

Innovative Entrepreneurship in Tourism Business: An International Comparative Study of Key Drivers

Mohammed Gamil Montasser, Angelo Battaglia

Abstract—Entrepreneurship is mostly related to the beginning of organization. In growing business organizations, entrepreneurship expands its conceptualization. It reveals itself through new business creation in the active organization, through *renewal, change, innovation, creation and development* of current organization, through breaking and changing of established rules inside or outside the organization and becomes more flexible, adaptive and competitive, also improving effectiveness of organization activity. Therefore, the topic of entrepreneurship, relates the creation of firms to personal / individual characteristics of the entrepreneurs and their social context. This paper is an empirical study, which aims to address these two gaps in the literature. For this endeavor, we use the latest available data from the Global Entrepreneurship Monitor (GEM) project. This data set is widely regarded as a unique source of information about entrepreneurial activity, as well as the aspirations and attitudes of individuals across a wide number of countries and territories worldwide. This paper tries to contribute to fill this gap, by exploring the key drivers of innovative entrepreneurship in the tourism sector. Our findings are consistent with the existing literature in terms of the individual characteristics of entrepreneurs, but quite surprisingly we find an inverted U-shape relation between human development and innovative entrepreneurship in tourism sector. It has been revealed that tourism entrepreneurs are less likely to have innovative products, compared with entrepreneurs in medium developed countries.

Keywords—GEM, human development, innovative entrepreneurship, occupational choice, tourism business, U-shape relation.

I. INTRODUCTION

ENTREPRENEURSHIP has been receiving the attention of Policymakers, academics and practitioners for long time. The individual attributes of entrepreneurs, such as awareness, risk taker, creativity, leadership and motivations, have significance importance for any entrepreneurship business type and scale. While *entrepreneur ability* as an innate characteristic of individuals, should be considered with more attention from the academia side because it influences the occupational choice and the decisions taken for the purpose of establishing a new firm. Little is known about how these theories apply to the tourism sector. Another, complementary branch of the entrepreneurship literature, which receives great

attention from policy-makers, is the relation between entrepreneurial activities and economic development. Little is known about the relation of entrepreneurship activities in tourism sector and broader measures of development. From the policy perspective, entrepreneurial activities are interpreted as engines of growth and development [1]. From the academic perspective, the interest understands better the black box that links entrepreneurship and growth, based on the characteristics of the individual entrepreneurs and the society where he lives and develops his business. One major advance in the debate of entrepreneurship is the common consensus that not all entrepreneurial activities have the same social value. In reality, only a few have the so much desired high growth and jobs creation potential [2], the entrepreneurship linked with innovation [3].

Tourism businesses have been identified as essential actors for creating jobs and generally growing the economy. Also here is attempt to identify the constructs that influence in building high-quality entrepreneurship in tourism industry. The owner-manager having an entrepreneurial orientation, the knowledge of owner-managers, the involvement in decision-making process of owner-managers and marketing orientation, differentiation and tourism destination development. Understanding the drivers of this type of entrepreneurship, as oppose to the one identified, as simple employment of the entrepreneur, seems to be a task of great value for the design of appropriate innovation and entrepreneurial policies in a particular destination.

Up to now, several studies focused on the individual characteristics of successful entrepreneurs, either from nature or nurture, as well as the development stage of context in which those entrepreneurial activities happen. However, up to now little is known how and whether these theoretical and empirical results are also valid for entrepreneurial activities in the tourism sector. Another important contribution of this paper is the study of the relation between development context and entrepreneurship, but understanding the development as broader than economic development. In fact, and up to our knowledge, this is the first paper evaluating the relationship between innovative entrepreneurship and the human development, a concept that includes both economic and social aspects of the progress of societies. To answer to these research challenges, we use a dataset that combines both information of entrepreneurial activity from [4], [5].

II. LITERATURE REVIEW

Today, it is necessary to take account of the uncertain (risky) nature of the process, and of the need for innovation to

Dr. Mohammed Gamil Montasser is with Oman Tourism College, Muscat, Sultanate of Oman, He is now Assistant Professor at the Tourism and Management Studies Department, (phone: +968 99430433; e-mail: dr.mohammedgamil2000@gmail.com).

