ENTREPRENEURIAL ATTITUDES AND ENTREPRENEURSHIP'S POTENTIAL IN EAST TIMOR

Tomas Xavier¹, Filipa Vieira², Cristina S. Rodrigues³

¹ CGIT Centre, Engineering School, University Minho, Campus Azurém, Guimarães, Portugal

² National University of East Timor, Díli, East Timor

³ Algoritmi R&D Centre, Engineering School, University Minho, Campus Gualtar, Braga, Portugal filipadv@dps.uminho.pt xavier6565@gmail.com crodrigues@dps.uminho.pt

Abstract:

Entrepreneurship has been recognized as a critical factor in promoting innovation, productivity, creating employment opportunities and economic development of a country. Entrepreneurship is defined as the process of creating something new with value by devoting the necessary time and effort, assuming the financial risks, psychological and social correspondents, and the consequences of getting satisfaction and independence (Hisrich et al, 2009). In the current environment it is important for a young country like East Timor to promote entrepreneurship as a key opportunity, in order to increase the number of individuals with individual initiative, i.e. entrepreneurs who take responsibility for economic development and job creation for the working population. But, since this is a new social and political challenge, are the East Timorese really sensitive and receptive to the idea of become entrepreneurs? The present study aims to understand the attitudes and values of the East Timorese students in relation to entrepreneurship. Taking as a starting point a survey set to study the potential of entrepreneurship among university students in East Timor, the paper presents and discusses the results obtained on various issues such as entrepreneurial intention, predisposition, risk disposition, and personality traits and skills. Our sample involves 140 students from National University of Timor Lorosa'e with no experience in entrepreneurial courses, divided into engineering students and economics students. East Timorese students report good entrepreneurial intentions but when asked to choose one investment option they hesitate between invest in an own business or invest in an investment fund. The risk disposition of students was measured through an index of entrepreneur risk disposition and results indicated good levels of risk disposition. East Timorese students present high levels of self-efficacy, endurance and autonomy. They also report good perceived levels of technical skills but admitted lower perceived financial skills. During the analysis, several differences were identified concerning students' gender, course or having self-employed parents. The study indicated a high entrepreneur potential among East Timorese university students and the results give an important contribution to the theme of Entrepreneurship in East Timor. The results presented are preliminary and require more careful analysis.

Keywords: Entrepreneurship; Entrepreneurial intentions; East Timorese university students

1. Introduction

Wong, Ho and Autio (2005) argue that small firms and newly formed companies allow the creation of a significant number of new jobs and that some studies show that small and new firms have provided the creation the majority of new jobs. Entrepreneurship is thus a major factor in promoting economic and social development of a country. According to Heertje (1982) in order to solve the many problems of today both in the private and the public sectors, entrepreneurial activity on a large scale, based on a sensitive and innovative attitude, guided by a broad concept of welfare, is needed even more than before. Entrepreneurs are held responsible for economic development, by introducing and implementing innovative ideas. These ideas include product innovation, process innovation, market innovation and organizational innovations. The implementation, launched by entrepreneurs, of these new ideas allow to the generation of new products or services to satisfy new customer needs and to create new companies. Those new companies generate economic growth and supply new jobs for the working population (Van Praag, 1999). Based on this, the members of the Organization for Economic Cooperation and Development (OECD) recommend policy priority to entrepreneurship as an alternative to solve the economic crisis that countries go through (Lowe and Marriott, 2006; OECD, 2009).

East Timor, a young country located in Asia and whose independence occurred 11 years ago, features a very slow economic development, only concentrated in urban areas and not reaching rural areas. Traditionally, East Timor has been, largely, an economy based on subsistence farming, with a scattered rural population and living near the poverty line. What can be done to reverse this trend?

This article is organized into five sections, besides the introduction. Section 2 examines the importance of education in promoting entrepreneurship. Section 3 gives a brief review of the history of East Timor and of the government policies to promote private sector. Section 4 presents the results of the study designed to understand the attitudes and values of the East Timorese students towards entrepreneurship. Finally, Section 5 presents the main conclusions.

