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OPEN MARKET AND FUNDAMENTAL SKILLS OF AN ENTREPRENEUR UNDER BRAZILIAN NEW MANAGERS' POINT OF VIEW

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ABSTRACT

Entrepreneurism is an important phenomenon for the economic and social development of businesses and people. In relation to Brazil, when taking into consideration the reality of globalization and its influence on Brazilian economy, its importance is even higher. If entrepreneurship is well applied, it can bring wealth and economic development, reducing the reality of structural unemployment.

For evaluating the Brazilian new managers' point of view, we undertake a triangulation research. In the first step, the qualitative research involved ten businesspeople in the city of São Paulo and, in the sequel, twenty-one students from the seventh semester of the Administration course. The quantitative step pursued to structure and to list the constructs founds in the qualitative step based on 94 answers, by factor analysis. The main findings of this step are the Brazilian difficulties in adapting to new cultures and languages as an obstacle for entrepreneurship, additionally, the Brazilian difficulties with people management and relationships, even though it seems contradictory with the Brazilian stereotype.

We sought to answer how the interviewees understand the way in which globalization and entrepreneurship influence work and professional activities, as well as the necessary competences for an administrator to entrepreneur.

INTRODUCTION

Entrepreneurial mindset is important for people, businesses and society. Entrepreneurship relates to a human competence and can be applied in different ways: in the economic development of countries, as it generates the expansion of the technology foundation for companies; as an action that identifies and develops new models for business activities. In addition, transforming knowledge into products, services and outcomes; and finally as a profitable use for the exploitation of untapped market niches (Schumpeter, 1982). According to Bygrave and Zacharakis (2010, 1) 'this is the age of entrepreneurship.' However, entrepreneurship can relate, for example, simply to the search for new ways of performing an operational activity. The secret is to recognize an opportunity, understand the business model and know how to put it on the market and make it grow (Bygrave & Zacharakis, 2010).

Although there is much talk about the creativity of young people, they do not always have the opportunity to entrepreneur, either from a lack of experience and personal and professional maturity, or from particularities of the contemporary scene. One of these is the reality of open markets that, in many cases, favors companies that are more prepared and have more hard-hitting and effective strategies, thus hindering the development of small businesses. Young people need to take hold of the task of creating new jobs rather than waiting for stable employment in large, already renowned and established companies (Thompson, 1999).

Brazil has the business potentials yet to be developed and entrepreneurship can contribute to regional, national and global development. In addition, Bruton, Ahlstrom and Puky (2009) concluded that the progress of the legal system, the protection of intellectual capital and the advance of entrepreneurial culture throughout all of Latin America are favorable aspects for the countries in the region. Thus, this article seeks to understand entrepreneurship within the age bracket of young Brazilians, future graduates of Administration courses, seeking to understand the problem as well as have a panoramic view of the labor market and the topic of entrepreneurship.

OPEN MARKETS AND THEIR INFLUENCE ON ENTERPRISES AND EMPLOYMENT

Rifkin (2008) estimates that global society is heading towards a model of structural unemployment, with activities related to work, but not necessarily with the creation of formal jobs. He believes that society should turn towards the intangible, such as the actions of the third sector. This leads us to believe that countries and companies should mold themselves to the macroeconomic moment, according to their structure, while continuing to take into account that there is another variable that are the human organizational talents, that also need personal and professional growth.

For Brazilians, the idea of an open market exists since they have transposed the Tordesillas meridian, and have started their persecution for gold, silver and diamonds, in the 17th century, as the Americans have done in the westward expansion (Prado & Pellegrino, 2014). Sao Paulo was one of the poorest regions of the Portuguese Empire, and from this, they started to seek new ventures in order to survive.

The way in which one reacts to changes and transformations is what can make the difference between what is considered as being normal and what is entrepreneur, as Adizes (2004) highlights. When a group of companies standardizes the forms of reaction to changes, it is possible to categorize them as generic strategies. On the other hand, the reactions may originate from a differentiated perception of the company, stemming from other variables and within the worldview of their own managers. The big challenge is to perceive this new vision and know when to start the change processes. So, the Brazilian region called São Paulo State, from its history can have conditions to first seek for new reactions, and it is acting as an influencer for other Brazilian regions.

In this way, the positive side of globalization is the possibility of new challenges on the part of domestic companies, the exchange of information and technologies, the prospect of competing in markets where there are companies that can serve as a growth model.

HUMAN CAPITAL AND ENTREPRENEURSHIP IN BRAZIL

Having an entrepreneurial mindset is of no value if there is no human capital prepared to use it. Human capital does not mean only the labor force, but possible potentials resulting from its characteristics and management. It is necessary to understand the idea of social capital, in Brazil, before to define human capital. In a more general way, Clarke, Chandra and Machado (2016) have studied in which extension social capital plays a role in Brazilian context, from a consolidate industry of Brazil: the Brazilian stone industry at Espírito Santo State, as an example. They evaluated six dimensions and found Brazilians are more interested in information and collective action than networks, for example. Also, they found political empowerment is

correlated with the majority of variables in their study. This last important dimension could be related to the Brazilian Spring (Wills, 2013). Therefore, in Brazil, the idea of social capital is related to the conjoint action for solving problems and to the utilization of information in order to construct a common good, instead of doing networks in this specific industry. Although it could seem contradictory, based on the cultural Brazilian stereotype, it is feasible inside a Brazilian consolidated industry, located out of the mainstream of urban life. Thus, Brazil cannot be defined as a unit, at first. The world does not see Brazil as a federation. The entrepreneurial mindset needs to be explored in order to transfer resources between Federal States. There are places with higher levels of development and globalization, and others uninhabited, or with low social and economic mobility, and strong cultural barriers. In this study, we delimited our sample from São Paulo City, which is the biggest city of Brazil and the most important financial center.

Additionally, Drucker (2008: 22) comments that ‘an entrepreneur transfers economic resources from a lower productivity sector to a sector of higher productivity and greater efficiency.’ Within this vision, knowledge generates knowledge and there is a direct relationship between teaching, education and entrepreneurship as a direct consequence of learning. According to EY G20 Entrepreneurship Barometer (2013: 8) ‘the general level of education is still low, with a reduced number of researchers and a below average number of articles in technical publications.’

According to the same source, the society of the future must have three predominant characteristics: an absence of borders, whatever they may be, for the dissemination of knowledge; social and economic mobility rising through education; and the potential for success and failure. Nogueira (2007: 303) notes that ‘the construction of competitive advantage in a globalization context depends on the articulated mounting of a network that goes beyond the rivals as well as the real and potential competitors in a given sector, in terms of factor conditions, demand conditions, strategy and support industries.’

So, we can extend the idea of social capital to human capital, as

The set of idiosyncratic skills, capabilities, experience, and knowledge related to a task, and the ability to increase this capital through learning by entrepreneurs. Individuals’ motivations, abilities, skills, knowledge, and learning shape their ability to discover and exploit an entrepreneurial opportunity and achieve advantage for their firms. (Solevik, Westhead, Matlay, & Parsyak 2015: 750).

Thus, the idea of learning by observation inside excellence centers, such as universities, is essential in the process of entrepreneurship, since students can realize cases of success around them and put the best experiences in practice. On the other hand, Hietanen and Järvi (2015) have proposed that the entrepreneurial learning process can be thought from a non-business basic education to vocational education. In this sense, at every school level can be essential for the entrepreneurial education, not only the higher education. Besides, Bandura (1971) developed the social learning theory that encompasses the traditional idea of learning, and the ideas discussed in the beginning of this paragraph. In his theory, individuals can learn by imitating people around them. ‘The more rudimentary form of learning, rooted in direct experience, is largely governed by the rewarding and punishing consequences that follow any given action’ states Bandura (1971: 3). Nevertheless, it would be hard to teach someone to speak, if this person would be private of hearing other people speaking. In the same way, entrepreneurs will become entrepreneurs when they have opportunity to learn by observing the behavior of others. So, universities will have the best conditions to assess this theory if, and only if, the academic

environment is full of entrepreneurial ideas. Otherwise, we need to investigate most profitable environments.

In this sense, there are some skills that distinguish the entrepreneur, and the university is not the only responsible for preparing the new entrepreneur. Zacharakis (2013) proposes five skills related to the success of an entrepreneur: passion, commitment, energy, knowledge and network. In accordance to Bandura's social learning theory (Bandura, 1971), motivation is the main skill a person requires in order to repeat a behavior retained. In other words, first you need to pay attention in the behavior of one model, and after, is necessary to retain the newly knowledge before reproduce it. So, knowledge is also a skill related to the success of an entrepreneur, even in social learning theory.

In Brazil, we can distinguish mainly two groups: the well-educated people, and the not so well-educated. The way this two groups developed the power of learning by observation is the same, but inside different scenarios. So, the university could be the scenario for finding new entrepreneurs in the first group. Most of them started their new ventures in junior enterprises. The world's biggest junior enterprise confederation is located in Brazil (in Portuguese, *Brasil Júnior*). The purpose of this confederation is to represent the Brazilian junior enterprise movement. This movement started in 1967 in France, and has spread all around the world. In Brazil, it represents 11,000 junior entrepreneurs, currently, around 20 federation states. It had 3,725 projects in the last year, and encompassed 391 junior enterprises (Brasil Júnior, 2017). Matlay (2008) discusses the importance of entrepreneurial education on entrepreneurial outcomes. The junior enterprises have this role. In his research, Matlay (2008) concludes entrepreneurial education can minimize the impact of unemployment on people who received this education.

The second group, composed by not well-educated people, has its first experiences at home. Generally, they start the new ventures by observing their parents in informal jobs. The main difficulty for understanding these people is they are not included in economically active population. Besides, they do not have enough entrepreneurial finance education to launch their ventures (Macht, 2016). This is an advantage that only the first group of Brazilian can access. However, this reality has been changing. In 2008, a Brazilian regulation was created in order to put this people in the formal market (Portal, n.d.; Receita, 2009).

Therefore, the individual microentrepreneur was defined by this law as a person whose income is at most R\$ 60,000 (about US\$ 18,750 if R\$ 3.20 = 1 US\$) per year. If the total income overlaps R\$ 72,000 (about US\$ 22,500) per year, so the individual microentrepreneur will become a common 'microenterprise', and will need to pay the fees of whatever microbusiness. This new framework of taxation is called 'simples nacional'. If the total income is between R\$ 60,000 and R\$ 72,000 also the venture will be considered a microenterprise, but the taxation will depend on the business type. Besides, the worker need to pay monthly a tax of 11% of the Brazilian minimum wage for Brazilian Social Security (INSS, in Portuguese), and other taxes as the state value-added tax on the circulation of goods, interstate and intercity transportation and communication services almost like the American excise tax (ICMS, in Portuguese), and the service tax (ISS, in Portuguese). Of course, all these legal implications become the hindrance for many informal workers not to subscribe in this new regulation. In general, they have few years of formal education; most of them are functionally illiterate. Thus, they cannot understand how to proceed to be an individual entrepreneur.

Based on this, the first proposition of this paper is that bureaucracy and Brazilian laws inhibit the entrepreneurial spirit. Despite Dickson, Solomon and Weaver (2008) do not have

found a link between general education and the choice to become an entrepreneur; they have found strong evidence supporting the relationship between levels of education and entrepreneurial selection and success.

On the other hand, there is a changing of *status quo*, when a person comes from nowhere and become an entrepreneur. Freire (1970) describes how the relationship between the colonizer and the colonized remains relatively stable in Brazil, where the yoke of Portuguese colonialism left some spots. By becoming an entrepreneur, the Brazilian has the power of handling the system.

At a certain point in their existential experience the oppressed feel an irresistible attraction towards the oppressors and their way of life. Sharing this way of life becomes an overpowering aspiration. In their alienation, the oppressed want at any cost to resemble the oppressors, to imitate them, to follow them. This phenomenon is especially prevalent in the middle-class oppressed, who yearn to be equal to the "eminent" men and women of the upper class (Freire, 1970: 62).

This excerpt shows how the Brazilian mindset is operating. In this sense, by owning a business will distinguish a person and will put him or her in a better social position. Therefore, we will state, in this research, that Brazilian ideological issues do not inhibit the entrepreneurial spirit. On the contrary, the ideological wish of become eminent businessmen will strength the motivation for entrepreneurship.

Besides, Brazil is the only country in America which was settled by Portuguese colonialists. This territorial and physical isolation were becoming visible all along the America history (Prado & Pellegrino, 2014). The language, the functional illiteracy, the humongous territorial extension, as well as Brazil's geopolitical reality might corroborate to the fact which the "without" borders reality has still not been achieved. In face of these cultural barriers we can propose Brazilians have a little difficulty in adapting foreign products and services to the domestic market.

Moreover, there are some difficulties in opening whatever firm in Brazil, even though you belong to the Brazilian well-educated group. In accordance to Portal do Sebrae (2017), sometimes the Brazilian entrepreneur has a good idea for a venture and start pursuing it in order to putting the willingness to take an action from idea to startup. Nevertheless, at first, the entrepreneur must define the legal nature of the venture. This must be deeply detailed, beyond on having a full description of activities in the article of incorporation. In order to prepare it, the entrepreneur will need a lawyer or an accountant. However, only a lawyer can sign the article of incorporation, even though the lawyer has been admitted only for this. The accountant cannot sign it. After the authorization, the commercial register of that federal state will demand lots of documentation in accordance to legal nature of the enterprise. Currently, Portal do Sebrae (2017) is the main support for small and microbusiness, in Brazil. The last Governments have tried to reduce the specific legislation for opening a business, in the sense of diminishing the bureaucracy and motivating more people for the entrepreneurship. When the startup becomes formal, the entrepreneur must bear a sequence of obligations, as fees and taxes at the level of the federation, of the state and of the municipality.

Freire (1989) affirms Brazilian society is in transition since 20th century. By leaving behind the idea of a country traditionally exporter of commodities, commanded by the foreign market, with precarious urban life, and alarming rates of illiteracy, therefore, a delayed country. On the other hand, the process of opening a business, in Brazil, is not encompassed by bureaucracy only, but for the lack of management skills, as well specific knowledge. Mohamad, Lim, Yusof and Soon (2015) proposed that entrepreneurial education must be promoted by the

State and they have suggested including this subject into the curriculum of Malaysian students in every level of education, in order to flourish entrepreneurial intentions to real enterprises.

Kuazaqui (2015) proposes that the capacity of entrepreneur, creativity and the pursuit of innovation are essential competencies whatever is the business. Of course, how there is a rapid necessity of transform an idea in profit, most of Brazilian entrepreneurs do not start a business by undertaking market research, so the consequences are difficulties in attending the market, accounting and managing the new venture. Currently, we have a much better urban life, a sophisticated agribusiness, and low rates of illiteracy, although the functional illiteracy is still an unsolved problem. So, in business, we can extend this definition as entrepreneurial functional illiteracy. That is 'an almost businessman' who believes he is ready for entrepreneurship, but his startup has no conditions of taking off.

METHODOLOGY

This research arose out of a dialogue between the authors and entrepreneurs from ten large companies located in the City of São Paulo. The meeting took place in the form of a breakfast, which aimed to identify business opportunities as well as general information about the labor market in Brazil, particularly for the new graduates of Administration courses, and its direct relationship with academic learning.

In possession of this information, we carried out a qualitative research with 21 interviewees in an intentional sample of 7th semester students of the Administration course, in order to identify their views and experiences. Although intentional, the sample was qualified in the case of students who have chosen to specialize in International Management. The average age of the applicants was 21.5 years. Two of them already worked in a private business, as partners; 15 were trainees and four were inactive. The group was predominantly female (76%).

After the analysis of the results of the qualitative research, we carried out another research, a cross-sectional survey type, with 94 students from the 4th semester of the Administration course, with the intention of measuring the understanding of the concept of entrepreneurship and the open market before the students had chosen their options for specialization. Among the interviewees, 59% of them claimed to have interest in opening their own business. The use of this specific sample occurred because of the fact there are studies that confirm the inclination of college students towards entrepreneurship (McLarty, 2005; Vinten & Alcock, 2004).

The qualitative questionnaire construction arose from the literature insights raised by the authors relative to the analysis of studies that represent the state of the art in entrepreneurship and open market, revisiting them on a comparatist-based perspective. In this sense, the investigation concentrated on the theoretical reflections of authors such as Bruton et al. (2009), Bygrave and Zacharakis (2010), Littunen and Niittykangas (2010), McLarty (2005), Thompson (1999) or Vinten and Alcock (2004), to name a few.

Besides, the idea of this part of the research was to verify if our three propositions

- P1* Brazilian laws and bureaucracy inhibit the entrepreneurial spirit;
- P2* Brazilian ideological issues do not inhibit the entrepreneurial spirit;
- P3* Brazilians have a little difficulty in adapting foreign products and services to the domestic market.

were true or false.

Table 1 QUANTITATIVE RESEARCH QUESTIONNAIRE	
Q1	Currently we live in a globalized reality, where theoretically there are no borders between countries.
Q2	The fear of competition is a factor that intimidates the entrepreneurial spirit. (*)
Q3	Bureaucracy and Brazilian laws inhibit the entrepreneurial spirit.
Q4	Cultural barriers are an obstacle for entrepreneurship.
Q5	The difficulty with people management and relationships inhibits entrepreneurship.
Q6	The Brazilian political and ideological issues inhibit the entrepreneurial spirit.
Q7	The Brazilian customs system is not prepared for the reality of no borders. (*)
Q8	The territorial and physical isolation as well as Brazil's geopolitical reality corroborate to the fact that the no borders reality is not achieved. (*)
Q9	The instability of the Brazilian economy is an obstacle for entrepreneurship.
Q10	The Brazilian's difficulty in adapting to new cultures is an obstacle for entrepreneurship.
Q11	There is difficulty in adapting foreign products and services to the domestic market. (*)
Q12	An opening of the borders will decrease the supply of jobs, because Brazilians are less qualified workers. (*)
Q13	The withholding of patents and technology by foreign countries inhibits entrepreneurship.
Q14	Competition in the domestic market is an obstacle to the opening of a new business.
Q15	An open market (without borders) promotes the creation of new jobs.
Q16	The opening of borders brings benefits for developing countries
Q17	Continuous improvement of products and processes will be required for the survival of businesses in a market without borders.
Q18	With a without borders reality, exchange will be necessary, there will be an exchange of experiences, beliefs and customs.
(*) items in reverse order.	

In the sequel, the quantitative survey relied on the statements from the qualitative research. The proposal of the use of the quantitative method, anchored in the qualitative questionnaire, was to use some form of triangulation, in order to articulate both methods (Fielding & Schreier, 2001; Flick, Kardoff & Steinke, 2005) and unveil if there are any paradoxes or convergences between what was investigated in the qualitative (with experts) and quantitative research (Kelle, 2005). The main goal of the quantitative research was to understand the importance of the new concepts formed by the combination of skills proposed in the qualitative research, and to be able to list them in order of importance.

For attaining the constructs and for putting them in order of importance, we used the factor analysis technique. For applying the technique Hair, Anderson, Black and Babin (2009, 97) indicate 'as a rule, the minimum is to have at least 5 times more comments than the number of variables to be analyzed, and the more acceptable size would have a ratio of 10 to 1'.

The instrument used was composed of 18 items on a Likert scale (Table I), so in this way, the indication of Hair et al. (2009, 97) is also supported with a sample of 94 applicants.

In addition, we conducted a pre-test to eliminate doubts around the understanding of the questionnaire and for contributing to its content. In this way, the following issues are related to the analysis of the reality of the open market inside the Brazilian environment.

Qualitative Research (With Experts)

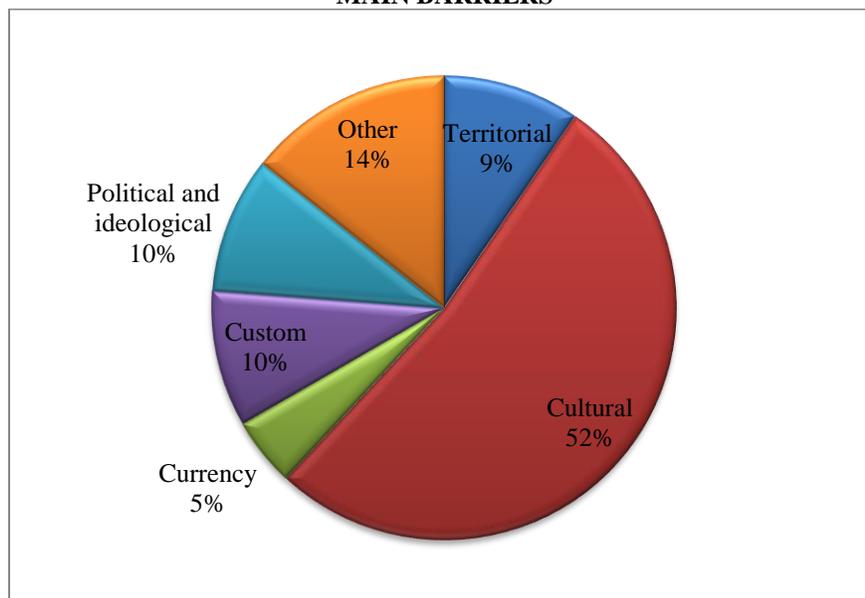
For the purpose of explain our qualitative findings; we will put the questions and the analysis in the sequel.

Question 1 – We live in a globalized reality, without borders between the countries. What is your opinion on this? List the main barriers.

Twenty-four percent totally agreed and another 24% partially disagreed; 4% neither agreed nor disagreed, while 10% totally disagreed. The majority, 38%, partially agreed with this concept and most cited barriers, for the disagreement of the understanding of a reality without borders, were cultural ones (52%), what is in consonance with our proposition which states this issue can cause a little difficulty in adapting foreign products and services to the domestic market.

For instance, the interviewees listed the main barriers for open market reality in Brazil. The results appear in Figure 1, and the cultural barrier was the most cited, as we can see. The same trouble showed in the literature review. As Brazil, is facing a humongous political crisis, since 2013, this issue was also cited, and it is related to the Brazilian Spring (Wills, 2013). Barriers as custom trouble and territorial isolation also appeared, as was presented by Prado and Pellegrino (2014).

**Figure 1
MAIN BARRIERS**



Question 2 – What are the main problems that affect your area of business?

In this question, we intended to specify the area of business of the new managers. Apart from the cultural barriers (14%) and competition (22%), they also cited relationship problems

(14%) and customers and people management; products that are not adapted to the Brazilian reality (14%), the climate and territory; the complexity of Brazilian legislation (14%), in addition to the bureaucracy of the decision-making bodies and the sluggishness of the processes. Another highlight is the instability faced by the Brazilian market (22%) with contracting policies and price-sensitive products. Here, we can verify the presence of the complexity of Brazilian legislation and the bureaucracy (Sebrae, 2017), as we stated in proposition (P1). Besides, Brazilians cannot be seemed the most outgoing people on the earth, once they also have relationship problems, and difficulties in people management.

Question 3 – How you relate the activities of your company with the no borders reality?

There was no consensus among the answers, but the following stand out:

1. The company's activities would be more globalized if there were more bilingual employees and products with adaptations to English.
2. The applicants who work in pharmaceutical, toiletry or cosmetic companies believe that their products are already global.
The access to international information within the companies already has reduced the distance between the countries.

Although there was no consensus, we can see again the language cultural barrier, and the issue related to proposition (P3) about difficulties in adapting products to the domestic market.

Question 4 – In your opinion, will this reality decrease the level of jobs?

The majority, 62 percent, does not believe that the scenario of the problems mentioned (cultural, competitive, relationship, legislation, instability, adaptability, and unskilled employees) will decrease the level of jobs. Therefore, this conjoint of questions does not inhibit the entrepreneurial spirit (proposition (P2)), and it will not decrease the level of jobs, what is in consonance with Freire (1970) who discussed the Brazilian middle-class desire of becoming eminent as the upper class. This desire is so eccentric that the Brazilians do not see they have barriers to be overpassed. They know the scenario is not favorable, but they do not accept it, neither surrender in face of this. Among those who believe that this reality will decrease the level of jobs, they cited the following problems: low-skill of the Brazilian workers and the Brazil cost that raises the cost of production in the country. The first problem was presented when we discussed the large amount of not well-educated people, and not yet ready for the reality with no borders.

Question 5 – Does international competition influence the business strategy of your company?

This question was not discussed in the literature review, but we believe that competition is an important issue for an entrepreneur to keep concerned. Despite of this, Question 2 of the interview has shown that competition is a trouble to be concern. Therefore, only 14 percent said that it did not; another 14% did not respond. For those who said yes, 72%, the main obstacles are:

1. The withholding of technology by foreign countries.
2. The race for innovation is more evident in the eyes of the Brazilian consumer market, which already takes hold of external innovation.
3. In addition to the external market, there is competition within the domestic market as well.

Question 6- What opportunities are identified from the reality of the open market without borders?

Along the Brazilian history, the borders were transposed, since the Treaty of Tordesillas was violated, when Brazilians started their persecution for gold, silver and diamonds, in the 17th century (Prado & Pellegrino, 2014). So, 35% of respondents have believed that the creation of more jobs and business expansion are opportunities brought by a market without borders. In addition, a greater flow of information and goods will create new needs and stimulate new entrepreneurs. However, 15% believe that there will be an opportunity for the development of poor countries, to where companies will tend to migrate in search of lower production costs. Continuous improvement (20%) will be required for the survival of the businesses, since contact with new technologies will instigate the field for innovation and products will have a shorter life cycle, if they do not adjust to the new needs. Another 30% believe that the exchange will be inevitable.

Question 7 – What skills and knowledge are required for a globalized professional?

With greater prominence, 28%, mentioned a "world knowledge", that is, to have a vision and agility to notice changes, know other countries and cultures, what is a little bit linked to cultural barriers and territorial, physical and geopolitical isolation, once we can see they have necessity of knowing new cultures, understanding other languages, and have this "world knowledge". Following with 24%, there was mention of a "desire to engage", which includes having respect for other cultures and being open to new ideas. No less important, for 21%, is to be bilingual. Flexibility appears in 17% of the responses, which presupposes the ability to mold to different opinions and not just accept them. Finally, 10% highlighted leadership.

Question 8 – How do you define entrepreneurship?

Many believe, that to entrepreneur, you need to own a business. Others define entrepreneurship as:

1. The art of making it happen.
2. Creating something innovative with the maximum of creativity.
3. The creation of business opportunities.
4. The ability to make the process work.
5. The identification of opportunities.
6. The ability to see new demands on the market and how best to meet them.

Question 9- List, according to the degree of importance, the necessary characteristics for an entrepreneur, in the list of the 19 mentioned.

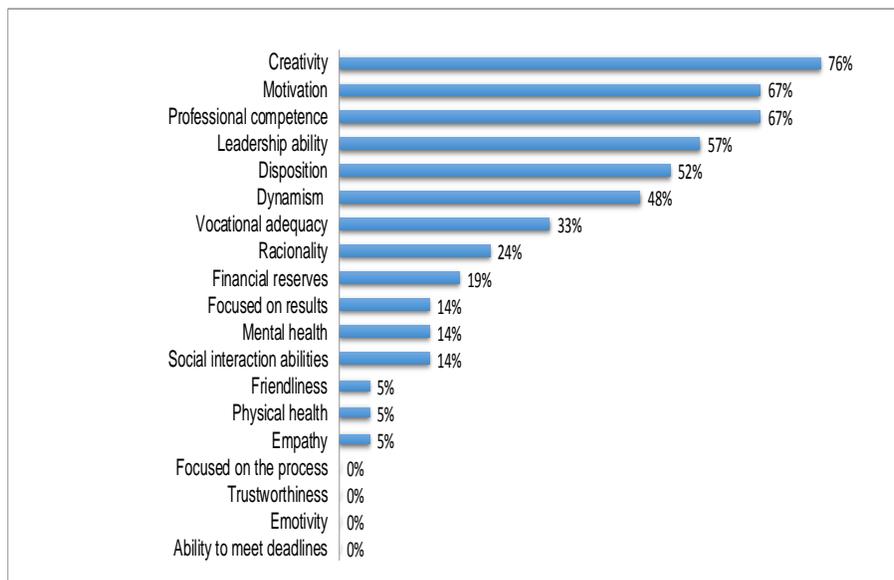
Entrepreneurs, who had taken part in the meeting mentioned earlier in this article, pointed out the features that we brought before the interviewees. As we can see in Figure 2, creativity,

motivation, professional competence, leadership ability and disposition are the top five most important features related to an entrepreneur, in our qualitative research, what is in accordance to Bandura's social learning theory (Bandura 1971), which states motivation is the link to retain a new knowledge and to repeat it. As a remark, creativity was pointed as main competence of an entrepreneur by Kuzaqui (2015).