Dr Angelo Battaglia is with Oman Tourism College, Muscat, Sultanate of Oman, He is now Head of Tourism and Management Studies Department, (phone: +968 97821404; e-mail: angelo.battaglia@otc.edu.om).

lead to the creation of value that in the final analysis is judged by consumers or end-users. Different disciplines have studied entrepreneurship from their perspective and the literature of entrepreneurship is quite broad and rich. Our goal in this section is to identify some areas of that literature that are more relevant for this paper. Early theories of entrepreneurship emphasize the individual characteristics of the entrepreneurs, such as the awareness of profitable opportunities (e.g., [6], the capacity to coordinate production within the firm [7], the capacity to change and destroy the existing paradigm of production, or the leadership, the motivation and the creativity [8], [9]. More recent theories view the entrepreneurship, as an occupational choice of the individuals, who can either, be unemployed, working as employee of some organization, or being entrepreneurs and owners of their own business. The seminal paper of [10] was followed by many theoretical developments, such as the inclusion of dynamic aspects of the choice e.g. [11] or the consideration of individuals with heterogeneous risk attitudes e.g. [12].

Our theoretical framework acknowledges the importance of individual characteristics of entrepreneurs and uses, to some extent (that will be clear in the following section), results from the above-mentioned theories. The research work [13] also included an analysis of the occupational choice of the individuals when the economy develops and the stock of capital increases. The result is dependent of the technical elasticity of substitution between capital and labor. Several other papers have their focus on this question: the relation between entrepreneurship and economic development. Since [14] stated that countries have commonly be classified in one of three stages of economic development: factor driven (with low value-added products, small levels of innovation and reduced use of knowledge products), efficiency driven (higher production efficiency and educational levels, higher technology efficiency), and innovation driven. Comparing entrepreneurial activity with these broad three stages of economic development, several authors found a U-shape relationship [15].

Besides recognizing the U-shape relation between entrepreneurship and economic development, the literature also emphasizes that the entrepreneurial activities at the lower end of development is quite different from the one happening at the upper end [16]. One the former, there is mostly self-employment with little innovation and little social value besides the employment of the entrepreneur; while on the latter, there is innovative and export oriented entrepreneurship with high potential social returns. However, all this literature of entrepreneurship and development has been focusing on economic development and, up to our knowledge, there has never been a study about entrepreneurship and broader measures of development, such would consider also the social development level of the countries. A third and last branch of the literature related to our study is entrepreneurship in the tourism sector. While there have been many books written about management techniques in entrepreneurial tourism activities, to our knowledge, there was only two research papers [17], [18], were studying the drivers of entrepreneurial

activities with the same data source of the GEM as the present study's authors use here. As in this earlier paper, we also acknowledge and test the importance of demographic and economic characteristics of the individuals, some perceptual variables and social and cultural aspects of the society where the individuals live.

Our dataset differs in terms of year, more recent, but also a broader focus on the tourism sector and not only the hospitality activities (hotels, restaurants and catering). A major strength of the GEM dataset is the application of standardized, uniform methodologies and definitions in collecting and treating the data, which allows an international comparison. Benefiting from the availability of data for a variety of geographic and development spectrums, this paper combines the GEM data with the Human Development Index of United Nations Development Programme, inferring the relation between the macro-level context and the entrepreneurial activity. Additionally, and more important, our research questions are different: our emphasis is on innovative entrepreneurship and not all types if entrepreneurial activities. Finally, we include the development stage of the country as a possible explanatory variable, affecting the options and choices of the individuals to become innovative entrepreneurs.

III. METHODOLOGY

In this paper we try to answer the following questions:

1. What are the key drivers of innovative entrepreneurship in the tourism sector?
2. What is the relative importance of product innovation and technology innovation for entrepreneurship in the tourism sector? Do we expect that both types of innovation are similarly common?
3. What is the relation between development and innovative entrepreneurship in the tourism sector? Do we expect a U-shaped relation where more developed societies also have more innovative entrepreneurial activities? The concept of development used is the broad human development concept, which includes not only the economic dimension, but also the social dimensions of health and education.

