presented.

"Insert Table 5 Here"

"Insert Table 6 Here"

ANOVA results presented in Table 6 show that a significant difference in sensitivity exists between at least two sectors for each of the identified motivations, except for the search for social recognition motivation. However, these results do not allow us to significantly

identify which sectors clearly differ from others, for a same motivation. To do this, we conducted a multiple comparison analysis to determine which sectors present different sensitivities than other sectors. This multiple comparison analysis was conducted using the non-parametric Tamhane test. In fact, since Levene's test demonstrated that variances of motivations are not all homogenous, we may not use a parametric test which necessitates this characteristic. Table 7 presents only the significant results of our multiple comparison analysis.

"Insert Table 7 Here"

Firstly, the "unemployment" motivation is, on average, significantly more important for creators in the trade sector than those of the finance or real estate sectors. Secondly, the "family influence" motivation is more important for creators in the agriculture sector than those in the construction, trade, health, and real estate sectors. Creators in the latter sector are less sensitive to this motivation than creators in the service sector. Thirdly, the "market opportunity" motivation is more important for creators in manufacturing than creators in construction. Fourthly, the "desire for independence" motivation is less important for creators in the health sector than for creators in agriculture, trade, real estate, and construction. Creators in the latter sectors are more sensitive to this motivation than creators in manufacturing. Finally, the "search for profit" motivation is more important for creators in the health sector than creators in real estate.

Results from our ANOVA and multiple comparison analyses lead us to conclude that significant differences in sensitivities exist between sectors when linked to the importance of necessity and opportunity motivations. Our results thus confirm statistically the descriptive conclusions of Caliendo & Kritkos (2009), Hughes (2006), and Reynolds et al. (2001). Let us examine further whether these differences may play a role in a creator's sector choice.

Impact(s) of motivations on an individual's sector choice

Analyses conducted in the previous section show that certain motivations are stronger in some sectors than others. Let us reinforce these results with a more in depth analysis. To do so, we propose to estimate the "all things being equal" effect of a creator's necessity and opportunity motivations on the sector choice. To determine both the influence of necessity and opportunity motivations on the sector choice, as well as the moderating role played by the creator's characteristics on the motivations' influence, we propose to estimate two probabilistic models. The first model (model 1) will determine the influence necessity and opportunity motivations have on the creator's sector choice. The second model (model 2) will check if the motivations' influence on the sector choice identified in Model 1 is moderated by the creator's characteristics. Findings are presented in Table 8.

H1 and H2 verification

Looking at the results from model 1, we first notice that a creator's sector choice is not guided solely by necessity or opportunity motivation. In fact, each sector choice seems to be influenced, to a

certain extent, by a group of necessity and opportunity motivations. This confirms reflections by Williams (2008) and Hughes (2006) who stated that an individual may be guided by both necessity and opportunity motivations. However, certain sectors do seem to attract certain dominant motivations. The choice of trade, hotel and restaurant, agriculture, and services sectors is mainly dictated by necessity motivations, especially for the first two sectors. Inversely, the choice of manufacturing, finance, and health sectors is mainly dictated by opportunity motivations. Finally, the choice of the construction sector is dictated equally by necessity and opportunity motivations. Therefore, **H1** and **H2** are **confirmed**.

H3 verification

Globally, results form the second model (Model 2) show that the influence of necessity and opportunity motivations, when controlled with the creator's socio-economic characteristics, are clearer in certain sectors.

As opposed to model 1 results, the choice of the manufacturing and construction sectors is solely dictated by opportunity motivations (market opportunity, desire for independence, and/or search for profit). Model 2 results confirm that the choice of finance and health sectors is solely guided by opportunity entrepreneurship, that is, market opportunity and/or search for profit. In finance and manufacturing, let us also note the positive impact of education. The latter, however, has a negative impact on the construction sector. Choosing the health sector is positively influenced by sector experience and negatively influenced by being a man.

Results from model 2 also show that the choice of agriculture, trade, hotel and restaurant, and service sectors is dictated by both necessity and opportunity motivations. Although these results match model 1's results, we note that the influence of both types of motivations is more nuanced. For these four sectors, as opposed to model 1, the only opportunity motivation present is the "search for profit", while necessity motivations are limited to "unemployment" and "family influence". Being a woman positively influences the choice of hotel and restaurant, trade and service sectors. Education also has a negative impact on the latter two.

Results from model 2 confirm our hypothesis that individual characteristics moderate and/or clarify the influence motivations have on sector choice. **H3** is thus **confirmed**.

"Insert Table 8 Here"

DISCUSSION

The first two hypotheses aimed at confirming if entrepreneurs mainly motivated by reasons of necessity had a higher probability of creating in sectors with low entry barriers such as trade, hotel and restaurant, and services, and whether entrepreneurs mainly motivated by opportunity reasons had a higher probability of creating in innovative sectors, where profitability was high and of high growth such as the finance or manufacturing sectors. The final hypothesis aimed at examining if the influence motivations have on the choice of a sector

may be influenced by the creator's profile. Our findings confirm our hypotheses.

As demonstrated though our ANOVA and multiple comparison analyses, a difference does exist between sectors when comparing the influence of necessity and opportunity motivations. These results confirm the descriptive conclusions by Caliendo & Kritkos (2009), Hughes (2006), and Reynolds et al. (2001). Using a probability regression model we then analyzed the influence necessity and opportunity motivations have on the probability an individual will create in one sector rather than in another. To this day, no other study had examined this relationship using a causality angle. In fact, our knowledge of the relationship between necessity and opportunity motivations and the sector choice of individuals was limited to purely descriptive conclusions of a few studies (supra). Different findings emerge from our regression analyses.

Using the first model, we were able to establish that creators who decided to develop activities in agriculture, trade, hotel and restaurant, and service sectors were mainly guided by necessity motivations. On the other hand, manufacturing, finance, and health sectors were chosen by creators guided by opportunity motivations. These results were refined while taking into account the personal characteristics of the creator, which could, combined with the motivations, play a role in the sector choice. Model 2 demonstrated that the influence of motivations, especially opportunity ones, on sector choice is even clearer. The choice of manufacturing, construction, finance, and health

sectors are solely the result of opportunity motivations. This may be explained by the fact that entry into these sectors is, among other things, conditioned by entry barriers such as restrained professional access or important start-up capital. In addition, the fact that these sectors do not generate daily ready cash the way trade, hotel and restaurant, or services do, may explain why individuals mainly guided by necessity motivations will choose them less frequently.

The influence motivations have on the choice of agriculture, trade, hotel and restaurant, and service sectors is less clear. In fact, individuals having chosen these sectors are guided both by necessity and opportunity motivations. However, without reconsidering the statement that an individual may be incited to create by both constrained and voluntary motivations, we believe the choice of the trade, hotel and restaurant, and service sectors corresponds to necessity entrepreneurship. In fact, for these three sectors, matched with the influence of necessity motivations such as “unemployment” and/or “family influence”, the only opportunity motivation to play a significant role is the “search for profit” motivation. We believe that the influence of this motivation on the sector choice may be explained in the following manner. Firstly, it is relatively easy to start an activity in these sectors because of their low entry barriers. In addition, offer in these sectors is nearly saturated, often due to the lack of innovation. Facts supported by Van Stel et al.’s (2007) conclusions. These authors state that necessity entrepreneurs, as opposed to opportunity entrepreneurs, do not create an activity to meet a demand. The presence of the opportunity motivation “search for profit” as an

element that influences sector choice may even seem logical. In fact, as stated above, one may conclude that entrepreneurs mainly motivated by survival choose sectors where profit can be generated quickly. It is thus not surprising that the opportunity motivation related to profit be also present in these entrepreneurs. Also, the simultaneous influence of necessity motivations and of a motivation initially considered as opportunity, may bring to mind the fact that the same motivation may have, depending on the individual's situation, a necessity or an opportunity connotation (Williams, 2009 ; Hughes, 2003). It is therefore possible that the influence of the opportunity motivation "search for profit", evoke in this case the economic survival preoccupation of necessity entrepreneurs. Finally, individual characteristics (gender, education, experience) which influence the choice of trade, hotel and restaurant, service sectors, also support the idea of necessity entrepreneurship in these sectors. In fact, it has been established that necessity entrepreneurship can be found in greater proportions in women than in men (Bergmann & Sternberg, 2007; Wagner, 2005). Also, low levels of education are generally linked to necessity entrepreneurship (Bergmann & Sternberg, 2007). Studies also highlight that necessity entrepreneurs develop less activities in sectors where they have experience compared to opportunity entrepreneurs (Block & Sandner, 2009). Considering this, we believe that the choice to create activities in sectors such as trade, hotel and restaurant, and services is generally, even constantly, guided by necessity motivations.

CONCLUSION

This study has tried to shed light on the particular links between a creator's motivations and the choice of sector. Many elements have directed our work. Studies by Caliendo & Kritkos (2009), Hughes (2006), and Reynolds et al. (2001) have shown, in a purely descriptive manner, the existence of sector differences between necessity and opportunity entrepreneurship. However, as stated recently by Zhao et al. (2010), the influence motivations have on the choice of sector has not yet been demonstrated to date. Nevertheless, characteristics of the entrepreneurial activity are probably linked to an individual's motivation (Hechavarria & Reynolds, 2009). Also, for Shane et al. (2003), while motivations play a role in the entrepreneurial process and in determining the business' characteristics, they may also influence the creator's sector choice. One may suppose that an entrepreneur mainly guided by survival, that is the economic survival of the venture, will choose a sector where start-up is easy and quick. On the other hand, opportunity creators could choose a sector more geared towards growth and innovation, and that requires a long-term point of view.

Two main findings emerge from our study. Firstly, our results show that, among the various industry sectors, significantly different sensitivities to necessity and opportunity motivations exist. Secondly, they indicate that necessity and opportunity motivations have a significant impact on an individual's sector choice. In fact, certain sectors are preferred by entrepreneurs because of their necessity or

opportunity motivations. Trade, hotel and restaurant, or service sectors for example, are chosen for necessity reasons, while finance, manufacturing, or health sectors are associated more with opportunity entrepreneurship. These findings confirm our starting hypotheses.

We wish to propose two avenues for future research. Firstly, as certain studies have shown, pre-start-up activities (writing the business plan, looking for financing, initial contacts with suppliers, etc.) conducted by the entrepreneur have a positive impact on the project's success (Carter et al., 1996). It would therefore be interesting to examine any existing link between pre-creation steps by necessity and opportunity entrepreneurs and their entrepreneurial success. Secondly, a longitudinal study would allow us to better understand the reasons behind the higher failure rate among necessity entrepreneurs (and therefore in the sectors chosen by them) and to adapt support measures geared towards this type of entrepreneurship (Van Praag, 2003). In fact, necessity and opportunity entrepreneurs do not follow the same entrepreneurial logic when it comes to growth, innovation, jobs, exports, or sector choice. We can thus suppose that policies destined to foster and support entrepreneurship must differ when they target necessity entrepreneurs or opportunity entrepreneurs (Verheul et al, 2010).

REFERENCES

Acs, Z. (2006), How Is Entrepreneurship Good for Economic Growth?, *innovations*, vol.1(1), p. 97-107.

Audretsch, D. (2003), Entrepreneurship A Survey of the Literature, Enterprise Papers n°14, Enterprise Directorate-General European Commission.

Allen, I.E., Elam, A., Langowitz, N. & Dean, M. (2008), Global Entrepreneurship Monitor, 2007 Report on Women and Entrepreneurship, The Center for Women's Leadership at Babson College.

Baum, J.R & Locke, E.A. (2004), The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth, *Journal of Applied Psychology*, vol.29(4), p. 587-598.

Bergmann, H. & Sternberg, R. (2007), The Changing Face of Entrepreneurship in Germany, *Small Business Economics*, vol.28(2-3), p. 205-221.

Bhola, R., Verheul, I., Thurik, R. & Grilo, I. (2006), Explaining engagement levels of opportunity and necessity entrepreneurs, EIM Business and Policy Research, H200610.

Birley, S. & Westhead, P. (1994), A Taxonomy of Business Start-up Reasons and Their Impact on Firm Growth and Size, *Journal of Business Venturing*, vol.9(1), p. 7-31.

Bair, E., Hastie, T., Paul, D. & Tibshirani, R. (2006), Prediction by Supervised Principal Components, *Journal of the American Statistical Association*, vol.101(473), p. 119-137.

Block, J. & Sandner, P. (2009), Necessity and Opportunity Entrepreneurs and Their duration in Self-employment : Evidence from German Micro Data, *Journal of Industry, Competition and Trade*, vol.9(2), p. 117-137.

Block, J. & Wagner, M. (2006), Necessity and Opportunity Entrepreneurs in Germany: Characteristics and Earnings Differentials, Munich Personal RePEC Archive Paper, n°610, p.1-33.