It is important to highlight that Zacharakis (2013) proposes five skills related to the success of an entrepreneur: passion, commitment, energy, knowledge and network. For him, at the birth, the awareness is wide open towards to the unknown, and suddenly we are going to becoming better at predicting, as well as the world becomes more known. Besides, Bygrave & Zacharakis (2010: 182) state

An entrepreneur needs to do research to identify and assess an opportunity. Intuition, personal expertise, and passion can take you only so far.

Figure 2
CHARACTERISTICS OF AN ENTREPRENEUR



On the other hand, new Brazilian managers do not match these top five Zacharakis' skills. As we can see, energy is related to dynamism, knowledge to professional competence, motivation and disposition are the skills closer to passion. Although, Brazilians are known for the ability of establishing network, it was not a skill related to the success of an entrepreneur (closer to social interaction abilities), as well the lack of commitment, once it was neither listed in the point of view of the new managers.

The Quantitative Research

The questionnaire applied is the one that appears in Table 1. The 18 questions were written on a five-point Likert scale in order to measure the propositions that were referred to in the qualitative research. For example, questions 2 and 7 were constructed from the analysis of the issue of qualitative research question 2 – “What are the main problems that affect your area

of business?", in other words, the construction of the items was fully linked to the statements that were asked in the qualitative research.

The objective of this step was to pick up a pattern of answers that could include two or more items in order to understand the importance of the new concept formed by the combination of these items for the research problem of this study and to be able to list them in importance order. Analyses were performed through STATISTICA software, version 12.

The imputation of missing observations was performed by averaging the answers to each item. Questions Q2, Q7, Q8, Q11 and Q12 were purposely written in reverse order so that the factor analysis was able to identify the reversal of these concepts in the answers of the interviewees. For example, in Table 1, the factor identified by 2 brings a positive charge related to question Q3, (the bureaucracy and the Brazilian laws inhibit the entrepreneurial spirit), and a negative charge related to question Q8, (territorial, physical and geopolitical isolation of Brazil corroborates so that the no borders reality is not reached). This indicates that interviewees understood the Q8 had been reversed. The same conclusion was observed with other factors related to issues that appeared in reverse order. The practice of placing the items in reverse order on construction and measurement scales has been discussed by Costa (2011).

Variable	Factor Loadings (normalized Varimax) (Entrepreneurship research – 2014 Extraction: Principal components (Marked loadings are >.600000))						
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Q1	-0.10	0.15	0.01	-0.04	0.21	0.60	0.17
Q2	-0.06	0.03	0.06	0.20	0.29	-0.78	0.09
Q3	0.14	0.71	0.06	-0.25	-0.26	0.02	-0.01
Q4	0.51	-0.14	0.10	-0.16	-0.17	-0.31	0.36
Q5	0.80	0.06	-0.07	-0.07	0.23	-0.02	0.05
Q6	0.40	0.43	0.01	-0.13	-0.13	-0.28	-0.14
Q7	-0.05	0.03	-0.03	0.01	-0.86	0.02	0.11
Q8	0.19	-0.64	0.17	0.10	-0.21	-0.00	-0.01
Q9	0.10	-0.08	-0.41	0.52	-0.32	-0.10	0.05
Q10	0.62	-0.23	0.00	0.36	-0.21	-0.17	0.07
Q11	0.23	0.01	-0.05	0.07	-0.03	0.02	0.76
Q12	0.16	0.00	0.67	0.09	0.20	0.03	0.28
Q13	0.40	0.10	0.53	-0.04	-0.35	-0.05	0.01
Q14	-0.10	-0.06	0.11	0.80	0.09	-0.18	0.12
Q15	0.11	0.12	-0.27	-0.09	0.08	-0.08	-0.72
Q16	0.37	0.15	-0.71	0.02	0.07	0.08	0.03
Q17	-0.07	0.63	0.03	0.25	0.01	0.21	-0.10
Q18	0.22	0.41	0.10	0.41	0.02	0.37	-0.38
Expl.Var	1.98	1.81	1.56	1.46	1.41	1.41	1.56
Prp.Totl	0.11	0.10	0.09	0.08	0.08	0.08	0.09

In this way, we can see that the fundamental aspect listed by the examinees was the inability to manage people and adapt to the new cultures, as shown in Table 1 (11% of explanation of the first factor), because it is the factor with the greatest percentage of explanation among those investigated. This result reinforces our proposition (P3).

Another concept observed in the research, and quite relevant to the conclusion of the study, was the finding that students of management do not believe that territorial isolation is a

weakness for reaching a no borders reality. This result reinforces our proposition (P2). Furthermore, it is the bureaucracy and the Brazilian legislation that turn out to be obstacles for the spirit of entrepreneurship; nevertheless, the product and process upgrading need to be improved (10% of explanation). This result reinforces our proposition (P1).

Tied (9% of explanation) appears the difficulty in adapting foreign products and services to the domestic market, and the concern around the open market, since it does not create new jobs, but, unfortunately, jobs can decrease, in the domestic market, because Brazilian workers are less qualified than foreign workers are. Therefore, opening the frontiers does not bring benefits for emerging economies.

On the other hand, the analysis shows that the less important concepts that they referred to are there being no concern to the competition on the domestic market, albeit it is an obstacle for a new business. Neither the concern regarding the custom system (8% explanation for each one), since we have already lived in a globalized reality, where theoretically there are no borders between countries.

CONCLUSIONS WITH DISCUSSION

Entrepreneurism is an important and enriching attitude, let it be from the point of view of personal satisfaction, or from a financial point of view, as has already been discussed by McLarty (2005), Vinten and Alcock (2004) or Thompson (1999).

This article sought to establish whether the young university students, soon to graduate from Administration courses, possess an entrepreneurial spirit and the maturity to work in companies or open their own business. As well, if they are able to confront the expectations of entrepreneurs with the vision of young people, in accordance to the studies of Littunen and Niittykangas (2010), McLarty (2005) or Vinten and Alcock (2004), for example. In this way, we researched a worldview, in a contextualized manner with other variables, involving the influence of globalization together with the perceptions for those already engaged in professional activities.

One was able to note that the examinees perceive more cultural issues relating to globalization than factors of economic order, the same was also observed by Bruton et al. (2009) in relation to the new presence of Latin America in the international scenario. They understand that part of the limitations of the business growth in face of globalization stems from the limitation of its employees, which is in agreement with the study by Littunen and Niittykangas (2010). This study emphasized that the lack of creativity and innovation over the years are some of the causes for the failure of many companies. On the other hand, they understand that the same globalization is related to the expansion of market opportunities and consequent economic and financial growth (Bygrave & Zacharakis, 2014). At this point, it is interesting to highlight the interconnection with the essence of international marketing, since emigration to foreign markets enables productivity gains, scale and revenue economy, however, considering that the cultural characteristics of each target market are respected (Bruton et al., 2009; Bygrave & Zacharakis, 2010).

Considering the necessary skills, most of the interviewees listed those of an endogenous origin, those coming from the human being, which is consistent with the conclusions of Littunen and Niittykangas (2010). They had conducted a longitudinal study to understand to what extent the features of endogenous origin of the entrepreneur are responsible for a company's growth in the first four years and compared them with the four following years, concluding that these characteristics are relevant only to the early success of the business. Finally, when requested for

a definition of entrepreneurship, it was noted that all the answers related to the achievement of results, which was singled out by Thompson (1999) as one of the key points of the entrepreneur, on a list of ten key points.

According to the Brazilian Central Bank (2015), Brazilian economy grew 0.2% in 2014 and with a perspective of average growth in 2015 close to zero, and negative in 2016, which is less than the index of the Latin America countries. To equalize with developed countries in the long term, Brazil should grow around 4% a year, noting that this growth should reflect aspects of the production and marketing of goods as well as services in the domestic market, aside from the intangible results of the entrepreneurial actions of the companies. Considering that the entrepreneurial activities have been growing in the country in recent years, it is understood that the Brazilian economy, despite considering intangible values, is growing far less than the 2.5 percent forecast.

Entrepreneurial mindset, then, becomes a necessary element so that society can obtain economic development through the private sector. It is a matter of corporate survival and not of a political order, which can bloom from the application of the concepts of teaching and education, as was highlighted in the study by Vinten and Alcock (2004).

A contribution of this research was to establish that the most relevant concepts for the young student of Business Administration, a possible entrepreneur, concerns the possible barriers that Brazilians suffer to be able to entrepreneur. As well, the inability to manage people and adapt to new markets, they also understand that the Brazilian bureaucracy is an obstacle for those who intend to open their own business. Also, the qualitative and the quantitative questionnaires were able to confirm our three propositions were true in this new open market reality.

Higher education institutions, through their courses, particularly Administration, can guide their students in the sense of evolving into a systemic thinking entrepreneur, making it possible for businesses to open up and develop so as to consolidate their financial base and bring significant contributions to the business and consequently to society. Thinking holistically, the contribution of entrepreneurship can become a real competitive advantage for the country.

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A PRECURSOR TO ENTREPRENEURIALISM ON ABORIGINAL LANDS OF THE NORTHERN TERRITORY OF AUSTRALIA

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ABSTRACT

For centuries Australian Aboriginal custodians have managed their country and its natural, cultural and spiritual resources and values within. Upon European colonisation many of Aboriginal practices were interrupted and in the subsequent years substantial changes to the landscape have taken place. In the 1990s, in response to land management threats, Australian and Northern Territory governments funded programs supporting employment of Aboriginal peoples as rangers. The Indigenous Land and Sea Management program integrated Indigenous and non-Indigenous land and sea management practice and was supported through government machinery and bureaucratic processes and procedures. A rise in the public debt levels and paucity of funds has led to downsizing of such programs. An unintended consequence of downsizing has been the creation of inimical conditions for providing the necessary funds for Indigenous Natural and Cultural Resources Management (INCRM) activities. A blended form of Indigenous land management practices emerged through formation of public-private partnerships. With inevitability of further downsizing even these partnerships are facing near annihilations as alternative market drivers for such service provisions fail to exist on these remote lands. Genuine concerns for continuity of INCRM operations have emerged because of wide fluctuations in the funds available for such programs. In reality, search is focussed on alternative funding sources from the private and the not-for-profit sector to continue INCRM activities. However sustainability from different funding sources is largely dependent on the availability of Indigenous entrepreneurs who are engaged in INCRM. The paucity of funding and availability of entrepreneurs and entrepreneurial acumen has prompted an investigation of entrepreneurs in INCRM activities on Indigenous lands in uncertain environments. As a result the main focus of this paper is an examination of challenges in establishing Indigenous cultural and resource markets as an alternative to the existing process. The paper calls for creating market forces on indigenous lands to sustain INCRM activities to enable the development of entrepreneurialism.

INTRODUCTION

Indigenous Natural and Cultural Resource Management (INCRM) is a term which is used in this paper to encompass all of the activities that Indigenous people provide on their country. It encompasses the biophysical aspects of land management, which are at the forefront of conventional Natural Resource Management (NRM) practice, but also includes the special interdependent relations that Aboriginal people have with their ancestral lands and seas and the myriad of cultural and social activities centred on the promotion of ecological, spiritual and human health.

INCRM activity on Indigenous lands can be analysed, understood, and examined using several approaches including Indigenous frames of reference emphasising the cultural and spiritual connotations of people belonging to land; or governments operating under the universal obligations to provide equitable services through policies and initiatives to promote sustainable development activities. In the realm of environmental management, specifically NRM, there has been a growing and widespread application of market based instruments to deliver ecological conservation benefits, both within Australia and elsewhere (Lockie, 2013; Whitten et al., 2012; Pascual et al., 2012). However, there is visible absence of discussion of the significance of market based approaches to INCRM. An unintended consequence of lack of theoretical discourse as well as absence of consideration at a policy level has been limited prevalence of entrepreneurial spirit. This paper attempts to redress this fallout by suggesting a framework for INCRM in the Northern Territory (NT) of Australia to increase avenues for encouraging entrepreneurial activities.

In the Australian NRM context, it has previously been recommended that a more market based approach be applied to ecosystem management activities on Aboriginal land in the NT (Gorman and Vemuri 2011, Coggan et al. 2009). The market based approach in the context of the paper generally refers to government activities that create markets in order to provide additional services by land owners and natural resource managers. Governments constitute an integral part of the management stewardship (Coffey and Pearson 2007) and where no organically evolving marketization occurs governments of all echelons respond in unison to these structural market failures by providing the necessary organisational skins to emulate market based governance.

Nowhere are market failures, due to non-existent markets, more noticeable than in the NT of Australia, where a number of INCRM activities are delivered through Indigenous Land and Sea Ranger groups as fee for service (FFS) activities (Gorman and Vemuri 2010). As markets fail to exist, government departments determine which NRM activities are offered to Indigenous Rangers as FFS activities. The NT and Federal governments are the main buyers of these services which currently include disease monitoring, carbon abatement, monitoring of illegal fishing, coastlines surveillance, and many others. However, as State monopolies, they also define the conditions of the contracts related to the payments and outcomes. As such it could be construed that this process is 'colonial' and perhaps not a truly market driven phenomenon. A similar concern was shared by Muller (2008) when Payment for Ecosystem Services (PES) was introduced as a relatively new concept into Indigenous Rangers practice.

There are many reasons for governments as institutions to emulate market behaviour. The Federal government has an overarching stewardship obligation to ensure landscape function is maintained due to legislative requirements such as the *Environmental Protection and Biodiversity Conservation Act 1999* as well as Australia being signatory to intergovernmental agreements such as the Millennium Development Goals (Millennium Development Summit 2000). In meeting underlying stewardship responsibilities when markets seldom exist, governments become more visible through their presence. This is increasingly noticeable over the last decade in the case of the NT of Australia where particular environmental services have been contracted to Indigenous Ranger groups to ensure these essential stewardship activities were delivered within a certain budget (Gorman and Vemuri 2010; Muller 2008). However, with governments continuously facing financial prudence with lower tax revenues, they are always contemplating the practice of prudent measures in their activities. As governments are financially unable to continue past expenditures and provide the necessary support for creating markets to

the same extent as they had in the past the unintended consequences of such reductions in direct government involvement in market creation is increasingly becoming visible prompting a need for a very different approach to service delivery, namely for encouraging private sector involvement.

The change from market based approaches promoted by government interventions towards a more conventional private sector engagement in markets requires a fundamental shift away from past land management practices and adoption of new skills, different process and procedures. A new conceptualised model of land management based on private sector features is a formidable challenge and one which will require a substantial shift in the 'mental modelling' by those accustomed to many decades of government intervention. A number of important questions arise that need consideration in moving from government created markets to private sector engagement in markets. For instance, if the private sector wishes to engage with Indigenous people, one of the fundamental questions is how entrepreneurial are the people currently engaged in INCRM to able to take up these activities? This largely depends in turn on understanding the inherent nature of being an entrepreneur in the context of INCRM activities. Another question relates to conditions for enabling new entrepreneurs to emerge who will have the potential ability to carry out entrepreneurial activities on their land. This paper is an attempt to address these issues in order to provide further insight into why there is slow uptake of INCRM services as FFS by Indigenous entrepreneurs.

The entrepreneurial nature of people engaging in INCRM can be explained through use of at least two different methodologies. They are: the Trait Theory and Contingency Thinking. The Trait Theory focuses on why certain individuals start firms and are successful entrepreneurs. The Contingency Thinking approach to entrepreneurialism focusses on the 'firms' wherein they are widely defined as providing an environmental context, and the individual entrepreneurial characteristics that are bound within. These terms are parallel in meaning to the terms commonly used in the NRM literature, species ecology and landscape ecology; one which focuses on factors specific to the individual species and the other that focuses on systems and processes within the larger ecosystem.

In the case of the Trait Theory, examining the entrepreneurial features underpinning market-based approaches to INCRM activities highlights the role of Indigenous people conducting entrepreneurial activities. An example of a small Aboriginal owned business which would be best explained through the Trait Theory is one in the Kimberley of Western Australia called Twin Lakes Gunmarrd and Goolyaroodk Cultural and Conservation Park. This business started in 2009 by a traditional custodian of the Winawari country (just north of Broome, WA) called Bruno Dann and partner Marion Louise Manson. It initially focussed on wild harvest and commercial sale of Gubinge (*Terminalia ferdinandiana*) but is now expanding to include other bush foods and a cultural tour. Bruno and Marion can be described using Trait Theory methodology as they possess entrepreneurial qualities that allowed them to make a successful business out of their land ownerships and knowledge along with allowing themselves to achieve their goal of supporting their livelihoods and landcare aspirations (Twin Lakes Cultural Park 2015).

Contingency Thinking on the other hand examines the appropriateness of the environment for shifting to market-based approach of INCRM activities. An example of an Aboriginal enterprise which could be described using this would be Fi Weaving Tours at Nauiyu Community in Daly River, Northern Territory. This enterprise is an art and culture program where the local Aboriginal women share their culture and knowledge through dillybag weaving

workshops (Merrepen Arts Culture and Language Aboriginal Corporation 2015). The objective of these workshops are not just to generate income but also to illustrate their use of natural resources, their connection with their land, and to involve different generations in cultural activities and pass on their knowledge. This enterprise is holistic in nature and the objectives of the tours are multi-dimensional and the roles within the group are contingent on who is available and what else is going on.

Both these methodologies provide insight into the existing and future market aspects of entrepreneurs in INCRM activities.

The second section of the paper examines the people currently engaged in INCRM activities and their entrepreneurial ability to effectively undertake these activities. The third section analyses the common features that exist for carrying out environmental activity as a market-based approach to INCRM. This facilitates an understanding of the existence of preconceptions to carry out successful market based approaches. The fourth section of the paper identifies the factors that contribute to understand the market in general and specific supply features that are necessary for entrepreneurial INCRM activities. These include: (1) possessing ability to address adverse conditions through appropriate strategies to manage risk by adopting Indigenous cultural management techniques, (2) familiarity with knowing how to satisfy demands for NRM products in a sustainable manner, and (3) having knowledge, information and skills to produce quality and quantity of NRM products for Indigenous and non-Indigenous markets. The paper finally concludes that Indigenous Land and Sea Ranger groups in particular have the necessary entrepreneurial features that are best suited to conduct INCRM activities in a market-based environment. There are however certain caveats to this happening in a timely manner that will also be discussed.

INCRM AND ENTREPRENEURIAL ABILITY

Despite owning large tracts of land and having intimate knowledge and connection with their 'country', Aboriginal people in the NT of Australia generate little financial benefit from consumptive and non-consumptive commercial utilisation of wildlife (plants and animals). Income, wealth and subsistence all contribute to livelihoods (Altman 2001) and sustainability with varying degrees of effects in providing for development of business acumen.

The income that sustains Aboriginal people stems largely from government welfare programs as well as royalty payments received from a range of sources including mining and leasing of land. Another important source of employment for Aboriginal communities is through land management. The Indigenous Land and Sea Management Program (ILSMP) generates employment for Aboriginal people with wages currently being funded through the Australian government and operational costs funded largely through the Aboriginal Benefits Account (ABA), FFS contracts and a variety of other funds. The ABA is an account established under law to receive and distribute royalty equivalent monies generated from mining on Aboriginal land in the NT (Australian Government 2011). Given the success of the ILSMP and the uncertainty of continued government funding, what aspirations, options, strategies and barriers are there for Indigenous stakeholders to progress this activity into more of a business structure?

To plan for economic development into the future requires an understanding of the past and current policy and legislation, models, funding, and governance that have contributed and shaped processes and procedures in Aboriginal communities. It also requires innovative thinking on the best approaches in creating economic gain from management of natural and cultural resources.

The ILSMP was initiated in the monsoonal tropics or 'Top End' of the NT in the 1990s at a time when there were some major ecological threats that needed to be addressed at a finer scale by local people using a combination of Indigenous and non-Indigenous land management practice. Specifically these environmental challengers included: feral buffalo populations which had increased at a huge rate to the extent that they were declared an environmental nuisance in 1978; the rapid spread and intrusive nature of *Mimosa pigra* and its negative impact on production, wetland habitats and other intact native environments; and increasing evidence that changed burning regimes, especially wildfires, were having detrimental effects across the landscape. The low human population density and remoteness of NT landscapes made it very difficult to manage these threats at an appropriate scale and the broad scale management that was being applied was inadequate.

At around this time there was an increase of people moving back out to their traditional country because of policy and legislative change. The *Aboriginal Land Rights Act* (Northern Territory) (1976) was the first attempt by the Australian government to legally recognise the Aboriginal system of land ownership through making law inalienable free hold title. This legislation allowed for a movement of people back out to their traditional lands and is also known as the 'Outstation Movement'. It also initiated the establishment of four Land Councils in the NT (Northern, Central, TIWI, and Anindilyakwa Land Councils) which supported Aboriginal people on their land and had the statutory responsibility of facilitating land management on Aboriginal lands.

In 1996, the Northern Land Council (NLC), whose role it is to support Aboriginal people across most of the Top End of the NT and to help its Aboriginal constituents build sustainable lives on their own lands, established a new division called the *Caring for Country Unit* (CFCU). This CFCU was created specifically to support community based land and sea management programs and was in response to a series of consultations with 17 Aboriginal communities who wanted input on the development of targeted training and job opportunities (NLC 2006). The CFCU assisted traditional land owners to increase their capacity to manage environmental problems such as feral animals, inappropriate fire regimes, and invasive weed species as well as provide other natural and cultural resource management tasks. A major land management issue and activity of the ILSMP around this time was weed control with 223 species of unwanted exotic plants being recorded on Aboriginal land, 52 species being classified as high-priority weed species (Smith 2001). Two of the first Indigenous Ranger groups, the Djelk (Maningrida) and Dhimurru (Nhulunbuy) Rangers, were set up in 1995/6 to control *Mimosa pigra*. Later in 1999/2000 a major 4 year agreement was signed called Top End Aboriginal Land Management and Employment Strategy (TEALMES) between the NLC and a number of State and Federal government departments. The main focus being weeds and it supported 6 existing Indigenous Ranger Program and instituted 5 more (Ashley et al. 2002). The NLC helped strategically plan weed eradication on Aboriginal land which was and remains today a major environmental concern with massive economic implications from a lack of productivity, to a loss of biodiversity through fuelling of wild fire and inappropriate fire regimes.

The ILSMP was a fortuitous match between the dire environmental threats on Aboriginal land that required local, fine-scale Indigenous management with employment and livelihood opportunities that remote Aboriginal communities required to supplement their income in an increasingly materialistic world. To increase employability in Aboriginal communities, a Community Development Education Program (CDEP) started in late 1970s (see Altman 2001) and for the next ~35 years this program employed the bulk of Aboriginal people in Aboriginal

communities including those involved in the ILSMP. The CDEP program started off as a training and education program but ended up as more of an employment or 'work for the dole' type program as there were very few 'real' jobs in remote Aboriginal communities for participants to transition into (Vemuri and Gorman, 2012).

By 2004 the ILSMP consisted of over 30 community-based, Indigenous Ranger groups across the Top End employing over 350 Indigenous people. Indigenous Ranger groups generally consisted of people from different clan estates in a region and therefore had a connection with the most appropriate cultural land managers which in turn allowed for cultural advice to feed into these ranger groups which gave authority for land management. Of course there were other forms of cultural activities happening on country which have been described as 'looking after country' rather than the INCRM activities through the Indigenous Ranger Program which is better known as 'caring for country' (Zander et al. 2013).

In 2007 there were some policy changes which impacted upon the CDEP program and the ILSMP was separated from other CDEP activities to be funded through other Federal money. The Commonwealth government committed \$90 million over 5 years to employ and train up to 300 Indigenous rangers for INCRM including Indigenous Protected Areas. The Commonwealth government invited existing community programs to apply for Ranger funding for wages. Some groups applied independently and now manage themselves independently (usually through an Aboriginal Recourse Centre) while the NLC applied on behalf of about 19 ranger groups. About 13 of these were through the *Working on Country* Program (Australian Government 2015) while 6 were through the Indigenous Land Corporation (ILC). In the Central Land Council region there are about 7 Ranger groups employing about 70 Rangers which were funded through the Federal government.

In June 2008 the TEALMES became known as the Land Management Economic Development (LMED). Under ILC funding associated with the NT 150 Real Jobs program, former CDEP workers were recruited into 25 full-time ranger positions in the NT (ILC 2014). The Federal government provided funds via the ILC for full-time Ranger salaries and associated training. The Aboriginal Benefits Account (ABA) matched the amount contributed by ILC, for capital and operational costs. This funding agreement saw the ILC providing funds for the employment of a program manager and eight coordinator positions associated with each ranger group, their focus, to facilitate the desired outcomes stipulated in the contract, namely, the control of *Mimosa pigra* and other invasive species, fire management and feral animal control as core land management activities. The contract encouraged ranger groups to seek enterprise development opportunities as core targets were met.

In recent years government agencies have encouraged Indigenous Ranger groups and their communities to work towards generating their own income, especially those Ranger groups funded by the ILC. This sentiment is endorsed by Ranger groups and their communities who also desire to shift away from reliance on short term government contracts and have greater empowerment and continued cultural input into land management activities from within. This has led to support for initiation of wildlife based enterprise but, with the exception of the Arts and Craft industry, most of these types of enterprises have struggled to be economically viable and in most cases this has led to their demise. There have been a number of studies that have looked at the factors that influence the initiation and success of these wildlife based enterprise (Nikolarkis 2010, Gorman et al. 2006, 2008, etc) and clearly the remoteness of these communities, lack of business acumen, poor infrastructure and support, as well as a variety of cultural factors have been the main contributors to these failed enterprise initiatives. Many of

these initiatives involved harvesting, storage and processing techniques which are difficult to provide in some of these small remote settlements, wild products are seasonal and often not in huge abundance and consistency and volume of supply are difficult to match with market demands. So, the feasibility and success rates of many of these enterprises have understandably been very poor.

However, the ILSMP is considered a success in providing a 'two toolbox' approach to land management, a term used because it combines traditional Aboriginal land management practice with more conventional land management practice (Aslin and Bennet 2005). Local people providing these services in remote areas are much more cost effective than outside agencies and there are quite a variety of environmental services that are delivered by Indigenous Rangers for Federal and State agencies as FFS. However, the funding for these Ranger groups remains short term which makes it difficult for strategic planning and operational funding difficult and inconsistent to get. This is frustrating for Aboriginal people living in these remote areas because it restricts opportunity for these Ranger groups to expand and diversify and provide employment and income generation in these areas where employment is limited. It has been proposed that there exists a much bigger market for Aboriginal land management service delivery than what has been currently been realised (Gorman and Vemuri, 2011) and the potential to access these markets needs to be followed through in a strategic and coordinated fashion. There is a need to investigate what the gaps are in providing these services to find out why this market opportunity is not being seized by Indigenous entrepreneurs who clearly need opportunities to break away from the poverty trap that seems to have been created.