IV. THE SAMPLE

Our attempt to answer these questions makes use of the dataset collected and treated by [4], [5]. The GEM is an annual international observatory on entrepreneurship initiated by academics from the London Business School (LBS) in the UK and the Basbon College in the United States of America in 1997. The GEM surveys are designed and implemented by some 200 experts in entrepreneurship around the world, both academics and practitioners. The completion of the surveys is a responsibility of National Teams, in each of the more than 50 countries and territories that GEM covers. The network of National Teams is supervised and coordinated by the central team of the Global Entrepreneurship Research Association.

Three of the most powerful characteristics of GEM surveys are i) the inclusion of all types of entrepreneurial activities,

both formal and registered, and informal and not registered in official databases; ii) the inclusion of countries and territories in different geographic, economic and social situations; and iii) the harmonized framework and methodology to measure entrepreneurship, which allows comparisons across those countries and territories. For GEM, entrepreneurship is understood as “Any attempt of a new business or a new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business.” [4], [5]. The APS is an annual questionnaire, administered to a minimum of 2000 adults in every GEM country or territory. The main focus of the surveys is gathering information on the entrepreneurial activity, attitudes and aspirations of the individuals. It also collects data on some socio-demographic data of each respondent.

For the current study, we use a subset of GEM APS data for 2011 that refers to individuals reporting early-stage entrepreneurial activity in the tourism sector. Early-stage entrepreneurial activity (TEA) includes the two stages: i) the stage of preparing a firm, the start-up phase or the *nascent entrepreneurship* activity, and ii) the stage immediately after the start of a new firm, a new *baby* business of less than 3 years. In our sample, we include businesses related to various tourism sectors, which corresponds to the economic activities of accommodation, food and beverage services, as well as travel agencies, tour operators, reservation services and related activities. In the present study, the sample surveyed has information for 1552 individuals, belonging to 54 different countries and territories.

V. THEORETICAL FRAMEWORK, HYPOTHESES AND EMPIRICAL TECHNIQUES

As per the literature review section above, several disciplines have come up with explanations for entrepreneurship from their scientific and paradigm angles. We acknowledge those studies and refer to some of them in this section. Our three main research questions relate to innovative entrepreneurship. The literature of innovative entrepreneurship recognizes that entrepreneurship activities differ in terms of the value created for the society. On the one hand, there are the new firms associated with low value-added products, reduced innovation and reduced growth potential. Often, these entrepreneur activities are associated with small firms and self-employment of its owner. The literature refers to this as *entrepreneurship linked with self-employment* [10], [11]. On the other hand, there is entrepreneurship linked with innovation, high growth potential and high social returns. This is *innovative entrepreneurship*, and the focus of our study. In our model, we identify the innovative entrepreneurship as an early-stage entrepreneurial activities (TEA) whose product or technology is considered innovative. The data allows us to identify three alternative indicators of innovative entrepreneurship:

- Innovative entrepreneurship type 1, *innovative product*: TEA with all or some customers considering the tourism products or services new or unfamiliar;

- Innovative entrepreneurship type 2, *innovative technology*: TEA using technologies that are either the very latest or new, i.e., technologies newer than 5 years old;
- Innovative entrepreneurship type 3, *innovative product or technology*: TEA that is type 2 or type 3 above, or both.

Regarding the key drivers of innovative entrepreneurship in the tourism sector, the literature has focused in both individual attitudes and characteristics, and society context. One important individual attitude is the main reason to become entrepreneur: to pursue an opportunity or out of necessity [8]. The survey provides information on the TEA driven by opportunity (“take advantage of business opportunity”, “to seek better opportunities”, for “greater independence”, or “to increase personal income”) and on TEA driven by necessity (“no better choice for work”, or “just to maintain income”). Our **Hypothesis 1** is that innovative entrepreneurship is mainly driven by opportunity. In fact, Demographic and economic characteristics of the individuals may affect their entrepreneurial activities. In particular, we explore the following individual characteristics: *Age*. Following the results of previous studies, e.g. [15]. We expect that the age of individuals affects their decision to become entrepreneurs. However, since our study focus on innovative entrepreneurship, the impact of age is not obvious. On the one hand, younger adults may be more creative and more able to try innovative (and risky) entrepreneurial activities; but on the other hand, older adults may have more experiences and capacity to develop and implement innovative products, services or technologies. Therefore, our **Hypothesis 2** “age” is an important driver of innovative entrepreneurship in the tourism sector, but the relation may be U-shaped, with both younger and older adults having higher propensity to develop innovative entrepreneurial activities. In the data analysis, we use both the information of age of individuals, in years, and its square. Our **Hypothesis 3** is that women are less likely to be innovative entrepreneurs in the tourism sector. In our dataset, we use a dummy variable that takes the value 1 if the individual is a woman and 0 if it is a man.