Brush, C., Carter, N., Gatewood, E., Greene, P. & Hart, M. (2004), *Growth-Oriented Women Entrepreneurs And Their Businesses: A Global Research Perspective*, Edward Elgar, London, p. 432.

Buenstorf, G. (2009), Opportunity spin-offs and necessity spin-offs, *International Journal of Entrepreneurial Venturing*, vol.1(1), p. 22-40.

Caliendo, M. & Kritikos, A.S. (2009), “I want to, But I Also Need to”: Start-Ups Resulting from Opportunity and Necessity, IZA Discussion Paper N°4661, December 2009, p. 1-33

Carter, N., Gartner, W., Shaver, K. & Gatewood, E. (2003), The career reasons of nascent entrepreneurs, *Journal of Business Venturing*, vol.18(1), p.13-39.

Carter, N., Gartner, W. & Reynolds, P. (1996), Exploring Start-up Event Sequences, *Journal of Business Venturing*, vol.11(3), p.151-166.

Cassar, G. (2007), Money, money, money? A Longitudinal investigation of entrepreneur career reasons, growth preferences and achieved growth, *Entrepreneurship and Regional Development*, vol.19(1), p.89-107.

Evans, D. & Leighton, L. (1989), Some Empirical Aspects of Entrepreneurship, *American Economic Review*, vol.79(3), p. 519-535.

Harrison, R.T. & Hart, M. (1983), Factors influencing new business formation : a case study of Northern Ireland, *Environment and Planning*, vol.15(10), p. 1395-1412.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity

entrepreneurs, *International Entrepreneurship and Management Journal*, vol.5(4), p. 417-437.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, vol.31(3), p. 323-339.

Hughes, K. (2003), Pushed or Pulled? Women's Entry into Self-Employment and Small Business Ownership, *Gender, Work and Organization*, vol.10(4), p. 433-454.

Hughes, K. (2006), Exploring Motivation and Success Amongst Canadian Women Entrepreneurs, *Journal of Small Business and Entrepreneurship*, vol.19(2), p. 107-120.

Kautonen, T. & Palmroos, J. (2010), The impact of a necessity-based start-up on subsequent entrepreneurial satisfaction, *International Entrepreneurship and Management Journal*, vol.6(2), p. 285-300.

Kolvereid, L. (1990), Growth aspirations among Norwegian entrepreneurs, *Journal of Business Venturing*, vol.7(3), p. 209-222.

Mason, C. (1989), Explaining Recent Trends in New Firm Formation in the UK: Some Evidence from South Hampshire Ownership, *Regional-Studies*, vol.23(4), p. 331-46.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, vol.32(5), p. 875-896.

Morris, M.H., Miyasaki, N.N., Watters, C.E. & Coombes, S.M. (2006), The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs Ownership, *Journal of Small business Management*, vol.44(2), p. 221-244.

Noorderhaven, N., Thurik, R., Wennekers, S. & Van Stel, A. (2004), The Role of Dissatisfaction and per Capita Income in Explaining Self-Employment across 15 European countries, *Entrepreneurship, Theory and Practice*, vol.28(5), p. 447-466.

Orhan, M. & Scott, D. (2001), Why women enter into entrepreneurship: An explanatory model, *Women in Management Review*, vol.16(5), p. 232-243.

Reynolds, P., Bygrave, W., Autio, E., Cox, L. & Hay, M. (2002), GEM Global Entrepreneurship Report, 2002 Summary Report, GEM Report.

Reynolds, P., Camp, S., Bygrave, W., Autio, E. & Hay, M. (2001), GEM Global Entrepreneurship Report, 2001 Summary Report, GEM Report.

Ritsilä, J. & Tervo, H. (2002), Effects of Unemployment on New Firm Formation: Micro-level Panel Data Evidence from Finland, *Small Business Economics*, vol.19(1), p. 31-40.

Schjoedt, L. & Shaver, K.G. (2007), Deciding on an Entrepreneurial Career: A Test of the Pull and Pull Hypotheses Using the Panel Study of Entrepreneurial Dynamics Data, *Entrepreneurship Theory and Practice*, vol.31(5), p. 733-752.

Shane, S., Locke, E.A. & Collins, C.J. (2003), Entrepreneurial motivation in Finland, *Human Resource Management Review*, vol.13(2), p. 257-279.

Smith, N.R & Miner, J.B. (1983), Type of Entrepreneur, Type of Firm, and Managerial Motivation: implications for Organizational Life Cycle Theory, *Strategic Management Journal*, vol.4(4), p. 325-340.

Staber, U. & Bögenhold, D. (1993), Self-employment: a study of seventeen OECD countries, *Industrial Relations Journal*, vol.24(2), p. 126-137.

Thurik, R., Carree, M., van Stel, A. & Audretsch, D. (2008), Does self-employment reduce unemployment?, *Journal of Business Venturing*, vol.23(6), p. 673-686.

Uhlaner, L. & Thurik, R. (2007), Postmaterialism influencing total entrepreneurial activity across nations, *Journal of Evolutionary Economics*, vol.17(2), p.161-185.

Van Auken, H., Stephens, P., Fry, F.L. & Silva, J. (2006), Role model influences on entrepreneurial intentions: A comparison between USA and Mexico, *International Entrepreneurship and Management Journal*, vol.2(3), p. 325-336.

Van Praag, M.C. (2003), Business Survival and Success of Young Small Business Owners, *Small Business Economics*, vol.21(1), p. 1-17.

Van Stel, A., Storey, D.J. & Thurik, R. (2007), The effect of Business Regulations on Nascent and Young Business Entrepreneurship, *Small Business Economics*, vol.28(2), p.171-186.

Verheul, I., Thurik, R., Hessels, J. & van der Zwan, P. (2010), Factors Influencing the Entrepreneurial Engagement of Opportunity and Necessity Entrepreneurs, EIM Research Reports, H201011, march 2010, p. 1-24.

Vivarelli, M. (2004), Are all the Potential Entrepreneurs So Good? Owners, *Small Business Economics*, vol.23(1), p. 41-49.

Wagner, J. (2005), Nascent Necessity and Opportunity Entrepreneurs in Germany Evidence from the Regional Entrepreneurship Monitor

(REM), Working Paper n°10, University of Lüneburg Working Paper Series in Economics, p.1-24.

Williams, C.W. (2009), The motives of off-the-book entrepreneurs: necessity-or opportunity driven?, *International Entrepreneurship and Management Journal*, vol.5(2), p. 203-217.

Williams, C.W. (2008), Beyond necessity-driven versus opportunity-driven entrepreneurship. A study of informal entrepreneurs in England, Russia and Ukraine, *Entrepreneurship and Innovation*, vol.9(3), p. 157-165.

Zhao, H., Seibert, S.E. & Lumpkin, G.T. (2010), The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review, *Journal of Management*, vol.36(2), p.381-404.

Table 1: Classification of Indicators of Necessity-Opportunity Entrepreneurship

Necessity	*Opportunity*
Escaping unemployment	Earning big money
Obtaining prestige	Increasing income
Being socially recognized	Being autonomous
Meeting family expectations	Creating one's own job
Perpetuating the family tradition	Having no boss anymore
	Developing new products/services
	Developing new manufacturing process

Table 2: Sector of activities

Sectors	*Number*	*Percentage*
Agriculture	33	6,1
Manufacturing	21	3,9
Construction	62	11,5
Trade	101	18,8
Hotel and Restaurants	19	3,5
Finance	27	5
Real estate	144	26,8
Health	60	11,2
Service	43	8
Total	510	94,79

Table 3. PCA Component Matrix after Rotation

Necessity-opportunity indicators	*Components*					
	1	*2*	*3*	*4*	*5*	*6*
Obtaining prestige	.308	.242	.273	.269	**.777**	.143
Creating one's own job	**.783**	.144	.262	.284	.170	.140
Being autonomous	**.815**	.160	.333	.197	129	.107
Developing new manufacturing process	.280	.245	**.785**	.167	.248	.102
Developing new products/services	.253	.217	**.842**	.160	.124	.143
Being socially recognized	.446	.359	.276	.240	**.525**	.206
Increasing income	.243	.230	.184	**.856**	.170	.140
Earning big money	.401	.329	.201	**.642**	.282	.184
Having no boss anymore	**.773**	.260	.115	.149	.295	.162
Perpetuating the family tradition	.242	**.763**	.283	.295	.205	.192
Meeting family expectations	.211	**.847**	.229	.194	.180	.183
Escaping unemployment	.225	.259	.176	.190	.154	**.889**

Table 4 : Motivations and sector of activities

Sectors/Motivations	Unemployment (%)		family influence (%)		Search for social recognition (%)		market opportunity (%)		desire for independence (%)		profit search (%)	
	Yes	No	yes	no	Yes	No	yes	no	Yes	no	yes	no
Agriculture	30,3	69,7	66,7	33,3	45,5	55,5	48,5	51,5	54,5	45,5	54,5	45,5
Manufacturing	19	81	42,9	57,1	28,6	71,4	61,9	38,1	42,9	57,1	42,9	57,1
Construction	25,8	74,2	33,9	66,1	43,5	56,5	35,5	64,5	75,8	24,2	50	50
Trade	33,7	66,3	38,6	61,4	51,5	48,5	32,7	67,3	53,5	46,5	58,4	41,6
Hotel-Restaurant	42,1	57,9	42,1	57,9	36,8	63,2	31,6	68,4	36,8	63,2	31,6	68,4
Finance	14,8	85,2	37	63	37	63	29,6	70,4	63	37	37	63
Real estate	20,8	79,2	25	75	43,1	56,9	44,4	55,6	61,1	38,9	47,9	52,1
Health	10	90	25	75	46,7	53,3	21,7	78,3	30	70	70	30
Service	34,9	65,1	44,2	55,8	44,2	55,8	53,5	46,5	44,2	55,8	44,2	55,8

Table 5 : Motivation's Variance Homogeneity test

Motivations	*Levene's test*	*DF1*	*DF2*
Unemployement	7,287***	8	501
Family influence	5,985***	8	501
Search for social recognition	2,009**	8	501
Market opportunity	,934	8	501
Desire for independence	1,732**	8	501
Profit search	1,431	8	501

** $p < 0,05$; ***$p < 0,000$

Table 6 : ANOVA

Motivations		*Sum of Squares*	*DF*	*Mean Squares*	*Fischer test*	*Welch test*
Unemployment	Between groups	20,854	8	2,607	2,588**	4,738***
	Within groups	504,589	501	1,007		
	Total	525,443	509			
Family influence	Between groups	31,592	8	3,949	4,046***	2,969**
	Within groups	489,045	508	,976		
	Total	520,637	509			
Search for social recognition	Between groups	6,274	1	,784	,767	,705
	Within groups	512,280	508	1,023		
	Total	518,554	509			
Market opportunity	Between groups	16,807	1	2,101	2,108**	2,075**
	Within groups	499,306	508	,997		
	Total	516,113	509			
Desire for independence	Between groups	31,885	1	3,986	4,191***	4,161***
	Within groups	476,443	508	,951		
	Total	508,328	509			
Profit search	Between groups	20,175	1	2,522	2,546**	2,483**
	Within groups	496,327	508	,991		
	Total	516,501	509			

**p < 0,05 ; *** p < 0,000

Tableau 7 : Analyse en comparaison multiple des secteurs et des motivations

Dependant Variable : Motivations dépendante	*Sector (A)*	*Sector (B)*	*Difference average between A and B*
Unemployment	Trade	Finance	,686**
		Real estate	,427**
		Construction	,738**
Family influence	Agriculture	Trade	,672**
		Real estate	,880***
		Health	,822**
Market opportunity	Service	Real estate	,553**
	Manufacturing	Construction	,764**
	Agriculture	Health	,688**
Desire for independence	Construction	Manufacturing	,728**
		Health	,926***
	Trade	Health	,556**
	Real estate	Health	,659***
Profit search	Health	Real estate	,547**

**p < 0,05 ; *** p < 0,000

Table 8: Motivations impacts on the sectoral choice

	Model 1								*Model 2*							
	Agri.	Manu.	Const.	Trade	Hotel-Rest.	Fin.	Health	Serv.	Agri.	Manu.	Const.	Trade	Hotel-Rest.	Fin.	Health	Serv.
Motivations																
Unempl.	**,581****	,098	**,496****	**,619*****	**,881*****	,445	,512	**,904*****	,003	,064	,255	**,326****	**,312****	,378	-,219	**,360****
Family infl.	**,764*****	,592	**,344*****	**,455*****	**,747****	,224	,403	**,681*****	**,395****	,562	,064	,235	,349	,626	-,429	**,389****
Social recognition	**,432****	**,167*****	,278	,384	**,402****	,372	,229	**,461****	,049	,542	-,290	-,222	,209	,285	-,477	,025
Market opportunity	**,502****	**,591****	,141	,261	,329	**,221****	,117	**,556****	,177	**,473****	-,342	-,167	,029	**,170****	,017	,260
Desire for ind.	,262	,064	**,306****	,194	,251	,203	-,441	,203	,087	,031	**,495****	-,052	,084	,138	-,575	,013
Profit search	**,856*****	**,848*****	**,568****	**,711*****	**,673****	**,607****	**,133*****	**,652****	**,589****	**,562****	**,305****	**,422****	**,314****	**,456****	**,109*****	**,136****
Socio-economic characteristics																
Gender (= 1 if Male)									-,652	,138	,372	**-,612****	,264	-,353	**-,621***	**-,430****
No qualifications									Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.
High school graduate									,838	,573	-,019	-,080	,648	-,353	6,800	,691
University graduate									**-,518****	**,485*****	**-,384*****	**-,366*****	,990	**,732****	6,979	-,971
Sector (idem = 1)									**-,653****	,032	,204	**-,625****	**-,158****	-,521	**,105*****	,666
Role model (yes =1)									**,884****	,517	,501	,445	,329	-,787	,138	,484
Observations				448								414				
Log likelihood				-153,960								-352,817				
Nagelkerke R2				,264								,576				

** p < 0,05 ; *** p < 0,000

Firm Gestation Activities: Is There a Difference Between Necessity and Opportunity Entrepreneurs?[*†]

ABSTRACT

The necessity and opportunity entrepreneurship literature shows that these two types of entrepreneurship could lead to different entrepreneurial behaviors. Some researchers argue that there could exist more than two different entrepreneurial profiles in terms of motivations. Based on these arguments, the objective of our research is to determine whether there are different profiles of necessity-opportunity entrepreneurs and if these differ in terms of gestation activities between for these two kinds of entrepreneurs. Based on a sample of 538 entrepreneurs, our results show that entrepreneurs significantly differ from one another in terms of gestation activities and that there are different subgroups of necessity-opportunity entrepreneurs.