MARKET-BASED APPROACH TO INCRM

In the NT of Australia Aboriginal people are progressively seeking greater empowerment and self-determination of their lands, institutions and affairs. However, where once cultural land managers decided the action and outcome of a land management activity there are now government agencies and other institutions that influence this decision. FFS activities like carbon abatement through early burning have an objective which is to reduce fire intensity and the amount of carbon going into the atmosphere. It is important that the conventional views of traditional land managers are not overshadowed by directives of government agencies. In terms of fire abatement the objective may or may not match cultural objectives of burning and it is important that this component is not taken away from land management as ultimately this may result in a disengagement of local people and disconnect between the Ranger activities and their community.

Over the last decade in the NT there has been a shift towards land management activities as FFS. These included activities such as coastal surveillance for foreign fishing vessels, blood sampling for disease monitoring, ghost net surveillance, landscaping and revegetation, fire management, etc (see Gorman and Vemuri, 2010). This shift has come about partly because there was a push towards accountability of money spent in natural resource management since the end of National Heritage Trust Funding in 2007 (ANAO 2008). Most of the FFS activities currently in place are facilitated through government agencies that take on the role of creating and administering these contracts for cost effective management. However, the downstream effect of this and a perverse outcome of this approach is that the Ranger groups seldom gain the capacity to define the contract themselves and provide costs other than those defined in administering the activity. This lack of business acumen restricts their ability to create FFS contracts for other land management activities. A cul-de-sac of ideas prevail exacerbating the

problem that poor business acumen is a major limiting factor in the capacity of Indigenous groups to pursue FFS contracts independently.

It should be acknowledged that *business planning* is not always the same as *planning for business*. There are a myriad of factors that can influence the development and governance of business in cultural settings where the business product involves a plant, animal, or landscape. According to Aboriginal belief, everything in the Aboriginal world has been assigned a moiety during the dream time by the ancestral beings (termed Dhuwa or Yirritja moiety by Yolngu of south east Arnhem Land) and those of one moiety have a special connection with other things of that moiety. When Aboriginal people are born they are assigned a totem which they have a certain affinity with and obligation to look after. Particular Traditional Owners have responsibility to make decisions about their clan estate; some are specifically related to land management. Responsibilities are passed to younger generations through ceremony when elders think the time is right. There are kinship structures which define obligations and in cases restrict people talking to each other or working together. There are obligations and rules related to nature, social connections and family grouping and these have consequences in every aspect of life in Aboriginal clan groups and communities. These obligations and responsibilities are made even more complex in Aboriginal townships which may be derived from government outstations and missions where clan groups were brought together due to intervention. This history makes each township unique and different to the next. These cultural rules along with bureaucratic nature of INCRM funding and the subsequent responses impact upon entrepreneurial free spirit. Despite, or indeed because of, these forces there are examples of some Indigenous groups and individuals exhibiting entrepreneurial spirit.

There are some Indigenous groups that are less constrained to those contracts derived by government agencies and it is worth considering a few different models that Aboriginal people are operating within to provide market based services. We have termed these: *subsidised*, *supported* and the *mentored* approaches because of how they are structured. Below we will briefly describe them and later we will try and identify the factors which contribute to their success.

The Subsidised Approach

Much of the formal land and sea management of Aboriginal lands are channelled through the ILSMP. This model allows for a 'safety net' where many of their core expenses, such as wages, are covered through Federal funding. Within these Indigenous Ranger groups there has been some discussion about generating income since the early 2000s and there has been some support to generate wild life based enterprise and other income especially with the ILC funded groups. As mentioned earlier in the paper this has resulted in a number of groups providing a variety of land management activities as FFS, mainly for government departments (see Gorman and Vemuri 2010). There are some groups which have taken this a step further and broadened their service delivery outside of that offered by government to other buyers and in doing so have shown business acumen in connecting with buyers, quoting, reporting and invoicing for jobs. One such group is the Kenbi Rangers.

The Kenbi Rangers are a small group of Rangers and a coordinator based at Belyuen Community which is across the harbour from Darwin near to Wagait Beach Township. This Ranger group has only been running for the last 6 years and is funded through ILC and hosted by NLC. These Rangers have progressively done more FFS work with a variety of Federal and State government agencies as well and with private industry. The Ranger coordinator, of this group

has a lot of business acumen and experience from other jobs and is very capable in brokering these agreements and conditions.

It should be noted that Kenbi is hosted by the NLC which is a not for profit organisation so the quotes are very competitive because they are based on a cost recovery structure and an administration fee and do not include a big profit margin. Another factor that also contributes to their competitiveness is that they are generally based close to where work needs to be done so have reduced transport costs. A third factor contributing to their success is they have a very organised process and procedure in quoting and reporting FFS contracts which can be easily interpreted and meets the procurement standards required by different organisations.

The Supported Approach

There are a number of other groups that do not have the 'safety net' that Indigenous Ranger groups have and must rely on money generated from work to survive. One such group is the Bradshaw and Timber Creek Contracting and Resources which is a 100% Indigenous owned and operated civil and contract company which is based in Timber Creek in the western part of the NT. This company was founded by a local Aboriginal man with the support of the Northern Land Council in 2008 (NLC, 2010). They provide services in construction and maintenance, fire-break, fencing construction and maintenance programs, landscaping, erosion control, road side drainage and vegetation management for government, defence and pastoral clients (Digedi 2015).

This company started off providing services as a local contractor under a negotiated Indigenous Land Use Agreement at the Bradshaw Station where the Australian Defense Force conducts regular training exercises. The Bradshaw Field Training Area (BFTA) has been established on what was the Bradshaw Pastoral Lease, 8,700 square kilometres near Timber Creek in the NT. Following a number of Native Title Determination Applications, the Commonwealth of Australia negotiated the Bradshaw Partnering Indigenous Land Use Agreement (ILUA) with Traditional Owners (TOs) of Bradshaw Station and the NLC in 2003. The Management of the ILUA is overseen by the Bradshaw Liaison Committee (BLC) whose membership consists of Department of Defence, NLC and TO representatives.

After learning how to operate as a business and with mentoring from NLC this Indigenous owned entity are expanding their services to take on other contracts outside of BFTA. The NLC facilitator who works with this group is a fantastic mentor for the group who has knowledge of the government tender systems and who works closely with them to get grants, apply for tenders.

A major difference between this group and Indigenous Ranger groups is that they cannot afford to allow cultural activities (ceremony, sorry business etc.) to impact on their business model and so have to regulate the extent staff participates in cultural activity. An advantage not being subsidised is this there is no dependence on support funding and as they develop business acumen they are able to expand their portfolio and bid for a broader suite of FFS activities than Indigenous Ranger groups that are subject to outsider audits of their expenditures.

The Mentored Approach

Last we will consider Triple P Contracting which is an Indigenous owned and operated company which like the Bradshaw and Timber Creek Contracting and Resources, does not receive government funding for wages. Each of these three business arrangements is slightly

different in how they were formed and are currently governed but there are some common attributes that undoubtedly have contributed to their success that need to be drawn out.

Triple P is an Indigenous owned and operated labour hire company. They are the local contracting and construction company in a small town called Elliott in the NT, with expertise in building, fencing, concreting and welding. As a business they are totally dependent on money they generate.

They are supported by the director of North Australian Rural Management Consultants Pty. Ltd. which is a business and community development consultancy company that focuses on Indigenous enterprise and community development, pastoral property development and employment and training of Indigenous people. It is based in Katherine and operates throughout NT and into Kimberley and Pilbara areas. Since 2003 has delivered management and consultancy services that have supported Indigenous individuals, organisations and companies to establish and develop their own enterprises or gain meaningful employment outcomes (Triple P Contracting 2015).

All of these three approaches defined above have been successful in pursuing contracts and generating income. In the next section we will consider what factors have contributed to these groups being successful in winning contracts and providing services.

FACTORS THAT CONTRIBUTE TO THE SUPPLY FEATURES FOR INCRM

The supply features that are required for conducting entrepreneurial INCRM activities such as FFS include appropriate cultural decision making as to what services can be supplied, a structured procurement and reporting process, and the capacity to deliver these things in a timely and professional manner.

Zander et al. (2013) raised the issue that some Aboriginal people consider land management activity as either 'looking after country' when done through cultural obligation or 'caring for country' which considered 'Ranger work' and went on to review a subset of Aboriginal opinions as to whether they should be paid for providing these services. Therefore, moving towards a market based approach in INCRM requires Contingency Thinking as it requires an examination of the appropriateness of provision of these activities as a market based approach. These decisions need to be made at a community level by the 'right people' in an Aboriginal community and how this is done is likely to be different for different communities (Gorman and Vemuri, 2010). However, the community and cultural based decision making component of INCRM as FFS is the very strength of this model because in effect should give autonomy back to the right people in the community rather than being defined through government departments.

From the three case examples provided there are some common attributes that may have contributed to their success. There include:

1. *Entrepreneurial skills*: each group had a person with entrepreneurial skills driving the process or mentoring the group. This person(s) was able to match the skills that their group had and the services they could provide with a buyer and deliver the service in a way which met the buyer's satisfaction. The reasons why the individual in these groups initiated these businesses and were successful is what needs consideration through the Trait Theory and will be considered later in the paper.
2. *Process and procedure*: each of these groups was able to connect with the buyers and deliver the service they required in a competitive and professional manner and in a structure that the buyers were happy with. This requires experience and capacity which all three groups had.

3. *Local decision making*: each group decided what they needed to do to make the business viable. This requires a very structured approach to costing out service delivery but also acknowledgement that certain practice (cultural) had to be curtailed to ensure services would be delivered on time. This type of decision requires local input and cultural authority to ensure it did not result in cultural/social disharmony.

What Is Hindering Uptake Of These Supply Features To Be Able To Conduct These Entrepreneurial Activities?

These groups represent the Indigenous entrepreneurial spirit emerging from many decades of government intervention. Each has within or has connection to someone who has the skills to connect with a market and present supply features in a way which the buyers understand and can connect with. They have the process and procedure that outlines clearly what is being supplied and how it is costed and recorded. They also have cultural authority to deliver these services.

A major obstacle hindering this type of entrepreneurial activity is uptake and unawareness of markets that these supply features exist on Aboriginal land. There is a need for market development through corporate engagement at a variety of levels to engage relevant corporate bodies with social responsibility, philanthropic groups who want to have conservation objectives, companies operating on Aboriginal land that require services and many other potential buyers. There is a need for these buyers to connect with providers of these supply features in a way in which they are comfortable and for contracts to be arranged which meet their requirements. This could be considered a 'clearing house'. Lastly there need to be appropriate structures in the community which can supply these services using appropriate process and procedures. Appropriateness in the context of this paper refers to sustainability in terms of economic, environmental, cultural, administrative as well as political aspects. Entrepreneurialism should be promoted through consideration of all these aspects.

In short, a framework is required to progress these features (Gorman & Vemuri, 2010). This requires acknowledgement by government and Land Councils (who represent Aboriginal people) that this activity is worth investing in.

What Are The Important Features?

To understand what the supply features of entrepreneurialism are in remote Indigenous communities requires an understanding of the dynamics of interactions between the major players over time in these communities. Factors influencing supply features include:

Policy and Legislation

In recent times land management services barely continued to persist due to conditions of uncertainty resulting in increased calls for a continuation of funding for land management through government intervention on familiar lines. The combination of market failure along with government assisted funding is increasingly addressing environmental threats (illegal fishing, biosecurity). However the recent downturn in actual and estimated government revenues has resulted in a scaled down approach by government to intervene in INCRM. Governments apply the same principle of selecting the most necessary INCRM services and acquire the necessary services through FFS. Applying monopoly power in an ever increasing demand scenario for INCRM services, the governments (State and Federal) are controlling the supply and the price of these services by managing their contracts efficiently.

Indigenous Support

There are other forces of influence of supply of INCRM services. The Indigenous support agencies (NLC, Aboriginal Resource Centres) have also influenced supply through their supported Indigenous Ranger groups by only allowing them to provide limited quantity of supply of services and often on a cost recovery basis because of their institutional status as being 'not for profit'.

Customary Obligation

Indigenous Traditional Owners have also played an influencing role in the above labour market model as provisions of services are partly considered as a customary obligation. Provision of INCRM services with reduced payments is justified on the grounds that it is a customary obligation to provide these services. The ensuing effect of these factors and agents in the market for provision of INCRM services especially in the remote areas makes the supply limited. Furthermore, it reduces the total cost of land management which may not be fully accounted for in Federal budgets.

In effect, customary obligation and the welfare state that Aboriginal people have existed in have subsidised the provision of INCRM services to date. However, as government spending is being curtailed and welfare provision reduced, the real expense for provision of INCRM services is becoming more explicitly clear. Governments of all echelons are reacting to these explicit realisations by changing their model of support for INCRM for new services through FFS. As they maintain the need for fiscal harmony with other areas of government expenditures, governments are regulating their expenditures through continuing to control payment for and demand for services. Government needs to change its investment focus in promoting INCRM service provisions by moving away from intervening in the market. Thinking has to shift and recognise that its involvement is one of the reasons for market failure when it comes to the INCRM market. Promoting for provision of FFS will assist in encouraging new markets to be created on Indigenous lands. Through FFS markets can be free to operate and efficiencies can be achieved reducing the need for expensive government interventions.

DISCUSSION

There are a number of historical, legislative and cultural reasons that have contributed to a generally held belief that '*individuals see lack of entrepreneurial activity for provision of INCRM services by Indigenous entrepreneurs despite the incentive of fee for service provision*'.

The Australian Federal government has two main overarching policies relating to Aboriginal people and the land upon which they live. One relates to maintaining landscape function and protecting biodiversity and ecosystem services and the other relates to 'closing the gap' which fundamentally involves providing Aboriginal people with adequate educational, health and employment opportunities (Australian Government 2013). History shows us that NT landscapes need active management which requires people on country, without this it is hard to manage fire, feral animals and weeds as well as Indigenous kinship, cultural and custom. However, providing social services to remote Indigenous townships and outstations is very costly and something that Federal government is trying to disengage from and to pass on to State and Territory governments. In a further bid to reduce expenditure the Federal government has reconfigured welfare payments from CDEP to New Start Allowance and is in the process of

tightening conditions to encourage recipients away from welfare and into 'real' jobs. To aid this process they are providing financial incentives to private industry to employ Aboriginal people as well as providing relocation expenses for transition from remote settings to 'growth centres' and by investing in growth centres to encourage economic development.

The NT Emergency Response Intervention in 2007 and 'The Little Children are Sacred Report' (NTG 2007) highlighted the social plight of people in Aboriginal communities and there has been a priority shift in government expenditure towards improving the socio-economic conditions of inhabitants in the NT. One strategy to do this cost effectively is by concentrating Aboriginal people to provide services at a level that will improve low levels of mortality, high levels of degenerative disease as well as low education and employment levels. The perverse impact of this is that they are moved away from their Clan Estates and are no longer able to perform their customary land management practices.

However, the government still has an obligation to ensure landscape values are maintained and are managing to do this by being much more targeted and specific as to which services are essential and by purchasing these as FFS. In cost cutting through phasing out CDEP and changing welfare conditions the Federal government has had to continue funding to ILSMP by paying for Ranger employment costs. Through these groups they are managing to meet their legislative requirement to look after Australia's natural values in defining certain service delivery contracts.

The government (s) have never encouraged a market to develop or engage with and purchase INCRM services from Aboriginal people and this failure to establish conditions for markets to naturally evolve has resulted in the government (s) having to play the part of the market and fund the provision of these services. In a very 'colonial' fashion they have controlled the price, outcomes and delivery of the INCRM services through the ILSMP in conjunction with Land Councils and through highly regulated contractual agreements. The result is that many Aboriginal people and their associated Indigenous Ranger groups still do not have the business acumen to offer these INCRM services independently as they have limited exposure, experience and knowledge. The resultant effect of nonexistence of market features on these lands has been absence of opportunism and a predisposition of a mindset for uncertainty avoidance especially in financial aspects. A further complicating factor has been the Aboriginal customary obligation to maintain their cultural and spiritual connection with country to such an extent they are willing to provide INCRM services independently and therefore free of charge (Zander et al. 2014). This adds another layer of complexity as the services Aboriginal custodians are willing to supply substantially bring down the cost of land management. The Indigenous Ranger Groups sit somewhere in between these cultural obligations and the obligations on them through being part of the ILSMP and it appears these activities are considered quite differently to those provided by custodians (Zander et al. 2014) where once they were less so (Aslin and Bennett 2005).

The mounting pressure for governments of all echelons to reduce their expenditures is however increasing awareness to Aboriginal people that their land, its management and natural resources within, need alternative frameworks to exploit a variety of livelihood opportunities and potentially provide the financial and employment opportunities for them to remain on or connected to their country. The alternative framework for a real market to develop requires a shift from bureaucratic, government controlled set of processes and procedures to one which has the flexibility to allow for different ways of doing business. A precursor to entrepreneurialism is needed to enable exercising of individual and collective freedom to choose and participate, or not, through market driven forces.

In working towards this goal it will be important for all of the stakeholders to redefine their role. These include government, the private sector, Indigenous people, Indigenous communities; as well as not-for-profit and for-profit Indigenous and non-Indigenous organisations.

CONCLUSION

The State and Federal governments would be wise to reconsider their approach and address conditions for Indigenous entrepreneurs to exist and perform landscape functions. It requires moving away from intervening and playing the part of the market. They need to determine strategies which can encourage real market forces to develop on Aboriginal lands. This may involve playing less of a role in defining the process of land management activities and more of a facilitative role in the setting up the framework which will allow buyers and suppliers to connect with each other with minimal governmental intervention. By empowering local people to take control of the market driven process and to incorporate those values they see as being important (cultural, social, ecological and financial) it is possible there will be different incentives for Indigenous people to grow these opportunities and create culturally acceptable business hubs. In this paper we have given examples where this entrepreneurial spirit of Aboriginal people in land management has begun to emerge in different ways but we concur that there needs to be a much more structured approach to identifying and encouraging entrepreneurial activity for potential markets to flourish in INCRM, through capacity enhancement of Aboriginal suppliers and assisting in fostering these connections and contractual agreements. One may take heed from Venkataraman (1997, p.120) that entrepreneurship is after all a field which “*seeks to understand how opportunities to bring into existence “future” goods and services are discovered, created, and exploited, by whom, and with what consequences.*” Let the tail not wag the dog by preventing the change to happen!

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THE ROLES OF INTERNATIONAL ENTREPRENEUR ORIENTATION AND GEOGRAPHICAL SCOPE LEVEL TO DETERMINE INTERNATIONAL PERFORMANCE: A CASE IN THE MALAYSIAN HALAL FOOD INDUSTRY

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ABSTRACT

The purpose of this paper is to investigate the role of geographical scope level as a moderator of the relationship between international entrepreneurial orientation and the international performance of small and medium enterprises (SMEs) in the Malaysian halal food industry. Most of the previous studies have discovered that there is a positive relationship between international entrepreneur orientation (IEO) and the international performance. Unfortunately, many studies were focused on developed countries and high technology industry. Furthermore, the role of geographical scope as a moderator also been excluded in the majority of studies from both international business and international entrepreneurship. This study offers an alternative in developing countries and other industry settings that influenced through the Islamic religious factor in producing special dietary requirements for Muslim consumers, which is known as the halal food industry. This study is a quantitative research designed using the survey method. The result of the survey shows that there is a significant relationship between two groups of small and medium enterprises towards their geographical scope level, international entrepreneur orientation, and international performance. Moreover, SMEs that export to wider geographical scope achieve higher international performance and growth as global exporters compare to those SMEs that operates within a narrow scope only gets to attain lower performance and growth as international exporters.

Keywords: Entrepreneurial orientation. International entrepreneur orientation. International performance. Geographical scope level, Small and medium enterprises. Halal food industry

INTRODUCTION

Falling trade barriers and innovations in information and communication technology (ICT), particularly the widespread use of the Internet and e-commerce, have provided new opportunities for the internationalization of small and medium-sized enterprises (Knight, 2001). One response to this changing environment is an increasing interest in entrepreneurship. The entrepreneurs are the core decision makers and have the greatest influence on their firms, business strategy and roadmaps formulation, setting the firm's goals and steering the firm forward (Masurel et al., 2003). They play an important role in economic growth, innovation, competitiveness and poverty alleviation (Kropp et al., 2006).

At the firm level, the market diversification and exporting become an opportunity for entrepreneurs being less dependent on the domestic market. By reaching new customers in foreign markets as entrepreneurs may also explore more of the economic scale and to achieve

lower production costs while producing more efficiently for their business growth. It is argued that entrepreneurial orientations (EO) have contributed significantly to the development of the performance of small and medium enterprises (Wang, 2008). Entrepreneurial orientation has been conceptualized as the process and decision-making activities used by entrepreneurs that lead to entry and support of business activities (Lumpkin and Dess, 2001; Kropp et al., 2006). While it is often believed that EO has a universally positive influence on firm performance (Wales et al. 2013).

Although EO has been regarded as a vehicle for success and survival in an increasingly competitive and global economy (Covin and Slevin, 1991), the concept was originally developed in the US and have been used in Europe regions in the high technology industry. A large number of well-established theories in international business research have been derived from the context of advanced markets and highly industrialized research settings, which raises the question whether these theories can be applied to the context of emerging markets as well (e.g. Jaworski and Kohli, 1993; Dawar and Chattopadhyay, 2002; Burgess and Steenkamp, 2006). Therefore, it may be biased toward Asian regions, mainly if it is involving different economy sectors such as Malaysian halal industry for example. Some studies have attempted to test the cross-cultural and/or the cross-national validity of EO.

Additionally, research on small firm internationalization has been criticized for the lack of attention given to international entrepreneurship (IE) field of study (Zahra, 1993; Oviatt and McDougall, 1994) and IE is one of the emerging areas of international business research. McDougall and Oviatt (2000) define international entrepreneurship as “a combination of innovative, proactive and risk-seeking behavior that crosses national borders and is intended to create value in organizations” (p. 903). In the international business context, the term international entrepreneurial orientation (IEO) extends the concept of entrepreneurial orientation to cover processes and activities that cross national borders (Coviello and Jones 2004; Knight and Cavusgil 2004, 2005). Geographical scope becomes one of the main issues to differentiate between early internationalization of small firms in IE and traditional SMEs (Oviatt and McDougall, 1994; Knight and Cavusgil, 1996, Kuivalainen et al., 2007).

Since, SMEs are the backbone of the Malaysian economy, therefore, it is crucial to understand why some SMEs are successful and others are less successful in their internationalization from the Malaysian business context. Therefore, this study makes a significant contribution to both practitioners and researchers pertaining to this. The research question in this study is how a geographical scope level moderates the relationship between international entrepreneurial orientation and the performance of SMEs in the Malaysian halal food industry.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical perspective – Resource-Based View

The Resource-Based View (RBV) of the firm argues that firm performance is better explained by differences in firm resources than in industry structure (Wernerfelt, 1984). Resources can be tangible or intangible in nature. Tangible resources include capital, access to capital and location (among others). Intangible resources consist of knowledge, capabilities and reputation among others.

One of the principal insights of the RBV is that not all resources are of equal importance or possess the potential to be a source of sustainable competitive advantage. Barney (1991)

proposes that advantage-creating resources must come across four conditions, namely, value, rareness, inimitability, and non-substitutable. It must allow the firm to conceive implement strategies that improve its efficiency and effectiveness in satisfying the needs of customers.

Chandler and Hanks (1994a) have argued that firm performance is a function not only of the accessibility to resources but also of an entrepreneur's managerial competence. Few studies have considered small firms from a RBV (Lerner and Almor, 2002), even small firms are likely those which must rely heavily on the resource of owner skills. Entrepreneurial characteristics are considered as resources for the entrepreneur as well as the firm (Alvarez and Busenitz, 2001). For small business owners, EO is involving also management skills, and therefore this resource which leads to competitive advantages. EO describes firm-level strategic processes that firms use to obtain a competitive advantage and it is considered an important driver of firm performance (Rauch et al. 2009). Firms high in EO innovate frequently, make risky decisions, and act proactively on opportunities. Thus, EO focuses on obtaining a competitive advantage by looking for new opportunities, anticipating demands aggressively, taking a risk and positioning new products in markets (Lumpkin and Dess, 1996). For a small business entrepreneur, EO is equivalent to management skills and it consequently is a unique intangible resource that leads to competitive advantages (Runyan et al., 2006).

From the above statements, it is clear that in the halal industry the production process is frequently unique to meet Muslim dietary requirements and offers value creation for both Muslim and non-Muslim consumers through halal certification. Therefore, it is important for the owners-managers in this industry develop their international entrepreneur orientation (IEO), intangible capability to venture into export markets as a source of their competitive advantage.

Entrepreneurial Orientation

Entrepreneurial orientation (EO) has been suggested as an essential attribute of high performing firms (Covin and Slevin 1989; Lumpkin and Dess 1996; Dess et al. 1997; Lee and Peterson 2000), and the role of culture for strengthening EO has been highlighted in many studies (Lumpkin and Dess 1996; Lee and Peterson 2000; Marino et al. 2002). The concept of EO is relatively broad, as it refers to the decision-making styles, management behavior, and culture of the whole firm. The EO concept suggests that firms should be entrepreneurial in order to achieve superior performance (Dess et al. 2011).

The original framework of EO was introduced by Miller (1983) who used the dimensions of innovation, proactiveness, and risk-taking to measure entrepreneurship. These three dimensions were also adopted by subsequent studies (Covin and Slevin 1989; Lumpkin and Dess 1996; Lee and Peterson, 2000). Covin and Slevin (1989, 1991) expanded upon the idea that engaging in product-market innovation, being the first to introduce new markets (proactiveness), and undertaking risky ventures are at the core of entrepreneurship. Their conceptualization of EO as the concurrent exhibition of risk-taking, proactiveness, and innovativeness has become widely accepted in the scholarly community (Bhuian et al. 2005).

Lumpkin and Dess (1996) and Lee and Peterson (2000) described EO as the process, practice, and decision-making activity that contributes to new entry into the marketplace. They also distinguished between EO and entrepreneurship. They characterized EO as the entrepreneurial process that managers use to act entrepreneurially, whereas entrepreneurship can be defined as a new entry into the market. According to Lumpkin and Dess (1996), the essential quality of entrepreneurship is based on new entry or newly established markets with novel or existing

products, as considerably as the launch of new ventures. In short, EO has been used to refer to the strategy-making processes of firms engaged in an entrepreneurial activity (Lumpkin and Dess, 2001).

In these circumstances, EO can boost firms' profitability by ensuring that they constantly seek new opportunities which enable firms to create first-mover advantages, charge premium prices, and skim the top of the market ahead of their competitors. The ability to respond quickly to customer needs may also deliver a positive impact because it provides the firm with a first-mover advantage. First-mover advantage refers to being the first firm to enter a given foreign market with a particular product or process (Knight et al., 2004). According to these authors, advantages may accrue to the pioneering firm for several reasons. First, for a time at least, the firm enjoys a monopoly in the given product market. Second, the first mover has a better chance to establish a propitious market position. Third, it advances early up the relevant product-market learning curve. Finally, first movers are better positioned to influence initial consumer preferences regarding the characteristics and benefits of the pioneering product.

However, Lumpkin and Dess (1996) indicated that the relationship between EO and firm performance is context specific. They emphasized the need for investigating the role of environmental and organizational variables to enhance the understanding of how EO contributes to performance. They included organizational culture as one of the key contingencies that are associated with the EO-performance relationship. Some studies also emphasize the role of national culture as a stimulator for strong EO. Lee and Peterson (2000) proposed that only countries with specific cultural tendencies will stimulate strong EO and therefore experience more entrepreneurship and global competitiveness. Their model emphasized the importance of a national culture's ability to produce strong EO within entrepreneurs and firms. In a study conducted by Boso et al., (2012a) they found that EO enables firms to influence the market and market behaviors by offering innovative products in emerging markets that satisfy export customers, latent needs. Some other study by Gruber-Muecke et al. (2015) confirmed that market orientation and EO do have an impact on firm performance in emerging markets.