2. Entrepreneurship and Education

Entrepreneurship is considered to be a core competence for economic growth and employment since is a transforming process from an innovative idea to an enterprise (Yildirim and Askun, 2012). According to Kuratko (2005) entrepreneurship has been argued as the most effective economic power in the global economics and social history. According to Drucker (2006) entrepreneurship is neither a science nor an art, it can be learned and should be practiced, because entrepreneurs are not born but are molded. Entrepreneurship is a growing culture in every way. To develop its activity, the entrepreneur needs to take risks, to identify opportunities and to seek knowledge. He also need to be organized and independent, shows leadership and decision-making skills, be dynamic and optimistic, be capable of planning and have a business plan and, above all, to have entrepreneurial instinct.

Policy makers believe that higher levels of entrepreneurship can be achieved through education and especially through entrepreneurship education. Curteis (1997) and Sarkar (2010) argue that the growth of the entrepreneurial capacity of a country depends on education and cultural knowledge of entrepreneurship on the part of all citizens and that entrepreneurship is developed as a cultural phenomenon linked to the development of education. Several authors, such as Raijman (2001) and Askun and Yildirim (2011) argue that education provides general skills, training and knowledge, which facilitates access to the business world. Education allows individuals to assess the extent of the labor market, the type of goods or services that are sought after by customers and also organize the business. To Carayannis et al (2003) there is no doubt that entrepreneurship education seeks to build knowledge and skills, and also increase the likelihood of business success, so the entrepreneurial values need to be taught, beginning in the early stages of a child's education, at the very latest during the junior high school years. Also Souitaris et al (2007) and von Graevenitz et al (2010) claim that entrepreneurship education increases the intention of starting a new business.

Many countries members of the European Union and the United States of America acknowledge that entrepreneur education need be promoted and implemented in academic curriculum. For Yildirim and Askun (2012) the universities are increasing their entrepreneurial activities, including the offer of entrepreneur curriculum and infrastructures. A key assumption underlying these programs is that entrepreneurial skills are not only personal characteristics but these can be taught and developed. Indeed, it has been shown by several researches that (1) the education not specialized, measured in years of schooling, has a positive effect on entrepreneurial performance and (2) business training is effective for the performance of people who applied for Micro-credit to start their own business (Oosterbeek et al, 2010).

3. East Timor

East Timor is a young country located in Asia and occupies half of Timor Island, having a single land border with Indonesia. East Timor was an overseas province of Portugal until 1974 and for 450 years. After this period, the territory was invaded and occupied by Indonesia, a situation that lasted until the referendum held on August 30, 1999. The process leading up to this historic event was long and difficult (Durand, 2010). Unfortunately, the events that followed were dramatic, but the violence following the consultation did not destroy their results and self-determination has finally arrived in East Timor in 2002. Restoration of Independence occurred in 2002, rising around one of the youngest countries in the world designated by the Democratic Republic of East Timor.

Traditionally, East Timor has been largely an economy based on subsistence agriculture, with a scattered rural population and living near the poverty line. The National Human Development Report 2002 conducted by the United Nations Development Programme (UNDP) evaluates the performance of East Timor from 2002 to 2007, as one of the twenty poorest countries in the world, with about half the population living on less than a 1 USD per day, a strong indicator of poverty (UNDP, 2006). Official figures in East Timor indicate that 56% of people in paid employment work for the Government, or in its services (teachers, health professionals, among others) or in its business activity (DNE, 2010). In the case of rural areas, only 32% of people are working for the private sector,

usually in small or very small businesses. In 2010 the population of East Timor was 1,066,409 inhabitants and presented an annual population growth of 2.4%. More than half the population is under 19 years old.

Recognition of the importance of the private sector for the development of the economy, contributed to the definition of the target in 2030 that the private sector become the main source of growth of income and employment in rural areas of East Timor (RDTL, 2010). To ensure the growth of the private sector in rural and urban areas, and standardize the requirements and procedures for registration of companies, making it easier and faster to create a business in East Timor (RDTL, 2012) the following changes are planned structural.