[*] Joint work with Frank Janssen, Louvain School of Management-Université catholique de Louvain and Jean-Luc Guyot, Institut Wallon de l'Evaluation, de la Prospective et de la Statistique (Belgium).

[†] This fourth essay has been accepted for presentation at the Second Belgian Entrepreneurship Reseach Day (2011) and the 2011 Babson College Entrepreneurship Research Conference.

INTRODUCTION

Recent studies on necessity and opportunity entrepreneurs showed that these two profiles could lead to different entrepreneurial behaviors. For example, opportunity entrepreneurs are more growth oriented, innovative and successful, in terms of firm survival rate and/or profitability, than necessity entrepreneurs (Verheul et al., 2010; Block & Sandner, 2009; Hechavarria & Reynolds, 2009; McMullen et al. 2008, Hessels et al. 2008; Morris et al. 2006). Some researchers highlight that necessity and opportunity entrepreneurs also differ in terms of activity sectors (Caliendo & Kritikos, 2009; Hughes, 2006). These differences in the entrepreneurial behavior of opportunity and necessity entrepreneurs could be the result of dissimilarities in the gestation activities, i.e. activities undertaken by nascent entrepreneurs during the organization's creation process (Carter et al. 1996). Several authors stress that the gestation activities has an impact on employment growth, the organization's development and firm success (Burke et al. 2010; Delmar & Shane, 2003). Rodriguez & Santos (2009) emphasize that the process of firm creation has two different stages: the conception stage, or precipitating events, and the gestation stage. According to Shapero & Sokol (1982), precipitating events are negative or positive circumstances leading the individual to decide to create a firm. These are related to the individual's motivation, i.e. necessity or opportunity (Bhola et al., 2006). As Shane et al. (2003) pointed out, only a few researches have studied the motivations' impact on specific steps of the entrepreneurial process. Yet Liao &

Welsch (2008) stressed that it is important to analyze how precipitating events influence the gestation activities.

In this study, we argue that the impact of necessity and opportunity motivations on the gestation activities could be due to differences between these two types of entrepreneurs in terms of opportunity costs and willingness to adopt proactive behaviors during the gestation activities. However, some authors argue that the necessity-opportunity dichotomy is too simplistic and does not correspond to the reality (Kirkwood & Campbell-Hunt, 2007). Therefore, more than two different profiles of entrepreneurs in terms of motivations could exist. Based on these elements, the objective of our research is to determine whether different profiles of necessity-opportunity entrepreneurs exist and if there are differences in terms of gestation process between these two kinds of entrepreneurs. To our knowledge, no empirical studies have been conducted on this issue.

This paper is structured as follows. Section 1 summarizes the state of the art regarding differences in terms of entrepreneurial behaviour between necessity and opportunity entrepreneurs. Section 2 presents our theoretical development and research hypothesis, while section 3 describes our methodology. In sections 4 and 5, we present and then discuss our findings. The last section draws the conclusions and the limitations of this study, highlights its political and scientific implications and suggests some directions for future research.

NECESSITY AND OPPORTUNITY ENTREPRENEURS: MAIN EMPIRICAL FINDINGS

Since Smith & Miner's work (1983) and more recently that of Cassar (2007), van Stel et al. (2007) and Baum & Locke (2004), we know that the firm creator's profile has an impact on the firm development. These studies have established a link between the creator's profile and the type of business that he/she decides to create, specifically in terms of job creation, size, growth and exportations. Such differences also appear between necessity and opportunity entrepreneurs (Hessels et al., 2008). Below, we present the main findings of studies that have recently addressed this issue.

Innovation, Growth, Employment, Exportations, Sector Differences

McMullen et al. (2008) have shown that opportunity entrepreneurs, because of their motivations, are more oriented towards innovation, growth and exportations than necessity entrepreneurs. Hechavarria & Reynolds (2009), Morris et al. (2006) also observed a growth differential between the two types of entrepreneurship. In terms of job creation, opportunity entrepreneurs have a greater ambition than necessity entrepreneurs (Reynolds et al., 2002). Hessels et al. (2008) stressed that opportunity entrepreneurs are more export oriented than necessity entrepreneurs. Other studies have shown that businesses created by opportunity entrepreneurs are more profitable than those created by necessity entrepreneurs (Block & Sandner, 2009). The latter develop more imitative ventures and their entrepreneurial activity has a lower profitability (McMullen et al., 2008). It seems that

there are sector differences between the two profiles of entrepreneurs. Reynolds et al. (2001) show that the percentage of necessity entrepreneurs is higher in agriculture, forestry, fishing and the hotel and restaurant sectors in comparison to opportunity entrepreneurs which seem to be more present in automobile and enterprise services sectors. These sector differences are also highlighted by Hughes (2006). According to her work, necessity entrepreneurs are more present in the commercial sector than opportunity entrepreneurs. Caliendo and Kritikos (2009) conclude that necessity entrepreneurs are more represented in the retail sector while opportunity entrepreneurs are more present in the technology sectors. For Block & Wagner (2006), given that necessity entrepreneurs have a lower reservation wage, they might decide to start a business in industries offering a low profitability. One could wonder if these entrepreneurs are more concerned with their own short-term needs than by real market needs given that creation by necessity is more characterized by survival characteristics. If so, it could explain why necessity entrepreneurship is found (1) in sectors where there is no real gap between supply and demand and (2) where the development of a new activity is relatively easy. This view is supported by Van Stel et al. (2007). For these authors, necessity entrepreneurs, unlike opportunity entrepreneurs, do not develop an activity to meet the market demand.

These differences in the entrepreneurial behavior of opportunity and necessity entrepreneurs could be the result of dissimilarities in the gestation activities, i.e. the activities undertaken by nascent entrepreneurs during the organization creation process (Carter et al.

1996). Some studies stress that the gestation activities has an impact on employment growth, organization development and firm success (Burke et al. 2010; Delmar & Shane, 2003). No study has empirically analyzed if necessity and opportunity entrepreneurs differ in terms of gestation activities. As Shane et al. (2003) point out, only a few researchers have studied the motivations' impact on specific steps of the entrepreneurial process. Yet Liao & Welsch (2008) stress that it is important to analyze how precipitating events influence the gestation activities.

THEORITICAL DEVELOPMENTS AND HYPOTHESIS

An individual's behavior is often the result of individual motivations (Carsrud & Brännback, 2011; Liao et al., 2001). According to Shane et al. (2003) and Korunka et al. (2003) motivations play an important role in the entrepreneurial process. These authors argue that as individuals differ in terms of motivations, these differences could influence the way in which they behave during the entrepreneurial process.

Rodriguez & Santos (2009) emphasize that the firm creation process has two different stages: the conception stage, or precipitating events, and the gestation stage. The precipitating events that we interpret as related to the necessity or opportunity motivations in the sense of Shapero & Sokol (1982) could have an impact on the activities undertaken by entrepreneurs (Shane et al., 2003; Guzman & Santos,

2001; Kuratko et al., 1997). In fact, as Arias & Pena (2010) show, we could presume that individual motivation affects the gestation stage.

In this study, we argue that the impact of necessity and opportunity motivations on the gestation activities could be due to the differences in terms of opportunity costs and of willingness to adopt a proactive[1] behavior in terms of the gestation activities between these two types of entrepreneurs.

Entrepreneurial Opportunity Costs

As past studies have shown, necessity and opportunity entrepreneurs differ in terms of individual characteristics (Verheul et al., 2010 ; Block & Sandner, 2009 ; Williams, 2009 ; Schjoedt & Shaver, 2007 ; Uhlaner & Thurik, 2007 ; Bhola et al., 2006 ; Wagner, 2005 ; Noorderhaven et al., 2004 ; Vivarelli, 2004 ; Carter et al., 2003 ; Ritsilä & Tervo, 2002 among others). For example, these studies have demonstrated that the necessity entrepreneur has a lower level of education, is more dissatisfied by his/her situation, has less professional experience and/or considers entrepreneurship as the sole employment alternative. These findings suggest that necessity entrepreneurs have lower human and social capital. Therefore, we could expect that the opportunity costs to create a business could be lower for necessity entrepreneurs.

When an individual has the intention to create an entrepreneurial activity, he considers the opportunity costs associated with the

[1] In this chapter, the word "proactive" refers to the realization (or not) of different kinds of gestation activities.

decision. In other words, an individual will decide to create an entrepreneurial activity when the activity has higher expected return than the opportunity costs to create the business (Block & Wagner, 2006). For Block & Wagner (2006), opportunity entrepreneurs have higher opportunity costs than necessity entrepreneurs because the latter have a lower reservation wage. For Arias & Pena (2010), the higher level of the opportunity costs of opportunity entrepreneurs leads them to perform better than necessity entrepreneurs. Ho & Wong (2006) also stressed that necessity and opportunity entrepreneurs differ in terms of opportunity cost. For these authors, necessity entrepreneurs have no opportunity costs because of the absence of alternative employment and/or income[2]. Verheul et al. (2010) also believe that opportunity entrepreneurs have a higher opportunity cost than necessity entrepreneurs and that, because of their motivations, they may be better prepared to start a business. We believe that the opportunity costs differential between the two kinds of entrepreneurs could influence their respective gestation behavior in terms of the gestation activities. Since the gestation activities has an influence on the development and the success of the firm and because opportunity entrepreneurs have higher opportunity costs, we could expect these to be more proactive (undertake more activities) in the gestation phase than necessity entrepreneurs. They will do this in order to increase their probability of success and, thereby, to reduce their opportunity costs linked to entrepreneurial intention. This could also be due to the fact that the motivations (i.e. push and pull

[2] These authors stress that in countries with high level of social security, the opportunity cost of necessity entrepreneur is not null because these countries offer an unemployment allocation.

motivations) underlying necessity and opportunity entrepreneurship involve two types of behavior.

Gestation Activities

Push and pull motivations are sometimes referred to as extrinsic and intrinsic motivations (Liao at al., 2001). An extrinsic entrepreneurial motivation means that an individual decides to start a business because of "negative" factors, such as job loss, unemployment or social status recognition search. By contrast, an intrinsic entrepreneurial motivation means that an individual decides to start a business because of "positive" factors, such as professional vocation, opportunity or desire for independence, that lead him to choose an entrepreneurial career as the aim of his/her life (Carsrud & brännback, 2011; Shinnar et al., 2009; Guzman & Santos, 2001). Some authors have stressed that these two types of motivations have an influence on the entrepreneurs' actions (Santos & Linan, 2007, Vivarelli, 2004; Liao et al., 2001; Krueger & Casrud, 1993). An individual motivated by intrinsic motivations tries to do more difficult tasks, is more persistent in his/her behavior and is more creative than an individual motivated by extrinsic motivations (Guzman & Santos, 2001). In other words, entrepreneurs motivated by intrinsic (opportunity) motivations will have a more important willingness to carry out a proactive gestation behavior in terms of gestation activities, (i.e. in terms of number and type of gestation activities that he will carry out), than entrepreneurs motivated by extrinsic (necessity) motivations. For Guzman & Santos (2001), the type of motivation is related to the quality of the entrepreneurs (where intrinsic are labeled as high quality and extrinsic as low quality). Therefore, an intrinsic entrepreneur

would have a higher probability to reach entrepreneurial success than an extrinsic one because they have higher levels of ambition and capacity for collaboration.