The results concerning the relationship between EO and performance are not conclusive (Rauch et al. 2009). The theory posits that EO enhances performance (Lumpkin and Dess 1996), but existing empirical evidence does not fully support this assumption. For example Lee et al. (2001) find only a weak evidence of the positive relationship between EO and performance in the case of new ventures, while Slater and Narver (2000) find no relationship between EO and profitability. Moreno and Casillas (2008) also suggest that the direct influence of EO on firm growth is not significant. In contrast, Wiklund and Shepherd (2005) confirmed a positive relationship between EO and business performance. Several studies suggest that the link between EO and performance is likely more complex than a simple main-effects-only relationship and that this link can vary depending on both the context in which firms act and several internal characteristics (Chaston and Sadler-Smith 2011; Rauch et al. 2009; Wiklund and Shepherd 2003).

International Entrepreneur Orientation

Subject areas within the field of IE further emphasize the importance of the decision-makers and show that decision-makers' attitudes towards internationalization (e.g., Oviatt and McDougall, 1994), as well as their ability to discover, evaluate and exploit business opportunities across national borders (e.g. Oviatt and McDougall, 2005), impact SMEs' internationalization patterns. Other scholars in IE, for example, Knight (2001), Jantunen et al.

(2007) also have suggested that EO can be meaningfully extended to the field of IE as a way of examining and explaining the cross-border internationalization of firms.

In addition to this, the development of internationalization studies with a focus on the increasingly active role played by international entrepreneurs of SMEs (Bell et al., 2003; Johanson and Vahlne, 2003). This is because the decision-making power within SMEs and the impulsion for a firm's internationalization often lies with the international entrepreneur, opposed to the management team, which are responsible for decision-making in larger multi-national firms (Bhuiyan et al., 2005). A firm's IEO can also enable the business to identify and exploit these internationalization opportunities.

IEO is a multi-dimensional concept (Covin and Slevin, 1991), reflecting the firm's overall pro-activeness and aggressive in its pursuit of international markets (Knight, 2000; 2001). The concept of IEO incorporates three dimensions drawing from the work of Miller (1983). These three dimensions reflect the firm's propensity to engage in international innovative, proactive and risk-taking behaviors in order to achieve the firm's competitive and internationally oriented goals (Knight, 2001).

Therefore, firms with a strong IEO create a significant advantage and differentiation over their competition, facilitating both market share and profitability. A substantial degree of IEO also brings new customers to the firm and helps the firm to retain existing customers by providing new products. Customers are frequently willing to pay premiums for innovations and improved products, especially when the competition does not provide similar offerings (Robinson and Min, 2002). Additionally, in order to address customer needs that may not yet be known, firms must engage in new exploration, support novel ideas, experiment, and stimulate creativity, all of which are essential elements of EO (Covin et al. 2006).

Past studies revealed that firms which have IEO tend to be more successful compared to other firms (Lee and Peterson, 2000). In fact, IEO was found to be positively related to performance (Zahra and Covin, 1995; Wiklund and Shepherd, 2005), although the empirical findings are not entirely consistent. For example, Lee et al. (2001) found only weak evidence of a positive association with the start-up's performance, while Slater and Narver (2000) found that there was no relationship between EO and business profitability. Lumpkin and Dess (1996) considered the relationship with performance to be context-specific. Zhou (2007) in his study found that foreign market knowledge leads to early and rapid internationalization and more importantly; this effect is driven by international entrepreneurial orientation. His findings support the entrepreneurial nature of smaller and younger international firms (Oviatt and McDougall, 1995; Knight and Cavusgil, 2004). Acedo and Jones (2007) argue that entrepreneurial characteristics such as innovative, proactive, risk-seeking behavior, indicate that a particular mindset or cognition may play a part in internationalization and its speed that relate to early internationalization.

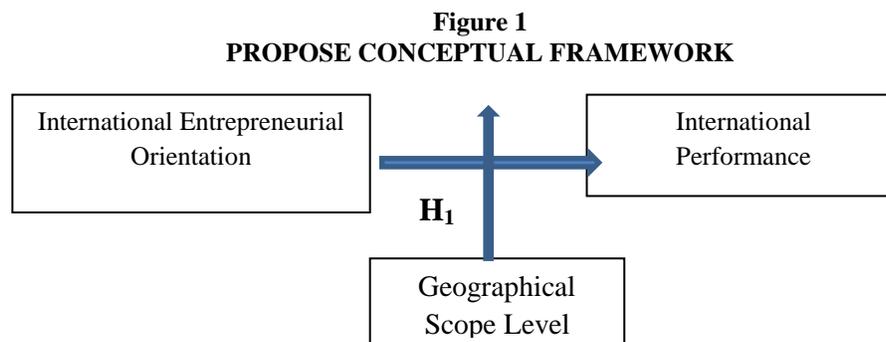
International Performance

International performance is normally evaluated as a financial and non-financial performance measure. It has also been broadly known as objective measures of performance are more appropriate than a subjective evaluation of performance by owners-managers of firms. Nevertheless, collecting objective data is real difficult, largely because owners-managers are generally are not willing to release confidential company information to outsiders (Dess and Robinson, 1984; Jantunen et al. 2007). On the other hand, owners-managers of firms are generally willing to provide a biased evaluation of their firm's performance (Sapienza, et al.,

1988). Therefore, this study used subjective performance based on Crick et al. (2006) that argues that a single criterion to measure international performance is inappropriate and more comprehensive subjective measurement is required.

Geographical Scope level as Moderator

For the moderator variable (foreign market scope) this study used as a dummy variable with which SMEs was divided into those which have either narrow or wide geographical scope. These firms were classified as follows: (i) narrow scope for those firms that exported to three regions or less (these firms can be considered ‘international’ firms), and (ii) wide scope for those firms that exported to at least four regions and more simultaneously as ‘global’ firms. Based on previous studies, the scope will give some indications of whether or not SMEs have global scope in their operations based on the number of countries or regions or where they are located (Kuivalainen et al., 2007, Crick, 2010). The summary of the proposed conceptual framework and hypothesis is shown in the diagram below.



It is important to highlight that religion also shapes, values and therefore how the entrepreneurs manage the entrepreneurial activities of their firms. Highly religious entrepreneurs will tend to use religious criteria to inform their decision making, even if it harms their short-term commercial interests (Dodd et al., 2007). Although previous studies inform our understanding of the influence of social-ethnic characteristics of a firm’s entrepreneurial behavior in general, none of these studies empirically examined the relationship between these socio-cultural characteristics and a firm’s IEO on international performance in halal food industry (Ismail and Kuivalainen, 2015).

The present study involves an exploratory view and anticipates that the geographical scope level will moderate the relationship between IEO and international performance. The being of a moderating effect implies that the relationship between two variables (e.g. X and Y) varies as a function of the value of a third variable (e.g. Z), labelled as a moderator (Zedeck, 1971). A moderator explains when or under what conditions X affects Y, or when the relationship is likely to be more substantial. Thus, this study proposes the following hypothesis:

Hypothesis 1: Geographical scope level moderates the relationship between SMEs’ international entrepreneurial orientation and international performance. The correlation in between them is stronger for a wider scope than for narrow one.

METHODOLOGY

Data And Sample Collection

This study adopts a quantitative research design using a survey method combined with a statistical discussion. The firm is classified as micro, small and medium-sized when its number of full-time employees are less than five, between five and 50, and between 51 and 150, respectively, for the manufacturing sector (SME, Annual Report, 2007). The sample thus comprised producers and at the same time, exporters, drawn from the SME exporters listed with the Malaysia Exporters of Halal Products directory (MATRADE) and Halal Development Corporation directory (HDC). These databases yielded 400 export firms and all are SMEs. However, only 300 companies were available as the respondents for this study after confirming the current status of their business. From the 195 questionnaires returned, the usable questionnaires were only 174. Hence, the response rate was 58% (174 firms).

Measurements

All measurement items in the questionnaire were adopted and adapted from published works that were relevant to this subject. The independent variable is IEO which comprises proactiveness, innovativeness, and risk-taking adopted from Jantunen et al. (2007). The construct consists of nine items measured by 5-point Likert Scale anchors of 1 = strongly disagree to 5 = strongly agree. The Cronbach's Alpha value of the scale was $\alpha = 0.88$ based on reliability test. The dependent variable International performance (INT) was measured with a 5-point Likert scale with three items of subjective measurements, namely overseas sales volume, sales growth (turnover), and profitability adopted from Crick et al. (2006) using the 5-point Likert scale of 1=very badly to 5=very well. The Cronbach's Alpha value of the scale was $\alpha = 0.93$ based on reliability test. For the moderator, scope level, the scope measurement was adapted from the studies conducted by Zucchella (2002) and Chetty and Hunt (2003, 2004). They recommended the use of a number of regions as a basis for scope level. This study classified low scope (regional firm) as those that export to between one and three regions, and high scope as those that export simultaneously to four regions and more (global firm) based classification.

Data Analysis

The analysis of quantitative data was based on a parametric method using the Moderated Multiple Regression (MMR) analysis (Cohen and Cohen, 1983) to introduce the moderating effects in multiple ways. MMR is an extension of multiple regression equations that includes additional predictors carrying information regarding the moderating effect (Aguinis, 2004). Before creating the multiplicative terms, there is a need to centre both the independent variables and the moderating ones, thus avoiding the problem of multicollinearity (Venkatraman, 1989). The scope is hypothesized by a binary grouping of moderator variables in which each moderator has two categories for the product term. The coding scheme used to be the dummy coding for each level of scope (0 = low, 1 = high). The specific test was applied to examine whether all the sub-group variances were equally based on Levene's Test of Homogeneity of Variance. Based on the results of Levene's Test, the observed significant level of international performance was more than an alpha level of 0.05. The result shows the sub-group variances of these two variables are based on the low and the high scope which is equal.

RESULTS AND DISCUSSION

Geographical Scope Level Moderates The IEO-Scope Relationship

Table 1 presents the results of the moderating effect of geographical scope level in the relationship between international entrepreneurial orientation (IEO) and international performance (INT). Specifically, the Table 1 shows Model 1, $R = .434$, $R^2 = .189$, and $F(2, 171) = 19.863$, $p = .000$. Thus R^2 means that 18.9% of the variance in INT increase is explained by IEO and scope. The interaction effects of the scope are differentiated into those of narrow scope and wide scope. Model 2 shows the results after the product term has entered the equation. As shown in Table 1, the addition of the product term results in R^2 change to 0.218, $F(1, 170) = 4.202$, $p = .013$. The significant difference between $R^2 = 0.189$ in Model 1 and $R^2 = 0.218$ based on F statistic is identical to t statistic for the regression coefficient, for the product term (i.e. $p = .013$) in Model 2 supports the presence of a moderating effect. In other words, the moderating effect of scope explains 2.9 % of variance in INT increases above and beyond the variance explained by IEO and scope.

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.434 ^a	.189	.179	.81873	.189	19.863	2	171	.000
2	.467 ^b	.218	.204	.80620	.029	6.359	1	170	.013

- a. Independent variables: (Constant), scope, IEO
 b. Independent variables: (Constant), scope, IEO, IEO.Scope
 c. Dependent variable: INT

Table 2, the resulting regression unstandardized coefficients equation for Model 1 is as follows:

**Table 2
COEFFICIENTS FOR INT ON IEO FOR SCOPE**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.366	.431		3.170	.002
	IEO	.434	.117	.270	3.711	.000
	Scope	.495	.136	.264	3.627	.000
2	(Constant)	2.071	.508		4.075	.000
	IEO	.240	.139	.149	1.731	.085
	Scope	-1.947	.977	-1.038	-1.992	.048
	IEO.Scope	.629	.249	1.357	2.522	.013

- a. Dependent variable: INT

$$\text{INT} = 1.366 + .434 \text{ IEO} + .495 \text{ Scope} \quad \dots \text{E1}$$

The coefficients for both IEO and scope in Model 1 are statistically significant at $p=0.0001$ levels. The equation shows that for 1 point increase in IEO, INT is expected to increase by 0.434, given that the scope is held constant. On the other hand, the regression coefficient associated with scope indicates the difference in the INT increase between wide and narrow scope is 0.495 given that IEO is held constant. Table 2 also includes information regarding the regression unstandardized coefficients after the product term has entered the equation. The equation is as follows:

$$\text{INT} = 2.071 + .240 \text{ IEO} - 1.947 \text{ Scope} + 0.629 \text{ IEO} \cdot \text{Scope} \quad \dots \text{E 2}$$

Results from the equation 2 lead to the conclusion that there is a moderating effect of the geographical scope level of IEO-INT relationship. Indeed equation 2 further demonstrates that there is a 0.629 difference between the slope of INT increase on IEO between the narrow scope and the wide scope. This result indicates that the slope regressing INT on IEO is less steep for narrow scope compared to wide scope. For further descriptions of the moderating effect, the regression equation for each group is constructed to produce the graph of the IEO-INT relationship for each of the scope level. Established along the code assigned for geographical scope (0= narrow scope, 1= wide scope), the following equations are developed:

$$\text{IEO (Narrow scope)} = 2.071 + 0.240 \text{ IEO} - 1.947 \text{ Scope} + 0.629 \text{ IEO} \cdot \text{Scope} \quad \dots \text{E-3}$$

$$= 2.071 + 0.240 \text{ IEO} - 1.947 (0) + 0.629 (0)$$

$$= 2.071 + 0.240 \text{ IEO}$$

$$\text{IEO (Wide scope)} = 2.071 + 0.240 \text{ IEO} - 1.947 \text{ Scope} + 0.629 \text{ IEO} \cdot \text{Scope} \quad \dots \text{E.4}$$

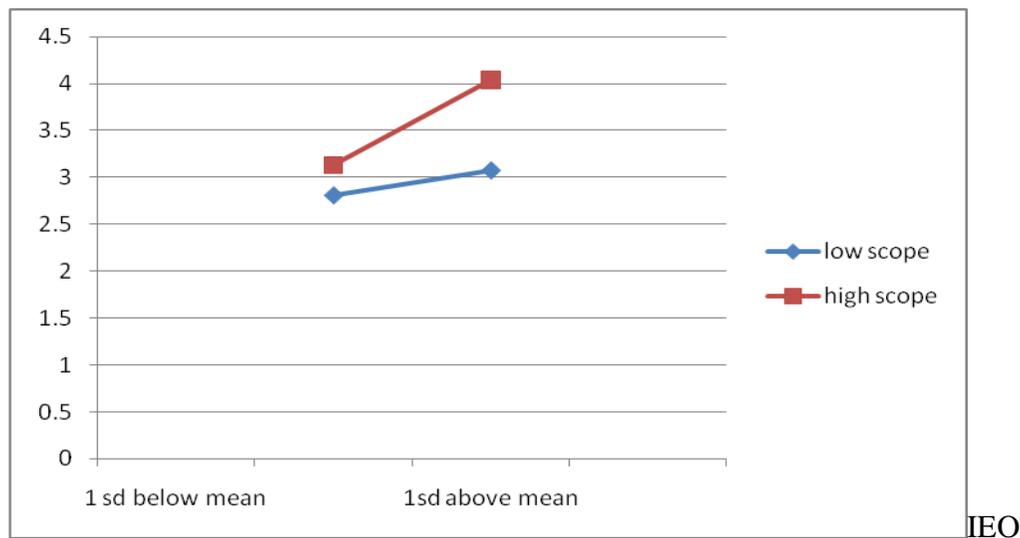
$$= 2.071 + 0.240 \text{ IEO} + -1.947 (1) + 0.629 \text{ IEO} (1)$$

$$= 0.124 + 0.869 \text{ IEO}$$

Applying the values of IEO ($M= 3.759$, $SD=.562$), the values of 4.32 (1SD above the mean) and 3.20 (1SD below the mean) produce the graph shown in Figure 1. As anticipated, the examination of Figure 1 showing the IEO-INT relationship for each of the SMEs groups separately indicates that the relationship is stronger (i.e. steeper slopes) for SMEs from the wide scope compared to the narrow scope. Based on this result, this study found support for H_1 that is the correlation between IEO and INT is stronger for wider scope than narrow scope SMEs. Thus H_1 receives full support.

INT.

Figure 1
SLOPES FOR INTERNATIONAL PERFORMANCE ON INTERNATIONAL ENTREPRENEURIAL ORIENTATION FOR NARROW AND WIDE SCOPE



The result revealed that SMEs which have a wider scope level of global scope, tend to experience a high level of IEO and be more successful compared to other SMEs at narrow scope or operating in fewer regions (1-3 regions) in their international performance achievements. While all firms surveyed display some degree of IEO differences, it appears that those firms who were more proactive, innovative and risk taking-oriented had greater levels of international performance success (and to some degree, greater levels of predictable future export success). It is required that the owners-managers who were able to export to global scope having a high level of IEO capability to respond quickly to customer demand, resulted in better international performance, benefited from first-mover advantage as producers and exporters of the Malaysian halal food industry. The finding suggests that high IEO of owners-managers are more likely to exploit export opportunities until global reach scope. The risk of entering the export market has paid off for proactively-oriented entrepreneurs as they have outperformed conservative-oriented entrepreneurs (low IEO capability). Since the halal industry is one of the emerging industries, particularly for Muslim consumers, it offers added value to the consumers mainly from Islamic “shariah” compliance with the authority (government and relevant agencies) to produce quality halal food that is wholesome and safe for human wellness and well-being. Indeed, for Muslims, buying and consuming only halal food is compulsory and this affects all Muslims worldwide. Today, Muslims account for a quarter of the world’s population and they are expected to reach 30% by 2025 (Roberts, 2010). Producers and exporters also stand to benefit from halal certification provides an independent third-party quality assurance step valued by conscientious consumers, which guides to worldwide acceptance of their products and services. Therefore, in that location there is a growing demand to increase consumers’ awareness of the benefits of halal certification and educating entrepreneurs on utilizing this tool (Rajagopal et al., 2011). Also, communicating it to the consumer as they “focused differentiation” (Porter, 1980), whereby, there is a perceived added value to a particular consumer segment. Arguably, that owner-managers’ decision to enter the global market rather than the international market, serves them to enhance their international performance.

On the other hand, the lower relationship between conservative (narrow IEO capability) and international performance indicates that the owners-managers actions are not merely reactive, but are detrimental to international performance and overall success of the firm in the long run. There is a possibility that firms that operate in the narrow scope consist of those that are concentrating on one or a few regions or some newly-established firms. They may have faced with the risk factor and the lack of expertise in export markets.

This current result supports past studies showing that firms which have IEO tend to be more successful compared to other firms (Lee and Peterson, 2000). In fact, IEO has been found to be positively linked to performance (Zahra and Covin, 1995; Wiklund and Shepherd, 2005). The findings are in line with McDougall et al. (1994) who indicated that entrepreneurs are people who “are alert” about potentially profitable resource combinations while others are not. The findings also support the study by Crick and Spence (2005) which demonstrated that high-performing SMEs are characterized by owners and managers who can identify and exploit international opportunities. The findings also corroborate some of the findings by Zhou (2007) and Knight and Cavusgil (2004) who proposed high IEO and international performance of the global firms. Nevertheless, the findings contradict the Acedo and Jones (2007) argument that entrepreneurial characteristics such as innovation, proactiveness, risk-seeking behavior, indicate that a particular mindset or cognition may play a part in internationalization and its speed but their study does not focus on scope level. Thus, it can be speculated that firms who aggressively pursue a wider geographical scope level would perform better, and expect to perform better in terms of their IEO and international performance compared to narrow geographical scope firms. In other words, entering the global market is viewed as accountable for their growth.

CONCLUSION

IEO has been identified as an important factor for an SME’s success. A review of the relevant literature indicates that the bulk of the literature on IEO, geographical scope and international performance has been conducted in developed countries and high technology industries. However, little research has been done on this topic in Malaysia and the halal food industry. The results obtained in this research indicate that there are significant relationships among IEO, geographical scope level and international performance based on subjective measurements. The findings revealed that there are significant differences in terms of geographical scope level as a moderator among SMEs in the Malaysian halal food industry based on the number of regions. As a result, there exist differences in terms of the level of owners-managers’ IEO capabilities and international performance between these two groups of SMEs.

These findings suggest that SMEs in developing countries like Malaysia can rapidly export their halal products in the worldwide marketplace, searching for the opportunities of halal foods and niche market, by entering into export markets as first mover advantage. Entrepreneurial-oriented firms have an inclination to be an industry leader in proactive, innovative and risk takers. They should also take advantage of resources provided by various external sources and government programs designed to promote Malaysian halal to foreign markets such as HDC, MIHAS, MATRADE, MITI, and JAKIM. The other ways are through using communications technology such as the Internet and e-commerce as a platform to market the halal food products worldwide and also develop networking to reach consumers beyond their own national borders.

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HOW TO FOSTER YOUNG SCIENTISTS' ENTREPRENEURIAL SPIRIT?

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ABSTRACT

Education in general is considered an encouraging element of entrepreneurial intention and behavior. However, most of entrepreneurship courses are designed for students who have already taken some courses in economics, business or finances and have no feedback from the real business world. This research focuses on STEM (Science, Technology, Engineering and Mathematics) courses students who have no knowledge on those areas. In this paper we will provide an analysis of two reference courses provided by two institutions (Lund Business School and EMLYON) in order to understand why these institutions had such a good reputation in entrepreneurship education and if, in fact, they had a special attention to STEM students. The European project SCIENT aims to do an in-depth analysis of successful entrepreneurship programs, creating a (non-exhaustive) list of Universities/Business Schools offering scientific entrepreneurship programs considered as best practice examples. The research method used was the interview. We concluded that there is a widespread perception that STEM students/researchers/experts share certain characteristics that should be treated differently. Providing this target with high quality courses and exposing them to a highly motivating entrepreneurial curriculum are of great importance in enhancing and fostering the academic entrepreneurship in STEM courses in future. Furthermore, it was possible to observe that the institutions visited in France and Sweden are well known by their excellence in the field of entrepreneurship, aiming to “build global entrepreneurs” as their main purpose. Both universities put a great effort in the implementation of a real entrepreneurship culture. In this paper we have focused on the initial phase of the project - the diagnosis phase. At this point, it was necessary to list the main obstacles currently faced by European STEM PhDs wishing to become entrepreneurs and to investigate some entrepreneurship programs considered as best practice examples for STEM students. Considering the complexity of the subject, and despite we have focused only in two university examples, the paper gives a contribution to entrepreneurial spirit, competence and behavior of STEM students. Furthermore, it allow us to understand why these institutions had a good reputation in entrepreneurship education and how these programs are conducted.

Key words: Entrepreneurship Education, STEM students, SCIENT project, Entrepreneurship Programs. Lund University, EMYLON.

INTRODUCTION

Any society it is vital to support all people with ‘entrepreneurial mind-sets’, not just the entrepreneurs, as they each have the potential to inspire others to start a business (Kelley et al, 2010). Also, Ratten et al. (2007) found out that international entrepreneurship is driven by

internal resources and capabilities and this has implication for market performance. Kelley et al (2010) argue that any educational training should assist people not just to develop skills to start a business but also to be skilled for acting entrepreneurially in whatever role they take in life. Although this perspective is wide, it retains the critical thinking of modern entrepreneurship education and training programs essential whether countries are to create an increasing pool of people who are willing to behave entrepreneurially.

Entrepreneurship education and training is growing rapidly in universities and colleges throughout the world (Dana, 1993; Dana, 2001; Martin et al., 2013) and it should be to ‘develop entrepreneurial capacities and mind-sets’ that benefit economies by promoting creativity, innovation and self-employment (European Commission, 2008). It is now well-recognized that education and training opportunities play a key role in stimulating future entrepreneurs and in developing the skills for the creation of new businesses (Henry et al, 2003). Furthermore, and according to Dana and Dana (2005) entrepreneurship education is vital in developing universities, which are more positioned to the international community (Dana and Dana, 2005).

In an exploratory study, Moroz et al (2008) have analyzed knowledge transfer performance of public research universities. According these authors, commercialization performance indicate that huge differences exist between a small percentage of high performing universities, and the remaining bulk of under-performers. They argue that high performing universities attract resources (human and financial resources), with a much stronger pull than lower performing universities. In this context, Moroz et al. (2010) have examined the attitudes and perceptions of academics who are directly involved in the field of entrepreneurship education programs and they found out that significant advantages from collaboration between university spin out and entrepreneurship education. For these authors, university spin out becomes a progressively important part of the commercialization process, those individuals with understanding and knowledge in both applied research and entrepreneurial process will advance cumulative value.

In 2014 around 5 million young people (under 25) were unemployed in the EU-28 area, which represents an unemployment rate of 21.7% and is more than twice as high as the adult unemployment rate (9.0%). Additionally, 7.5 million young Europeans between 15 and 24 are neither in employment, nor in education or training, and in the last four years, the overall employment rates for young people fell three times as much as for adults.

There are more than 180.000 STEM (Science, Technology, Engineering and Mathematics) students (about 36%) in EU universities (EUROSTAT, 2010). Not all of these students will get an academic/research position and sign a contract with a research unit. They will most probably have to go abroad (this is the case of Portugal) or start to think about creating their own job.

This particular target group should be provided with “entrepreneurship experiential elements”, which have potential to complement the research, thus an adequate entrepreneurship training program should cover the whole life-cycle of business and is sensitive towards to PhD process of doctoral students to whom the program is directed (Thursby et al., 2009).

Given the importance of entrepreneurship to surpass the problem of unemployment of this target (STEM students), the project SCIENT will be implemented in order to develop an innovative entrepreneurship program for PhD STEM students/graduates, developing their transversal skills and providing them with a new professional path.

SCIENT will enhance scientific entrepreneurship by focusing on young researchers. The goal is to make doctoral students and *graduates aware of their career options* and aware about the

possibility of using their research findings and starting their own company, avoiding that they limit their prospects by considering only an academic/researcher career.

The SCIENT Project has the following objectives:

1. Develop transversal skills (both hard and soft skills) for PhD STEM students/graduates and creating new professional paths for these individuals;
2. Identify the obstacles that PhD students/graduates face in transferring their research findings into business ideas;
3. Support and stimulate the exchange of knowledge between HEI and enterprises across the countries involved;
4. Develop and test of a pre-accelerator program for universities, research and entrepreneurship centers, accelerators and incubators;
5. Transfer best practices from North EU countries to South EU countries;
6. Open up new learning opportunities through the practical application of entrepreneurial skills (start-ups, spin-offs, products, prototypes).

To put in progress such an ambitious program, a consortium of 15 organizations from 8 countries: Cyprus, Malta, Italy, Portugal, Spain, Lithuania, Germany and United Kingdom was created. The project includes: Universities with relevant experience on entrepreneurship education field for higher education students (European University Cyprus, University of Beira Interior, Kaunas University of Technology, and University of Gloucestershire); SMEs with experience in research and consulting work on entrepreneurship (GrantXpert, Paragon); a Science and technological park (Parkurbis) and an accelerator (Chrysalis Leap) providing vital input during the development of our training content; two Northern EU partners (despite UoG in UK), from Germany (ISOB, responsible for the Evaluation and Quality Assurance), a cluster of companies (SPS, which provided support and development to start-ups on a daily level), aiming to transfer best practices from these countries to Southern EU partners; one media partner (SigmaLive), responsible for the dissemination and exploitation activities; and a Business Angel Network, (CYBAN) to understand the perspective of the investor.