- 1) the creation of a new investment law (to ensure the interests of investors and make new legislative reforms, with a view to creating a 'one stop shop' for companies, which will further improve the investment environment):
- 2) the creation of the Chamber of Commerce and Industry of East Timor (to train the human resources of private companies, so that they have quality and ability to identify new business opportunities, creating business, expand into new areas or markets, and start exporting (RDTL, 2010, 2012);
- 3) the establishment of a National Development Bank (financial support for entrepreneurs to invest in these areas that have been identified as having advantage and long-term sustainability);
- 4) the creation of the Investment Company of East Timor (to help companies develop the Timorese economy, favoring investment clear and rigorous administrative and business operations independent and high standards of good governance);
- 5) the transformation of Microfinance Institute of East Timor into the National Bank of Commerce of East Timor (with branches in each district vehicles and mobile banking, is intended to provide services to individuals and businesses (micro, small and medium) in order to develop and expand their businesses in remote areas, to easily respond to the needs of all citizens, not only of urban residents, but also residents in rural areas (RDTL, 2010).

From the foregoing, it is perceived the strong desire of the Government of East Timor to foster private initiative and to offer a wider range of financial solutions available to all citizens. The Government effort shows an increase by 63 percent in the number of registered businesses between 2005 and 2009 (OECD, 2011). But increasing the private sector also requires that the Timorese people have a greater understanding of what can be done to create their own business... The keyword is entrepreneurship. Are they prepared?

4. Data collection and analysis

This paper presents the preliminary results from a survey set to study the potential of entrepreneurship among university students in East Timor. Assuming it is a convenience sample, the students at the National University of Timor Lorosa'e were invited to participate in our study. Given the reality of East Timor, it was understood that this group of people for their above average formation is the country's future and will be the decision makers and / or leaders of opinion in relation to the general population. The survey, named by EmpreendeTIMOR, was applied to undergraduate university students. Since entrepreneurship does not have a corresponding word in East Timor, the students were approached during classes and invited to assist to a small seminar about entrepreneurship. After the seminar, students were asked to participate in the research and to respond to a bilingual questionnaire (Portuguese and Tetum). The questionnaire replicates the questionnaire used in the Portuguese ENGEmpreende survey (for detailed information see Vieira and Rodrigues (2012)).

The sample has a total of 140 respondents, all undergraduate students in engineering (76.43%) or economics (23.57%). Students' year of course is divided in first year (39.29%), second year (18.57%), third year (18.57%) and forth year (23.57%). The students' age ranges from 17 to 39 years, with a mean of 22.07 years and a standard deviation of 2.608 years. The gender distribution has male domain, with 80.71% males and 19.29% females, and this domain is replicated in both courses areas (see Table 1).

Table 1: Sample gender distribution

Gender Distribution	Engineering students total (%)	Economics students total (%)	Total (%)
Male	85,05%	66,67%	80,71%
Female	14,95%	33,33%	19,29%
Total	107	33	140
in %	76,43%	23,57%	100,00%

The sample characterization included a question about the parents' entrepreneurial behavior (adapted by Laspita et al, 2012). The overwhelming majority of respondents (76.43%) admit that parents were never entrepreneurs. In the affirmative answers identify themselves as 16.43% of businesses still active but more than 7.14% already closed. Table 2 summarizes the distribution of responses obtained.

Table 2: Entrepreneurial behavior of student's parents

Response to "Do you grew up in an entrepreneurial family?"	Total (%)
No, my parents were never entrepreneurs	76,43%
Yes, business still active	16,43%
Yes, the business still worked at least until 5 years ago	3,57%
Yes, but the business ended more than five years ago	3,57%
Total	140
in %	100,00%

The result indicates that such low levels could constrain the entrepreneurial potential of students. To investigate this possibility, a new variable was defined to measures the experience of "parents self-employed" by coding the "yes" answers as 1-yes; otherwise 0-no.

The following is the analysis of the responses to the questionnaire different statements regarding entrepreneur intention, predisposition, risk disposition and personality traits and skills. The analysis of the main results of the study comprises, in addition to descriptive statistics, the tests of independence and tests to the means considering the variables characterizing the respondent's gender, course area (engineering and economics) and self-employed parents (yes or no).