Based on the above mentioned arguments, we expect opportunity entrepreneurs to carry out more gestation activities, such as preparing business plans, conducting market studies, strategic developing strategic plan, etc. than necessity entrepreneurs, due to their motivation and to their opportunity costs differential. However, recent studies highlight the possibility that an individual could be simultaneously driven by necessity and opportunity motivations (Caliendo & Kritikos, 2010; Block & Sandner, 2009 and Colin, 2008). Business creation is a complex process which involves different kinds of motivations (Birley & Westhead, 1994). Moreover, the border between necessity and opportunity motivations is not that clear (Solymossy, 1997). This argument is supported by many authors (Arias & Penas, 2010 ; Block et al., 2010 ; Caliendo & Kritikos, 2010 ; Verheul et al., 2010 ; Block & Koellinger, 2009 ; Kirkwood, 2009 ; Williams, 2009 ; Kumar, 2007 ; Bhola et al., 2006 ; Block & Sandner, 2006). Some argue that the necessity-opportunity dichotomy is too simplistic and is not reflective of reality (Kirkwood & Campbell-Hunt, 2007). Therefore, there could exist more than two different profiles of entrepreneurs in terms of motivations, some being, for example, mainly motivated by necessity or opportunity, while others would be motivated by a mix of necessity and opportunity, etc.

If we take into account the fact (1) that the opportunity cost is higher for an opportunity entrepreneur, (2) that opportunity motivation is positively linked to the individual's willingness to adopt proactive gestation behaviors in terms of gestation activities and (3) that there are different groups of necessity and/or opportunity motivations, our research hypothesis is that:

The more an individual will be motivated by opportunity motivations the more proactive he/she will be in terms of the gestation activities.

METHODOLOGICAL FRAMEWORK

Presentation of the Database

To identify our population (new businesses started ex nihilo), we have first used the information available in the administrative index of Belgian businesses (*Eurodb* index) in order to isolate ventures started between June 1, 1998 and May 31, 2000. On the basis of these criteria, 12,748 businesses within the *Eurodb* index have been indentified as new ventures. In a second stage, all 12,748 businesses were contacted by mail between September 15, and October 30, 2001 in order to isolate the businesses created ex nihilo and to identify their founders, as well as their previous experience regarding venture creation. This survey was conducted between October and November 2001. Out of 12,748 businesses which were contacted, 4,562 responded to this survey, which corresponds to a response rate of 35.8%. Among the respondents, 7 out of 10 corresponded to *ex nihilo*

creations. The rest had been created through mergers, subsidiary creations or demergers. Out of 4,562 firms, we have been able to identify 6,392 founders, among which 4,322 were the first business founder; this represents a little bit more than 70%. In a third stage, we looked at the socio-economic characteristics of business founders. Between September and October 2004, all founders identified in the previous stage, were invited to take part in to a survey (through mail and phone reminders). The questionnaire was structured in 4 main sections. The first section dealt with the characteristics of the business at the time of its creation, i.e. between June 1, 1998 and May 31, 2000 (date of foundation, name of the company, industry, etc.). The second section was about the new venture creation process. This section was particularly aimed at identifying the "temporality" between the idea and the actual creation of the new venture, the personal and professional triggers during this phase, the kind of steps taken, the support obtained or hoped for, and the potential barriers encountered by the business founders. The third section dealt with the financial resources that were mobilized during the creation and the main strategic orientations that were adopted. The fourth and last section focused on the founder and his circle. The questions about the founder concerned his age, academic background, socio-professional and socio-economic situation at start-up. One question was about the personal motivations the entrepreneur was pursuing through the act of business creation. This questionnaire was sent to 3,520 business founders out of 4,322 that were identified in the previous phase. This difference was due to lacking addresses or phone numbers of 800

founders. After a phase of phone reminders, 538 valid questionnaires were finally received, which corresponds to a response rate of 12.4%.

Statistical Procedures

Regarding the data processing, we use a three step method. First, we will identify the necessity and opportunity entrepreneurial dynamics. In order to do this, we apply a principal component analysis (PCA) to the data on the necessity-opportunity indicators (see table 1). By doing this, we are able to identify the individual positioning of founders in terms of necessity and opportunity entrepreneurial dynamics. In a second stage, in order to identify different groups of necessity and/or opportunity entrepreneurs we carry out a hierarchical clustering analysis on the necessity and opportunity dynamics identified by our PCA. As Gartner (2008) stressed, a large part of the cluster analysis interpretation is subject to the analyst's subjectivity and intuition and the classification could be heuristic. In order to reduce the risk of heuristic classification, we perform a hierarchical cluster analysis by using the *R* statistical software[3]. To do this, *R* used the HCPC function (Hierarchical Clustering on Principal Components). The aim of the HCPC function is to perform clustering and the complementarities between clustering and principal components methods to better highlight the main features of the data set. Based on that, *R* constructs the hierarchy and suggests an "optimal" level of division. The second advantage is the fact that the cluster's interpretation is based on the v.test (χ^2-test) provided by *R*. In our case, the v.test's hypothesis (Ho) tested is that the motivation's value in the cluster is equal to

[3] More details concerning R statistical software in *A Handbook of Statistical Analyses Using R* (Everitt & Hothom, 2010).

motivation's value in the whole set of data. Therefore, when Ho is rejected, it means that the motivation plays a role (negative or positive) in the cluster. This strongly reduces the subjectivity and the intuition of the analyst. We finally conduct an ANOVA[4] to examine whether there are significant differences between the groups of necessity-opportunity dynamics in terms of gestation activities. The hypothesis (Ho)[5] tested by the ANOVA is that, on average, there are no differences in terms of gestation activities between the different groups of necessity-opportunity profiles. Alongside the ANOVA, we conducted a multiple comparison analysis to determine which groups of necessity-opportunity are significantly different from the other ones in their gestation activities. While we assume that our data is normally distributed, we prefer the Levene test to the Bartlett test to verify homogeneity of variance. The Levene test is less likely to result in a type I error (reject the null hypothesis when it is correct) when the data is not normally distributed. When homogeneity of variance was not assumed, we used the Welch test. When homogeneity of variance is not assumed, the Fischer test used for the ANOVA is not robust enough and results may be incorrect. The Welch test has the advantage of providing more trustworthy ANOVA results while allowing for heterogeneity of Variance. PCA, ANOVA and Multiple Comparison analyses are carried out with SPSS 18.0.

[4] Normality is assumed.
[5] The alternative hypothesis (H1) was that for at least one group, the gestation activities would be significantly different from the other groups.

RESULTS

Measuring Entrepreneurial Motivations

The empirical examination of the opportunistic or necessity-driven nature of an entrepreneurial endeavour is not an easy task insofar as few studies offer a set of indicators enabling their identification. Moreover, as stressed by Kautonen & Palmroos (2010), necessity entrepreneurship is generally associated with a sole motivation: "unemployment". And yet, other factors are likely to originate this kind of entrepreneurship. On the basis of these observations, we have used indicators which are either supported by previous research, or can be justified with no need for too restrictive assumptions. In a first stage, we have classified the items of our questionnaire regarding new venture creation motivations depending on whether we considered them as belonging to an opportunity or necessity dynamic. The function of this classification is purely heuristic, as the meaning of an event or situation in terms of opportunity or necessity may vary depending on the individual and the specific circumstances he/she faces before start-up (Hughes, 2003). The classification is presented in table 1.

"Insert Table 1 Here"

Regarding the *get out of unemployment* indicator, our classification is based on previous work by Block & Wagner (2006); van Praag (2003) ; Ritsilä & Tervo (2002) ; Evans & Leighton (1989) ; Mason (1989) and Harrison & Hart (1983). The absence of personal

development in one's work and/or the need for recognition are generally associated with professional or personal dissatisfaction and thus with necessity entrepreneurship (Noorderhaven et al., 2004). Therefore, we have classified the *obtaining prestige* and *being socially recognized* indicators in the necessity section. The *meeting family expectations* and *perpetuating the family tradition* indicators have been classified in the necessity section because they correspond to situations where individuals have been pushed to start or take over a business by their family circle. In addition, this choice echoes back to the work of Bhola and al. (2006) who demonstrate that an individual can be pushed into entrepreneurship because of the obligation to take over the family business. Our choices to classify the indicators[6] *earning big money, increasing one's income, being autonomous, creating one's own job, having no boss anymore, developing new products,* and *developing new manufacturing processes* into the opportunity indicators notably relies on previous research by Cassar (2007); Carter et al. (2003); Kolvereid (1992); Mason (1989); Harrison & Hart (1983).

Before our empirical analyses, we verify the internal validity of our classification of push-pull indicators by using the Cronbach alpha. We have obtained a 0.879 alpha for the push classification and a 0.907 one for the pull classification[7].

[6] The *creating one's own job* and *having no boss anymore* indicators refer to the desire of autonomy and independence. These two motivations are generally classified as indicators of opportunity entrepreneurship (Carter et al., 2003).

[7] In their study on entrepreneurial career choices, Carter et al. (2003) retain Cronbach values ranging between 0.58 and 0.78 in order to justify the classification obtained by PCA.

PCA Analysis

The objective of our PCA analysis is to verify if the indicators presented in table 1 combine with one another along the presupposed opportunity-necessity axis. The PCA results show that 6 factors have an eigen value higher than 1 and that they explain 79.915% of the total variance explained by PCA. The VARIMAX procedure that has been used redistributes the variance in a more even way between the different factors and facilitates their interpretation. In order to be able to interpret the final results of the PCA, we used a "component after rotation" matrix.

"Insert Table 2 Here"

The analysis of table 2 allows us to draw the following conclusions. For axis 1 (Cronbach's alpha: 0.818), the motivations *being autonomous, having no boss anymore* and *creating one's own job* are the most representative. The nature of these 3 motivations suggests that axis 1 represents the **desire for independence** as motivation for new venture creation. The analysis of axis 2 (Cronbach's alpha: 0.760) shows that the motivations *perpetuating the family tradition* and *meeting family expectations* are the most correlated with this axis. The latter can be interpreted as referring to the creation motivation resulting from **family influence.** The motivations *developing new manufacturing processes* and *developing new products* are most correlated with axis 3 (Cronbach's alpha: 0.710). This refers to **market opportunity** as a creation motivation. The motivations *increasing one's income* and *earning big money* are most correlated

with axis 4 (Cronbach's alpha: 0.725). The latter can be interpreted as the creation motivation resulting from "**profit search".** The **search for social recognition** as the creation motivation is identified in axis 5 (Cronbach's alpha: 0.651)[8]. The motivations *obtaining prestige* and *being socially recognized* are the most correlated to this axis. Finally, **unemployment** as a reason for creation is clearly identified by the analysis of axis 6[9] and the *get out unemployment* motivation.

Hierarchical Cluster Analysis

In order to identify the subgroups of necessity-opportunity motivations, we carried out a hierarchical cluster analysis on the necessity and opportunity dynamics results from the PCA analysis.

"Insert Figure 1 Here"

Figure 1 presents the corresponding dendogram for the cluster analysis, where five (A to E) different groups of necessity-opportunity motivations profiles are identified. In order to interpret the five clusters, we proceed in two steps. First, we analyse the v.test value and p-value to identify which necessity and opportunity motivations are positively or negatively associated in each cluster. Second, we take into account the motivations' ranking in terms of the v.test value within the corresponding cluster. These results are presented in table 3 and allow us to interpret the five clusters as follows:

[8]The value of Cronbach's alpha obtained for this axis can be explained by the fact that a high Cronbach value is sometimes difficult to obtain when an axis is only made of two items (Carter et al. 2003).

[9] The Cronbach's analysis cannot be conducted on this axis because it includes only one item.

In Cluster **A** the motivations *desire for independence* and *market opportunity* are both positively correlated and respectively ranked 1 and 2. The *profit search* motivation is negatively correlated to Cluster A. We could interpret this cluster as the one which regroups the **Strictly Opportunity** motivated individual. In Cluster **B** the motivations *search for social recognition, unemployment* and *profit search* are all positively correlated and respectively ranked 1, 2 and 3. The *market opportunity* motivation is negatively correlated to Cluster B. We could interpret this cluster as the one which regroups the individuals **Mainly** motivated by **Necessity**. In Cluster **C,** the *family influence* and *search for social recognition* motivations are both positively correlated and respectively ranked 1 and 2. The *profit search* and *desire for independence* motivations are both negatively correlated to Cluster C. We could interpret this cluster as the one which regroups the **Strictly Necessity** motivated individuals. For the cluster **D** the motivations *search for social recognition* and *desire for independence* are both positively correlated and respectively ranked 1 and 2. The *market opportunity, unemployment* and *family influence* motivations are all negatively correlated to Cluster D. We could interpret this cluster as the one which regroups the individual who are motivated by a **Mix of Necessity-Opportunity** motivations. In cluster **E** the motivations *desire for independence, profit search,* and *search for social recognition* are all positively correlated and respectively ranked 1, 2 and 3. The *market opportunity motivation* is negatively correlated to Cluster E. We could interpret this cluster as the one which regroups individuals who are **Mainly** motivated by **Opportunity**.

