**Study on Entrepreneurial Environment Based on Cross Country Differences**

You were born to win, but to be a winner, you must plan to win, prepare to win, and expect to win. – Zig Ziglar

**Abstract**

An insight into entrepreneurial behavior based on the intentions given in students’ perceived desirability and feasibility and formed by gender differences is presented in the context of educational settings of various universities with different educational requirements and institutional backgrounds. The study was tested on the sample of 4249 students from seven countries, namely Austria, Croatia, France, Israel, Lithuania, Poland and Slovenia, clustered into 4 groups based on varying levels of economic development, political and economic integration and the awareness of their entrepreneurial backgrounds. The results of the study showed similarities and discrepancies in desirability and feasibility that form entrepreneurial intent as well as gender differences and perceived importance of educational attainment according to designed clusters.

**Keywords**

Entrepreneurial education, entrepreneurial intention, gender differences

**Introduction**

Hines (1973) sees entrepreneurship as a role model and bases his reasoning on the fact that entrepreneurs strive for greater realization and accomplishment in comparison to the role fostered by a non-entrepreneurial activity. Hence, the studies on students’ entrepreneurial attitudes have been emerging as a result of a profound link between attitudes and intentions, on the one hand, and predicted behavior, on the other. This link demonstrates the creation of knowledge formed by institutional boundaries, their interconnected influence on behavior and influence on the changing institutional environment (North 1990; Hamilton 1919; Kogut et al. 2000).

In addition, studies of entrepreneurial attitudes among students have been viewed as an interesting topic due to an increase in the research performed on this subject by various authors like Luthje & Franke (2003), Wang & Wong (2004), Huffman & Quigley (2002) and Johnson et al. (2006). These studies test entrepreneurial attitudes against differing behavioral characteristics in order to elaborate on a model which would be used as a tool for predicting future behavior.

In this study, institutional environment is presented in the context of educational settings of various universities with different educational requirements and institutional backgrounds, where students’ entrepreneurial attitudes are examined according to their perceived desirability and feasibility. Desirability is defined as a subjective norm regarding the perceived social pressure to perform or not to perform entrepreneurial behavior. Feasibility examines the perceived ease or difficulty of performing entrepreneurial behavior. Insight into these differences can enhance exploration of institutional goals, such as the promotion of entrepreneurship, which can be found in all national strategies.

**Literature Review**

This paper emerges from the previous studies which confirmed university students’ increasing reluctance toward knowledge and development of characteristics regarding entrepreneurial ventures (Liles 1974; Global Entrepreneurship Monitor, 2001; Turker and Selcuk, 2008). Among the authors who modeled and examined the behavioral relationship between university students and the corresponding national setting are Turker & Selcuk (2008), Wu & Wu (2008), Wang & Wong (2004) , Menzies & Tatroff (2006), Verheul et al. (2004), Kourilsky & Walstad (1998), Zhang et al. (2009), Elenurm et al. (2007), Petridou et al. (2009), Mohd Shariff (2009), Linan (2008) and Veciana et al. (2005).

Chell and Allman (2003) explored the intentions of technology oriented entrepreneurs, while Krueger et al. (2000) analyzed different entrepreneurial intentions. Moreover, the tested entrepreneurship attitudes were tested on students at Massachusetts Institute of Technology (Luthje & Franke, 2003), while the role of perceived skill was identified as an important factor impacting entrepreneurial intention (Linan, 2008). Furthermore, self-esteem and personal control differences were found as an influential entrepreneurial factor (Mohd Shariff, 2009), while images of self-vulnerability and self-capability both impact the images of opportunity (Mitchell & Shepherd, 2010).

Wang & Wong (2004), on the other hand, explored students’ attitudes with respect to educational needs that spur entrepreneurial behavior. The educational setting is seen as a significant factor spurring entrepreneurship in the Turker & Selcuk’s (2008), Wu & Wu’s (2008) and Lee & Wong’s (2004) study. There is an educational significance for assisting the realization of potential behavior (Wu & Wu, 2008) which can be realized through emanation from appropriate curriculum structure (Wang & Wong, 2004) with a special reference to fostering creativity related to reactivity (Zampetakis, 2008). Hence, our study tries to identify differences between institutional boundaries formed by differing country characteristics within which a customized educational policy can be formed to foster entrepreneurship and consequently a country’s growth.