Gender: A relatively recent branch of the entrepreneurship literature has focused on gender issues, e.g., [9]. Some early empirical studies have found a significant relation between being male and creating new firms and we also test if that result applies to the tourism sector.

Current work status: Modern theories of entrepreneurship focus on the occupational choice of the individuals. Individuals have to decide how to allocate their time between (possibly) conflicting activities. The final decision depends on the expected gain of each alternative as compared with their current situation, the *status quo*. Following this reasoning, we anticipate that unemployed people or workers in part-time occupations may be more likely to start new firms. However, it may be the reason why these individuals are unemployed or in not full-time occupations may also be linked with their ability to develop entrepreneurial activities that are innovative. Also related to the current work status, a recent branch of the literature e.g., [19] emphasizes that while an individual works

as an employee in another organization, he may have new ideas and start an innovative entrepreneurial activity, either for himself or for the organization he works for (this is known as *entrepreneurship*). Our **Hypothesis 4** is that individuals that are currently working in full time positions (either self-employed or working as employees of others) are more likely to start innovative entrepreneurial activities in tourism sector, as compared with those who are currently not working or in part-time positions. GEM dataset distinguished between different work-related occupations: being full or part-time employee, being only a part-time employee, working in self-employment (full or part-time), being retired or disabled, being a homemaker, being a student or not working. In our analysis, we construct dummies for each of these occupations, and our basis is “being a student or not working”.

Education level: In the occupational choice theories of entrepreneurship cited above, the expected gains of each alternative activity depend on the ability of individuals.

Household income. Entrepreneurship, and especially innovative entrepreneurship, is a risky endeavor. Previous studies have concluded that entrepreneurs are individuals who are less risk-averse e.g., [17], [18], [20]. According to well-known microeconomic theories of risk aversion, it is also accepted that the higher the income level, the lower the risk-aversion.

Our **Hypothesis 5** is that more educated individuals are more likely to create innovative entrepreneurial activities. The dataset classifies the educational attainment of each individual following the harmonized international classification of the United Nations, of seven educational levels. We then construct the following dummy variables: pre-primary or primary education, lower secondary or second stage of basic education, (upper) secondary education, post-secondary education, and tertiary education (which includes first and second stage of tertiary education).

Our **Hypothesis 6** is that innovative entrepreneurship is more likely in individuals from households with higher income. The GEM dataset presents three ranges for the household income: lower third, middle third, and highest third. In our analysis, we consider “highest third” as the basis.

The social and cultural context of the individual entrepreneur, how entrepreneurship is perceived and accepted in his society, and how he interprets opportunities and requirements for becoming an entrepreneur are also well-studied drivers of the entrepreneurial behavior (many studies, among which [12], [17], [20]. Our dataset allows us to identify several perceived aspects of the social and cultural aspects of the society where individuals live, which we reflect in the following dummy variables (1 being “yes”):

- The respondent knows a person who started a business in the past 12 months;
- The respondent sees good opportunities in the society for starting a business in the following 6 months;
- The respondent has the required knowledge and skills to start a business;
- The respondent recognizes that fear of failure would prevent him from starting a new business;

- In the population of the respondent, people prefer uniform standard of living;
- In the population of the respondent, starting a business is considered a good career;
- In the population of the respondent, persons growing a successful new business receive high status;
- In the population of the respondent, there is lots of media coverage for new businesses.