"Insert Table 3 Here"

As we emphasized, past studies have shown that necessity and opportunity entrepreneurs differ in terms of individual's characteristics. Some of these dissimilarities also seem to appear between the five clusters. For example, the percentage of women is higher in the strictly necessity (34.1) and mainly necessity (38.9) clusters than in the mainly opportunity (20.4) and strictly opportunity (12.2) clusters. Concerning the level of education, our descriptive analysis seems to confirm that there are differences between necessity subgroups (strictly and mainly) and opportunity subgroups (strictly and mainly). In fact, only 34.4% and 50.9% of strictly necessity and mainly necessity entrepreneurs have a high level of education[10] compared to 62.5% and 66.8% for the mainly opportunity and strictly opportunity entrepreneurs. Some authors (Caliendo & Kritikos, 2009; Van Stel et al., 2007; Block & Wagner, 2006; Hughes, 2006 and Reynolds et al., 2001) stress that necessity entrepreneurs are more likely to create a business in sector such as agriculture, forestry, fishing and the hotel and restaurants sectors than opportunity entrepreneurs. In our five clusters, there are also some sector differences. For example, our descriptive analysis shows that strictly necessity (69.3%) and mainly necessity entrepreneurs (53.1%) are more present in sectors such as agriculture, construction, hotel and restaurants and retail than strictly opportunity (35.9%) and mainly opportunity (43.1%) entrepreneurs.

[10] University graduate.

Gestation Activities and Motivations

In order to carry out the ANOVA and the multiple comparison analysis, we identified six types of gestation activities in our database. These are similar to those used in other gestation process studies (Arias & Pena, 2010; Rodriguez & Santos, 2009; Samuelson & Davidsson, 2009; Liao & Welsch, 2008; Lichtenstein at al., 2007; Liao et al., 2005; Carter et al., 1996; Gatewood at al., 1995). These are: (1) to get private legal assistance or counseling; (2) to develop a business plan; (3) to carry out a market study; (4) to carry out a strategic development plan; (5) to ask credit institutions for funding and (6) to get public legal assistance or counseling. In the questionnaire, each gestation activity was a dichotomous variable scored 1 if completed and 0 otherwise.

We then tried to determine whether there are significant differences between the five clusters in terms of gestation activities. For this purpose we conducted an ANOVA analysis. We first verified the homogeneity of variance using Levene's test for each gestation activities. If this condition was not met, we used Welch's test to determine if there were significant differences between the five clusters. Levene's test results showed that the variables "to use private legal assistance or counseling", "to carry out market study" and "to ask credit institutions for funding" activities homogeneity of variances could not be assumed. We therefore used Welch's test to interpret the ANOVA results (table 4) in regards of these three gestation activities.

"Insert Table 4 Here"

Table 4 shows that there are differences between at least two clusters for each (except for “to get public legal assistance or counseling”) gestation activities. However, these results, did not allow us to identify which clusters were significantly different from the others in each gestation activities. We therefore followed up with a multiple comparison analysis in order to determine which clusters differ significantly from the other ones using the non-parametric Tamhane’s test. Given that the Levene’s test indicated an unequal variance for some gestation activities we could not use a parametric test to conduct this comparison. The significant findings of our multiple comparison analysis (see Table 5) are as follows. First, it appears that the “to get private legal assistance or counseling” activity is less often carried out by the strictly necessity group than by the mainly necessity, strictly opportunity and mainly opportunity groups. Second, business plans are more common within the mainly opportunity and strictly opportunity groups than within the strictly necessity group. Third, market studies are more carried out by the mainly necessity, the strictly opportunity and the mainly opportunity groups than by the strictly necessity group. Concerning this activity, there are also differences between the Mix of Necessity-Opportunity group and the strictly and mainly opportunity groups. The former group seems more inclined to perform a market study than the latter groups. Fourth, the strictly opportunity group is more inclined to have a strategic development plan than the mainly opportunity and strictly necessity groups. Finally, asking for funding is less common within the mix of necessity-opportunity and mainly necessity groups than within the strictly necessity group. The same relationship exists between the mix

of necessity-opportunity group and the mainly opportunity and strictly opportunity groups.

"Insert Table 5 Here"

DISCUSSION

In this study, we try to determine the differences in terms of gestation activities between necessity and opportunity entrepreneurs. There were different motivations for our study. First, our knowledge about the startup process is relatively limited, particularly concerning the gestation activities (Arenias & Ehrstedt, 2008; Liao et al., 2005). For Lichtenstein et al. (2007), the gestation activities is an important part of firm foundation. It is also important for its development and its success (Burke et al., 2010; Delmar & Shane, 2003). Second, Liao & Welsch (2008) stress that future studies on gestation activities should integrate the context (i.e. the entrepreneurial event) in which entrepreneurs carry out the gestation activities. The importance of the context of creation is also emphasized by Zhao et al. (2010). Yet, as van Gelderen et al. (2006) show, such an approach is rather absent in entrepreneurship research. Third, necessity and opportunity entrepreneurship research has demonstrated that these two kinds of entrepreneurship are different in terms of innovation, growth, and employment creation (McMullen et al., 2008; Carter et al., 1996). Therefore, one could wonder whether these dissimilarities could, at least partially, result from differences in the gestation activities behaviors between necessity and opportunity entrepreneurs. Finally,

some authors argue that the necessity-opportunity dichotomy is over simplistic and does not correspond to reality (Kirkwood & Campbell-Hunt, 2007). Therefore, more than two different entrepreneurial profiles in terms of motivations could exist. To our knowledge, no empirical study has yet analyzed whether there are different profiles of necessity-opportunity entrepreneurs and whether there are differences in terms of gestation process between these kinds of entrepreneurs. Based on our analysis, we are able to draw the following conclusions.

First, our cluster analysis results indicate that the strict dichotomy usually used in necessity-opportunity research might be over-simplistic. There are different profiles of necessity and/or opportunity entrepreneurs. These results confirm the existence of sub-groups of necessity-opportunity profiles (Arias & Penas, 2010 ; Block et al., 2010 ; Caliendo & Kritikos, 2010 ; Verheul et al., 2010 ; Block & Koellinger, 2009 ; Kirkwood, 2009 ; Williams, 2009 ; Kumar, 2007 ; Bhola et al., 2006 ; Block & Sandner, 2006; Hughes, 2003). This observation is reinforced by our ANOVA and Multiple Comparison Analyses which show that the gestation activities carried out by the entrepreneur significantly differ in regards to his/her necessity-opportunity profile. As expected, the opportunity groups (strictly and mainly) are more proactive during the gestation process than necessity groups (strictly and mainly). For example, strictly and mainly opportunity entrepreneurs get more assistance or advice than strictly necessity entrepreneurs. This could be explained by the fact that they have higher levels of human and social capital level resulting in larger personal networks and/or more knowledge needed to implement such

gestation activities. In terms of business planning and market study, differences also appear. Mainly or strictly opportunity entrepreneurs carry out such activities more often than mainly or strictly necessity entrepreneurs. We believe that these results could be due to the fact that the opportunity cost of creation is more important for opportunity than for necessity entrepreneurs (Verheul et al., 2010, Block & Wagner, 2006). Therefore, opportunity profiles need to make sure that their entrepreneurial project will be sufficiently profitable in order to compensate for their opportunity costs and to reduce the uncertainty of firm creation. As Burke et al. (2010) have shown, a business plan increases the growth performance of the firm. For Brinckmann et al. (2010), Delmar & Shane (2003) and Liao & Gartner (2006), business planning reduces the uncertainty linked to the firm's activity. The fact that opportunity groups analyze the market in which they will create their activity more frequently is supported by Arias & Pena (2010). For these authors, opportunity-driven entrepreneurs have a better understanding of their environment than necessity-driven entrepreneurs. Strictly necessity and strictly opportunity entrepreneurs seem also to differ in their propensity to carry out a strategic development plan. The former are less inclined to perform this activity. This result could be due to their differences in terms of the willingness to adopt a proactive behavior and to their entrepreneurial vision. An entrepreneur motivated by opportunity (intrinsic) motivations will try to do more difficult tasks, will be more persistent in his/her behavior and more creative than an individual motivated by necessity (extrinsic) motivations (Guzman & Santos, 2001). As Carsrud & Brännback (2011) emphasized, when the individual's

motivations are of the necessity type, one he/she may ignore the opportunity to have a longer payback period. Therefore, one could assume that strictly necessity entrepreneurs do not waste much time in carrying out strategic development plans because they are more concerned with their day to day survival and less by long term achievements (i.e. employment growth, exportation) and/or because they choose an entrepreneurial career because they have no better job alternative. Our results concerning the propensity to ask credit institutions for funding are also interesting. We find that strictly necessity entrepreneurs are more inclined to carry out this activity than mainly necessity and mix of necessity-opportunity entrepreneurs, and also that the latter are more prone to carry out this activity than strictly and mainly opportunity entrepreneurs. In other words, these results show that the more an individual will be motivated by opportunity motivations, the less he will ask for funding from credit institutions. One plausible explanation is that the more an individual will be motivated by opportunity motivations, the more he/she will prefer and/or will be offered the possibility to get alternative funding (i.e. business angels, venture capital). They could also have more financial resources coming from their personal network due to their higher level of social capital. To some extent, this argument is in line with the results related to the activities “to get private legal assistance or advice”. As strictly and mainly opportunity entrepreneurs seek ore assistance or advice than strictly necessity entrepreneurs, it is possible that, thanks to these activities, they benefit more often from alternative financing.

The idea that the more an individual will be motivated by opportunity motivations, the more he will be proactive in terms of the gestation activities is also supported by intra-group differences. For example, our results show that the mainly necessity entrepreneurs' propensity to carry out a business plan and to get private legal assistance or advices is higher than for strictly necessity entrepreneurs. Finally, and surprisingly intra-group differences between mainly and strictly necessity entrepreneurs seem to be counter-intuitive. Our findings reveal that mainly opportunity entrepreneurs are more inclined to carry out a market study than strictly opportunity entrepreneurs. This result is difficult to interpret. However, we believe that this result could be, to some extent, explained as follows. The mainly opportunity entrepreneur, unlike the strictly opportunity entrepreneurs, are not motivated by the market opportunity (as our hierarchical cluster analysis shows it). Because of that, the former could have a poorer understanding of his/her market environment and be more proactive in terms market study.

Based on these results, it seems that our research hypothesis which was that *the more an individual will be motivated by opportunity motivations the more he will be proactive in terms of the gestation activities* is globally supported.

CONCLUSION

Two main findings of our study can be highlighted. First, our results show that there are different subgroups in terms of motivations of

necessity and/or opportunity entrepreneurs. Second, the gestation activities carried out by these subgroups of entrepreneurs are different. These results have implications for public policies and scientific debates. For the last 25 years, many measures have been taken in order to stimulate entrepreneurship. The genesis of this interest for entrepreneurship is to be found in key role played by entrepreneurship in regional economic growth (Audretsch, 2003 ; Staber & Bögenhold, 1993) as well as in the fight against unemployment. Current public policies do not yet make the distinction between necessity and opportunity profiles. However, as our findings show, there are different groups of necessity-opportunity entrepreneurs. One of the differences between these groups are their gestation activities. This reinforces the idea that successful public policies for necessity-driven entrepreneurs should be different from those for opportunistic entrepreneurs (Bhola et al., 2006). Our results could, for example, be useful to draw the attention of the former on the importance of the gestation process. Such actions could reduce the high failure rate among necessity entrepreneurs.

REFERENCES

Alange, S. & Scheinberg, S. (1988), Swedish entrepreneurship in a cross-cultural perspective, *Frontiers of Entrepreneurship Research* 1988, p.1-15.

Amit, R. et Muller, E. (1995), ‘‘Push’’ and ‘‘Pull’’ Entrepreneurship”, *Journal of Small Business and Entrepreneurship*, 12(4), p.64-80.

Arenius, P. & Ehrstedt, S. (2008), Variation in the level of activity across the stages of the entrepreneurial startup process-evidence from 35 countries, *Estudios de Economia* 35(2), p.133-152.

Arias, A. & Pena, I. (2010), The effects of entrepreneurs’ motivation and the local economic environment on young venture performance, *International Journal of Business Environment*, vol.3(1), p.38-56.