Our study also seeks to identify whether gender differences exist between countries and if they could have the effect on entrepreneurial intentions. Gender explains what male and female business owners look for from their careers and gender identity, represented by the dimensions of masculinity and femininity, which serves as a cognitive mechanism that contributes to differences in business owners' career satisfaction preferences (Eddleston and Powell, 2008).

Some studies identified differences in attitudes towards entrepreneurship education and perceptions about required skills between the two genders (Petridou et al., 2009). Among other studies, the foundation for this research is found in Menzies & Tatroff (2006) and Zhang et al. (2009) who explored attitudes of students according to gender differences. Verheul et al. (2004) explored female entrepreneurship in 29 countries and found that similar factors influenced both genders. On the other hand, later studies showed that females’ lower preference for self-employment comes from the lack of desirability toward it (Verheul et al., 2011). Menzies & Tatroff (2006) did not identify differences in attitudes towards risks taking, but have found that fewer women tend to think that entrepreneurship fits their personality. In addition, they stated how education helped increase the number of female entrepreneurs. Kourilsky & Walstad (1998) proposed an entrepreneurship focused curricula that could aid entrepreneurship promotion.

A variety of university policies have been designed for fostering and promoting entrepreneurial behavior among students. These policies should be directed toward the promotion of educational programs that raise students’ entrepreneurial awareness and stimulate their ambition to attempt risky undertakings. The relationship between stimulation and realization should be lowered when implementing the right educational foundation appropriate for raising further curiosities about entrepreneurship and increasing awareness of achievable goals which could initially be perceived as riskier. Hence, medium risk attitudes seem to be beneficial for entrepreneurship survival in comparison to extremities of high and low risk attitudes (Caliendo et al., 2010). Also, environmental factors could influence entrepreneurial intentions through a low job satisfaction while the intent to change it can cause changes in that environment (Lee et al., 2011). Our study is based on the research performed by Elenurm et al. (2007) who organized students in clusters according to their motivation with respect to entrepreneurial undertaking and attributed different educational frameworks to these clusters.

Generally, our study adopts the form of Shapero’s model (1982), augmented by Krueger & Brazeal (1994). We draw our conclusions from the reasoning that predictions about future behavior actually form future behavior. Shapero divided all of the characteristics that could initiate predictions into two groups which consist of perceived desirability and perceived feasibility. Furthermore, Krueger & Brazeal built upon Shapero’s research and found another significant predictor of this behavior, which they called a “propensity to act.”

A propensity to act was confirmed to be the best predictor of a future behavior in the results of Krueger & Brazeal (1994), Wu & Wu’ (2008) and Liñán’s (2008) research; whereas Veciana et al. (2005) and Krueger, Reilly & Carsrud (2000) used Ajzen’s (1991) theory of planned behavior.

Hence, we propose a model (Figure 1) which provides an insight into entrepreneurial behavior and then address the development of adequate teaching techniques to foster entrepreneurial attitudes among students in different institutional settings.

**Insert Figure 1 about here**

The model shows that the human personal characteristics and institutional environment shape intentions of individuals into performing certain behavior. On the contrary, when many individuals perform certain behavior, the institutional environment changes and could foster a creation of specific behavior, i.e. in this case, the entrepreneurial mindset. Students were chosen as a target group due to their ability to attain educational opportunities and their awareness of themselves and their own future perspectives and desires.