The first question analyses the entrepreneur's intention and asked respondents if "Have you ever considered seriously start your own business?" (Adapted from Laspita et al, 2012). The results indicate that the majority of respondents admitted to have already thought about having their own business (60.71%), including 32.86% who claim be determined in be his own boss in the future, and 15.71% who are already starting the process. Were detected dependency relationships between the entrepreneur intention and the course of the respondents (χ 2 (5) = 9.288, p <0.10) and entrepreneurial experience of parents (χ 2 (5) = 28,721, p <0.10). Table 3 summarizes the distribution of responses obtained and analyzed by course area and self-employed parents.

 Table 3: Entrepreneurial intention of students

	Studen	ts' Course	Self-emp			
Response to "Have you ever considered seriously start your own business?"	Engineering students total (%)	Economics students total (%)	Yes No total (%) total (%)		Total (%)	
No, never	37,38%	45,45%	9,09%	48,60%	39,29%	
Yes, but abandoned the idea	9,35%	0,00%	12,12%	5,61%	7,14%	
Yes, I am determined to be my own boss in the future	35,51%	24,24%	30,30%	33,64%	32,86%	
Yes, I'm already starting the process	14,95%	18,18%	39,39%	8,41%	15,71%	
Yes, I am my own boss	1,87%	6,06%	6,06%	1,87%	2,86%	
Yes, I've been my own boss but now I'm not	0,93%	6,06%	3,03%	1,87%	2,14%	
Total	107	33	33	107	140	
in %	76,43%	23,57%	23,57%	76,43%	100,00%	

The analysis of the entrepreneurial intention by course demonstrates that:

- 1. are economics students who have a higher percentage of respondents who claim never to have considered the possibility of having their own business (45.45% of economics students against 37.38% of engineering students);
- 2. for both courses, the bigger affirmative option is "yes, I am determined to be my own boss in the future" (35.51% in engineering, and 24.24% in economics);
- 3. "already starting the process" was chosen by 14.95% of engineering students and 18.18% of economics students:
- 4. 9.35% of engineering students assume that have abandoned the idea against the 0.00% of economics students.

When analyzing the entrepreneurial intention as a function of self-employed parents conclude that:

- 1. The group with the lowest entrepreneurial intention is that of respondents without selfemployed parents (48.60% of the answers were "no, never"). Still, this group has 33.64% of respondents who claim determined to be his own boss in the future;
- 2. The group with self-employed parents has a high entrepreneurial intention, particularly with 39.39% of the respondents that assume that the process has already begun, and 30.30% who claims to be determined to be "my own boss in the future".

The entrepreneurship predisposition was measured by a question adapted from Raijman (2001): "Suppose you unexpectedly inherit \$20 000. How would you invest this money?" Respondents choose between investing in their own businesses (37.14%), invest in an investment fund (26.43%) and deposit in a bank account (19.29%). It was found a relationship of dependency between the predisposition and the course of the student (χ 2 (4) = 15.875, p <0.01). Table 4 summarizes the distribution of responses of students per course.

 Table 4: Entrepreneurship Predisposition

	Students' Cou			
Response to "Suppose that you suddenly inherit \$20 000. How would you invest the money?"	Engineering students total (%)	Economics students total (%)	Total (%)	
Invested in a business of my own	42,99%	18,18%	37,14%	
Invested in a car or home ownership	7,48%	6,06%	7,14%	
Invested in an investment fund	18,69%	51,52%	26,43%	
Deposited in a bank account	21,50%	12,12%	19,29%	
Other	9,35%	12,12%	10,00%	
Total	107	33	140	
in %	76,43%	23,57%	100,00%	

In examining the predisposition by course area, we found that a significant percentage of engineering students admitted invest in their own business (42.99%), deposited in a bank account (21.50%) or invest in a mutual fund (18.69%). In turn, economics students rather invest in an investment fund (51.52%) and only 18.18% admit to invest in their own business. Economics students' answers suggest a more cautious behavior when compared to engineering students. Are there different levels of risk aversion?