Audretsch, D. (2003), Entrepreneurship A Survey of the Literature. Enterprise Papers n°14, Enterprise Directorate-General European Commission.

Baum, J.R. & Locke, E.A. (2004), The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, vol.29(4), p.587-598.

Bhola, R., Verheul, I., Thurik, R. & Grilo, I. (2006), Explaining engagement levels of opportunity and necessity entrepreneurs. EIM Business and Policy Research, H200610.

Birley, S. & Westhead, P. (1994), A Taxonomy of Business Start-up Reasons and Their Impact on Firm Growth and Size. *Journal of Business Venturing*, vol.9(1), p.7-31.

Block, J. & Wagner, M. (2006), Necessity and Opportunity Entrepreneurs in Germany: Characteristics and Earnings Differentials. Munich Personal RePEC Archive Paper n°610.

Block, J. & Koellinger, P. (2009), I Can't Get No Satisfaction-Necessity Entrepreneurship and Procedural Utility. *KYKLOS*, vol.62(2), p.191-209.

Block, J. & Sandner, P. (2009), Necessity and Opportunity entrepreneurs and their duration in self-employment: evidence from German micro data. *Journal of Industry, Competition and Trade*, vol.9(2), p.117-137.

Block, J., Sandner, P. & Spiegel, F. (2010), Do risk attitudes differ within the group of entrepreneurs? The role of motivation, available at : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1473989

Brinckmann, J., Grichnik, D. & Kapsa, D. (2010), Should entrepreneurs plan or just storm the caslte? A meta-analysis on contextual factors impacting the business planning-performance

relationship in small firms, *Journal of Business Venturing*, vol.25(1), p.24-40.

Burke, A., Fraser, S. & Greene, F.J. (2010), The Multiple Effects of Business Planning on New Venture Performance, *Journal of Management Studies*, vol.47(3), p.391-415.

Caliendo, M. & Kritikos, A.S. (2010), Start-ups by the unemployed: characteristics, survival and direct employment effects, *Small Business Economics*, vol.35(1), p.71-92.

Caliendo, M. & Kritikos, A.S. (2009), "I want to, But I Also Need to": Start-Ups Resulting from Opportunity and Necessity. IZA Discussion Paper N°4661, decembre 2009: 1-33.

Carsrud, A. & Brännback, M. (2011), Entrepreneurial Motivations : What Do We Still Need to Know ?, *Journal of Small Business Management*, 49(1), p.9-26.

Carter, N.M., Gartner, W.B. & Reynolds, P. (1996), Exploring Start-up Event Sequences, *Journal of Business Venturing*, vol.11(3), p.151-166.

Carter, N.M., Gartner, W.B., Shaver, K.G. & Gatewood, E.J. (2003), The career reasons of nascent entrepreneurs, *Journal of Business Venturing*, vol.18(1), p.13-39.

Cassar, G. (2007), Money, money, money? A Longitudinal investigation of entrepreneur career reasons, growth preferences and achieved growth, *Entrepreneurship and Regional Development*, vol.19(1), p.89-107.

Delmar, F. & Shane, S. (2003), Does Business Planning Facilitate the Development of New Ventures?, *Strategic Management Journal*, vol.24(12), p.1165-1185.

Evans, D. & Leighton, L. (1989), Some Empirical Aspects of Entrepreneurship, *American Economic Review*, vol.79(3), p.519-535.

Gatewood, E.J., Shaver, K.G. & Gartner, W.B. (1995), A longitudinal study of influencing start-up behaviors and success at venture creation, *Journal of Business Venturing*, vol.10(5), p.371-391.

Guzman, J. & Santos, F.J. (2001), The Booster function and the entrepreneurial quality: an application to the province of Seville, *Entrepreneurship & Regional Development*, vol.13 p.211-228.

Harrison, R.T. & Hart, M. (1983), Factors influencing new business formation : a case study of Northern Ireland, *Environment and Planning*, vol.15(10), p.1395-1412.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity

entrepreneurs, *International Entrepreneurship and Management Journal*, vol.5(4), p.417-437.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, vol.31(3), p.323-339.

Ho, Y.P. & Wong, P.K. (2007), Financing, Regulatory Costs and Entrepreneurial Propensity, *Small Business Economics*, vol.28(2-3), p.187-204.

Hughes, K.D. (2003), Pushed or Pulled? Women's Entry into Self-Employment and Small Business Ownership, *Gender, Work and Organization*, vol.10(4), p.433-454.

Hughes, K.D. (2006), Exploring Motivation and Success amongst Canadian Women Entrepreneurs, *Journal of Small Business and Entrepreneurship*, vol.19(2), p.107-120.

Kautonen, T. & Palmroos, J. (2010), The impact of a necessity-based start-up on subsequent entrepreneurial satisfaction Ownership, *International Entrepreneurship and Management Journal*, vol.6(3), p.285-300.

Kirkwood, J. (2009), Motivational factors in a push-pull theory of entrepreneurship, *Gender in Management: An international Journal*, vol.25(5), p.346-364.

Kirkwood, J. & Campbell-Hunt, C. (2007), Using Multiple Paradigm Research Methodologies to Gain New Insights into Entrepreneurial Motivations, *Journal of Enterprising Culture*, vol.15(3), p.219-241.

Kolvereid, L. (1992), Growth aspirations among Norwegian entrepreneurs, *Journal of Business Venturing*, vol.7(3), p.209-222.

Koruntka, C., Frank, H., Lueger, M. & Mugler, J. (2003), The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process-A Configurational Approach, *Entrepreneurship Theory and Practice*, vol.28(1), p.23-42.

Krueger, N.F. & Brazeal, D.V. (1994), Entrepreneurial Potential and Potential Entrepreneurs, *Entrepreneurship Theory and Practice*, vol.18(3), p.91-104

Kumar, M. (2007), Explaining Entrepreneurial Success: A Conceptual Model, *Academy of Entrepreneurship Journal*, vol.13(1), p.57-77.

Kuratko, D.F., Hornsby, J.S. & Naffziger, D.W. (1997), An Examination of Owner's Goals in Sustaining Entrepreneurship, *Journal of Small Business Management*, vol.35(1), p.24-33.

Liao, J.J., Welsch, H. & Pistrui, D. (2001), Environmental and individual determinants of entrepreneurial growth: an empirical examination, *Journal of Enterprising Culture*, vol.9(3), p.253-272.

Liao, J.J., Welsch, H. & Tan, W.L. (2005), Venture gestation paths of nascent entrepreneurs: Exploring the temporal patterns, *Journal of High Technology Management Research*, vol.16(1), p.1-22.

Liao, J.J. & Welsch, H. (2008), Patterns of venture gestation process: Exploring the differences tech and non-tech nascent entrepreneurs, *Journal of High Technology Management Research*, vol.19(2), p.103-113.

Liao, J.J. & Gartner, W.B. (2006), The Effects of Pre-venture Plan Timing and Perceived Environmental Uncertainty on the Persistence of Emerging Firms, *Small Business Economics*, vol. 27(1), p.23-40.

Lichtensein, B.B., Carter, N.M., Doley, K.J. & Gartner W.B. (2007), Complexity dynamics of nascent entrepreneurship, *Journal of Business Venturing*, vol.22(2), p.236-261.

Mason, C. (1989), Explaining Recent Trends in New Firm Formation in the UK: Some Evidence from South Hampshire, *Regional Studies*, vol.23(4), p.331-46.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, vol.32(5), p.875-896.

Morris, M.H., Miyasaki, N.N., Watters, C.E. & Coombes, S.M. (2006), The Dilemma of Growth: Understanding Venture Size

Choices of Women Entrepreneurs Ownership, *Journal of Small business Management*, vol.44(2), p.221-244.

Noorderhaven, N., Thurik, R., Wennekers, S. & Van Stel, A. (2004), The Role of Dissatisfaction and per Capita Income in Explaining Self-Employment across 15 European countries, *Entrepreneurship Theory and Practice*, vol.28(5), p.447-466.

Orhan, M. & Scott, D. (2001), Why women enter into entrepreneurship: An explanatory model, *Women in Management Review*, vol.16(5), p.232-243.

Reynolds, P., Camp, S.M., Bygrave, W.D., Autio, E. & Hay, M. (2001), GEM Global Entrepreneurship Report, 2001 Summary Report, Babson College.

Reynolds, P., Bygrave, W., Autio, E., Cox, L. & Hay, M. (2002), GEM Global Entrepreneurship Report, 2002 Summary Report, Babson College.

Ritsilä, J. & Tervo, H. (2002), Effects of Unemployment on New Firm Formation: Micro-level Panel Data Evidence from Finland, *Small Business Economics*, vol.19(1), p.31-40.

Rodriguez, M.J. & Santos, F.J. (2009), Women nascent entrepreneurs and social capital in the process of firm creation, *International Entrepreneurship and Management Journal*, vol.5(1), p.45-64.

Samuelsson, M. & Davidsson, P. (2009), Does venture opportunity variation matter? Investigating systematic process differences between innovative and imitative ventures, *Small Business Economics*, vol.33(2), p.229-255.

Santos, F.J. & Linan, F. (2007), Measuring entrepreneurial quality in southern Europe. *International Entrepreneurship and Management Journal*, vol.3(1), p.87-107.

Scheinberg, S. & MacMillan, I.C. (1988), An 11 country study of motivations to start a business, *Frontiers of Entrepreneurship Research*, Babson College.

Schjoedt, L. & Shaver, K.G. (2007), Deciding on an Entrepreneurial Career: A Test of the Pull and Pull Hypotheses Using the Panel Study of Entrepreneurial Dynamics Data, *Entrepreneurship Theory and Practice*, vol.31(5), p.733-752.

Shane, S., Locke, E.A. & Collins, C.J. (2003), Entrepreneurial motivation, *Human Resource Management Review*, vol.13(2), p.257-279.

Shapero, A. & Sokol, L. (1982), The social dimensions of entrepreneurship, In Kent, C., Sexton, D. & Vesper, K. (eds). *The Encyclopedia of Entrepeneurship* (pp. 72-90). Englewood Cliffs, NJ.

Shinnar, R., Cardon, M.S., Eisenman, M., Zuiker, V.S., Lee, M.S. (2009), Immigrant and US-born mexican-owned businesses:

motivations and management, *Journal of Developmental Entrepreneurship*, vol.14(3), p.273-295.

Smith, N.R. & Miner, J.B. (1983), Type of Entrepreneur, Type of Firm and Managerial Motivation: Implications for Organizational Life Cycle Theory, *Strategic Management Journal*, vol.4(4), p.325-340.

Solymossy, E. (1997), Push/Pull motivations: does it matter in venture performance?, *Frontiers of Entrepreneurship Research*, Babson College.

Staber, U. & Bögenhold, D. (1993), Self-employment: a study of seventeen OECD countries, *Industrial Relations Journal*, vol.24(2), p.126-137.

Uhlaner, L. & Thurik, R. (2007), Postmaterialism influencing total entrepreneurial activity across nations, *Journal of Evolutionary Economics*, vol.17(2), p.161-185.

van Gelderen, M., Thurik, R. & Bosma, N. (2006), Success and Risk Factors in the Pre-Startup phase, *Small Business Economics*, vol.26(4), p.319-335.

Van Praag, M.C. (2003), Business Survival and Success of Young Small Business Owners, *Small Business Economics*, vol.21(1), p.1-17.

Van Stel, A., Storey, D.J. & Thurik, R. (2007), The effect of Business Regulations on Nascent and Young Business Entrepreneurship, *Small Business Economics*, vol.28(2), p.171-186.

Verheul, I., Thurik, R., Hessels, J. & van der Zwan, P. (2010), Factors Influencing the Entrepreneurial Engagement of Opportunity and Necessity Entrepreneurs, EIM Research Reports, H201011, March 2010, 1-24.

Vivarelli, M. (2004), Are all the Potential Entrepreneurs So Good?, *Small Business Economics*, vol.23(1), p.41-49.

Wagner, J. (2005), Nascent Necessity and Opportunity Entrepreneurs in Germany Evidence from the Regional Entrepreneurship Monitor (REM), University of Lüneburg Working Paper Series in Economics, Working Paper n°10, 1-24.

Williams, C.W. (2009), The motives of off-the-book entrepreneurs: necessity-or opportunity driven?, *International Entrepreneurship and Management Journal*, vol.5(2), p.203-217.

Williams, C.W. (2008), Beyond necessity-driven versus opportunity-driven entrepreneurship. A study of informal entrepreneurs in England, Russia and Ukraine, *Entrepreneurship and Innovation*, vol.9(3), p.157-165.

Zhao, H., Seibert, S.E. & Lumpkin, G.T. (2010), The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review, *Journal of Management*, vol.36(2), p.381-404.