Through an in-depth analysis of existing entrepreneurship programs, accelerators, science/technological hubs and incubators in the EU and beyond, SCIENT will identify the existing gap in South EU countries, as well as the best practices from North EU countries and develop a new, top-quality pre-accelerator program for PhD STEM students/graduates. This will be the final output of this project.

In this paper we will focus on the initial phase of the project - the diagnosis phase. At this point, it was necessary to list the main obstacles currently faced by European STEM PhDs wishing to become entrepreneurs and to investigate some entrepreneurship programs considered as best practice examples for STEM students. This research allowed us to find some European institutions of reference, such as the University of Lünd (Sten K. Johnson Centre for Entrepreneurship), in Sweden, and the EMLYON, in France. These two organizations were then visited by the team from University of Beira Interior (Portugal), and two interviews were carried out in order to find more about entrepreneurship education in these organizations. This study applied a qualitative method and in this way, tries to contribute for a comprehensive approach (Dana and Dumez, 2015) about how entrepreneurship education programs contribute for develop a young scientists' entrepreneurial spirit.

ENTREPRENEURSHIP EDUCATION AND STEM STUDENTS

Education in general is considered an encouraging element of entrepreneurial intention and behavior. Several studies suggest that the level of education increases the probability of an individual to be involved in entrepreneurship activities (Belcourt, 1987; Dana, 1993; Estrin, Mickiewicz and Stephan, 2013). In turn, entrepreneurship education could increase the awareness, knowledge and skills required to start a new business, developing the self-confidence of individuals in their own competencies, and encouraging their entrepreneurial intent (Co and Cooper, 2014). According to Kuratko (2005), “*it is becoming clear that entrepreneurship, or certain facets of it, can be taught*” (p. 580). Some studies advance the idea that early formal entrepreneurship education affects the attitudes of students, influencing them in the direction of their future career (Dinis et al., 2013).

To Somuncuoglu and Yildirim (1999), developing the *motivation* to become an entrepreneur would seem a key aspect to developing entrepreneurial curricula, as motivation represents a driving force for student learning goals. Previous studies (Dinis et al., 2013; Jusoh *et al.*, 2011; Neck and Greene, 2011) indicate that psychological and behavioral characteristics are important features of entrepreneurs and should be incorporated into entrepreneurship education. A challenge to educators is to preserve, or increase, these characteristics (including content-specific motivational characteristics such as locus of control and self-efficacy beliefs) while simultaneously making students more aware about, and more interested in an entrepreneurial career (Dinis et al., 2013). At the level of the individual student, Harms (2015) proposes self-regulated learning as an effective way to learn in entrepreneurial projects. Self-regulated learning “*is a didactical concept that emphasizes that a learners' abilities for metacognition, strategic action, and motivation are a key to effective learning*” (Harms, 2015, p. 3). Harms (2015) evidences the elements of the self-regulated learning phase model, based on Cheng (2011), in entrepreneurship education context: i) learners assess their strengths and weaknesses with regard to a specific learning task; ii) learners execute strategic planning and goal setting with regard to mostly self-chosen learning goals; iii) learners implement their learning strategy and continuously monitor its effectiveness; and iv) learners compare the actual final learning outcome with the intended learning outcome. Harms (2015) analyzed this model in the context of a lean start up-based entrepreneurship class. He showed that self-regulated learning has a positive impact on students' exam scores.

Jansen et al. (2015) aimed to know ‘Which entrepreneurship encouragement offerings contribute to the decision of a student to pursue a career as an entrepreneur?’ and in order to answer, a three stage student entrepreneurship encouragement model was performed containing fifteen entrepreneurship education and support offerings. This model was created in two steps: i) first a (snowballing) literature study was conducted to identify Entrepreneurship Education and Support Offerings; ii) Secondly, the student entrepreneurship encouragement model and separate EESOs were evaluated by performing three case studies at large universities. This model was evaluated in three different universities: Massachusetts Institute of Technology, The International Institute of Information Technology Hyderabad, and Utrecht University. According Jansen et al. (2015) the centers for entrepreneurship help increase overall visibility of entrepreneurial offerings and also organize university-wide educational offerings. Moreover, the entrepreneurship centers also organize all kinds of smaller activities, such as talks by experienced entrepreneurs, to inspire students that are interested in entrepreneurship.

Some studies (e.g. Dinis et al., 2013; Nabi et al., 2010; Pittaway & Cope, 2007) show that entrepreneurship education plays a positive role in student entrepreneurial intentions and that

entrepreneurship education programs contribute to the development of entrepreneurial intentions (Fayolle et al., 2006; Jansen et al., 2015). Knowledge on the student entrepreneurial characteristics is the most impacting factor on intention to start up a business. This may represent an important contribution to the development of educational programs suitable to fostering entrepreneurship and business creation (Dinis et al, 2013).

Donnellon et al. (2014) explored entrepreneurial identity and how it is constructed within an entrepreneurship education. They developed a set of categories addressing the construction of an entrepreneurial identity and analyze narrative data developed as students created new ventures. The study shows that, in the context of a new venture creation program, students experience challenges that lead to the development of entrepreneurial identity.

Entrepreneurship is a multifaceted phenomenon that is affected by a variety of social, cultural, environmental, demographic and economic factors (Dana, 2001; Ratten & Welpel, 2011; Stamboulis & Barlas, 2014). According to Moroz et al. (2010) entrepreneurship education programs help develop commercialization strategies for universities and this is vital as university commercialization has a substantial impact on regional and national economies.

According to Ioannou (2001), several other factors are associated with young people and have influence on entrepreneurship: the qualification of the new entrepreneur; the motive of creation; skills and personal characteristics; innovation, creativity, ability to work and motivation in creating something new; business plan; and risk.

Brockhaus (1982) divided into three categories the factors that affect a person's decision to become an entrepreneur: i) the psychological effects that the person has been subjected to; ii) the results of their experiences (mainly from previous work); and iii) personal characteristics.

According Stamboulis and Barlas (2014) often the young entrepreneur faces barriers that influence and prevent the completion of the implementation. Barriers to entrepreneurship may be divided into three categories: i) Individual entrepreneurship barriers (family, education); organizational barriers (financing, physical resources, marketing); Environmental barriers (socio-cultural factors, rules and regulations). These authors research concerns the study of students' entrepreneurship activity and how this is affected by various barriers and success factors. They evidence significant differences before and after attending entrepreneurship class in both extrinsic and intrinsic barriers and also in success factors rates and future carrier plans. They suggest that direct assistance and support programs not only minimize the effect of those factors but create better economic opportunities to individuals, and also support local economic development. They conclude that the implemented Entrepreneurship Program has made significant impact on student's attitudes, especially with respect to critical aims such as students' perception of entrepreneurship, their self-confidence to pursue it and their perception of the external environment.

Some of the obstacles currently faced by European STEM PhDs wishing to become entrepreneurs and to commercialize their innovative ideas, can be seen bellow:

1. Lack of soft and entrepreneurial skills: usually these students want to become scientists because they either enjoy or are more comfortable working with experiments rather than people, therefore their soft skills should be strengthened substantially because otherwise they will face a lot difficulties in the business world;
2. Little or no knowledge or skills in some areas considered as crucial to start-up: financial management, marketing and market research, negotiation skills and ability to constitute multidisciplinary teams;
3. Lack of financial resources for product development: in some areas the amount of financing needed is huge, because the large time to reach commercialization, as happens with drugs and other types of therapeutics;

4. Lack of financial resources for registering a patent in Europe: for instance, a typical patent valid in between six to eight EU member states, will cost between €30.000 and €40.000, over 12 years; additionally there is also a painful bureaucratic process and the patent needs multiple validations and translations.

In order to overcome some of these issues, students try to find some support from universities, entrepreneurship centers, incubators and other related institutions in order to reduce their gaps in entrepreneurship and management skills. The problem is that most of the current entrepreneurship courses and programs are unsuitable for those STEM doctoral students wishing to become entrepreneurs, as showed in the Erasmus project Innovation and Growth – MBA Program for Doctoral Students (2010-2013) which empathizes that *“the contemporary general MBA programs fail to meet the specific needs of and demand from those who lack entrepreneurial skills and knowledge in pursuing entrepreneurial career ... contemporary general MBA programs are inadequate for STEM doctoral students in understanding entrepreneurial phenomena”* (p.7). The weaknesses of these programs are related to several aspects such as:

1. They are directed to the growth and expansion aspects of existing businesses, with few training on how to set-up a new start-up (are more adequate to serve those who work in business preparing them for higher managerial positions);
2. Most of them are designed for students who have already taken some courses in economics, business administration or finances. Usually those entrepreneurship programs were incorporated to postgraduates’ entrepreneurship courses followed by STEM students who have no knowledge on those areas;
3. Consist of modules covering theoretical issues and courses in which the most typical delivery method was through lectures, with little or no feedback from the market forces and the real business world.

Given this scenario there is need for scientific entrepreneurship programs in Europe to be tailor made for STEM students. The simple combination of general theoretical business/entrepreneurship courses will not give the understanding STEM students want and need.

ENTREPRENEURSHIP PROGRAMS CONSIDERED AS BEST PRACTICE EXAMPLES FOR STEM STUDENTS

From previous research, it is possible to conclude that there are several notable and successful entrepreneurship programs in the USA and Europe (Moroz et al., 2010). Usually they have in common some aspects as: they are not restricted to theory, focusing on the transfer of good scientific ideas from laboratories to the market; the training of participating students is done in multidisciplinary teams; the classes of finance, marketing or strategy are supplemented by workshops where students practice, for example, pitching and presentation skills; there are experienced and appropriate mentors/tutors; guest speakers are invited to talk with students in the training sessions; there are start-up idea competitions presenting the winning teams with financial prizes; almost all courses are connected to incubators/accelerators.

In the scope of SCIENT Project, a (non-exhaustive) list of Universities/Business Schools offering scientific entrepreneurship programs considered as best practice examples was produced and analyzed. It includes MIT, Stanford Entrepreneurship Centre, Lündt Business School, Auckland Business School, Copenhagen Business School, Kellogg Business School, EMLYON, Texas Technical University and Krannet School of Management.

In this paper we will focus on case of two courses provided by European institutions: the Lünd Business School and the EMLYON, which respectively offer the “Entrepreneurship, New

Venture Creation - Master's Program” and the “MBA4PhD” (together with other three institutions).

In the Lund University (Sweden), the course “Entrepreneurship, New Venture Creation - Master's Program” is a one year curriculum program. It is designed for those students of any discipline wishing to start up a new business. In the New Venture Creation track students will learn how to create, develop and exploit business opportunities by starting up and managing new venture, offering students an opportunity to be fully involved as an entrepreneur in the start-up process, then from idea selection and multidisciplinary team composition to venture formation, which enables participants to gain real experience in starting up a new business. There are several guest lecturers that are experts in various areas related to new venture creation and a mentorship program with experienced tutors.

The key components of the program, through four courses, include the acquisition of knowledge in the field of (i) Opportunity recognition, (ii) Entrepreneurial marketing, (iii) Entrepreneurial finance and (iv) New venture growth. This school's pedagogy is based on the belief that individuals need practice to learn. However, it is also necessary to reflect on the practice, and learn from available theories in the field.

The students in the program come from different educational and cultural backgrounds. This increases the opportunity to form competent multidisciplinary teams, create innovative ideas, and contact to international networks. Thus, this course is designed to provide the tools necessary for starting new independent businesses or to work in advisory roles to new venture start-ups. It also gives graduates practical experience in research commercialization, as well as tools to proactively work in projects in highly uncertain or risky market environments.

EMLYON Business School (France), together with University of Turku (Finland), University of Wales (UK) and University of Gothenburg (Sweden) developed the MBA4PhD: From Science to Business (an MBA tailor-made for European STEM PhD students). This program was implemented in 2013 in the sequence of an Erasmus Report which investigated the deficiencies as well as best practice methods of entrepreneurship courses offered to STEM students internationally. The mission of the MBA4PhD program is to provide STEM PhD students in biosciences, health sciences and technology with knowledge and skills in entrepreneurship, new venture creation and innovation commercialization, by offering an innovative business creation and management curriculum. MBA4PhD is designed and tailor made for STEM doctoral students, who are interested in making a shift from academia to working life that is highly globalized and international by nature, driven by market forces. They have a need to understand the innovation value and potential of their research, when taking it into practice via entrepreneurship.

MBA4PhD Program consists of four modules (Entrepreneurship and Innovation, New Venture Creation, Growth Management and MBA Thesis) that can be taken alongside with the doctoral study process. Each study module includes 30 ECTS. The program is organized in such a way that a student can complete the studies within 2,5 years. It includes cases, teamwork and networking, a project year and intensive winter and summer schools and international networking opportunities.

METHODOLOGY

From the intensive search for the programs related with entrepreneurship education, it was possible to list a set of examples in Europe considered good practices. As notice, some Higher Education Institutions have been making a huge effort in the specific area of STEM

entrepreneurship programs. At this level, the incubators and the technological transfer offices, connected to the institutions, have been crucial.

This research follows the recommendation of Dana and Dana (2005) that point to the application of more inductive approaches, making use of non-quantitative data in areas such as entrepreneurship. These authors consider that qualitative research allows to learn directly from the research subject, thus minimizing measurement problems very common in survey studies, and also reducing Type III error (asking the wrong question) and Type IV error (solving the wrong problem). Qualitative approach includes different methods as *“personal observation of situations, events, individuals, interactions and transactions, as well as document analysis (including quantitative records) and open-ended interviews yielding in-depth and oral testimonies”* (p. 82).

Using a set of organizations considering has having good practices in entrepreneurship education, we choose two organizations to visit and to analyze deeply: the University of Lünd (more specifically the Sten K. Johnson Centre for Entrepreneurship) in Sweden and the EMLYON in France. Once made the initial contacts we requested additional information about the entrepreneurship programs and asked permission to interview some of the responsible of these programs. The personal interviews were carried out in the two institutions between May and June of 2015 having the duration of about two hours. The personal interviews included the following sections: presentation, delivery, demand, successes, improvements, partnerships, and other information, and the aim was to understand why these institutions had such a good reputation in entrepreneurship education and if, in fact, they had a special attention to STEM students. Next we present a brief description of the institutions sampled.

Lünd University has an excellent academic reputation with a large number of visiting professors and international students. The School of Economics and Management is one of eight faculties within this university, and includes the Sten K. Johnson Centre for Entrepreneurship, that dedicates its activities to the promotion of entrepreneurship, using an action-oriented learning approach, that benefits from the entrepreneurial environment that is surrounding the university. The cooperation includes the development of joint business ideas where students get the opportunity to develop ideas based on research conducted at the university, business ideas with an origin from certain regions, or ideas developed during internships in established companies.

In its turn, EMLYON Business School is considered by itself a “learning experience like no other” and has as slogan *“Educating entrepreneurs for the world”*. For over 140 years they have offered a unique education centered upon entrepreneurship, innovation and humanism, becoming a leading European business school. EMLYON’s mission is to educate entrepreneurs for the world, equipping students with the entrepreneurial skills, values and attitudes they need to succeed as leaders in this challenging global environment. Thus, all students have to attend at least one entrepreneurship course. There is also complementary training provided by the Executive Programs and a close relation with the Incubator.

RESULTS

The interviews with the director of Sten K. Johnson Centre for Entrepreneurship in Lünd University and with the Head of the Entrepreneurship Research Centre in EMLYON were recorded and transcribed. In order to organize the information in a better manner. The analysis was divided according to the parts of the interview guide, and when necessary, compiled into

tables. Note that the aim was not to focus in a particular course, but instead to get an overall view of the entrepreneurship education delivered in these institutions.

Regarding delivery, in Lünd University the methods of contact with students are combination of face-to-face and online, as well as the experimental learning. In terms of support there is *“a mentor to each group of students and the possibility to use all the resources of the Venture Lab. Usually the sequence of support is: mentoring - internships (in Corporate Entrepreneurship and Innovation master) - Venture Lab (students’ incubator) – Ideon (technological park)”*. The courses are free for national students, but students outside the EU have to pay. Collaboration is encouraged trying to bring together the multidisciplinary of the attendants. Some students have an idea, but others not, so they have a first course of Idea Generation in which they have to work together. In general, in this EMLYON university, the method of contact is face to face combined with eLearning (conferences, workshops, tutoring, field work, in-company stay, coaching). Expert tutors and a collaborative platform are also used. As we are facing a private organization attended by the upper classes, the fees are significantly higher. The professionals involved in the training delivery are professors of the academy, entrepreneurs and professionals. The focus is on creativity and soft skills (learn by doing). Some of the programs are very open to the society - students try to solve a social problem (for instance for a NGO) and show the projects to other people. There are also courses more indicated to students from other areas of knowledge (e.g. engineering). Other programs consist in going to an enterprise and stay there some time. The students should make a proposal and have a mission, a kind of compromise with the company in which they have to stay some weeks and generate reports. They have to discover the model of business, how to sustain that model and at the end to make some recommendations.

There is some demand of STEM PhD students/graduates in Lünd University. They come to the Business School to attend entrepreneurship programs, and as the director said *“their skills are different from the business students. They are very practical and focused in the outputs. They know all about calculation and project design. However they have a lack in the financial topics”*. In the case of EMLYON, the courses selected are mainly attended by graduates (STEM and other areas) and the selection process is based in the candidates’ profile. They *“try to adapt the course to the students’ profiles and to the trends. Usually we collect the student, teacher and mentors opinions. An adviser board (composed by professionals and business man) is also asked to contribute with suggestions”*. Both institutions are open to foreign attendants and changes are related with the inclusion of new contents.

Regarding the **successes** of these organizations, it is possible to observe the information collected about creation of businesses, differentiation of the course and qualities to make a successful entrepreneur (table 1).

The approach of Lünd University is based on an action-oriented learning. The pedagogical idea of this program has as pillars the Action (reflection), Experience (guest lectures, cases, mentoring) and the Theory (entrepreneurship, multidisciplinary, knowledge). The qualities pointed to be a successful entrepreneur were to be creative, take risks, persistence. In turn, EMLYON is very focused in global entrepreneurship and in excellence, offering an education centered upon entrepreneurship, innovation and humanism. When asked about the more relevant skills of successful entrepreneurs, the options ranged between global vision, risk taking, curiosity and motivation.

Table 1 HOW TO FOSTER YOUNG SCIENTISTS' ENTREPRENEURIAL SPIRIT? Successes In Entrepreneurship Training		
	LÜND	EMLYON
Of those that participate how many set up in business?	It is difficult to measure. However, a survey passed in the last year pointed that about 40% continued with the business idea.	Non-available data because of the difficulties to follow the entrepreneurs.
Differentiation from other offerings	Maybe the type of the approach that is based on an action-oriented learning. The pedagogical idea of this program has as pillars the Action (reflection), Experience (guest lectures, cases, mentoring) and the Theory (entrepreneurship, multidisciplinary, knowledge).	The premise of the institution is to build global entrepreneurs and to show why the things are done. They have an entrepreneurship school of excellence.
Top three qualities to make a successful entrepreneur	1. Be creative 2. Take risks 3. Persistence.	1. Global vision 2. Curiosity 3. Motivation

In the section improvements, we present the interviewees' perception regarding the improvements they would make to the service if there were no limits, their opinion about what EU could do to foster entrepreneurship and the main obstacles to entrepreneurship (table 2).

Table 2 HOW TO FOSTER YOUNG SCIENTISTS' ENTREPRENEURIAL SPIRIT? Improvements In Entrepreneurship Training		
	LÜND	EMLYON
What improvements would you make to the service if there were no limits?	Have funds not only to experiment but also to create in fact real businesses.	To improve the professors training (sometimes they do not have enough competences to teach entrepreneurship)
If the EU could do more to improve entrepreneurship, what would this look like?	May be divulgate more the good practices and the results of the entrepreneurship educational	- The European institutions are not very open to external opinions regarding this issue - Policy makers should follow a more open and collaborative strategy
What do you feel is the main barrier to entrepreneurship?	The culture. Individuals prefer to go work to big companies instead of create their own business. It is preferable to be unemployed than a small entrepreneur.	Culture and mentality. Everyone wants to study in a great university and goes to work to a big company. To become an entrepreneur does not give social status

Lünd University considers that it would be great if they have funds not only to experiment but also to create in fact real businesses. *"To develop the professors training in entrepreneurship field and to "upgrade" to a technological park"* were the aspects that could be improved in the opinion of EMLYON. The most referred barrier to start-up was the culture and the mentality of individuals and society, as well as in Lünd, as stated by the director *"individuals prefer to go work to big companies instead of create their own business. It is preferable to be unemployed than a small entrepreneur"*.

EMLYON has several partnerships in EU (e.g. the program EEJ that consists in a European network of teams of students that includes a short stay in a foreign university) and

outside EU (e.g. in the Global Entrepreneurship Program - University of Zhejiang in China and Purdue University in USA), since some of the programs demand for stays in foreign universities. In its turn, Lünd University has partnerships with some institutions in France (guest professors), denoting that the internationalization needs additional work. Nevertheless, there are some debates with countries as Russia, Canada and China.

In the last part of our interview, we drew two open questions in order to get the interviewees' perception about the problems faced by STEM students when they decide to start-up, as well as to collect some clues and suggestions of what a course directed to this public should be like (table 3).

Table 3		
HOW TO FOSTER YOUNG SCIENTISTS' ENTREPRENEURIAL SPIRIT?		
Problems and suggestions related with STEM entrepreneurs		
	LÜND	EMLYON
Please point the main problems students/entrepreneurs in the STEM field face when creating a start-up.	STEM students have lack of the financial knowledge.	Students don't have enough support from teachers because they usually don't know how to deal and surpass this lack of capabilities
What suggestions/contents would you recommend for an entrepreneurship course directed towards STEM students/entrepreneurs?	Focus on the field of Communication and Finances	To insist in the topic of entrepreneurial culture

The problems mentioned were consensual – this target has a great aversion to bureaucracy and to management and financial issues; there are problems related with the soft skills (e.g. difficulties in communication); lack of sensitivity to market (in terms of knowledge and market orientation). The inexistence of multidisciplinary teams was other constraint that these individuals face when they decide to start-up. In sum, *“don't know the clients' needs; concentration on the product and not in the market; lack of focus (they have always lots of things to do at the same time); to think that the competence do not exist”* (Director of Sten K. Johnson Centre for Entrepreneurship). The University of EMLYON puts also the responsibility on teachers because sometimes they are not able to help students with this type of gaps. To overcome this situation, by one hand it is necessary to invest in courses focused in soft skills, in simple and useful management tools and in pre-accelerator programs. By the other hand, as mentioned, it is necessary to work and to implement a culture of entrepreneurship in all society. According Kirkwood et al. (2014) findings, because of all these problems only a limited number of graduates from entrepreneurship programs follow through on their original intentions and launch new ventures immediately after graduation.

As evidenced by interviewees, there is a need to emphasize situational experience, capability to handle with change, as well as skills training from real case-based training. Therefore, Taatila (2010) refers there are reasons to argue that the pedagogic foundations of academic entrepreneurship curricula should be based on a philosophy of educational pragmatism.

Both organizations were not very specific when asked about suggestions for topics and modules to an entrepreneurship program directed to STEM students. Having in mind previous programs as the MBA4PHD, those modules should focus on issues related to intellectual property and patents, business management, financing of product development, effective pitching/presentation methods (soft skills), negotiation skills, strategic alliances and commercialization strategies.

CONCLUSION

It was possible to observe that the institutions visited in France and Sweden are well known by their excellence in the field of entrepreneurship, aiming to “build global entrepreneurs” as their main purpose. Both universities put a great effort in the implementation of a real entrepreneurship culture.

At EMLYON University it is mandatory that all students attend at least one compulsory entrepreneurship course which can assume the format of face to face or e-learning. Students can go to workshops, seminars or in-company stays. The aim is learning by developing a project that can be done in articulation with the incubator. In Lünd University a huge effort is carried out to develop and implement an action-oriented learning approach that benefits from the entrepreneurial environment that is surrounding the university and to help students in the development of their own ideas (in the Venture Lab).

Nevertheless, the responsible for the entrepreneurship programs thinks that it is always possible to get better results. For that, it is necessary to surpass the inexistence of an entrepreneurial culture in society and change mentalities. Specifically in the field of entrepreneurship, pedagogy is crucial to enhance the formation of entrepreneurship teachers, encourage risk taking among students and motivate them to engage in multidisciplinary teams.

Considering the complexity of the SCIENT project, the focus should be in the development of a general set of competences applicable in all aspects of life, not simply about learning how to run a business, which includes all forms of learning, education and training that contribute to entrepreneurial spirit, competence and behavior.

As noticed in the interviewers, there is a widespread perception that STEM students/researchers/experts share certain characteristics that should be treated differently. This public usually works in the back office, they are more focused on their invention and less worried with the market. They also have great aversion to bureaucracy and financial issues. The absence of knowledge in the management field, plus lack of communication and negotiation skills are also relevant aspects. As such, the creation of an entrepreneurship program directed towards them makes a lot of sense in the opinion of the visited organizations, as long as a lot of attention is paid to teacher’s formation and real entrepreneurs are involved in the conception of the program.

Thus, providing the PhD students with high quality courses and exposing them to a highly motivating entrepreneurial curriculum are of great importance in enhancing and fostering the academic entrepreneurship in STEM courses in Europe in future.

Practical and Social Implications

In this paper we have focused on the initial phase of the project - the diagnosis phase. At this point, it was necessary to list the main obstacles currently faced by European STEM PhDs wishing to become entrepreneurs and to investigate some entrepreneurship programs considered as best practice examples for STEM students. The focus should be in the development of a general set of competences applicable in all life routines, not simply about learning how to run a business, which includes all forms of learning, education and training.

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aversion to bureaucracy and financial issues. The absence of knowledge in the management field, plus lack of communication and negotiation skills are also relevant aspects.

Providing the PhD students with high quality courses and exposing them to a highly motivating entrepreneurial curriculum are of great importance in enhancing and fostering the academic entrepreneurship in STEM courses in Europe in future. Creation of an entrepreneurship program directed towards to these STEM students' makes a lot of sense in the opinion of the visited organizations, as long as a lot of attention is paid to teacher's formation and real entrepreneurs are involved in the conception of the program.

Considering the complexity of the subject, and despite we have focused only in two university examples, the paper gives a contribution to entrepreneurial spirit, competence and behavior of STEM students. Furthermore, it allow us to understand why these institutions had a good reputation in entrepreneurship education and how these programs are conducted.

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FIRM RENEWAL THROUGH CORPORATE VENTURING AND STRATEGIC AGILITY: SHIFTING FROM SPIN-OUT TO SPIN-IN VENTURES

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ABSTRACT

A qualitative case-study approach is applied using both in-depth interviews and ethnography to understand the lived experiences of the managers and executives of the successfully closed spin-out firm, parent firm and newly created spin-in firm. Overall this research provides insights into the relationship between parent firms and their offspring, and contends that opportunity exploitation can be maximised when a parent firm flexibly reconfigures the surplus resources remaining after the closure of a spin-out and leverages them to create a new venture in the form of a spin-in. The study builds on existing literature through the exploration of firm renewal and corporate venturing strategies in three specific ways. Firstly the study finds that selected remaining resources from spin-out ventures can be beneficial for other businesses when appropriately reconfigured. Secondly, existing work exploring on human capital and corporate venturing are elaborated on as the research highlights the linkage between the profile of parent firm employees and the propensity to create new spin-offs. Thirdly, the impact of formal and informal institutional factors and the impact they may have on workers cooperative firms are explored. The study's focus on the study parent firm-internal factors that convert an independently created spin-in firm into a part of a worker cooperative company and sheds light on the way in which the strategic factors of parent firms can influence new worker cooperative spin-in ventures.

Key words: Opportunity recognition and exploitation, strategic agility, successful closure, spin-out, spin-in, Workers Cooperatives.