Based on the above discussion and proposed model, we suggest the following hypotheses:

*H1 – Students’ attitudes toward entrepreneurship given in desirability and feasibility differ between country groups reflecting different institutional environments, with the emphasis on economic development and political integration levels, regarding entrepreneurship.*

*H2 – Gender makes a difference in students’ attitudes toward entrepreneurship as measured by desirability and feasibility.*

*H3 – There are educational activities that can help increase students’ entrepreneurial awareness (the institutional factor).*

**Methodology**

A survey questionnaire was developed by the Tempus FoSenthe project consortium under the management of the Croatian team as the grant holder, in order to induce a better insight into country differences as the basis for quality decision-making regarding the policies which could aim at developing entrepreneurship atmosphere and help economic growth. One of the objectives of the project was to investigate students’ attitudes towards entrepreneurship and entrepreneurship education. Therefore, a questionnaire was developed and conducted during 2009 and 2010 including a number of questions relating to fostering the spirit of entrepreneurship among students in higher education. It was given to students from seven different countries which vary in terms of the level of political and economic development and integration. The questionnaire was given to students as they were considered a relevant sample due to their knowledge base and intellectual reasoning on the one hand, and the last step to promote entrepreneurship via education, on the other. The students from all the countries included in the sample are the members of the TEMPUS FoSentHE project consortium. The questionnaire was anonymous and put on the project and faculties’/universities’ websites. Students were asked to fill them out during the in-class sessions. The response rate therefore is very high, more than 90%. The students mainly come from the faculties of economics and business since these institutions participated in the project consortium. The questions identified as relevant for the purpose of this study were extracted from the questionnaire and tested within the scope of this research with a statistical software package SPSS 18.0 using the Likert scale with values ranging from 1 to 6.

The same data had previously been used in two other studies by X et al. (a, b).

**Results and discussion**

*Sample identification*

The total size of the sample was comprised of 4249 students who took part in the survey. More precisely, 1918 students from Croatia, 541 from Austria, 442 from France, 295 from Israel, 415 from Lithuania, 332 from Poland and 306 students from Slovenia participated in the survey.

As opposed to the previous two studies of X et al. (a, b), the countries in the sample were clustered into four groups. The first cluster was created from the questionnaires collected in Israel with the reasoning that Israel is the country with a high entrepreneurial culture, a high level of development but a low level of political integration. The second cluster consisted of the countries which have been in the EU for a longer period of time, namely France and Austria. These two countries have a high level of economic and political development and integration. The third cluster was comprised of Lithuania, Poland and Slovenia which form a cluster with the characteristics of the countries which have only recently joined the EU and have a medium level of political and economic development and integration. The fourth cluster was formed by only one country, namely Croatia, as it is a country which is awaiting its accession to the EU and which made a number of political and economic reforms, but has a low level of political integration and a lower level of development than the previous three clusters. In the first study previously conducted by X et al. (a), the same data, with the addition of the survey results from India and some other countries, was used to evaluate the impact of gender and country of residence differences on entrepreneurial intentions of university students as measured by perceived feasibility and perceived desirability. In that study countries were analyzed separately in terms of entrepreneurial intention differences based on the country of residence and gender. As a result, significant differences were found among countries and genders in terms of desirability and feasibility towards entrepreneurship. The results indicated that Poland, Slovenia and India seem to differ little between male and female genders whereas the responses from Croatia, Austria, France and Israel revealed quite a strong difference among male and female students. In the other study of X et al. (b) perceived desirability, perceived feasibility and educational needs in terms of entrepreneurial programs/activities/projects at an academic institution were analyzed from the gender difference perspective only. The results of the analysis showed that there were significant differences between genders’ perception with regard to educational needs to construct academic entrepreneurship education and networking and tutoring channels for students.

*Research design: desirability and feasibility*

The preconditions for the entrepreneurial atmosphere which needs to be fostered by higher education institutions in order to raise the level of economic development were defined in terms of desirability and feasibility towards starting a private business. Desirability is defined as a subjective norm regarding the perceived social pressure to perform or not to perform entrepreneurial behavior. The concept of desirability was tested using the statements given in Table 1.

Insert Table 1.

Feasibility, on the other hand, examines the perceived ease or difficulty of performing entrepreneurial behavior. It was tested based on the questions given in Table 2.

Insert Table 2.

*Desirability*

Each statement in the group was addressed separately and according to defined clusters (Tables 3a and 3b).

Insert Table 3a.