Dummies a-c and f-h are perceived aspects that may positively influence the decision of the individual to undertake entrepreneurial activities. It is not clear, though, whether those entrepreneurial activities are innovative or not. Our **Hypotheses 7a-7c and 7f-7h** are that these perceptions favor the creation of innovative entrepreneurship. Dummies d and e are reasonable to be a deterrent of entrepreneurship, and our **Hypotheses 7d and 7e** are that these two perceptions do not favor the creation of innovative entrepreneurship. These perception variables on the social and cultural aspects of the society where the respondent lives give just a partial view of the real set of people’s opportunities, what they can be or do. Therefore, we complement our analysis with a much broader measure of that larger set of people’s opportunities, a measure worldwide accepted as a proxy for development: The Human Development Index (HDI). Despite the shortcoming that all indexes have, HDI is recognized as a more complete measure of development than other traditional measures, such as economic growth or GDP, since it encompasses both economic and social aspects of the societies. In this study, we combine the data of GEM dataset with the HDI values for 2011. Previous studies have focused their analysis on the relation between entrepreneurship and economic growth or economic development, and the most common result is a U-shape relation, e.g., [6]. Our Hypothesis 8 is that there is also a U-shape relation between human development and innovative entrepreneurship in the tourism sector. Given this explanation of different aspects of innovative entrepreneurship in tourism sector, our theoretical models are the following: Probability (innovative entrepreneurship) = f (Demographic and economic individual characteristics, perceived social and cultural context, human development of the country).

VI. RESULTS AND DISCUSSION

Table I reports the initial descriptive statistics analysis of the variables, both endogenous and exogenous, for the sample of early-stage entrepreneurs (start-up new businesses) in the tourism sector. As per the descriptive statistics, in our sample, the percentage of entrepreneurs reporting innovative products or services is higher than those reporting innovative technologies. More than two thirds of entrepreneurs recognize that their initiative to start a new firm is driven by a desire to seize an opportunity, while less than one third recognize it is necessity driven. Most socio-cultural aspects are recognized as important for the entrepreneurs, except fear of failure, which was only declared important for less than 30 per cent of the individuals. The researchers identified high linear correlations between the indicators of TEA by Necessity and by Opportunity (-0.916), and between the indicator of High

household income and the other two groups of household income. To avoid problems of multi-linearity, in the econometric estimation, two indicators are left out: TEA by Necessity and having a Household income in the highest third. Based on the estimation of alternative Probit models, the results show some consistent findings. Recognizing that the initiative of starting a new firm is driven by a desire to seize an opportunity does not seem to explain the probability of an innovative product in the tourism sector.

TABLE I
DESCRIPTIVE STATISTICS OF THE VARIABLES

Variable	Obs	Mean	Std. Dev.	Min.	Max.
Innovative Product	1552	0.575	0.494	0	1
Innovative Technology	1552	0.342	0.475	0	1
Innovative Product	1552	0.668	0.471	0	1
TEA_ Opportunity	1552	0.711	0.453	0	1
TEA_ Necessity	1552	0.254	0.435	0	1
Age	1520	37.968	11.913	18	80
Gender	1551	0.460	0.499	0	1
Work Status_GEM	1552	4.749	2.750	1	9
Education_UN	1552	3.376	1.527	0	9
Household income _ lowest third	1339	0.131	0.338	0	1
Household income _ middle third	1339	0.341	0.474	0	1
Household income _ highest third	1339	0.528	0.499	0	1
HDI_ 2011	1552	0.770	0.087	0.496	0.941
Knows other entrepreneurs	1552	0.619	0.486	0	1
Sees Opportunities	1552	0.568	0.495	0	1
Has required skills	1552	0.826	0.379	0	1
Fear of failure	1552	0.273	0.446	0	1
Equality in society	1215	0.641	0.480	0	1
Entrepreneur as good career	1374	0.755	0.430	0	1
High Status	1384	0.718	0.450	0	1
Media coverage	1374	0.648	0.478	0	1