To help answer a question such as the posed earlier, the survey included a question to measure the risk disposition. Based on the work of Raijman (2001), we adapt three statements concerning the risk disposition and asked respondents about their degree of agreement with the Likert scale of 5 levels (from 1 - "I totally disagree" to 5 - "I totally agree"). The Figure 1 illustrates the results obtained in each claim:

- 1. The perceived risk of starting a business (claim 1) recorded 54.00% of negative responses (i.e., the sum of responses 1 "I totally disagree" and 2 "I somehow disagree");
- 2. The taste for challenges (claim 2) is assumed by 80.00% of respondents;
- 3. The work and perceived responsibility to own a business (claim 3) recorded 53.60% of positive responses (i.e., the sum of responses 4 "I somehow agree" and 5 "I totally agree").

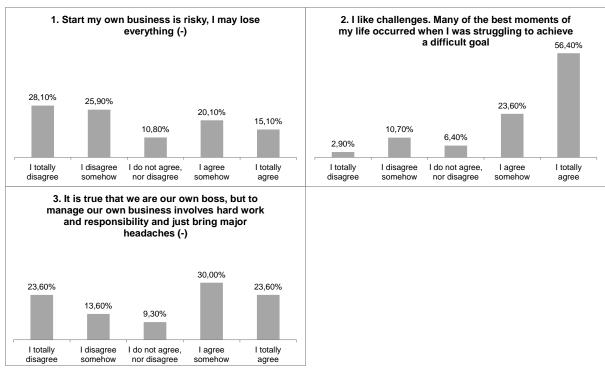


Figure 1: Risk disposition

We only found a significant dependence between the statement 2 ("I like challenges ...") and the students' course ($\chi 2$ (4) = 19.135, p <0.01). Figure 2 presents the answers differences by course. Although the economics students register 63.63% of positive responses, the option "I totally agree" just recorded 24.24% of the responses to the item and the option "I disagree somehow" registered 21.21% of responses. Meanwhile, engineering students agree clearly with the statement and record into the option "I totally agree" 66.36% of responses.

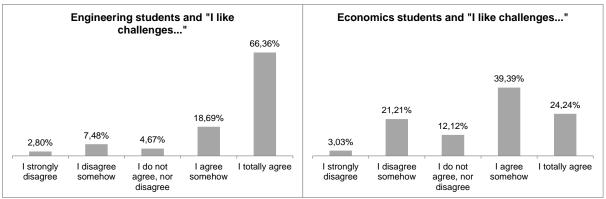


Figure 2: Course and "I like challenges..."

Once the statement "I like challenges ..." is more general and the other two statements are more specific about having your own business, it was decided to calculate an index of disposition to entrepreneurial risk. The index was calculated as the average response of the claims 1 and 3 with a correction of negative statements (Cronbach's Alpha of 0.439) and reflects the entrepreneurial risk disposition: the higher the value, the higher the disposition to take risks to own a business. The Table 5 summarizes the index considering students' gender, course and self-employed parents.

Table 5: Index of Entrepreneurial Risk Disposition

Index of Entrepre	eneur Risk Disposition	N	min	Máx	Median	Mean
Gender	Male	113	1	5	3,00	3,00
	Female	27	1	5	3,00	3,39
Course	Engineering	107	1	5	3,00	2,95
	Economics	33	2	5	3,50	3,47
Self-employed Parents	Yes	107	1	5	3,00	3,32
	No	33	1	5	3,00	3,00
Total		107	1	5	3,00	3,07

The analysis of the results shows that:

- 1. when considering gender, the respondents females have a higher average index of entrepreneurial risk disposition;
- 2. when considering the course, economics students have a greater average index when compared to their engineering colleagues;
- 3. when considering the previous experience of students' parents, students with self-employed parents have a higher average index in relation to peers without entrepreneurial parents.

The Mann-Whitney tests confirmed the differences identified for gender (p <0.01), course (p <0.05), and self-employed parents (p<0.10). It is interesting to note the seeming contradiction of economics students, which, although indicating a lower entrepreneur intention (see previous results) are the ones that have higher index of entrepreneurial risk disposition!

The survey also included a set of statements relating to personality characteristics of the respondent, including three statements of self-efficacy, three statements of endurance, one statement of autonomy, and three statements of skills (Likert scale with 5 levels). The Table 6 summarizes the results including the percentage of non-response (Do not know / Do not answer).