INTRODUCTION

Corporate venturing can be understood as an intrapreneurial behavior that blends together a myriad of strategic components of an organization - such as corporate culture, firm resources and capabilities - leading to the discovery, evaluation and exploitation of new business opportunities (Shane & Venkataraman, 2000; Miles & Covin, 2002; Guerrero & Peña, 2013). The study of *spin-out* and *spin-in* strategies of corporate venturing by parent firms has deserved scarce attention in the entrepreneurship literature; limited knowledge exists about the link between parent firms and their spin-off subsidiaries (Semadeni & Cannella, 2011); as such, there is a need to gain a better understanding of the relationship between parent firms and their offspring. Whilst little is known about the link between parent and spin-off firms following a spin-out event even less is known about what happens if the spin-off subsequently closes. Yet the closure of a subsidiary leads to a clear change in the relationship between the subsidiary and the parent company, and as such, this unexceptional phenomenon requires further investigation.

Although firm closure can be difficult for those involved, it can be beneficial for the economy and society overall due to the release of knowledge and resources from defunct businesses (Hoetker & Agarwal, 2007; Knott & Posen, 2005); hence, it is not a wholly negative occurrence as it may contain the seeds of future project success (Shepherd et al., 2009). Where corporate venturing is concerned, the successful closure of a subsidiary may lead to a surplus of resources that can then be repurposed by the parent firm. The release of resources, being directed towards a new venture, may be positive if the parent organisation can strategically reconfigure the resources. In this paper, we analyse the unexplored phenomenon of how a parent firm transfers resources from the *successful* closure of a spin-out to further develop the creation of a new spin-in venture.

Qualitative case-study research is applied and data gathered using in-depth interviews to current and former owners, managers and employees of a parent company including its spin-out and spin-in firms, whose analysis and findings are examined in relation to the existing literature. There are two main contributions to the corporate venturing literature arising from this study: firstly, the research uncovers how a successful closure of a spin-out firm results in a surplus of core competencies that can be repurposed; the second contribution lies in the discovery that strategic agility enhances the efficiency and effectiveness of the transition of firm resources from a spin-out to a spin-in. In global, the study examines the way a parent firm can reach strategic choices by managing entrepreneurial decisions which concern the exploitation of obsolete, emerging and reconfigured core competencies. While strategic agility accelerates the efficiency and effectiveness of the reconfiguration of firm resources, the transition from a closing spin-out to a newly created spin-in brings new challenges and opportunities to the parent firm.

The remainder of this study is organized as follows: in the forthcoming section the connection between corporate venturing, firm renewal and strategic agility is explained; next the chosen methodological approach is described, and the paper then continues with the case analysis where key notions are discussed with respect to the literature. Finally, the conclusions of the research and directions for future research are presented.

THEORETICAL BACKGROUND

Firm Renewal Through Corporate Venturing

The corporate venturing literature defines a *spin-off* as a specific organizational entity newly created for the purpose of commercializing one or more technologies, products or services originated within the parent firm (adapted from Chesbrough, 2000). As the parent firm establishes the governance structure of the spin off and how much ownership to retain, it has a central role in setting the performance trajectory of its spin-off (Semadeni & Cannella, 2011; Seward & Walsh, 1996; Miles & Woolridge, 1999). In this paper, we study two particular cases of spin-offs, namely, *spin-out* and *spin-in* ventures. For the purpose of our study, a *spin-out* is a spin-off terminated or sold by the parent firm. The term "*spin-in*" here refers to a firm externally co-created or acquired by a parent company that ultimately leads to the parent firm becoming the primary owner.

The literature on corporate venturing holds that not all firms or individuals recognize uniformly opportunities, understand their value for further business or gain competitive advantage from them (Shane & Venkataraman, 2000). A major concern for a parent

organization that has recently closed a spin-out is to reinforce its position: this may be done through the extraction of any resources that remain following the spin-out's closure and using these to facilitate the exploitation of new opportunities. This research aims to analyse how a parent firm manages the closure of a spin-out towards the development of new opportunities through a new spin-in.

Parent firms can lose agility if they don't reach out the capacity to shift quickly and effectively out of less promising businesses into attractive ones; thereby, shifting from *spin-outs* to *spin-in* ventures can allow incumbent parent firms to maintain, and often to enhance, strategic agility (Sull, 2010). The parent firm can be a crucial source of strategic guidance at the end of the spin-out's lifecycle, that is, during the process of resource transference between the spin-out and other ventures in the parent firm's portfolio (i.e., including the acquisition of new spin-in ventures).

In general when a firm closes, tangible and intangible resources remain beyond the lifespan of the business; a future spin-in can absorb these resources to further their goals. The coordination and resource deployment between business units, such as the transition from the closure of spin-outs towards emerging spin-in ventures, have been scarcely studied in the corporate venturing literature. Companies should identify, classify and develop their own valuable resources to reinforce their position against relevant competitors; once the decision to close a spin-off firm has been made, parent firms will readapt prior resources in order to remain competitive in the marketplace (Barney, 1991; Becker, 1964; Williamson, 1975; Tomer, 1987; Wernerfelt, 1984). Ultimately, the ability to successfully carry out this transition is an important source of strategic renewal and comparative advantage. Parent firms have a vested interest in managing the task of closing a subsidiary firm as flexibly as possible, since they will seek effectiveness and efficiency in the use of time and resources; their supervision, guidance and support during the closure process of a spin-off will determine the strategic agility of the regeneration of the corporation. By buying spin-in ventures, rather than internally investing in R&D (i.e., often with uncertain results), velocity is gained for the entire renewal process of the corporation.

Strategic Agility for the Transition from *Spin-Out* to *Spin-In* Ventures

Strategic agility is an ability of the organization to renew itself and stay flexible without losing efficiency (Doz & Kosonen, 2010). Since agility is necessary for parent companies to gain competitive advantage and more importantly sustain it, strategic agility enables companies to respond effectively and flexibly to the tensions of their environment identifying and integrating new opportunities while facing barriers resulting from those challenges (Barney, 1991; Jahanmir, 2016; Lewis, Andriopoulos, & Smith, 2014). Strategic agility will be reinforced by absorptive capacity to acquire, assimilate, transform and exploit new knowledge (Cohen & Levinthal, 1990; Zahra & George, 2002); this is particularly true for inter-organizational learning and knowledge transference (Flatten et al., 2011; Lane et al., 2006). Hence, the strategic agility of a parent firm enables a more efficient knowledge transfer between their owned companies (Mowery et al., 1996; Wijk van et al., 2008). To investigate how resources are transferred and re-allocated between *spin-out* and *spin-in* ventures is still a pending task in the corporate venturing literature.

We believe that corporate venturing and strategic agility contribute to rapidly renewing an entire corporation; the transition period will be the time-lapse between the transference of

the remaining resources from the spin-out to the spin-in firm. This process requires agility in resource transference in order to avoid undermining new project's viability and strategic orientation (Barney, 1991). Both the parent's ability to segregate resources and the spin-in's resource absorptive capacity will be critical to connect prior core competences with new strategic plans (Cohen & Levinthal, 1990).

METHOD

A Qualitative-Study Approach

A qualitative research approach contributes to theory building when interviews help in discovering the what, why and how of occurrences (Yin, 1994; Bluhm et al., 2011; Myers, 2013). We conducted interviews with the managers and executives from all the target firms of our study: Fagor Ederlan (i.e., a parent firm), FIT (i.e., a recently closed spin-out by the parent firm) and Comarth (i.e., a recently acquired spin-in venture). We captured their cognitive, affective and behavioural responses in an effort to obtain a rounded picture of different strategic actions throughout the parent firm's strategic renewal process; more precisely, we focussed on corporate venturing activities undertaken by a parent firm, where the closure of a spin-off firm allowed the transfer of tangible and intangible resources to a recently acquired spin-in new venture in an attempt to rapidly rejuvenate the parent firm. For that purpose, we followed a method based on ethnography study.

Ethnography is an approach to studying human social life, usually seen as studying 'at first-hand what people say and do in particular contexts' and focused on understanding a phenomenon within its natural stage; hence, ethnography is a form to study a culture, like organizational culture, learning from people directly involved in a situation or event to understand their vision (Hammersley & Atkinson, 2007; Hammersley, 2006). Since culture cannot be observed directly and researchers can't always gain access to the key aspects of an organization, it becomes necessary to get evidences from field work and include participants' arguments, behaviours or thoughts literally (Spradley, 2016; Plowman, 2016). Using participant observation as the main method for information gathering and the prevailing data collection technique, the concepts and associations with observed factors may lead to the establishment of models, hypotheses or theories of the studied reality (Myers, 1999).

Data Collection and Case Development

As an initial screening step, we looked for parent companies acting in global markets that exhibited corporate venturing activity. Several corporations in Spain were identified; following the screening procedure applied in previous studies, four factors were used as a selection criterion (Miller, 1983; Zaragoza-Sáez & Claver-Cortés, 2011): innovativeness, proactiveness, risk assumption and social-relational capital. In addition, economic results, certifications and homologations reached by companies were considered as evidence of firm performance. After scrutiny, the firm that appeared most suited to our criteria and research goals was Fagor Ederlan, a Workers Cooperative firm, located in the Basque region of Spain. Fagor Ederlan is a company operating under the umbrella of Mondragon Corporation, a leading Spanish business group with almost 75,000 employees, integrated by autonomous and independent cooperatives, with production subsidiaries and corporate offices in 41 countries and sales in more than 150 countries.

It is worthwhile to mention that the workers cooperative Fagor Ederlan pursues not only *corporate* economic values implemented by most conventional companies, but also *social* values that affect Mondragon Corporation and the communities where they are present. It is well known that workers cooperative firms maintain and create employment in local and foreign territories following cooperative principles (Flecha & Ngai, 2014; Redondo et al., 2011). The particular management model consisting in cooperation among workers includes several collective rules and mechanisms, one of them being to re-allocate jobs when one firm of the group ceases operations. This includes reabsorbing or redirecting employees by the parent firm among subsidiaries when one quits.

In 1996 Fagor Ederlan Workers Coop. - a leading supplier of complete solutions for the automotive industry- and the US company ITT (International Telephone & Telegraph) - a supplier of brakes and electronics to the industry- created jointly the spin-off *FIT Automotion* (i.e., spin-out firm). The main activity of the company was manufacturing front callipers - a brake part in automobiles - for one exclusive top client. FIT became soon a profitable spin-off of Fagor Ederlan; later, in 1998 a German company (i.e. Continental AG) acquired ITT, and therefore FIT. FIT grew up to reaching a size of 130 employees and 60 million euro annual sale revenues. In 2012, Fagor Ederlan purchased the Continental AG's equity-share of FIT.

Simultaneously board members and workers of Fagor Ederlan began considering how to strategically renew and re-position the firm in the marketplace. In the face of the closure of FIT in 2012, a year later 2013, Fagor Ederlan acquired *Comarth*, a newly created firm (i.e., spin-in firm). *Comarth* was a manufacturer in the emerging *Utility Electric Vehicle* industry sector, with a workforce of 50 employees and annual sale revenues of approximately 5 million euros. The response of Fagor Ederlan encapsulates strategic agility of the parent corporation, which Hemmati et al (2016) regards as organizational sensitivity, collective commitment and resource fluidity.

A semi-structured interview approach was applied to gather information from the worker cooperative parent firm Fagor Ederlan, and its two ventures, FIT and Comarth. The fact that the interviews were not overly regulated provided each interviewee with the opportunity to reflect on key events and actions (Hermanowicz, 2002). The interviewees added insights on their experiences related to past events, topics and themes that they deemed important in addition to covering the core topics relevant to the study; at the same time the balance between person oriented and task oriented rapport was significantly careful mainly because of the emotional background linked to some experiences of the participants (Marshall & Rossman, 1999). Influential managers and executives - three participants from each of the three firms (i.e., Fagor Ederlan, FIT and Comarth)- provided rich information and an overall view of the organisation in question: this aspect was regarded essential for this research since it allowed us to gain easier access to the necessary interlocutors avoiding biased data (Huber & Power, 1985). Given our focus on a parent company with a successfully closed spin-out and resource transfer to a newly created spin-in our sampling frame was very specific and interviewees came from all the three companies (i.e., parent, spin-out and spin-in firms). Incumbents -former and current-managers and executives from the analysed firms- were included in the interviews in order to obtain an overview of the entire historical information from the companies.

The paper aims at gaining our understanding on the transfer of key core competencies from a successful spin-out to an emerging spin-in venture by asking former and current managers and executives from selected companies about their activities during the transfer

process; we were able to isolate all references that managers and executives perceived across a wide range of activities during different periods of time. Due to the ethnographic character of the study, the main researcher of the present study worked within the parent company, Fagor Ederlan and alongside many of the managers involved in the firm throughout the process of finalizing the activity. Hence, we developed a unique perspective into the whole exit process of the spin-out FIT and the resource transference to the spin-in Comarth.

Data were collected from September 2015 to June of 2016 and initial exploratory interviews were conducted in one of the companies to test the interview protocols. The close working relationship between the main researchers with key professionals within the firm built up trust with interviewees: this factor led to relatively broad access to the top management team within parent firm and its offspring despite the turbulence the firms were undergoing. The use of an open-ended interview procedure enabled the researchers to get a better sense about the range of activities in their area (Maxwell, 2004); this approach contributed to a broader and deeper understanding of how the parent company resourced and supported the spin-out. Following Doz, & Kosonen, (2010), we identified the most representative strategic milestones of each company (i.e., Fagor Ederlan, FIT and Comarth), and conducted interviews asking questions about two generic subjects: firm renewal and strategic agility during the transference process.

The analysis proceeded in several steps: first, we discerned who were engaged in the closure of FIT, in the acquisition of Comarth, and in the resource transference process from Fagor Ederlan. In addition, we used field notes, interviews, secondary data, and time-specific information asking the interviewees to describe their practices at a particular period of time. In a second stage, we searched the highlighted paragraphs in which participants provided very revealing answers to our questions. Finally, in the third phase, we analyzed the primary codes with data following the method by Gioia et al. (2013) to come up with core concepts which were then examined in conjunction with the existing literature.

Coding Procedures and Data Analysis

The analysis began with first-order coding. This involved reading through interview transcripts and the primary researcher's notes, which were taken both throughout the interviews and during the researchers time working at the company. This led to the development of *primary codes* – excerpts of text considered important to answering the study's research question were then grouped under particular primary codes (See Table 1).

The coding process was iterative, with interview notes and transcripts being read and reread numerous times whilst the data was coded and recoded as constant comparison techniques were carried out. The codes were then more grouped into *secondary codes*. It is at this stage that themes and patterns began emerging from the data. It is these emerging patterns that contributed to the development of the secondary codes (See Table 1). As the themes and patterns were identified the data was revisited constantly in order to test their validity (Creswell, 2007; Miles & Huberman, 1994). Once the core themes were clear – strategic agility and strategic renewal-, the primary data relevant to each one was examined in full and contrasted with existing literature on those topics.

Table 1
FIRST ORDER AND SECOND ORDER CODING

Primary	Secondary
<ul style="list-style-type: none"> • Evidence of opportunity generation across time. • Obviousness of developing new entrepreneurial projects without specific prior experience. • Demonstrated organizational thinking and adaptation for sustainability. • Development of technological ability and network to seek opportunities. 	Strategic
<ul style="list-style-type: none"> • Information and acknowledgement of strategic needs and decisions. • Evidence of autonomy from the parent company to pursue its own interests. • Alliances with partners to collaboratively add value for customers. • Evidence of strategies for deploying remaining resources and assets. 	Strategic agility

CASE DESCRIPTION AND DISCUSSION

Corporate Venturing to Reshape the Parent Firm

The following quotes illustrate how the top management team and board members of the worker cooperative were able to analyse the momentum of being outward and opportunity oriented by imprinting a strategic renewal mindset across all the parent and spin-out/spin-in ventures. The importance of firm renewal was reinforced by the Human Resources Corporate Manager of Fagor Ederlan (i.e., the parent firm): *“Since our global presence in world markets is increasing we need to look for opportunities and long term positive results, and this may require the recombination of current assets and resources; all is possible with the right design, flexibility, clear internal communication of objectives and implementation of valiant strategies”*. The Manager of FIT (i.e., the spin-out firm) added a similar idea from a different angle: *“Our company is based on permanent adaptation to our customer needs... an externally driven renewal process with agile adaptation is a distinctive feature of our identity”*. Linked to this notion, the Manager of Comarth (i.e., the spin-in firm) noted that: *“The spin in is the result of a long-term strategic reflexion since the parent company itself was searching for entrepreneurial opportunities and future potential markets to add in their portfolio; the Utility Electric Vehicles was a feasible strategic option for them, and most importantly, we were fully aligned with their new vision and goals”*.

In one of the initial interviews, the former Manager of FIT (i.e., the spin-out firm) pointed out that *“The spin out was created as an opportunity, initially limited to a term of*

several years and with a very uncertain long-term survival prospect since the company depended only on just one customer". Workers of FIT had to develop skills to work in the highly demanding sector with such an important client, the labour force was trained to rigorously attend to very specific needs: excellence in reliability and delivery performance. Operating due to the business of one top client, FIT had no other choice but to learn how to succeed in a captive and rigorously competitive marketplace. After the closure of the spin-out, the expertise of key workers of FIT became crucial for the newly acquired firm by Fagor Ederlan mainly due to the efficiency of the management model with consistent results in efficiency and profitability; in this regard, the Manager of Comarth described how the process of the acquisition worked for them: *"Comarth was an Utility Electric Vehicles manufacturer and Fagor Ederlan was a consolidated and solvent company with deep knowledge and know-how in the automotive manufacturing industry...their corporate venturing experience and expertise with industrial assembly solutions for automotive manufacturers fit in our relevant organizational needs...since the spin-off FIT had been under intensive pressure from its previous customer for several years, the transfer of their proficiency in continuous improvement, market experience and quality guarantee was fundamental to strengthen this type of emerging business in Europe"*. This excerpt highlights how Comarth benefited from the transfer of key employees coming from FIT. We should bear in mind that a major weakness of Comarth was not only the fact it is targeting a new market, but a low commercial and nascent business-industrial development. Connecting employees of Comarth with remaining workers of FIT opens a transfusion mechanism to improve its industrial development, promote product innovation and enhance the firm's standards of quality and safety, which were remarkable hallmarks within FIT's strategy and are also required factors in the field of electric mobility. Moreover, it refreshed strategic goals of the parent firm (i.e., the ability to innovate and launch rapidly modern products to new markets) and it also complied with workers' cooperative principles within the umbrella of Mondragon Corporation (i.e., reallocating the jobs lost by the closure of FIT into the newly acquired Comarth); these examples show how Fagor Ederlan faced firm renewal and was able to reinvent itself as a parent firm by peripherally managing tangible and intangible resources available from the spin-out and spin-in ventures.

After considering the testimony of different managers involved in the parent firm renewal, spin-out and spin-in processes, we realize that it becomes necessary to develop key capabilities internally and also externally through corporate venturing, to accelerate the renewal of incumbent businesses in order to rapidly respond to environmental changes and challenges; this is congruent with previous findings in the literature: a firm must identify and develop the core competencies needed to create a new or renewed organization (Barney, 2002). Parent firms typically share resources across subsidiaries to achieve and increase profitability and market value (Weber & Tarba, 2014). However, in our study we focus on the velocity of firm renewal: we claim that corporate venturing is a tool to accelerate the rejuvenation process of a parent firm by strategically coordinating spin-out and spin-in ventures.

Following the closure of a subsidiary, surplus resources can be immediately repurposed by the parent company and redeployed to other functioning subsidiaries; hence, resources are leveraged as drivers of added value and of diversification when they are reconfigured to fit with a spin-in's necessity. The parent company made an assessment of an integrated strategy examining the remaining residual resources after a successful closure, and then, a process of resources transference was enacted.

Furthermore, we believe that the integration of resources from a spin out into a spin in (when both are owned by the same parent company) does not necessarily result in cultural clashes or disruption of organizational routines because despite being largely separate entities they are still integrated and all share a corporate culture based on workers cooperative principles; moreover, rotating and inducting people who have gained a new perspective through their experience working with the spin-out, provides the parent company with fresh ideas and it oxygenates the parent company. Workers cooperatives generally have a low power distance culture which may facilitate the adaptation into the organizational routine within existing or newly created firms in contrast with companies under other legal forms (Junni et al., 2015).

Full integration of resources transferred requires the complete acceptance of the spin in reinforcing a total system perspective with all its elements richly connected to the advancement of the parent company's interests (Teerikangas, 2004). Since integrating surplus resources facilitates the identification of potentially valuable information and knowledge, complementarity and real acceptance is possible, and so too, success (Gupta & Govindarajan, 2000; Zollo & Singh, 2004). While several resources may be rapidly transferred - such as machines, equipment or tools- others may require a progressive adaption including workers who need to gain a new psychological contract (Conway & Briner, 2005). Therefore, parent's hierarchical influence may allow for a swift adaption process facilitating the degree of integration and supervising the acceptance of the recipient firm (Tushman & Anderson, 1986); this is consistent with Junni et al. (2015) as high degree of integration supports one- directional knowledge transfer.

Since the adequate combination of resources seems to lead to the creation of new knowledge, the spin in and the parent firm have the opportunity to increase the potential of experienced and qualified assets combining them efficiently (Yiu, Lau, & Bruton, 2007). Thus, benefits for the entire group are possible, including the parent company (i.e., renewing entity), the spin in (i.e., acquirer of talent) and the spin out (i.e., successful closure and re allocation of assets).

A Flexible Transforming Process

According to the interviewees, *strategic agility* was related to an efficient response to rapid changes, which mainly included quickly reshaping the parent firm. When the spin-out decision of FIT was confirmed from Fagor Ederlan (the parent firm) all the employees of FIT feared for their jobs and professional careers. FIT was a successful company but it was sentenced to closure: it was not easy to explain to the workers the spin-out decision taken by the parent company. Moreover, a solution should be provided to the *soon job-less* workers of FIT. The former Manager of FIT underlined "*Once the closure of FIT was known, workers were expectant about their future jobs and their potential contribution to other workers cooperatives; the re-allocation of cooperative workers to other firms within Mondragon Corporation is a complex task: not only should the re-organization should be agile, but also feasible and motivating for FIT workers*". Several ex-workers of FIT were re-allocated within the industrial group while few ex-workers holding a managerial position in FIT were appointed to launch and develop the new Comarth spin-in venture because they had qualified know-how, contrasted business experience and entrepreneurial intuition in the automotive industry sector. The transfer of key workers from the spin-out FIT to the spin-in Comarth would not be possible without the strategic agility of Fagor Ederlan concerning their re- allocation decisions of cooperative workers.

Some years earlier, the importance of being strategically agile had been also recognised by the Manager of FIT who argued: “*Fagor Ederlan adapted quickly to the new customer needs identified by FIT, targeting strategically a business activity that Fagor Ederlan had no previous experience but entrepreneurial interest. Fagor Ederlan provided all the support and assistance that FIT needed to develop new products in order to meet tailored needs of its customer*”. This insight illustrates that Fagor Ederlan, the parent firm, was flexible and open to developing other projects beyond its core business. In essence, FIT was a spin-off firm (prior to its closure) which allowed the identification and exploitation of new marketable manufactured goods within the overall product portfolio of Fagor Ederlan. All the interviewees recognized the autonomy, a reflection of their confidence in their off-spring, that Fagor Ederlan (i.e. the parent company) grants to its spin-offs: such autonomy increases the agility of the companies, which is strategically important to enable the firms to act quickly and maintain customer satisfaction.

In addition Fagor Ederlan has been described by participants as a “*consolidated company with high entrepreneurial concern and attitude*” with an interest in flexibly transforming and adapting to the needs of the new spin-in Comarth by utilising several remaining assets from the whole company. Fagor Ederlan provided the strategic agility needed to facilitate the shift in the infrastructure for the production of electric vehicles and to integrate the labour force of Comarth into the culture and discipline of the cooperative group.

Strategic agility is a non-substitutable capability that enhances competitive advantage (Ojha, 2008). The parent firm exhibits strategic agility in its shared responsibility and flexible transfer of the surplus core capabilities between the closed spin out and newly developed spin in (Long, 2000). Strategic agility contributes to the ease of the closure process of the parent company, as once the spin-out closure is confirmed it begins to explore the most efficient and innovative use of the remaining resources. The creation of an effective system and corporate culture that enables and exploits existing competencies leads to an increased chance of a successful merging process.

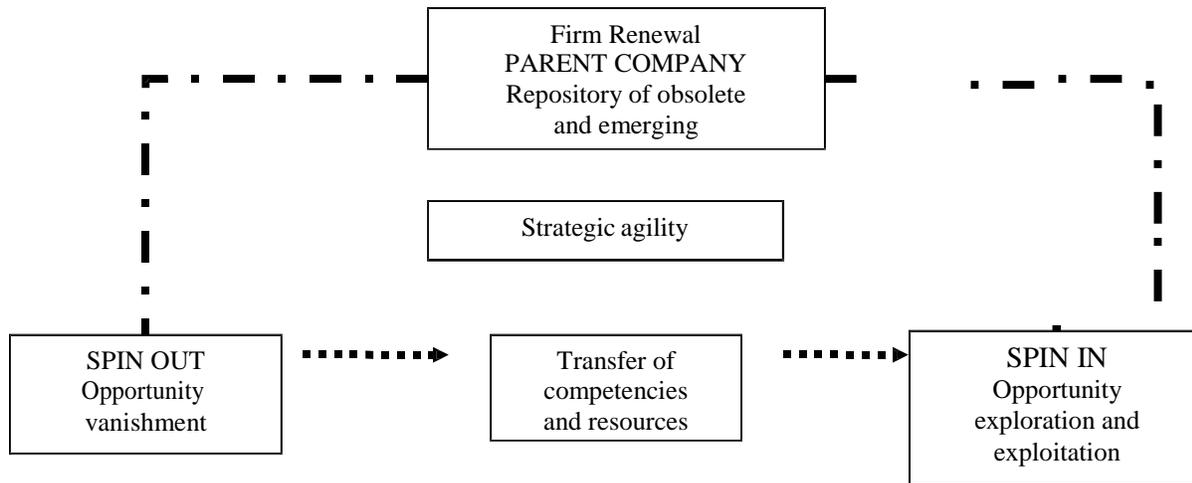
When an organisation is in a period of transition (as the parent company is experiencing with the closure of a spin-out and the acquisition of a spin-in) timing is important: faster implementation of changes increases new firm viability without altering current development. Moreover, appropriate decision-making and speed are needed to respond to environmental changes adequately (Sanchez, 1995); this is particularly the case when a parent firm needs to rapidly redeploy and reconfigure remaining resources into the new firm (Doz & Kosonen, 2010). Strategic agility allows a company to operate successful strategies with imperfectly mobile firm resources, meaning resources that cannot be freely acquired in the market (Dierickx & Cool, 1989; Barney).

Since parent companies have a unique position over their subsidiaries, they can reinforce their leadership position by guiding successful transference of remaining resources from a spin out into a spin in. According to Weber & Tarba (2014) positioning the resources for strategy execution is a major component of strategic agility. Thus, as performance and survival chances depends upon the effective use of resources, flexible and innovative forms of using resources are beneficial for those organizations that have learned to use their resources effectively over a period of time (Bradley et al., 2011; Haveman, 1992).