Hypothesis 1 is not confirmed. One plausible reason for this result is that seizing an opportunity is a common answer to most of the respondents, regardless of their product being innovative or not. Age seems an important factor, with older entrepreneurs being less likely to have innovative products or services. The quadratic relation between age and probability of innovative products is significant in all the models, but the effect seems relatively small. **Hypothesis 2 is confirmed.** There seems not be a difference between female and male entrepreneurs in terms of product innovation. **Hypothesis 3 is not confirmed.** Compared with being a student or not working, the probability of having an innovative product seems to be similar for entrepreneurs who are full or part-time employed, either in paid work or self-employment, or are homemaker. **Hypothesis 4 is not confirmed.** To some extent, entrepreneurs with a part-time occupation seem to have a higher probability of having an innovative product. However, a new result is clear from the analysis: retired or disabled entrepreneurs are less likely to have an innovative product or service.

The education level plays a clear positive role in predicting the probability of innovative products, which means that the higher the education level, the more likely that products are innovative. **Hypothesis 5 is confirmed.** The household income

of the entrepreneur shows mixed results. Whether the entrepreneur belongs to a household whose income is in the lowest third or in highest third seems to have a similar impact in predicting -product innovation. However, in our latest (more complete) model, we find evidence of a higher probability of product innovation associated with household income in middle third. Taking the overall results of household income, we are therefore inclined that there may be a quadratic concave (inverted U-shape) relation between household income and entrepreneurship with innovative products/ services. **Hypothesis 6 is not confirmed**, and instead there is a revealing new result: an inverted U-shape relation. Regarding the influence of individual perceptions and socio-cultural context of the entrepreneur, only the recognition of having the required skills increases the probability of having an innovative product. **Hypothesis 7c is confirmed, while Hypotheses 7a, 7b, 7d-7h are not.**

Finally, in all the models, we find clear systematic evidence that the development level of the country or territory influences the probability of product innovative entrepreneurship. The relation seems non- linear, but inverted U-shaped; that is, both lower and higher developed countries are less likely to have innovative products in entrepreneurial tourism businesses. **Hypothesis 8 is not confirmed**, but instead we obtain a quite contrasting result from the existing literature on the relation between economic development and innovative entrepreneurship. Instead of a U-shaped relation, by extending the concept of development to the broader measure of human development and by focusing on the specifics of the tourism sector, we actually find an inverted U-shape. Possible explanations for this interesting finding may be the fact that higher developed countries have their *brand name* already as an attractive for tourism, so they do not need to innovate in products to attract tourists (Dubai is Dubai!). On the other extreme, lower developed countries may not have the capacity, or the knowledge to innovate in tourism products, but may also be in such lower development stage that they attract tourists by their capacity to provide *more nature, less developed experiences*. The researchers repeated the Probit estimation twice, taken as dependent variable the innovation in technology, and the innovation in product or innovation. When considering only the innovation in technology, the models show very small explanatory power, failing the Wald test of significance of the model.

When considering the innovation in production or technology, the conclusions for each of the hypothesis are very similar to the ones in the model presented above (only for innovation in product), but the explanatory power of the models also decreases. Possible explanations for these achievements may be: first, entrepreneurship that innovation in technology in the tourism sector is driven by other factors, not captured by this dataset; second, the innovative entrepreneurship in the tourism sector is mainly driven by innovation in products and services and not so much by technology innovation.

VII. CONCLUSION

This paper investigated the key drivers of innovative entrepreneurship in the tourism sector. From the analysis on individual and social context, we obtained evidence that age is an important factor, with older entrepreneurs being less likely to have innovation in products and a slightly significant quadratic effect. The current occupation is also important to explain the probability of innovative entrepreneurship, with retired and disable individuals being less likely to have those innovations than individuals that are currently unemployed. Education, as a proxy for ability, is a positive significant factor to explain innovative entrepreneurship in tourism. Household income shows up with an inverted U-shape relation with innovative entrepreneurship, since middle-income households are more likely to have innovations than those in lower and upper levels. In terms of individual perceptions, the presence of required skills seems positively related to innovative entrepreneurship. A final and more surprising result is the inverted U-shape relation between product innovation in entrepreneurship and human development of the country. Contrary to the commonly accepted results between entrepreneurship and economic development, once we consider a broader concept of development, the authors found that in less developed countries, tourism entrepreneurs are less likely to have innovative products, compared with entrepreneurs in medium developed countries. Future researches should develop the study of this interesting and novel result.