Results for desirability were the highest for Croatian students regarding the statements: “I would be enthusiastic” (4,70); “I would love to do it” (4,66); and “My immediate family members would encourage me to do it” (5,07). The only exception was with the statement “I would be tense” where Lithuanian, Polish and Slovenian students think more than other clusters they would be tense about it (3,30). Other countries rated enthusiasm in the following order: Israeli students are the most enthusiastic (4,68); Austrian and French (4,48) follow; then Lithuania, Poland and Slovenia (3,38). The most tense were Israeli students (4,40); following Austria and France (4,33) and the Croatians (4,21). After the Croatians, the cluster that would love to do it the most is Israel (4,02); then Austria and France (3,96); and Lithuania, Poland and Slovenia (3,28). Similar results are obtained when examining the family support: the Croatians think they would have the highest level of family support (5,07); then Austrian and French students (4,38); Israeli (4,26); and Lithuanian, Polish and Slovenian students (3,51).

*Feasibility*

Insert Table 3b.

The results showed that the students in Croatia think they know more than the students in other clusters (3,49) about the knowledge needed to start their own business. Israel followed Croatia (3,59), then the cluster of Lithuania, Poland and Slovenia (3,73) and finally there was the cluster with Austria and France (3,94).

Israeli students (x=2,60) were the most certain of success and other clusters ensued in the following order: Croatia (2,82), Lithuania, Poland and Slovenia (3,04) and finally Austria and France (3,37).

The Croatians, on the contrary, think it would be more difficult to start a business 2,03) than students from other clusters and they think they would be more overworked by having their own business (1,86). Lithuania, Poland and Slovenia have the highest ratings in the two statements: how hard they think it would be to start a business (2,65) and how overworked they expect to be (2,69). The Croatians and the Israeli were the most confident in themselves with respect to feasibility of starting a business (2,42), followed by Lithuania, Poland and Slovenia (2,76) and Austria and France (2,92).

Tables 4 and 5 were designed in order to rank clusters according to their feasibility and desirability towards entrepreneurship. In each question points were given to each cluster according to their rank in the respective question. Each cluster could obtain from 1 to 4 points with regard to desirability and from 1 to 5 points with regard to feasibility. 1 represented the highest rank and 4, i.e. 5 the lowest rank. The points obtained by ranking each question were then added together to form a total number of points for each cluster. The cluster with the lowest score in all the questions was rated as the highest position in the group of questions relating to desirability (Table 4) and then feasibility (Table 5).

Insert Table 4.

Insert Table 5. Entrepreneurship was found most desirable in Croatia; followed by Israel; Austria and France; and finally Lithuania, Poland and Slovenia (Table 4). The feasibility of starting own business exhibits the following order: Israel found starting a business most feasible; it is followed by Croatia; then Lithuania, Poland, Slovenia; and finally Austria and France found it least feasible.

*ANOVA: desirability and feasibility*

Welch/Brown-Forsythe test was used to test for statistical confirmation of differences of desirability and feasibility statements. Differences were tested on each statement individually, where p-values were far less than 1% significance level. These results imply the same conclusions outside the given sample, meaning that there are statistically significant differences between clusters according to desirability and feasibility statements.

Insert Table 6a.

Insert Table 6b.

*ANOVA: desirability and feasibility between Israel and other clusters*

However Welch/Brown-Forsythe test of differences did not indicate which clusters actually differ from one another. In the additional testing, this paper tries to explore if other clusters differ from Israel as it is being used as the example country in terms of its entrepreneurial spirit (Table 7). Statistically significant differences were found in the following statements in the Croatian sample: “How certain of success are you?“ (feasibility); “How overworked would you be?” (feasibility); “I would love to do it” (desirability); and “My immediate family members would encourage me to do it” (desirability); hence for both desirability and feasibility statements. For the sample of countries recently joining the EU (Lithuania, Poland and Slovenia) the differences were significant for the statements: “How hard do you think it would be to do?” (feasibility); ‘’How certain of success are you?“ (feasibility); How overworked would you be?” (feasibility); “How sure of yourself are you?” (feasibility); “I would love to do it” (desirability); “My immediate family members would encourage me to do it” (desirability); “I would be tense” (desirability) and “I would be enthusiastic” (desirability); hence, for most of the desirability and feasibility statements. As for the countries which have been in the EU for a longer period of time (Austria and France), the statistical significance was found in the statements: “How certain of success are you?“ (feasibility); “How overworked would you be?” (feasibility); “Do you know enough to start a business?” (feasibility); and “How sure of yourself are you?” (feasibility); hence solely for the feasibility statements.