Table 6: Personality traits and skills

	I totally disagree	I disagree somehow	I do not agree, nor disagree	l agree somehow	I totally agree	Do not know/ Do not answer	Positive (%)
1. I have a lot of self confidence	2,14%	3,57%	2,86%	25,71%	60,71%	5,00%	86,43%
2. If I decide to participate in creating a business, I am confident that I will succeed $\ensuremath{\mbox{\sc l}}$	0,71%	3,57%	2,14%	21,43%	72,14%	0,00%	93,57%
3. When I start something new, I know that I will be successful	0,00%	2,14%	0,71%	29,29%	67,86%	0,00%	97,14%
4. I adapt my plans to changing circumstances	4,29%	2,14%	0,71%	25,00%	67,86%	0,00%	92,86%
5. I am extremely driven to achieve results	2,14%	3,57%	4,29%	22,86%	65,71%	1,43%	88,57%
6. I am always persevering to reach my goals	7,86%	2,86%	5,71%	31,43%	52,14%	0,00%	83,57%
7. I prefer other people to decide for me (-)	50,00%	18,57%	9,29%	12,86%	7,86%	1,43%	20,71%
8. Financial services are complicated and confusing for me (-)	17,86%	18,57%	8,57%	38,57%	15,00%	1,43%	53,57%
9. I am pretty confident about my ability to technical decision	4,29%	5,00%	0,71%	24,29%	65,71%	0,00%	90,00%
10. My technical knowledge is very good	2,14%	5,00%	2,14%	35,71%	55,00%	0,00%	90,71%

The results suggest high levels of self-efficacy, with all three statements to register percentages of positive responses from a minimum of 86.43% (statement 1) and a maximum of 97.14% (statement 3). Interestingly, the statement that registers the highest percentage of responses "I totally agree" (72.14%) is the statement 2 "If I decide to participate in creating a business, I am confident I will

succeed". The statement 1 recorded the highest percentage (5.00%) of non-response (Do not know / Do not answer).

In terms of endurance, the responses obtained in statements 4, 5 and 6 indicate good levels of endurance, with high percentage of positive responses ranging from 83.57% (statement 6) and a maximum of 92.86% (statement 4).

Autonomy was measured with only one claim (statement 7) and records 20.71% of positive responses as opposed to 68.57% of negative responses. Since it is a negative statement, the negative responses indicate good levels of autonomy.

The skills were measured with three statements comprising a financial component (statement 8) and a technical component (statements 9 and 10). The financial statement is negative but noted 53.57% of positive responses and only 36.43% of negative responses, which indicates an area of knowledge to improve. In the technical component, positive responses were greater than or equal to 90.00%, which indicate good technical levels perceived.

To explore the personality traits and skills, we tested differences in mean considering the variables gender of the student, course and self-employed parents. The Table 7 summarizes the results. To simplify the analysis it signaled statistically significant differences obtained with Mann-Whitney Tests.

Table 7: Mean profile of personality traits and skills

	Gender		Student	Self-employed Parents		
	Male mean	Female mean	Engineering students mean	Economics students mean	Yes mean	No mean
1. I have a lot of self confidence	4,40	4,76 ***	4,48	4,44	4,50	4,46
2. If I decide to participate in creating a business, I am confident that I will succeed	4,61	4,59	4,69	4,33	4,67	4,59 ***
3. When I start something new, I know that I will be successful	4,63	4,63	4,63	4,64	4,64	4,63
4. I adapt my plans to changing circumstances	4,47	4,63	4,64	4,06 *	4,42	4,52
5. I am extremely driven to achieve results	4,51	4,37	4,52	4,36 ***	4,63	4,44
6. I am always persevering to reach my goals	4,20	4,04	4,26	3,88	4,30	4,13
7. I prefer other people to decide for me (-)	2,05	2,22	2,15	1,88	2,34	2,01
8. Financial services are complicated and confusing for me (-)	3,15	3,11	3,11	3,24	2,84	3,24 ***
9. I am pretty confident about my ability to technical decision	4,55	3,89 *	4,71	3,48 **	4,64	4,36
10. My technical knowledge is very good	4,40	4,22	4,49	3,97 *	4,58	4,30 ***

Mann-Whitney Test. *p<0.01; **p<0.05; ***p<0.10

When analyzing the gender, the females students show a greater degree of general trust (statement 1), but a lower degree of confidence in the technical decision (statement 9) compared to male students. Both statements report significant differences.