After assessing the declaration of all the interviewees, we propose a framework embracing key notions to shed light on how corporate venturing can sustain and enhance the parent’s firm comparative advantage by coordinating spin-out and spin-in ventures with cost effective resource re-allocation and time saving strategic agility. Our framework is presented in

Figure 1:

Figure 1
RENEWAL OF PARENT FIRMS THROUGH CORPORATE VENTURING DECISIONS



Firm renewal is the result of a positive transference process that allows for the renewal of the parent firm's core knowledge and the creation of renewed competencies (Floyd & Lane, 2000). The spin-out firm FIT developed a bulk of skills and competencies that were directed towards the new spin-in venture Comarth; more than "learning by doing" firm resources were valued as "learning by done", which relates to successfully experienced assets (Koloupolus et al., 2006; Spreitzer et al., 2005; Levitt & March, 1988). Resource transference contributes to knowledge assimilation whereby external information is considered and combined with internal knowledge (Todorova & Durisin, 2007; Zahra & George, 2002). Furthermore, spin-offs with a shared organizational culture face lower barriers for transferring resources and this facilitates knowledge exchange and (re)combination. As entrepreneurial organizations, such as Fagor Ederlan, explore and assess new opportunities internal organizational renewal through resource transference (i.e., from closing spin-out ventures towards emerging spin-in ventures) allows them to provoke continuous organizational change and re-adaptation to the context; this in turn can be oriented to rapidly introduce products in new markets or introducing new products in the existing ones (Covin & Miles, 1999). Ultimately, the strategic agility of parent firms in designing and implementing corporate venturing actions (i.e., like the spin-out and spin-in activities of this study) lead not only to the renewal of key core competences of the parent firm but also to the velocity needed to sustain (and to enhance) above-normal profits in today's competitive landscape. As one of the top executives emphasized "like in aging of human beings, companies must find out the way to become increasingly agile as they get older if they really aim at remaining healthy and young in a continuously changing world..."

CONCLUSION

In our qualitative study, firm renewal through corporate entrepreneurship is examined as a mechanism to rejuvenate the resources and competencies of parent firms. In our case a parent organization adapted to the rapidly changing environment by collaborating with third parties via spin-out and spin-in strategies: the strategic renewal of the parent company Fagor Ederlan focuses on the counterpoint between the innovative entrepreneurship (Comarth) versus

a traditional activity (foundries of Fagor Ederlan). Our study makes a modest contribution to the entrepreneurship literature in several fronts. First, we conclude that selected remaining resources from spin-out ventures can be beneficial for other businesses when appropriately reconfigured. We found that they can be drivers of added value not only for parent firms but also for other spin-in ventures. Our evidence contests the findings by Purkayastha et al. (2012) in that, according to our results, corporate venturing triggers diversification rapidly at a low cost. Secondly, we expand the work by Guerrero & Peña (2013) on human capital and corporate venturing where the authors empirically show the linkage between the profile of parent firm employees and the propensity to create new spin-offs. In our case analysis, we take a step further and claim that the transfer of key employees (i.e., with all their human capital attributes) from peripheral spin-out firms to spin-in ventures can enhance the capacity to innovate of the parent firm, and thereby, contribute flexibly to firm renewal. In addition to the human capital embedded in the parent firm the re-allocation of the workforce among adjacent spin-out and spin-in is also crucial for the parent firm to gain agility and remain competitive in the marketplace. These contributions bring new insights into the debate on corporate venturing and strategic firm renewal. Thirdly, Arando et al. (2009) examined how formal and informal institutional factors affected the creation of workers cooperative firms. Rather than firm-external factors in our study we study parent firm-internal factors that lead to the conversion of an independently created spin-in firm in a worker cooperative company. Not only (external) context factors matter (i.e., economic market and institutional conditions) as it has been explored in the literature but also (internal) strategic factors of parent firms seem to influence the generation of new worker cooperative spin-in ventures. The analysis of firm creation for different legal forms is a topic barely studied in the entrepreneurship literature and our evidence sheds some light on corporate venturing strategies implemented by worker cooperatives to coordinate spin-out and spin-in firms.

This paper is not exempt from limitations. We should emphasize two main challenges: on the one hand, the company was immersed in an outplacement and grief process; and on the other hand, each manager that was interviewed had specifically focused on the results and the activities in which they were involved. Nevertheless, the ethnographic approach followed in our study meant the lead researcher was wholly submerged in the daily processes of the parent firm as a manager and this allowed us to develop a broad and general perspective of the whole spin-out and spin-in process. This condition was helpful to amend the above mentioned limitations; essentially, the qualitative approach applied in our case provided sound evidence and all the necessary information to learn about the scope and depth of the renewal process of the parent firm through corporate venturing and strategic agility.

An important implication of this paper for management teams and board members is that the successful design and implementation of corporate entrepreneurship strategies via spin-out and spin-in mechanisms may enhance the strategic agility of the parent organization: workers cooperatives apply collective values to re-allocate workers among different business units and recombining the skills of employees coming from different spin-offs may lead to enhanced innovation capacity of the whole group. Policy makers should pay attention not only to the profile of parent firms but also to the performance of their corporate venturing spin-offs before putting in practice “one size fit all” type of policies.

We detected some issues that warrant further research and suggest for future studies to investigate the performance of spin-out and spin-in strategies in order to gain a better understanding about the engagement of parent firms for continuously (re)shaping dynamic

capabilities and value creation. Moreover, since firm closure is not equivalent to firm failure and intelligent failure can produce beneficial advantages to the parent firm, it would be interesting to discern successful from non-successful closing experiences. All these recommendations illustrate that still there is more to learn on corporate venturing and business performance.

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CONCEPTUALIZING THE BOTTOM OF THE PYRAMID: THE HOPE-CRITICISM DICHOTOMY FROM AN ENTREPRENEURIAL PERSPECTIVE

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ABSTRACT

C.K. Prahalad proposed that multinational corporations (MNCs) can successfully do business at the 'bottom of the pyramid' by adapting their product and service offerings, changing the lives of poor people, and ultimately transforming entire societies by sparking local entrepreneurship. While this notion has both followers and adversaries, we still lack conclusive evidence for or against it.

In the view of the authors, this is mainly owing to the lack of a conceptual model explicitly based on Prahalad's work that permits proper scientific research and goes beyond the numerous case studies that prohibit any generalizable deductions.

By applying a systematic literature review process, we identify and summarize relevant, peer-reviewed, academic literature, leading to a conceptual model, as a basis for a call for further advanced research.

Keywords: Bottom of the pyramid, entrepreneurial activity, multinationals, foreign direct investment, transnational entrepreneurship, FDI, MNCs

INTRODUCTION

C. K. Prahalad's work made the academic community aware of the needs of the large number of people living in poverty (Bruton, 2010). His work has become the starting point of a variety of applications, either as managerial strategies for internationalization and the unlocking of new markets, or as preliminary frameworks for academic inquiry (Landrum, 2007; Seelos & Mair, 2007).

Such efforts' points of origin are usually Prahalad's two managerial articles published in 2002 (see Prahalad & Hammond, 2002; Prahalad & Hart, 2002), as well as his subsequent book, which merged antecedent works and empirical findings into a coherent concept (Prahalad, 2004). According to these seminal contributions, in contrast to what practitioners and academics in developed countries seem to have anticipated, multinational corporations (MNCs) should not ignore consumers at the 'bottom of the pyramid' (BOP) - the billions of people who live on less than \$2 per day (Prahalad, 2009) - as a potential market. Prahalad and Hammond (2002) maintain that these - untapped - consumers have the potential to improve those parts of MNCs' business that may be stagnating. These companies could also realize new market opportunities, growth, costs savings through outsourcing operations, and even innovations that might affect and change the entire organization. This supposition is based on the premise that although these consumers' individual buying power might be low, their accumulated spending power, even for luxury and/or high-tech products and services, is significant. However, the demand for such products and services is latent.

Prahalad and Hart (2002) take up the same basic arguments, but go beyond the obvious value for MNCs. They claim that MNCs' investments in the BOP result in "lifting billions of people out of poverty and desperation" (Prahalad & Hart, 2002, p. 2). This can be achieved by establishing a concerted *commercial infrastructure* at the BOP to create buying power via access to credit and income-generation, to shape aspirations via consumer education and sustainable development, to tailor local solutions concerning product development and bottom-up innovation, and to improve access to distribution systems and communication links.

The proposed concept unites MNCs' commercial interests with the social needs of those at the BOP. This concept is summarized in Prahalad's book (2004), with the author arguing that if MNCs adapt their products and services to the specific requirements of those at the BOP, they will not only realize additional revenue, but will also achieve social transformation, and will eradicate poverty by means of the complex interaction between market players, such as private enterprises, development and aid agencies, civil society organizations, local governments, and consumers (London, 2007; Akula, 2008). Moreover, Prahalad maintains that the key to orchestrating these aims is "entrepreneurship on a massive scale" (Prahalad, 2010, p. 26) – suggesting that there is a strong interrelationship between his concept and the initiation of entrepreneurial efforts.

Since their introduction, business scholars have widely discussed these ideas (Pitta & Guesalaga, 2008). However, besides fairly favorable case studies and theoretical discussions, to date, this attention has not yet resulted in extensive scientific research (Bruton, 2010). *Will MNCs' investments in the BOP really produce measurable results?* Further, Karnani (2009) dismisses Prahalad's calculations of the market size at the BOP, and points out that it underestimates the costs involved in MNCs serving these customers. The core of Karnani's argument is his claim that the present case evidence and the overall BOP proposition are "logically flawed" (Karnani, 2007a, p. 91). This includes the hypothesized impacts on entrepreneurship.

A reason for these counter-arguments is that Prahalad's core concept – the interrelationships between MNCs' customized product and service offerings, the BOP customers, the resulting increase in buying power, entrepreneurial activity, and eventual social transformation – remains a mystery. *Which interrelations can be observed between the market players and between the influencing variables? Will the proposed interactions have the anticipated effects, especially regarding entrepreneurial activity? How can quantitative research operationalize and measure Prahalad's concept in order to verify or reject the proposed model? What differences in application of the model might lead to success or failure?*

We do not research the real buying power at the BOP, or challenge the underlying assumptions. We do not seek to mediate or take a position between the antagonizing positions of Prahalad and Karnani. We do not focus on the macroeconomic outcomes of related efforts. This article wants to provide the basis that could shed light on Prahalad's key argument in his original model (Prahalad & Hammond, 2002; Prahalad & Hart, 2002; Prahalad, 2004). This model proposed that MNCs' involvement in the developing country contexts could lead to economic development and social transformation by increasing individual buying power and entrepreneurial efforts. We conduct an in-depth, systematic literature review of the existing research and studies that apply a BOP perspective in business and management, so as to provide a conceptual model for further quantitative analysis of the effects that MNCs' involvement in developing economies on individual entrepreneurial efforts.

THE SYSTEMATIC LITERATURE REVIEW PROCESS

To develop a conceptual model of the BOP, we must review the relevant published material, in addition to the seminal sources by Prahalad and his co-authors. Thus, we undertook a systematic literature review following suggestions by Brereton, Kitchenham, Budgen, Turner, and Khalil (2007) (see Figure 1). To cover a wide range of relevant publications and an extensive spectrum, we accessed the Web of Science database was accessed. We searched for three general search terms: bottom of the pyramid, base of the pyramid, and BOP. Base of the pyramid is a synonym for bottom of the pyramid, which some authors use (e.g. London, 2007).

To ensure the academic relevance of identified publications, we set two cut-off dates to select relevant literature: June 2010 and June 2012. Such an approach and timespan to the date of publication of this article ensures that the selected articles have become part of the academic discourse. In 2010, *bottom of the pyramid* returned 370 unrefined results, *base of the pyramid* 962, and *BOP* 2,460 (3,792 in total). After focusing only on full articles related to business and economics, 37, 30, and 49 results remained respectively (116 in total). All three samples showed some overlap; we manually checked them for redundancy. We excluded articles that did not directly focus on the topic under scrutiny, or did not fulfill expectations in terms of quality. Moreover, we only considered publications that focus on the functioning of BOP models and existing concepts for the sample. We sought to avoid contributions that solely argue from an external MNC perspective (e.g. strategies for entering developing country markets). In 2010, 36 articles remained. We conducted the same query exactly two years later. Table 1 contains the unrefined results of both literature searches. Since these results include various research fields, we filtered the results concerning business and economics. When we put together the results of 2010 and 2012, this resulted in 132, 235, and 149 potentially relevant articles. The manual check was designed to search for qualitative articles that emphasize BOP models and their usefulness. In total, 43 articles are considered relevant material when addressing the current situation of the BOP. These 43 articles' points of view vary, from authors that agree with the Prahalad's proposition, to articles by authors who argue the opposite. In the following, we will use these articles, and Prahalad's work as the source of the discussion and model-building.

Figure 1
SYSTEMATIC LITERATURE REVIEW PROCESS IN 2010
(ADAPTED FROM BRERETON ET AL., 2007)

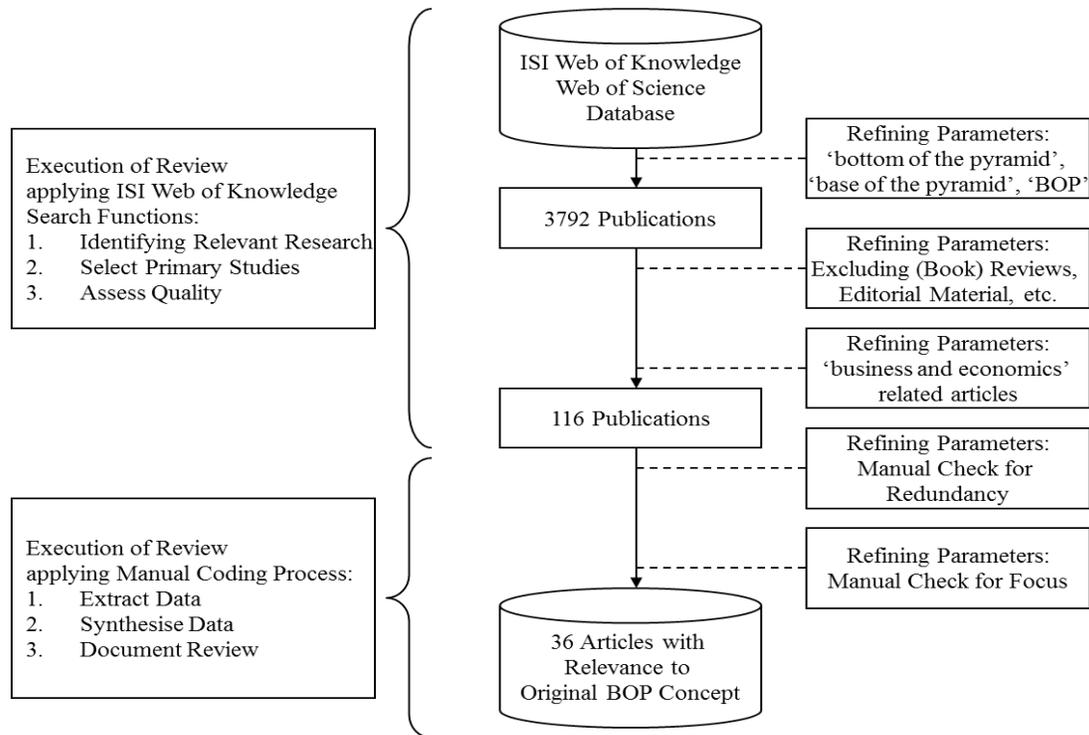


Table 1
LITERATURE RESEARCH
Assessed in June 2010 and June 2012

	Unrefined results of the first literature search (June 2010)	After filtering for business and economics (June 2010)	Unrefined results of the second literature search (June 2012)	After filtering for business and economics (June 2012)
Bottom of the pyramid	370	37	503	95
Base of the pyramid	962	30	8,371	205
BOP	2,460	49	4,603	100

CONCEPTUALIZING THE BOTTOM OF THE PYRAMID

Prahalad and Karnani represent different literary streams as well as opposing points of view. Prahalad describes the BOP in terms of untapped potential; here, a fortune can be made if the right strategies are maintained. Karnani disagrees; he understands the concept but states that MNCs might be financially harmed if they engage in BOP practices. Owing to the contradiction between these two authors’ theories, we will now address their statements.

Prahalad (2011, p. 25) proposes that poor people could become profitable potential consumers, despite what little they have to spend, by acknowledging them as resilient and creative entrepreneurs and value-conscious consumers. The combination of making profit and helping poor people to eradicate poverty seems very promising for MNCs worldwide. With many case examples in his writings (Prahalad & Hart, 2002; Prahalad & Hammond, 2002; Prahalad, 2004; Prahalad, 2010), Prahalad makes a convincing argument for MNCs to take the leap and do business at the BOP. His idea goes against many of the assumptions he says most MNCs make: that it is not profitable to do business at the BOP owing to a high cost structure; that the low-income segment cannot afford the products and services made by MNCs; and that only developed markets value innovation and are willing to pay for new technologies. Those assumptions suggest that governments and non-governmental organizations (NGOs) in these developing countries should take account for the low-income segment (Pitta et al., 2008). However, Prahalad disagrees and counters these assumptions. When doing business in low-income countries, four key elements should be considered (Prahalad & Hart, 2002):

1. *Creating buying power*: providing access to credit and increasing the potential income of poor people are key to eradicating poverty
2. *Shaping aspirations*: sustainable product innovation and educating low-income consumers will help to adjust expectations
3. *Improving access*: better distribution and communication systems can help poor to break out of isolation and can boost development
4. *Tailoring local solutions*: not global products for all segments, but targeted products adjusted to the BOP – bottom-up innovation and local solutions.

Prahalad has convinced a considerable number of managers of MNCs to act on his proposition. However, Karnani's advice to these managers is very different. The title of one of his articles – *Mirage at the Bottom of the Pyramid* (Karnani, 2007b) – indicates this. Karnani disagrees on several points:

1. *The BOP's has been miscalculated*: it is much smaller. The World Bank Estimates that the BOP consists of around 2.7 billion
2. *The costs of serving poor people are too high*: since BOP consumers are geographically dispersed and heterogeneous, MNCs cannot achieve economies of scale
3. *The individual transactions represent little money*: the people at the BOP only have \$1 or \$2 to spend per day; thus, they cannot afford luxury goods
4. *BOP consumers are very price-sensitive*: 80% of poor people's income goes to food, clothing, and fuel; hardly any money is left for other products
5. *Poor people should be seen as producers (potential entrepreneurs) rather than consumers*: this way, they are not exploited and are they able to improve their economic situations by increasing their income levels.

Karnani (2007b, p. 109) concludes:

Certainly the best way for private firms to help eradicate poverty is to invest in upgrading the skills and productivity of the poor and to help create more employment opportunities for them.

While Karnani and Prahalad both present reasonable arguments, no right or wrong can be appointed. Our summaries of their points of view serve as input for a discussion concerning the BOP subject, integrating the selected articles in the systematic literature review.

Multinational Corporations

Prahalad and Hart (2002) ask a key question: Why are MNCs so important in creating innovation at BOP markets? Although MNCs have the financial resources and can reap benefits of scale and scope, small local organizations are much more responsive to developments in the market. Local entrepreneurs have significant roles, and entrepreneurship should be encouraged. However, MNC involvement is necessary, for the following reasons:

1. They have the resources to create a commercial infrastructure
2. They have global knowledge that can be applied to global markets
3. They can function as a node and catalyst to bring involved parties together
4. They are able to transfer BOP innovations to developed markets.

Prahalad and Hammond (2002, p. 49) state that the poorest regions can only become prosperous through direct and sustained involvement of MNCs. They claim that big companies should solve big problems, and that it is critical to counter poverty. If MNCs are willing to involve in BOP matters, poverty can be addressed. Several MNCs are already involved in BOP markets, and others will also become involved when they discover the opportunities at the BOP. We will now illustrate why MNCs consider poverty reduction to be an issue that relates to doing business.

Doing Well and Doing Good

Not only opportunities to profit drive MNCs to address the four billion people at the BOP, but also the possibility to help them get out of poverty (Prahalad, 2010). MNCs want to do well, and also to do good. The combination of these two goals lead to the BOP proposition. However, to do so, one cannot simply copy Western business models (Hahn, 2008). Traditional views of economic development and business strategy will not hold when entering markets with such potential (London & Hart, 2004). Business models should be adapted, and the focus should shift from high margins to volume (Prahalad & Hart, 2002).

Seeing business as a solution to poverty sounds appealing, but some disagree about the extent of the possibilities. Karnani (2007b) even claims that the BOP proposition is a “mirage” filled with “fallacies”. Garette and Karnani (2010) argue that there is in fact “no fortune at the bottom of the pyramid”; in their view, business opportunities are limited when marketed products’ primary goal is social usefulness. Karnani (2007a) argues that MNC’s behaviors to maximize their profit diverge from the public welfare. Therefore, markets in developing countries need to be constrained. Where governments might not have to power to obstruct these MNCs from maintaining ‘unfair’ business that negatively impact the public welfare, corporate social responsibility may be the best hope. Garette and Karnani (2010) argue that there are very few examples of profitable businesses that simultaneously help public welfare, but that there is no shortage of examples of profit-making MNCs that exploit poor people on a large scale. We must distinguish between charities and businesses that do in fact have a social goal besides the increasing of wealth. To combine corporate social responsibility with a profitable business is a major challenge.

Many business leaders have counted on the BOP proposition put forward by Prahalad, but there has been very little research into business in institutional settings where poverty is

dominant (Bruton, 2010). The real incentives for MNCs to the opportunity of serving poor people remain unclear. *Is it doing well and doing good, or is it mainly doing well?* There is no agreement in the literature. Pitta et al. (2008) discuss the contrast between Prahalad and Karnani, concluding that there is as yet no clear picture of the opportunities at the BOP. Research is needed for us to get a clearer view of how these opportunities can help both MNCs and poor people.

Deriving profit is important, but businesses also contribute to society through innovation and company growth (Ahstrom, 2010). A good firm not only brings profit, but also innovation, which leads to economic growth, employment, and important changes in people's everyday lives (Baumol, 2004). The connection between business and poverty alleviation primarily lies with the proposition of mutual value creation. In sum, business strategies to alleviate poverty can only exist when MNCs can also generate economic returns (London, 2010).

Market-specific Products and Services

Clearly, with the current cost structure, BOP markets cannot be served, because they cannot afford Western products. Poor people might not have use for the products that are sold in developed countries, but if their functionality is transformed, they could (Prahalad & Hart, 2002). Take the need for sanitation. The need is there, but detergents are not affordable in formats sold in many Western developed countries. To create a capacity to consume affordable packages sold per unit are the solution, according to Prahalad (2011). While people in developed countries can afford to hold stocks, people with \$1 or \$2 to spend per day cannot. Every day they must decide what they can buy with the little they have. Shampoo is a good example. Since poor people cannot afford large containers of shampoo, the use of single-serving packaging has increased tremendously. Three principles can be maintained when adapting business models, products, and services: 1) affordability (single-serving packages without reducing quality), 2) access (products and services must be geographically distributed), and 3) availability (distribution efficiency is key, because poor people do not postpone their buying or saving). When MNCs adopt their business models to serve BOP markets, they must be aware of the variability of BOP consumers' cash-flows (Prahalad, 2011).

To be able to serve the BOP, foreign MNCs cannot simply copy their Western business models. When products are offered at the same prices at the same costs, they will not be profitable in BOP countries. Maintaining high margins will not work; instead, volume and capital efficiency will be key. Traditionally, the focus has been on gross margins; however, to pursue BOP opportunities, the focus must be on economic profit (Prahalad & Hart, 2002). To be successful in developing countries, products and services should be adapted to meet market-specific demands. The extent to which that is done influences BOP consumers and entrepreneurs' consumption behaviors. Products that are perfectly suited for the BOP will sell much easier than unaltered products.

Local Government, NGOs, and the Informal Economy

Partnerships between MNCs and NGOs have been widely discussed in the literature (Brugman & Prahalad, 2007; Chesbrough et al., 2006; Perez-Aleman & Sandilands, 2008). Most studies agree that alliances between these parties are useful owing to their common interest: both want to create innovative businesses to help people at the BOP (Brugman & Prahalad, 2007). Partnerships with NGOs can positively influence the entrepreneurial process owing to a high

degree of socialized knowledge, social embeddedness within multiple informal networks, and experience in dealing with diverse stakeholder groups (Webb et al., 2010).

The advantage NGOs have over private sector companies not only relates to their understandings of an environment, but also their lack of time constraints. While for-profit organizations often want to see a profitable result within a short period, NGOs can afford to take their time to implement new business models in order to create sustainable economic development. NGOs differ from for-profit organizations in that they leave the great most profits for small local entrepreneurs to create a sustainable economic ecosystem (Chesbrough et al., 2006).

When MNCs are supported by NGO intermediaries, knowledge, resources, and legitimacy can be provided. The gap that has existed between the private sector and civil society has been filled by MNC-NGO collaboration. Corporations have started to pay attention to the less fortunate and have begun to do business with the BOP. Simultaneously, NGOs are starting businesses to help people to get out of poverty. Owing to a shared interest, and in order to combine forces, MNCs and NGOs are creating new business models in attempts to alleviate poverty (Brugmann & Prahalad, 2007). Partnerships between MNCs and NGOs may have the goal to create a sustainable economic development, but how can small local entrepreneurs be included? These small producers should be included in the supply chain. Standards and agreements should be created by MNC-NGO alliances, and financial and technical support are required in implementation phases. Companies that wish to be successful in BOP countries should not take a short-term approach. They must interact with poorer and smaller companies and include them in global supply chains so as to create sustainability (Perez-Aleman & Sandilands, 2008).

When partnerships between multiple players such as MNCs, government, NGOs, local entrepreneurs, etc. are discussed, one large player is omitted. Besides the formal entities based on legal contracts, there is a large informal economy grounded only on social relationships. Much activity takes place in this informal economy (Webb et al., 2009). It accounts for approximately 40% of gross domestic product in developing countries (Schneider, 2002). This informal economy exists because these entrepreneurs cannot enter the formal economy owing to the high costs involved. Considering the size of this 'extra-legal' economy, it cannot be overlooked when doing business at the BOP. We must bridge the informal and formal economies if we are to understand existing social infrastructure (London & Hart, 2004). Considering that it is hard to measure this informal economy and that boundaries are vague, there is almost no empirical evidence in the literature. While it is hard to define how the entrepreneurial process works in the informal economy, it is clear that these entrepreneurs should be considered when MNC-NGO alliances are approaching producers in BOP markets (Webb, 2009).

It is clear that local government, NGOs, and the informal economy influence the relationships between MNCs and BOP entrepreneurs.

Partnerships between MNCs and Entrepreneurs

To be able to pursue opportunities to serve the world's poor, business models must be adapted. Both such internal changes and external changes should be considered. An underestimated aspect is partnering with local entrepreneurs. Prahalad and Hammond (2002) emphasize that it is crucial to empower local entrepreneurs. Although MNCs may have scale and cost advantages, MNC managers cannot beat the advantages of local entrepreneurs. Foreign managers are often relied on too much, while local managers have access to local knowledge and

local social capital. These local managers have both operational and institutional value. Physical distances between local managers and MNC leaders must be overcome in order to create responsible leadership (Berger et al., 2011). Partnerships with established companies in the market can help to create physical and social infrastructures (Prahalad & Hammond, 2002). MNCs are one among many actors involved in serving the BOP. To be effective, they should partner with NGOs, local government, and communities.

According to Prahalad and Hammond (2002), MNCs are a catalyst in pursuing the BOP opportunity owing to their resources and global knowledge as well as their capacity to unite all actors and transfer knowledge. In contrast, Pitta et al. (2008) argue that MNCs have the weakness of being too large, too rigid, and too far from customers to be effective. Thus, some have suggested a bottom-up approach (Karnani, 2007b). These two starting points show that more research is needed to find out under which circumstances large foreign MNCs should be the ones to lead BOP incentives (Pitta et al., 2008).