REFERENCES

- [1] ASEAN (2010). ASEAN The Strategic Action Plan for SMEs Development in Asian countries (2010-2015) doi: <http://www.asean.org/archive/SME/SPOA-SME.pdf>. Retrieved on 12/02/2016.
- [2] Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33, pp 141-149.
- [3] Lazonick, W. (2008). Entrepreneurial ventures and the development stage: lessons from the advanced economies. *UNU-WIDER discussion paper* no. 2008/01. United Nations University, Finland.
- [4] GEM - Global Entrepreneurship Monitor (2011). Adult Population Survey. doi: <http://www.gemconsortium.org> Retrieved on 09/02/2016.
- [5] GEM - Global Entrepreneurship Monitor (2012). GEM Manual: A report on the design, data and quality control of the Global Entrepreneurship Monitor. Version 2012:9th May. doi: <http://www.gemconsortium.org> Retrieved on 09/02/2016.
- [6] Kirzner, I. (1985). *Perception, Opportunity and Profit Studies in the Theory of Entrepreneurship*. United States of America. University of Chicago Press.
- [7] UNDP – United Nations Development Programme (2014). Human Development Index 2011. Retrieved from <http://hdr.undp.org> Retrieved on 08/02/2016.
- [8] Acs, Z. J., S. Desai, and J. Hessels, (2008). Entrepreneurship, economic development and institutions. *Small Business Economics*, 31. pp. 263-277.
- [9] Alvarez, S. A., and J. B. Barney (2007). Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1, pp. 11-26.
- [10] Barreto, I. (2012). Solving the entrepreneurial puzzle: the role of entrepreneurial interpretation one opportunity formation and related processes. *Journal of Management Studies*, 49 (2), pp. 186-197.
- [11] Wennekers, S., A. Van Stel, M. Carree, R. Thurik (2010). The relationship between entrepreneurship and economic development: is it U-shaped? *EIM Research Reports H200824*. SCALES – Initiative, financed by the Netherlands Ministry of Economic Affairs. The

Netherlands.

- [12] Greene, W. (2012). *Econometric Analysis*. Seventh edition. United States of America. Prentice Hall.
- [13] Jovanovic, B. (1994). Firm formation with heterogeneous management and labor skills. *Small Business Economics*, 6, pp. 185-191.
- [14] Dixit, A. and R. Rob (1994). Switching costs and sectorial adjustments in general equilibrium with uninsured risk. *Journal of Economic Theory*, 62 (1), pp. 48-69.
- [15] Porter (1990) *The Competitive Advantage of Nations*. New York. Free Press.
- [16] Porschke, M. (2013). Who becomes an entrepreneur? Labor market prospects and occupational choice. *Journal of Economic Dynamics & Control*, 37, pp. 693-710.
- [17] Blanchflower, D. G. (2004). Self-employment: more may not be better. *NBER working paper* no. 10286.
- [18] Reynolds, P.D., B. Bygrave, and M. Hay (2003). *Global Entrepreneurship Monitor Report*. Ewing Marion Kauffman Foundation. Kansas City, MO, United States of America.
- [19] Kelley, D. J., C. G. Brush, P. G. Greene, Y. Litovsky (2011). *Global Entrepreneurship Monitor Report: 2010 Women's report*. Babson College and Global Entrepreneurship Research Association. United States of America. United Kingdom.
- [20] Bosma, N. S., E. Stam, S. Sander Wennekers (2011). Entrepreneurship versus independent entrepreneurship: a cross-national analysis of individual entrepreneurial behavior. *TKI working papers* no. 11. Tjalling Koopmans Institute, Utrecht School of Economics. The Netherlands.
- [21] Ramos-Rodriguez, A. R., J. A. Medina-Garrido, and J. Ruiz-Navarro (2012). Determinants of Hotels and Restaurants entrepreneurship: A study using GEM data. *International Journal of Hospitality Management*, 31, pp.579-587.