When analyzing student course, engineering students have higher levels of adaptability (statement 4 - "I adapt my plans ..."), higher orientation to results (statement 5 - "I am always persevering to reach my goals ") and higher technical knowledge (statements 9 - "I am pretty confident ... "and 10 - "My technical knowledge is very good "). The four statements have differences statistically significant.

Considering the entrepreneurial experience of parents, students with self-employed parents have more security in relation to the success of an entrepreneurial project (statement 2 - "If I Decided to participate in ..."), minor difficulties with financial issues (statement 8 - "Financial services are complicated ...") and better perceived technical knowledge (statement 10 - "My technical knowledge is very good"). The three statements report significant differences.

5. Conclusions

Entrepreneurship has been recognized as a critical factor in promoting innovation and productivity, creating employment opportunities and contributing for economic development of a country. Promoting entrepreneurship should be perceived by East Timor as a key opportunity to increase the number of individuals with initiative to create jobs, i.e., entrepreneurs who take responsibility for the creation of jobs for the labor force and therefore for the country's economic development. Since entrepreneurship is a new word for the Timorese people, what is the existent predisposition?

The present work aims to analyze the entrepreneurial predisposition of East Timorese university students. Given their training, these students have a potential of entrepreneurship that has not been yet recognized. With this investigation, it is intended to explore it and thus contribute to a further discussion on the topic of entrepreneurship in East Timor.

With a total of 140 answers considered valid, the sample consists mainly of male individuals (80.7%), mostly engineering students (70.2%), with an average age of 22.07 years. Preliminary results have identified the existence of some critical factors, including the lack of familiar example, the existence of a high entrepreneurial intention simultaneously with a low predisposition to entrepreneurship. Students present a high risk disposition in general and the calculus of an index of entrepreneurial risk disposition confirmed the existence of differences among students' gender, course and entrepreneurial experience of parents. In terms of personality traits and skills, students Timorese have high levels of self-efficacy, autonomy and endurance. The financial skills may represent a future concern, because students generally indicate the existence of problems. Our suggestion would be the curriculum inclusion of a course on entrepreneurship and finance. The technical skills are high since East Timorese students present themselves confident.

During the analysis were also explored possible differences concerning students' gender, course and entrepreneurial experience of parents. Gender analysis reveals that female students present higher entrepreneurial risk disposition, higher confidence in general but lower technical confidence. For student course analysis, answers reveal a distinction between engineering and economics students and highlight the apparent contradiction of economics students with low entrepreneurial intention but a high index of entrepreneurial risk disposition (it requires further research to understand the causes of this contradiction). The entrepreneurial experience of parents also resulted in some interesting differences, for instance, in the personality traits and skills such as the ability to own a business, the confidence level of success and the perceived financial and technical skills.

The results already analyzed of the EmpreendeTIMOR survey indicate a high potential entrepreneur among East Timorese university students. The ongoing research gives an important contribution to the theme of entrepreneurship in East Timor. As the entrepreneurship is a new social priority in East Timor and the Government intends to increase the private sector, we believe that the National University of Timor Lorosa'e should take a leading role in promoting entrepreneurship among its students, namely with the inclusion of subjects on this topic in their course curriculum. The challenge is launched!

Acknowledgements

The first author would like to thank the scholarship granted by the East Timor Government and the National University of Timor Lorosa'e. The authors also wish to acknowledge the support of CGIT and Algoritmi R&D Centre, two research centres at the University of Minho, Portugal. This work is supported by FEDER Funds through the Operational Programme Competitiveness Factors – COMPETE, and National Funds through FCT - Foundation for Science and Technology under the Projects FCOMP-01-0124-FEDER-022674 and Pest-OE/EME/UI0252/2012.