When doing business at the BOP, it must be noted that BOP networks work differently to those at the top of the pyramid. BOP networks are more direct and informal; multiple interaction domains among network members are common. However, these networks are harder to predict owing to their unstable character (Rivera-Santos & Rufin, 2010).

According to London and Hart (2004), MNCs should do four things: collaborate with non-traditional partners, co-invent custom solutions, build local capacity, and develop social embeddedness. Bottom-up learning is key if one is to understand BOP markets. Partnerships with local entrepreneurs is critical for success at the BOP.

BOP Consumers

In the BOP literature, little distinction is made between consumers and producers at the BOP. Prahalad often refers to poor people as potential consumers, while Karnani (2007b) argues that they should be seen as producers. Some clarification of these two terms is required. Prahalad and Hart (2002) mention that the focus should be on the billions of aspiring poor people who are joining the market economy for the first time. They talk about doing business with poor people. It is necessary to adapt products, services, and business models if one is to serve these four billion people. In contrast, Karnani (2007b) prefers to view poor people as producers. He argues that the best way to help to alleviate poverty is to raise poor people's incomes. We will discuss increasing income and thus buying power later on.

Consumption has many levels. Each level of the pyramid consumes, but differently. It seems logical that poor people cannot consume luxury products, because they cannot afford them. Although consumers at the BOP may have low incomes, they still have self-fulfilling needs. Karnani (2007a, 2007b) argues that, despite this need, poor people do not benefit from consuming luxury goods. They might want to buy them, but cannot afford them. Also, this can lead to misuse – for instance, alcohol abuse. However, research (Subrahmanyam & Gomez-Arias, 2008) has shown that although survival and safety needs are critical, self-esteem and self-fulfillment needs lead to greater opportunities and profits. So, if there is a need, why not adapt and make market-specific products and services to meet the demand?

It is hard to clearly distinguish between BOP consumers and entrepreneurs. In the BOP literature, the two are often used interchangeably. However, we need to separate the two concepts. A BOP consumer does not necessarily have to be an entrepreneur, and vice versa. It Our primary focus is the BOP entrepreneur.

Local Entrepreneurs and BOP Producers

Local entrepreneurs are crucial when new, unsaturated markets are tapped. Still, the effects of entrepreneurial activity in developing countries are under-researched in the BOP literature. To describe the roles of entrepreneurship in the social transformation mentioned by Prahalad (2010), we used additional literature.

There is no consensus in the literature on how to define entrepreneurship. We employ a commonly used definition, that of Venkataraman (1997) and Shane and Venkataraman (2000):

Entrepreneurship is an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously had not existed.

Many authors have researched the roles and effects of entrepreneurship. Acs and Virgill (2010) highlight entrepreneurship's roles in a country's development. Change is required to generate economic development, and entrepreneurs are regarded as the best agents for such change. Entrepreneurs are key to responding to market imperfections (Acs & Virgill, 2010). Similarly, Autretch and Thurik (1998) write about the shift to an entrepreneurial economy and the increased roles of new and small enterprises. Competitive advantage no longer lies in capital and labor, but in a knowledge-based economy. Two Austrian academics have also highlighted the importance of entrepreneurship: Shumpeter (1947) and Kirzner (1997). Shumpeter (1947) discusses a creative and disruptive response owing to external shocks, considering innovation to be key in discovering new products, processes, and markets. Shumpeter (1947) sees development as a process of disturbance and change instigated by the entrepreneur. In contrast, Kirzner (1997) describes entrepreneurs as people who seek to restore market disequilibrium. He notes that information is free available for everybody; yet only alert entrepreneurs use this information in innovative ways, using their unique knowledge. Both Kirzner and Shumpeter describe entrepreneurship as a conflux of passing opportunities and alert individuals acting in a situation of economic disequilibrium. Most entrepreneurship in developing countries seems to be Kirznerian, owing to the levels of alertness and responsiveness required and these entrepreneurs' desire to move to a global norm and push towards an equilibrium. However, in some cases, Shumpeterian entrepreneurship also occurs, although entrepreneurship that leads to entire new technologies is very rare (Hill & Mudambi, 2010).

Entrepreneurial Activity

As noted, there are many definitions of an entrepreneur in the literature. The concept often remains vague. Whickham (2000, p. 42) refers to an entrepreneur as someone who can be considered a manager undertaking an activity, an agent of economic change, and an individual. In his view, the primary difference between an entrepreneurial venture and a small business is the presence of a significant innovation on which a venture is founded, the articulation of strategic objectives, and growth potential. As Koveos and Zhang (2012) note:

Are entrepreneurship and economic growth and development related? This is a complicated question to answer empirically, since both building an entrepreneurial class and showing its impact on economic growth and development are dynamic, long-run processes.

A country's entrepreneurial activity level can be measured by using entrepreneurial activity and growth indicators. An economy's extent of market orientation is often used as a proxy for entrepreneurial activity. Koveos and Zhang (2012) indicate that economic performance is related to (potential) entrepreneurial activity.

Economic Growth

Economic growth is a key mechanism to help improve people's living conditions. In the long run, it even is more important than foreign aid or macro-economic management tools. History shows that economic growth has led to rapid declines of poverty in countries such as China and India. Hundreds of millions of people have already moved from poverty to the middle class (Ahlstrom, 2010). Economic growth can only occur when innovation takes place. Concerning this, Ahlstrom (2010, p. 21) argues that disruptive innovation creates significant new growth in industries and enables less skilled and less affluent people to use products previously used only by wealthier people and organizations.

While there are various views of entrepreneurship in the literature, they all have the same starting point: entrepreneurship is key to economic development. When alert entrepreneurs effectively allocate resources and new firms create new jobs, higher economic growth is likely. For instance, Acs and Virgill (2010, p. 58) suggest that, in developed economies, entrepreneurship can be the engine of economic growth through its impacts on technology and innovation as well as the allocation and mobilization of production factors.

Innovation

Innovation in developing countries differs from innovation in developed countries. Several distinctions must be made. Anderson and Markides (2007) suggest that, in developing countries, the following issues are key: finding new customer groups, creating new products, and creating new business models or new ways to create competitive advantage. They argue that product availability and product affordability are important. Innovators must adapt their products and services in order to be able to serve the lowest-income customers, who often receive their income daily instead of monthly. Products have to meet poor people's needs not only in price, but also in (cultural) acceptance. Marketing in developing countries also differs owing to limited distribution channels. When issues of affordability, acceptability, availability, and awareness are addressed, strategic innovation at the BOP can take place (Anderson & Markides, 2007).

Several authors discuss disruptive technology as a suitable innovation method. Disruptive innovation, a theory introduced by Schumpeter (1947), suggests that companies should not look for growth in mainstream markets if they want great growth potential. The potential lies in low-income markets in which people's basic needs are unmet (Hart & Christensen, 2002). Companies can put much effort into creating competitive advantage in developed markets that are already saturated, but they can also choose to compete against non-consumption in developing countries. Zhou et al. (2011) also describe disruptive innovation as an appropriate strategy to serve the people at the BOP. Poor people can benefit from new technologies, while companies have the possibility to disrupt an entire industry. At the BOP, the potential is massive, because developing countries are ideal target markets for disruptive innovation, owing to unmet demands.

Designing innovations to meet the demands of the masses at the BOP is challenging, because business models from developed countries cannot simply be copied. To succeed,

companies should adapt to the characteristics and environment of BOP consumers (Ray & Ray, 2011).

Products should be simplified in order to achieve affordability and acceptability in BOP mass markets. Minor adaptations will not lead to significant cost reductions. Companies that want to innovate need to create a disruptive technology from the start. Ray and Ray (2011) agree with Hart and Christensen (2002) that economic use of technology and resources in every stage of the process are critical in order for product innovation to succeed.

Buying Power

Prahalad and Hart (2002) discuss the creation of buying power and focus on access to credit. They point out that increasing poor people's income levels essential to help them out of poverty, referring to commercial credit as a solution. Most poor people are involved in the informal economy and have no collateral. The extension of microcredit is put forward as their best option, perhaps their only option. Providing poor people with credit presumably can help them to get out of poverty (Prahalad & Hart, 2002).

In contrast, some argue that the problem lies with product affordability and cannot be solved by extending expensive loans and getting them into debt. Karnani (2007b) argues that poor people have limited buying power, because they spent all their money on daily consumer products. Getting poor people to consume more will not solve the poverty problem. They want to consume more, but can't afford to do so. To increase the buying power of the people at the BOP, their income must be raised, or the products they buy should be of lower quality in order to have lower product prices. When people only have \$1 or \$2 a day, they can barely afford basic needs, let alone luxury items (Karnani, 2007b).

The assumption that poor people have no money sounds obvious, but is superficial. Although each individual might have a low income and therefore little buying power, poor people's joint purchasing power or aggregate buying power is large (Prahalad & Hammond, 2002; Martinez & Carbonell, 2007). Poor people often buy luxury items, especially as a group. Many own televisions and/or telephones. While owning a house is not a realistic option, money is spent on products or services that can instantaneously improve daily lives (Prahalad & Hammond, 2002). Doing business with poor people is not restricted by their lack of buying power, but by other barriers such as limited distribution access. We will discuss the influences of these and other entry barriers later.

Not only basic needs are served; luxury items can be purchased with aggregate buying power. Where access to bulk discount stores is non-existent, people at the BOP pay a much higher price for a product or service. Opportunities are observed in selling quality goods at affordable prices while maintaining attractive margins (Martinez & Carbonell, 2007).

Tools can measure buying power; for instance, the buying power index (BPI), which has been used for more than 30 years, measures consumers' relative buying power in different geographical areas (Guesalaga & Marshall, 2008). Guesalaga and Marshall (2008) show that the buying power at the BOP can also be measured and distributions of BOP expenditures can be calculated. This provides a clearer picture of how income is spent on different product categories at the BOP. Still, it is hard to collect empirical data on how income is spent in different tiers and how regional disparities can pose significant barriers to consumption behaviors.

The question remains how generating entrepreneurs and local consumers can increase buying power. It is hard to get a complete picture of the impact of BOP ventures, because stimulating entrepreneurship at the BOP raises entrepreneurs' incomes and has bigger impacts.

London (2009) referred to three dimensions that are affected by a BOP venture: economic situation, capabilities, and relationships. Local buyers, local sellers, and local communities are impacted.

Incentives to Consume

We will now discuss two incentives for consumption. Microcredit and community play key roles in the BOP process. Both incentives support Prahalad's (2011) theory and positively influence the process he suggest.

First, opinions on microcredit's usefulness differ. Some plead for small loans that enable low-income persons to be entrepreneur, while some refer to it as *unnecessary debt*. Successful cases include Grameen Bank, the pioneer in the field, which has inspired around 25 million microlenders in developing and developed countries (Prahalad & Hart, 2002). Where banks normally ask for a security or pledge, no collateral is needed in microlending. Prahalad (2004, 2010) often mentions microcredit as a solution to increase the buying power of BOP people. Karnani (2007b) is against poor people getting deeper into debt owing to unsuccessful entrepreneurs that must pay very high interest rates. Not every person who has access to a loan is a good entrepreneur. Many microfinance firms failed to help a considerable number of people, owing to their lack of access to commercial funds and the high costs of controlling many these little loans that are geographically dispersed (Akula, 2008). Akula (2008) describes several key issues to succeed in microfinance. The founder of SKS Microfinance in India, proposes three principles that can help MNCs or NGOs to make a profitable business at the BOP: 1) maintain a profit-oriented approach (an investment in poor people can bring profit to them and to investors), 2) use standardized processes, products, and training, and 3) use of technology to reduce costs and to minimize failure.

These microfinancing programs might help entrepreneurs start a business; this might lead to job-creation; increases in income and consumption are the result (Pitta et al., 2008).

Second, a community's roles in a poor country should be considered. As noted, individuals might not have much to spend, but their aggregate buying power in a community can be large (Prahalad & Hammond, 2002). Even if only a small percentage per household remains after necessities are paid for, a village that pools money can afford luxury items. Cooperatively owned items such as televisions, telephones, and medical services are possible, and can even lead to a community that starts producing products.

Peredo and Chrisman (2006) go one step further by suggesting community-based enterprises (CBEs). In his view, this unconventional form of entrepreneurship can form a promising strategy to alleviate poverty. A CBE is based on a community's interest, instead of an individual's interests; in it, the common good is key in the creation of new ventures.

Barriers to Consumption

Prahalad's proposition to *do well and do good* sounds appealing to many companies. However, having the goal to simultaneously establish sustainability and improve a company's financial situation seems challenging. Although BOP theory has gained much attention, few companies have successfully implemented it (Olsen & Boxenbaum, 2009). While most of the literature focuses on external barriers to implementation of BOP theory, Olsen and Boxenbaum (2009) focus on internal organization barriers. Managers often fail to achieve bringing corporate sustainability into practice. There is a lack of implementation-strategy, even among companies

with a strong corporate responsibility track record. To be successful, managers should engage in sustainability practices to adopt theory into practice. When internal barriers are overcome, external barriers should not be forgotten. Companies need to ensure that their products are well received by consumers and products are adopted despite the barriers of poverty (Nakata & Weidner, 2012). We will now discuss several barriers to consumption.

The Affordability/Unaffordability of Luxury Goods

Karnani's (2007b) argument builds on the fact that poor people do need to consume more, but cannot afford it. They may wish to buy quality products, but their limited incomes makes this difficult. Where Prahalad (2010) mentions adapting the ways products are packaged as a solution to affordability, to Karnani (2007b), smaller packages at lower profit margins are a fallacy. Poor people buy small packaged products owing to convenience and their inability to save. Since big containers of shampoo or packets of cigarettes are simply not affordable, small packages and single cigarettes are preferred. Although this way of marketing products can help to manage poor people's cash-flows and can be more convenient, affordability is not increased; it is only increased when the price per product is reduced.

The Costs of Serving Poor People

A primary concern concerning serving poor people is that these costs are very high owing to a market's geographical dispersion (Karnani's, 2007b). Exploiting economies of scale is hard when distribution costs are very high. A weak infrastructure (transportation, communication, media, and legal) further drives up the costs of doing business with poor people (Karnani, 2007b). Seelos and Mair (2007) agree, and discuss the hindrances to investments at the BOP. They question Prahalad's argument that the BOP presents a massive profit opportunity. If this were the case, and millions can be made that easily, why have companies not already exploited this opportunity at a large scale? The truth is that business models must change fundamentally to serve poor people while generating profits.

Terrorism and Extremism

Although little is known about what motivates people in developing countries to become an entrepreneur, extreme adversity positively influences entrepreneurial activity. This paradoxical observation is explained in the literature (Azevedo, 2010). It is argued that entrepreneurs are incubated when a disruptive event occurs. In environments with terrorism, people need coping skills to deal with a situation and to stay optimistic. Entrepreneurs have a higher adversity quotient than non-entrepreneurs, which enables them to see more opportunities. The main argument holds that entrepreneurs are more likely to respond and take action in situations of unexpected distress. These conditions can help entrepreneurs to approach things differently and respond to transitional opportunities. Setbacks and personal distress can increase self-knowledge and one's level of functioning. Hoping for a better future can be the basis for engaging in entrepreneurial activities. Individuals are more willing to take risks when disruption occurs. As Azevedo (2005) puts it, the most straightforward explanation for the paradox of enterprise resilience in the face of adversity is that returns to entrepreneurial activities are commensurate with risk.

Branzai and Adblenour (2010) discuss these arguments; their research shows that the escalation of terrorism has the opposite effect. Escalation paralyses and therefore discourages entrepreneurship. Only a few are willing to take the risk, but most people are set back and find more secure ways to support for their families. However, a reduction in terrorism is most likely to encourage entrepreneurial activities. Environments with terrorism create the least economic motivation (Branzai & Adblenour, 2010).

Hall et al. (2012) argue that entrepreneurship often is seen as panacea for inclusive growth in BOP countries, with the negative outcomes often omitted. Crime and social exclusion are often forgotten or not mentioned.

Distribution Access

Prahalad and Hammond (2002) discuss distribution access as a key issue in doing business at the BOP. The problems concerning lack of distribution access are divergent. Distribution is conceived as “the provision of availability”, and channels of distribution are the routes to reach consumers. Problems diverge from information availability to products’ physical availability. Physical barriers relate to bad roads, limited local demand, and high transportation costs. Not only is this a problem for farmers who need to distribute their products, but also for children who want to attend school, for instance. Without available transportation or passable roads, children cannot attend school without having to walk for miles. Another obstacle associated with inadequate infrastructure is a lack of information. No informed choices can be made without the necessary information about buying and selling goods and accessing services. A lack of know-how, skills, and literacy are results of limited distribution access (Vachani & Smith, 2008).

Consumption Behaviors

People consume in some way, regardless of their income level. People also have *higher-order* needs, even when there is a lack of material goods. Even when people logically cannot afford luxury products, they are consumed (Subrahmanyam & Gomez-Arias, 2008). Some argue that this behavior is created by manipulating consumers. Poor people might want to consume luxury products, but they cannot afford them (Karnani, 2007b). Poor people consume more than just their basic needs. Take the increase in the uses of communication and technology. Low-income households often try to compensate for their lack of status in society by consuming socially visible products. Such compensatory consumption theory might explain why BOP consumers buy luxury products instead of nutritional products or education for their children (Subrahmanyam & Gomez-Arias, 2008).

Negative consumption behaviors such as alcohol abuse can result. Alcohol consumption is a financial drain for BOP consumers, and has economic and social costs. Alcohol abuse exacerbates poverty. Another example of ethical responsibility is the use of skin-lightening cream at the BOP. Karnani (2007a) did a case study on Fair and Lovely skin-lightener. He discusses the moral issue of companies not only selling whitening creams, but their convincing women that they are empowered when they use it. Companies have the right to sell skin-lightening creams to BOP women, but promising empowerment is morally problematic. Overall, such consumption patterns can increase people’s poverty levels.

Corruption

Companies assume that several barriers to commerce make it impossible for them to do business in BOP markets. Corruption, which is common in developing countries, is one (Prahalad & Hammond, 2002). According to Prahalad, corruption can be reduced when private sector competition is free and transparent. However, Adam Smith (1978) points out that corruption can hinder development (Landrum, 2007). Most BOP countries do not realize what the costs of corruption are and how this impacts on private sector development and the poverty alleviation. The – sizeable – informal sector is unable to grow, because informal entrepreneurs cannot attract capital. Thus, they remain small, local, and inefficient. The costs of doing business with the informal BOP sector can only be reduced when governments deal with issues of access and transparency and recognize the changes that must be made in laws and regulations (Prahalad, 2011). The size and influence of corruption is hard to measure, but they are intertwined.

Social Transformation

It is hard for MNCs and NGOs to measure the effects of their investments in the BOP. They often measure their success based on the amounts invested, the number of products sold and distributed, etc. These are quantitative measures. Hardly any qualitative measuring is done to evaluate the influences of their actions. Therefore, it is hard to get an overview of the impacts of MNC involvement in the BOP. London (2009) describes several cases of entrepreneurs who run successful business and who not only have an increased income, but also improve their social environment. He developed a framework to help BOP entrepreneurs assess the impacts of their businesses. Several dimensions are key when a venture's effects are measured: economic situation, capabilities, and relationships (London, 2009).

Different motivations lead companies to do business in BOP markets. Elaydi and Harrison (2010) compare two strategies: market extension and strategic intent. They investigate the effects of a chosen business strategy on long-term poverty alleviation. *Market extension* is defined as tapping new markets and creating new customers and increasing use of a product by extending a product category. *Strategic intent* focuses on long-term effects and possible outcomes. In the case of market extension, the drivers are short-term goals concerning the firm's size or scale, while strategic intent results in engagement in real poverty alleviation. MNCs with a market extension strategy mainly focus on increase in sales and revenue, a short-term effect. This has little to do with poverty alleviation and may even involve the exploitation of BOP consumers. Companies with strategic intent think of the long-term effects and possibilities of their actions. They engage with communities, and help to grow and transform subsistence markets (Elaydi & Harrison, 2010).

In Prahalad's (2011) view, the proposition of the BOP he describes can help poor people to get out of poverty. He creates awareness by describing how people at the BOP can become consumers in a whole new market. To serve these BOP markets requires innovation; businesses must adopt their business models. MNCs cannot innovate on their own, but have to partner up and cooperate with NGOs and local entrepreneurs. This process has begun; eventually, this development will lead to social transformation. In Prahalad's (2011, p. 125, p. 136) words:

When poor people at the BOP are treated as consumers, they can reap the benefits of respect, choice and self-esteem and have an opportunity to climb out of the poverty trap.

And further:

Social transformation is about the number of people who believe that they can aspire to a middle class lifestyle. It is the growing evidence of the opportunity, role models, and real signals of change that allow people to change their aspirations.

THE HOPE-CRITICISM DICHOTOMY FROM AN ENTREPRENEURIAL PERSPECTIVE

Having discussed the relevant literature, it is now possible to deduct a first conceptual model of research into the BOP concept that is explicitly based on Prahalad's idea. Figure 2 provides an overview of all relevant interrelations that lay the ground for subsequent propositions and/or hypotheses. The model's core is the actual BOP process, i.e. Prahalad's premise of MNCs' business involvements in developing countries that will lead to social transformation. This premise is at the heart of any successful application of the BOP idea, and is a prerequisite to avoid further exploitation of developing markets by Western industrialized countries. Around this core process, the adaptation of existing business models to the specific requirements of developing countries' markets, the roles of consumers, producers, local entrepreneurs, as well as partnerships and entrepreneurial activities are well-known concepts presumably involved in social transformation, supported or hampered by local government, NGOs, and/or the informal sector. Most importantly, economic growth and local entrepreneurs' innovativeness form the key drivers and basis of social transformation at the BOP. Finally, as discussed in the abovementioned literature, there are numerous incentives for and barriers to consumption, which might support or interfere with Prahalad's assumptions and an ideal BOP process.

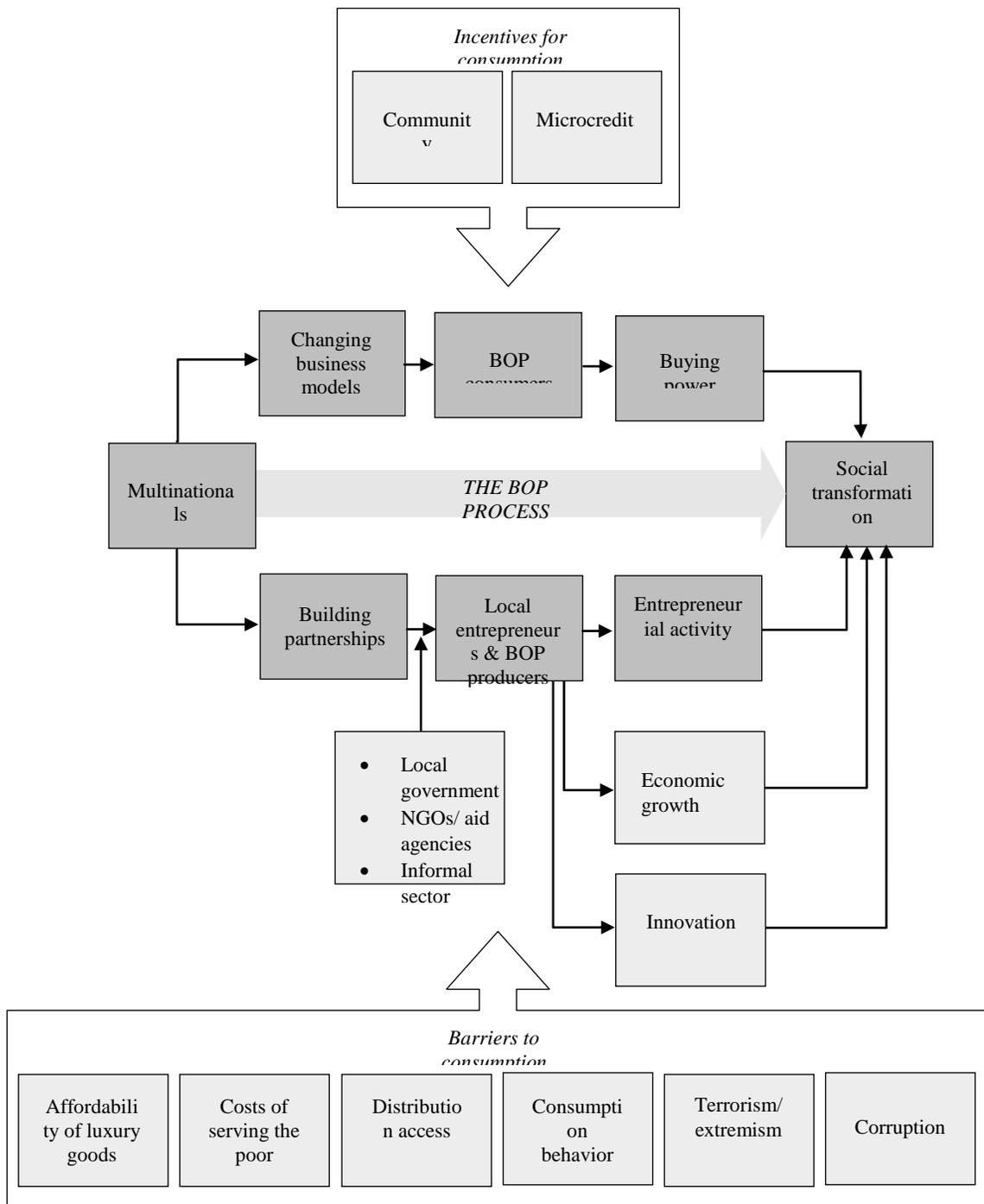
How can research into the BOP process be operationalized? One example could be the interrelationships between MNCs and local entrepreneurs. In the BOP literature, empowering local entrepreneurs is key for MNCs entering BOP markets. Knowledge, resources, and legitimacy can be seen as main drivers for MNCs to collaborate with local companies.

However, such partnerships between MNCs and local entrepreneurs, often active as small and medium-sized enterprises, are perceived as controversial. Audretsch and Thurik (2001) highlight the transformation from a managed economy, in which stability, long-term relationships, and continuity are important, to an entrepreneurial economy, in which flexibility, change, and a turbulent environment are much more relevant. In a managed economy, in which scale and scope dominate, small firms are perceived negatively because of the less efficient use of resources due to small size. To create competitive advantage, an MNC should have the capacity to identify, extract, and diffuse knowledge resources in the organization. Mobilizing knowledge is often seen as tradeoff between the overall view of an MNC and the local knowledge possessed by national companies (Asakawa & Lehrer, 2003).

While MNCs may have the advantage of scale and scope, the know-how and knowledge of the local entrepreneurs are much-needed ingredients for success. Thus, MNCs entering BOP markets must acknowledge local entrepreneurs' roles and must find a way to collaborate with them. While this makes sense, it needs to be critically assessed whether the often significant power distance in the international market between global MNCs and local entrepreneurs does not lead to the exploitation of one by the other, thus resulting in new dependencies and obstacles to both economic growth and the innovativeness of small businesses and entrepreneurs. In this context, the following propositions can be considered:

1. Local businesses and the local economy are positively/negatively influenced by the entry of MNCs into BOP markets
2. Entrepreneurial activities are positively/negatively influenced by the entry of MNCs into BOP markets
3. Successful collaboration between MNCs and local entrepreneurs leads to social transformation.

Figure 2
A CONCEPTUAL MODEL FOR THE BOTTOM OF THE PYRAMID RESEARCH



Such a focus on one of the proposed interrelationships of the conceptual model opens several potential research questions and sheds light on the validity of the core premise of Prahalad's idea.

Again, we make a strong plea to follow the above example, to explore the conceptual model, and to formulate research questions for the application of own qualitative and quantitative research. Only by doing so, not only might Prahalad's concept be operationalized but also an urgent question of social and economic development at the BOP might eventually be answered.

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