Table 1. Classification of Indicators of Necessity-Opportunity Entrepreneurship

Necessity	*Opportunity*
Escaping unemployment	Earning big money
Obtaining prestige	Increasing income
Being socially recognized	Being autonomous
Meeting family expectations	Creating one's own job
Perpetuating the family tradition	Having no boss anymore
	Developing new products/services
	Developing new manufacturing process

Table 2. PCA Component Matrix after Rotation

Necessity-opportunity indicators	*Components*					
	1	*2*	*3*	*4*	*5*	*6*
Obtaining prestige	.308	.242	.273	.269	**.777**	.143
Creating one's own job	**.783**	.144	.262	.284	.170	.140
Being autonomous	**.815**	.160	.333	.197	129	.107
Developing new manufacturing process	.280	.245	**.785**	.167	.248	.102
Developing new products/services	.253	.217	**.842**	.160	.124	.143
Being socially recognized	.446	.359	.276	.240	**.525**	.206
Increasing income	.243	.230	.184	**.856**	.170	.140
Earning big money	.401	.329	.201	**.642**	.282	.184
Having no boss anymore	**.773**	.260	.115	.149	.295	.162
Perpetuating the family tradition	.242	**.763**	.283	.295	.205	.192
Meeting family expectations	.211	**.847**	.229	.194	.180	.183
Escaping unemployment	.225	.259	.176	.190	.154	**.889**

Tableau 3. Motivations Correlation and their Ranking in Each Cluster.

Cluster	*Motivations*	*v.test**	*Ranking*	*Motivation's type*
Cluster A	Desire for independence	+ 5.769	1	Opportunity
	Market opportunity	+ 3.213	2	Opportunity
	Profit search	- 3.171		Opportunity
Cluster B	Search for social recognition	+ 5.044	1	Necessity
	Unemployment	+ 3.435	2	Necessity
	Profit search	+ 3.143	3	Opportunity
	Market opportunity	- 3.900		Opportunity
Cluster C	Family influence	+ 3.394	1	Necessity
	Search for social recognition	+ 5.142	2	Necessity
	Profit search	- 2.721		Opportunity
	Desire for independence	- 4.986		Opportunity
Cluster D	Search for social recognition	+ 4.335	1	Necessity
	Desire to independence	+ 3.248	2	Opportunity
	Market opportunity	- 2.941		Opportunity
	Unemployment	- 2.955		Necessity
	Family influence	- 4.335		Necessity
Cluster E	Desire for independence	+ 3.161	1	Opportunity
	Profit search	+ 2.510	2	Opportunity
	Search for social recognition	+ 2.440	3	Necessity
	Market opportunity	- 5.906		Opportunity

*p < 0 .05

Table 4. ANOVA

Gestations activities		*Sum of Squares*	*DF*	*Mean Squares*	*Fischer test*	*Welch Test*
Private assistance or counseling	Between groups	7.679	4	1.920		
	Within groups	218.048	530	.411	4.666**	7.553**
	Total	225.727	534			
Business plan	Between groups	8.587	4	2.147		
	Within groups	397.626	530	.750	2.862*	2.653*
	Total	406.213	534			
Market study	Between groups	13.098	4	3.274		
	Within groups	333.530	530	.629	5.203**	8.570**
	Total	346.628	534			
Strategic development plan	Between groups	8.684	4	2.171		
	Within groups	433.926	530	.819	2.652*	4.522*
	Total	442.609	534			
To ask credit institutions for funding	Between groups	8.042	4	2.011		
	Within groups	237.259	530	.448	4.491**	10.062**
	Total	245.301	534			
Public assistance or counseling	Between groups	2.771	4	.693		
	Within groups	236.750	530	447	1.551	1.982
	Total	239.521	534			

*p < 0.05; ** p < 0.01

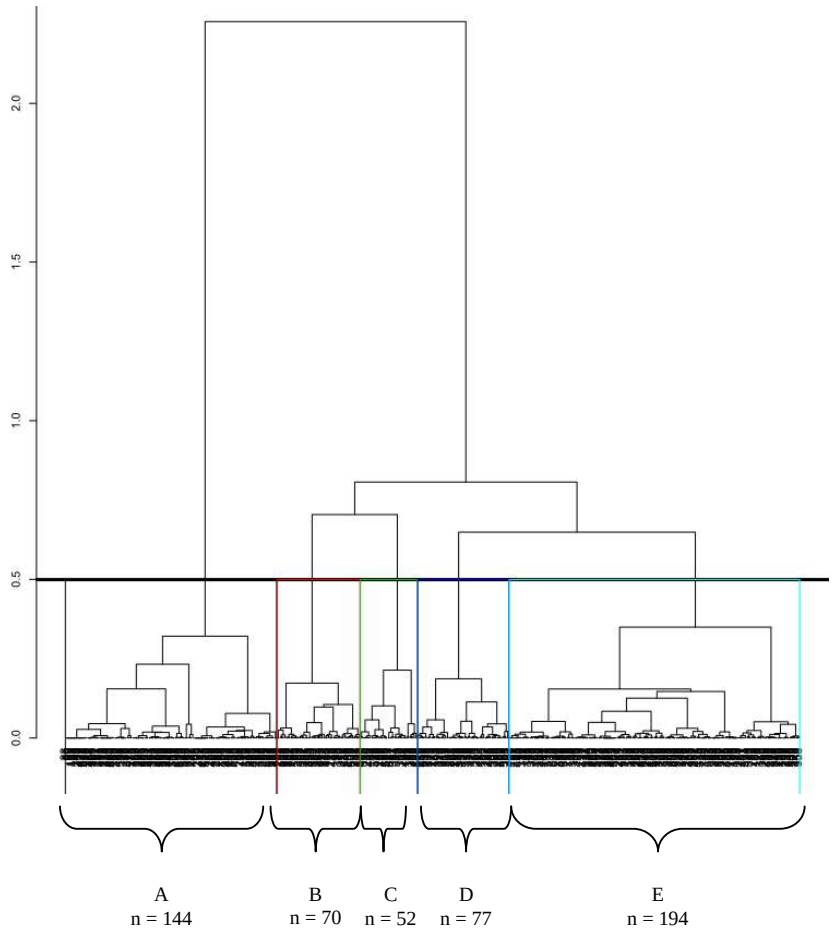
Table 5. Comparative Analysis of Gestation Activities for Clusters Groups

Dependent Variable: Gestation activities	*Cluster (i)*	*Cluster (ii)*	*Difference * average between i and ii*
Private assistance or counseling	SN	MN	-0.234*
		MO	-0.310**
		SO	-0.268*
Business plan	SN	MO	-0.310*
		SO	-0.276*
Market study	SN	MN	-0.361**
		MO	-0.155*
		SO	-0.362*
	MO	MN	0.357*
		SO	0.359*
Strategic development	SO	SN	0.300**
		MO	0.315*
To ask credit institutions for funding	SN	MN	0.225*
		SMON	0.389**
	SMON	SO	0.276*
		MO	0.336*

SN: Stricly Necessity – SO: Stricly Opportunity – MO: Mainly Opportunity – MN: Mainly Necessity – SMON: Strictly Mix Opportunity-Necessity

* $p < 0.05$; ** $p < 0.01$

Figure 1: Dendogram



Conclusion

Starting from the necessity-opportunity entrepreneurship dichotomy, this dissertation proposes to revisit the theoretical and empirical approaches used in necessity-opportunity entrepreneurship research. Our first essay goes back to the theoretical genesis of the necessity and opportunity entrepreneurship concept and develops three research propositions in order to better study these entrepreneurship profiles. Based on our research propositions, essay 2 analyzes the impact of the individual characteristics on the necessity and opportunity positioning. Essay 3 looks at the impact of the necessity-opportunity motivations and of the individual's characteristics on the choice of the economic sector in which a business is started. Finally, essay 4 questions the role of the necessity and opportunity motivations on the entrepreneurial behavior in terms of the gestations activities.

The following section summarizes the contribution of this dissertation to the necessity-opportunity entrepreneurship literature. The last section proposes avenues for future research. The limitations of our dissertation have been presented in essays 2, 3 and 4.

CONTRIBUTION OF THE DISSERTATION

Theoretical Contributions

Overall, this dissertation has three main theoretical contributions to the necessity-opportunity entrepreneurship research literature. These

are (1) discussing and redefining the approach used in the necessity-opportunity entrepreneurship research (2) illustrating that the necessity-opportunity dichotomy has limitations that question its existence, and (3) demonstrating the link between the necessity and/or opportunity creator's profile and the firm creation process both in terms of the choice of a sector and of the gestation activities.

First, some scholars have recently emphasized that necessity and opportunity entrepreneurship research needs to be refined in order to better correspond to the reality. Their main argument is that the theoretical framework (i.e., the dichotomous approach) used in necessity and opportunity research is too simplistic. Essay 1 discuss the literature on necessity and opportunity entrepreneurship and analyzes three main limitations of the methodology used in past researches. Based on the *entrepreneurial event theory* (Shapero, 1984), this essay redefines and develops three research propositions. The main contribution of these propositions is that they allow to take into account the impact of an individual's socio-economic characteristics on his/her necessity and opportunity positioning into account. They also stress that there could exist different groups of necessity-opportunity entrepreneurs. In other words, essay 1 contributes to the necessity and opportunity entrepreneurship research by discussing and taking into account several criticisms with regard to the past necessity and opportunity research approaches. It also shows that the classification of an individual in terms of necessity and opportunity on the sole basis of his/her primary motivations could be hazardous.

A second contribution of this dissertation is to empirically highlight that the necessity-opportunity dichotomy is too simplistic and does not correspond to reality. Essay 2 shows that there are different dynamics of necessity and opportunity motivations and that an individual could be positively and/or negatively motivated by a necessity or opportunity motivation depending on his/her personal situation or his/her socio-economics characteristics. This means that, as we proposed in the essay 1, the same motivation can be interpreted as either a necessity or an opportunity one depending on the contextual situation of the entrepreneur. Essay 2 also points out that different groups or sub-groups of necessity-opportunity creators could exist. The existence of these sub-groups is further demonstrated in essays 3 and 4. More precisely, in essay 4, we identify five groups of necessity and/or opportunity entrepreneurs. Two groups correspond to entrepreneurs who are *strictly* motivated by necessity or opportunity motivations. The three other groups correspond to individuals motivated simultaneously by necessity ***and*** opportunity motivations: we identified one group as being *mainly* motivated by necessity, one group as being *mainly* motivated by opportunity, and one group as motivated by a *mix* of necessity and opportunity motivations. The word "mainly" means that, in this group, an individual is motivated by necessity and opportunity motivations but that one type of motivations prevails over the other (i.e., necessity motivations in the "mainly necessity" group, and opportunity motivations in the "mainly opportunity" group). Altogether, essays 2, 3 and 4 strongly demonstrate that the necessity-opportunity dichotomy does not hold in the real world.

A third contribution of the dissertation is to investigate the impact of necessity-opportunity motivations on the firm's creation process, and on two aspects in particular: the choice of the economic sector (essay 3), and the gestation activities (essay 4). The necessity-opportunity entrepreneurship literature clearly demonstrates that the entrepreneur's profile has a significant impact on his/her entrepreneurial behavior after the creation. At the same time, the literature emphasizes that a firm's creation process significantly influences its success or failure. However, to date, no empirical study has analyzed whether or not necessity and/or opportunity entrepreneurs differ in terms of the gestation activities. We believe that identifying the entrepreneurial behaviors of the different groups of necessity-opportunity entrepreneurs during the firm creation process is relevant. Indeed, as some scholars recently argued, public policies need to be adapted to the entrepreneur's profile in terms of necessity or opportunity. Yet, before adapting or creating adequate policies to foster the entrepreneurial spirit and/or to help an individual create a business, it seems logical to first identify the entrepreneurial behavior during the firm's creation process, for each individual profile. Knowing more about the entrepreneurial behavior during the firm's creation, would help public authorities develop adequate policies corresponding to different profiles of necessity and/or opportunity entrepreneurs. Concerning the scientific debate, the study of the firm creation in the light of the necessity-opportunity entrepreneurship framework also seems relevant given that no prior study has analyzed these types of entrepreneurship in this context. In this respect, essay 3 demonstrates that necessity and opportunity motivations play a significant role in

the choice of the economic sector in which a business is started. Essay 3 highlights that some sectors are more often chosen than others by individuals showing certain types of necessity and/or opportunity motivations. As emphasized in the literature, firms created by necessity entrepreneurs are comparatively less successful than firms created by opportunity entrepreneurs. Therefore, we hypothesize that, if motivations influence the choice of an economic sector, this could explain (to some extent) why some economic sectors encounter a higher rate of failure and that this could have a link with the motivations of the creator. In line with the results of essay 2, essay 3 also reinforces the idea that a same motivation could have different interpretations.