References

- Askun, B. and Yildirim, N. (2011) "Insights on entrepreneurship education in public universities in Turkey: creating entrepreneurs or not?", *Procedia Social and Behavioral Sciences*, Vol 24, pp 663–676.
- Carayannis, E. G., Evans, D. and Hanson, M. (2003) "A cross-cultural learning strategy for entrepreneurship education: outline of key concepts and lessons learned from a comparative study of entrepreneurship students in France and the US", *Technovation*, Vol 23, pp 757–771.

- Curteis, H. (1997) "Entrepreneurship in a growth culture", *Long Range Planning*, Vol 30, No. 2, pp 267-155.
- DNE (2010) *Timor-Leste Labour Force Survey 2010*. Direcção Nacional de Estatística de Timor-Leste.
- Drucker, P.F. (2006) Innovation and Entrepreneurship, Harper Business.
- Durand, F. (2009) História de Timor-Leste, da Pré-história à atualidade, Lidel.
- Heertje, A. (1982) *Schumpeter's Model of the Decay of Capitalism*, in: H. Frisch (ed.), Schumpeterian Economics, Prager Publishers, Sussex, UK, Chapter 5.
- Hisrich, R. D., Peters, M. P. And Shepherd, D. A. (2009) *Empreendedorismo*. Traduzido por Teresa Felix de Sousa, 7^a ed., Porto Alegre: Bookman (in Portuguese).
- Kuratko, D.F. (2005) "The Emergence of Entrepreneurship Education: Development, Trends and Challenges", Entrepreneurship Theory and Practice, Vol 29, No. 5, pp 577-597.
- Lowe, R. and Marriott, S. (2006) Enterprise: Entrepreneurship and Innovation. Concepts, Contexts and Commercialization, Elsevier.
- Laspita, S., Breugst, N., Heblich, S. and Patzelt, H. (2012) "Intergenerational transmission of entrepreneurial intentions", Journal of Business Venturing, Vol 27, pp 414-435.
- OECD (2009) Measuring Entrepreneurship. A Collection of Indicators.
- OECD (2011) Report on International Engagement in Fragile States: Democratic Republic of Timor-Leste.
- Oosterbeek, H., Van Praag, M. and Ijsselstein, A. (2010) "The impact of entrepreneurship education on entrepreneurship skills and motivation", *European Economic Review*, Vol 54, pp 442–454.
- Raijman, R. (2001) "Determinants of entrepreneurial intentions: Mexican immigrants in Chicago", Journal of Socio-Economics, Vol. 30, pp 393–411.
- RDTL (República Democrática de Timor-Leste) (2012) *Programa do V Governo Constitucional 2012-2017* (in Portuguese).
- RDTL (2010) Programa Estratégico de Desenvolvimento 2011-2030 (in Portuguese).
- Sarkar, S. (2010) Empreendedorismo e Inovação, Escolar Editora.
- Souitaris, V., Zerbinati, S. and Al-Laham, A. (2007) "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources", Journal of Business Venturing, Vol 22, pp 566–591.
- UNDP (2006) Relatório nacional de Desenvolvimento Humano de Timor-Leste 2006. O caminho para sair da pobreza. Programa das Nações Unidas para o desenvolvimento (in Portuguese).
- Oosterbeek, H., van Praag, M. and Ijsselstein, A. (2010) "The impact of entrepreneurship education on entrepreneurship skills and motivation", *European Economic Review*, Vol 54, pp 442-454.
- Van Praag, C.M. (1999) "Some classic views on entrepreneurship", De Economist, Vol 147, No. 3, pp 311–335.
- Vieira, F.; Rodrigues, C. (2012) "Entrepreneurial intentions of engineering students", Proceedings of the 7th European Conference on Innovation and Entrepreneurship (ECIE 2012), Santarém, Portugal, September
- Von Graevenitz, G., Harhoff, D. and Weber, R. (2010) "The effects of entrepreneurship education", *Journal of Economic Behavior & Organization*, Vol 76, pp 90–112.
- Wong, P. K., Ho, Y. P. and Autio, E. (2005) "Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data", Small *Business Economics*, Vol 24, pp 335–350.
- Yildirim, N. and Askun, N. (2012) "Entrepreneurship intentions of public universities in turkey: going beyond education and research?", *Procedia Social and Behavioral Sciences*, Vol 58, pp 953–963