The relationship between the motivations and the firm's creation (in terms of the gestation activities) is studied in-depth in essay 4. Essay 4 postulates that the differences between necessity and/or opportunity entrepreneurs in terms of the post-creation entrepreneurial behavior could results from dissimilarities during the gestation activities implemented by these entrepreneurial profiles. In particular, we assume that the impact of necessity and/or opportunity motivations on the gestation activities could be due to differences between these kinds of entrepreneurs in terms of opportunity costs and to their willingness to adopt a proactive behavior in terms of the gestation activities. Essay 4 demonstrates that the different entrepreneurial motivations strongly influence the gestation activities undertaken by the creator. We highlight that the more an individual is motivated by opportunity motivations, the more he is proactive in terms of the gestation

activities. These results have implications for public policies. Current public policies do not make a distinction between necessity and/or opportunity entrepreneurial profiles. However, as our findings demonstrate, these groups of necessity-opportunity entrepreneurs show differences that are shaping in their gestation activities. This reinforces the idea that successful public policies should, for instance, draw necessity-driven entrepreneurs' attention on the importance of the gestation activities. As a consequence, such policy actions could help to reduce the high failure rate among necessity entrepreneurs.

Managerial and Policy Contributions

While business success can generate value and personal reward, failure, on the other hand, prompts major social and human costs. As a result, it is important to prevent failure. Some managerial and/or policy implications can be drawn from our results in order to reduce and/or prevent bankruptcy.

Firstly, our results clearly demonstrate that the individual's profile in terms of necessity and opportunity motivations has an impact on the sector choice. As past studies demonstrated, the firms created by necessity entrepreneur encounter a higher rate of failure than firms created by opportunity entrepreneurs. Moreover, it seems that the bankruptcy rate is more important in some sectors than others. For example, the rate of failure in the trade, hotel, restaurant and construction sectors is higher than in the finance, industry or health sectors. Based on our dissertation's results, we could postulate that the sector differences in terms of rate of failure could be, to some extent,

due to the individual's socio-economic characteristics and to his/her entrepreneurial motivations. The fact that individual's motivations (necessity and/or opportunity) could play a role in the business success or failure is not without policy implications. Future policy measures could, for instance, promote individual "screenings" aiming at detecting the reasons underlying the sector choice. The idea would not be to deter people from starting a business, but rather to adapt the various firm creation support measures to the candidate's profile and his/her sector choice.

Secondly, as we demonstrate, one of the differences between necessity ad opportunity entrepreneurs lies in their gestation activities. We believe that these differences reinforce the idea that successful public policies for necessity-driven entrepreneurs should be different from those for opportunistic entrepreneurs. Knowing that the gestation activities play a significant role in the business success, policies should help to draw the attention of the necessity entrepreneurs on the importance of the gestation process. Better informing the nascent entrepreneur on the gestation process could reduce the high failure rate among necessity entrepreneurs. In the same time, better inform the nascent entrepreneur on the importance of the gestation process during the start-up phase could certainly improve not only the chances of success, but also the creator's managerial skills.

Finally, usually when an unemployed individual decides to create a business the future stakeholders (financial partners, suppliers and/or customers) consider this nascent entrepreneur as a necessity one. As a

consequence, this nascent entrepreneur will have most difficulties to convince them to do business with him/her. But, even with a good idea, it is difficult to develop a business without stakeholders who believe in and support your project. Therefore, to extent, we could expect that the stakeholder's behavior will increase or decrease the chance of failure of the nascent entrepreneur. We believe that policy makers have a significant informational role to play. The goal of such an information campaign would be to fight the wrong idea according to which if "you create by necessity, you will fail", by presenting the necessity entrepreneurs success stories.

DIRECTIONS FOR FUTURE RESEARCH

Based on our dissertation's findings, we would like to propose two research avenues: (1) the evolution of individual motivations during an SME's life, and (2) the link between the firm's gestation process and its development in the necessity and/or opportunity entrepreneurship context.

Firstly, as explained in essays 1 and 2, the interpretation of the entrepreneurial event depends on the individual's situation. In fact, as emphasized by Shapero (1984), the creation process starts with the positive or negative situation of an individual and the entrepreneurial act must be considered as a product of the interaction between a specific situation and a specific individual. For this author, these specific situations are diverse and a specific situation will produce different responses according to the type of individual facing the

situation. Based on this, we believe that the primary interpretation (when the entrepreneurial event occurs) of the entrepreneurial event could also evolve during the SME's life (the creation process and/or the post-creation development). In fact, following Shapero's theory, if an individual's situation changes (positively or negatively) during the start-up process, we could expect that his/her necessity and/or opportunity positioning could also change. The fact that the individual's motivations can change through the SME's life is also supported by Williams & Williams (2011) and Aidis et al. (2006). Consequently, we could expect this change to induce a change in the individual's entrepreneurial behaviour. As we demonstrated in essays 3 and 4, motivations impact the firm's creation process. As a result, the fact that (1) the individual's motivations could change during the SME's life (pre-creation and/or post creation) and (2) that most research in entrepreneurship is cross-sectional (Davidsson, 2005; Baron, 2006) could have two major implications. First, it could reinforce the argument that the necessity-opportunity dichotomy does not exist and that the entrepreneur's profile (in terms of necessity and/or opportunity) can evolve during the firm's life. Second, due to the fact that entrepreneurship research is mainly cross-sectional (Davidsson, 2005), it would suggest that our current understanding of the entrepreneurial motivations and of their role in the entrepreneurial process is rather limited. Therefore it appears relevant that future research tries to answer to the question related to the "individual motivation's stability" throughout the SME's life. In order to address this question, future research needs to implement an adequate methodological framework. In other words, as Kirkwood & Campbell-

Hunt (2007) stressed, we believe that future research related to entrepreneurial motivations should be based on multiple paradigms research methodologies.

Secondly, as explained in essays 3 and 4, past necessity and opportunity research demonstrated that these two profiles differ in terms of growth, exports, innovation or employment creation (e.g. Block & Sandner, 2009; Hechavarria & Reynolds, 2009; McMullen et al., 2008; Hessels et al., 2008). As firms created by necessity entrepreneurs are less growth oriented, less innovative and create less jobs than firms created by opportunity entrepreneurs, some scholars argue that necessity entrepreneurship is not desirable (Shane, 2009). Here, our argument is not to say that all creations and/or all types of entrepreneurs (in terms of motivations) are desirable, but that we believe that future research on necessity and opportunity entrepreneurship needs to better understand why necessity entrepreneur seems so unsuitable, and also, why the firms created by necessity entrepreneurs underperform the ones created by opportunity entrepreneurs. In our opinion, these researchers (e.g. Block & Sandner, 2009; Hechavarria & Reynolds, 2009; McMullen et al., 2008; Hessels et al., 2008) suffer from two limitations. First, as our dissertation demonstrates, these authors used an inadequate dichotomous approach to necessity and opportunity entrepreneurship. Second, these authors do not examine if a firm's gestation process implemented by these profiles could explain these dissimilarities. As we show in essays 3 and 4, it seems that necessity and/or opportunity motivations play a role in the firm creation process. However, we do

not know if there is a link between necessity and/or opportunity positioning and the firm's post-creation development. In order to better understand and to explain the post-creation differences between the different entrepreneur profiles, future research needs to analyze in depth both the firm's creation process and its impact on the firm's post-creation development in the context of necessity and/or opportunity entrepreneurship. Such an approach implies that future research should take the links between the individual's profile, the firm's gestation process and its development into account. This could lead to a better understanding of the reasons why necessity entrepreneurs underperform the opportunity types.

Jointly to these two research avenues, we believe that there is another gap in the literature. This research gap refers to the role of the *entrepreneurial team* in the context of the necessity and opportunity entrepreneurship. Research on necessity and opportunity entrepreneurship has always considered these two types of individuals as being "isolated entrepreneur". However, as Audretsch & Monsen (2008) stressed, many businesses are developed by a team and not by a single individual. Despite this reality, no study has analyzed whether or not the necessity and the opportunity businesses differ in terms of the entrepreneurial team size and/or if the differences between the two in terms of the survival and/or growth could be due to the characteristics of the entrepreneurial team. As Westhead (1995) emphasized, the entrepreneurial team plays a significant role in the firm's development and in its performance. When a firm is created by an entrepreneurial team, it increases its human, social and financial

resources (Ucbasaran et al., 2003). This research avenue could allow us to better understand why necessity businesses often underperform the opportunity businesses. With regards to our dissertation, the study of the entrepreneurial team in the necessity and/or opportunity entrepreneurship context could also help to explain why necessity entrepreneurs are less proactive in terms of gestation activities, as we have shown in our fourth essay.

To conclude, these research avenues could allow us "…to rediscover the rich complexity of motivations and explore in greater detail the role they play in entrepreneurial behaviors" Carsrud & Brännback (2011).

LIMITATIONS

Our findings have some limitations.

As emphasized by the literature, necessity entrepreneurs have less human and/or financial resources than the opportunity entrepreneurs. Based on that, we could expect that when an individual starts a business for necessity reasons he/she would choose a self-employed status (unincorporated business). Starting an entrepreneurial activity under the self-employed status is usually easier under the incorporated status. For example, the gestation activities and/or the financial capital required to start an incorporated business are usually more important under the incorporated status. As our database only contains entrepreneurs who created their business under the incorporated

status, our data could suffer from a selection bias due to the fact that we do not study the self-employed.

Second, as shown by Carter et al. (2003), the use of retrospective data can be a limit when studying entrepreneurial motivations. Our database includes the ventures started between 1998 and 2000 and the survey was done in 2004. Therefore, the time (4-6 years) between the business creation and the survey could create a temporal bias. In others words, it is possible that the individual's motivations underlying the decision to start a business in 1998-2000 and the motivations the individual gives at the time of the survey in 2004 could be different. In fact, as we emphasized, the individual's motivations could evolve during that time. Therefore, the answers to the survey could be temporally biased.

Finally, as our data are "regional" our findings cannot be generalized to Belgium and/or to the International context."

REFERENCES

Aidis, R., Welter, F., Smalbone. & Isakova, N. (2006), Female entrepreneurship in transition economies: The case of Lithuanie and Ukraine, *Feminist Economics*, vol.13(2), p.157-183.

Audretsch, D. & Monsen, E. (2008), Entrepreneurship Capital: A Regional, Organizational, Team and Individual Phenomenon, in: R. Barrett & S. Mayson (Eds.), *International Handbook of HRM and Entrepreneurship*, Cheltenham, U.K.: Edward Elgar Publishing Ltd, p. 47-70.

Baron, A.R. (2006), Entrepreneurship: A Process Perspective, Baum, R.J., Frese,M. & Baron, A.R. (eds) in *The Psychology of Entrepreneurship*, Lawrence Erlbaum, New Jersey.

Block, J. & Sandner, P. (2009), Necessity and Opportunity Entrepreneurs and Their Duration in Self-employment: Evidence from German Micro Data, *Journal of Industry, Competition and Trade*, 9(2), p. 117-137.

Carsrud, A. & Brännback, M. (2011), Entrepreneurial Motivations : What Do We Still Need to Know ?, *Journal of Small Business Management*, 49(1), p.9-26.

Davidsson, P. (2005). Methodological approaches to entrepreneurship: Past research and suggestions for the future, *Small Enterprise Research*: 13(1), 1-21.

Hechavarria, D.M. & Reynolds, P. (2009), Cultural norms & business start-ups: the impact of national values on opportunity and necessity entrepreneurs, *International Entrepreneurship and Management Journal*, 5(4), p.417-437.

Hessels, J., van Gelderen, M. & Thurik, R. (2008), Entrepreneurial aspirations, motivations, and their drivers, *Small Business Economics*, 31(3), p.323-339.

Kirkwood, J. & Campbell-Hunt, C. (2007), Using multiple paradigm research methodologies to gain new insights into entrepreneurial motivations, *Journal of Enterprising Culture*, 15(3), p.219-241.

McMullen, J.S., Bagby, D.R. & Palich, L.E. (2008), Economic Freedom and the Motivation to Engage in Entrepreneurial Action, *Entrepreneurship Theory and Practice*, 32(5), p. 875-895.

Shapero, A. (1984), The entrepreneurial event, Kent, C.A. (ed.) in *The Environment for Entrepreneurship*, Lexington, Mass: Lexington Books, D.C. Heath and Company, p.21-40

Ucbasaran, D., Lockett A., Wright, M. & Westhead, P. (2003), Entrepreneurial Founder Teams: Factors Associated with Member

Entry and Exit, *Entrepreneurship Theory and Practice*, 28(2), p. 107-126

Williams, N. & Williams, C.C. (2011), Beyond necessity versus opportunity entrepreneurship: some lessons from English deprived urban neighbourhoods, *International Entrepreneurship and Management Journal*, DOI 10.1007/s11365-011-0190-3

Westhead, P. (1995), Survival and Employment Growth Contrasts between Types of Owner-Managed High-Technology Firms, *Entrepreneurship Theory and Practice*, 20(1), p.5-27