Insert Table 7.

*ANOVA: Gender differences*

This part of the paper addresses the gender issue concerning these categories of desirability and feasibility (Table 8). Each cluster was tested separately.

Insert Table 8.

In Israel, gender differences were found in the case of: “How certain of success are you?“ (feasibility); “How sure of yourself are you?” (feasibility); and “I would love to do it” (desirability); hence for two feasibility and one desirability statement. In the EU countries cluster of Austria and France with statements: “How certain of success are you?“ (feasibility); “Do you know enough to start a business?” (feasibility); “How sure of yourself are you?” (feasibility); “I would love to do it” (desirability); and “I would be enthusiastic” (desirability); hence for both desirability and feasibility statements. For the recently joined EU countries Lithuania, Poland and Slovenia differences were confirmed in: “How certain of success are you?“ (feasibility); “Do you know enough to start a business?” (feasibility); and “How sure of yourself are you?” (feasibility); hence solely for the feasibility statements. Croatia had significant gender differences in desirability and feasibility for all statements.

*Educational perspective*

The last part of the questionnaire was aimed at the educational tools which are believed to be stimulative for entrepreneurial environment (Table 9). A higher score implies more approval for the statement regarding a specific educational tool which could assist in raising the level of entrepreneurship in the country. The answers were again analyzed according to previously identified clusters.

Building practical courses that teach best practices in entrepreneurship was rated as one of the three most important things in stimulating entrepreneurship in all countries which took part in the survey. Constructing formal and ongoing networking sessions with existing/successful entrepreneurs was found to be very important in Israel, Austria and France; while practical involvement of lecturers, teachers and/or course assistants in entrepreneurship was very important in Austria and France and Croatia. Specifically, Israel found creating specific programs in entrepreneurship to be very important. Furthermore, Lithuania, Poland and Slovenia find developing internship programs in entrepreneurship and developing workshops to practice entrepreneurial 'know-how' important as well. Studying in small groups or teams was also important in the Croatian sample (e.g. in preparing class work and homework, etc.).

Insert Table 9.

**Conclusion**

This paper makes significant contributions to the understanding of entrepreneurial perceptions among students and the information sources that impact them. One of the key strengths of this study is that is it based on a wide range of data for students from 7 different countries. Thus, the results are related to institutional environment bound by different political and economic situations including the state of development and integration, on the one side, and globally oriented regarding perceptions and intentions to perform certain behavior, on the other.

Specifically, there are three major findings. The first one is that desirability and feasibility play important roles in students’ attitude towards entrepreneurship. Another key finding is that there are two types of behavior: the first one is related to the perceived enjoyment and the other to the perceived tension as underlying factors towards desirability. In addition, two underlying factors - intrinsic influences and extrinsic influences - were identified as factors of feasibility. The important finding suggests that most students from all countries perceive entrepreneurship as desirable and most of them think it is not that easy to achieve it.

Secondly, significant differences were found between genders with respect to their perceptions of desirability and feasibility towards entrepreneurial behavior with differing attitude statement varying across countries. This adds to the findings of prior research on gender differences in entrepreneurial attitudes.

Thirdly, the students indicated that educational programs are necessary in order to help them with their entrepreneurial aspirations. This paper does not aim to offer appropriate teaching methods to encourage the entrepreneurship spirit, rather to offer three major action items. The first one brings forward the policies that should be considered for adoption. Such policies would include practical involvement of lecturers, teachers, and/or course assistants in entrepreneurship, as well as constructing formal, ongoing visits to entrepreneurial enterprises. These are explained in more detail in the results section. This outlines a major finding regarding the fact that students lack practical involvement in entrepreneurship, which could in turn assist the perception that entrepreneurship is more feasible.

All three findings together prove that entrepreneurship is indeed desirable and that education can help with its promotion and attainment and in such a way foster change in institutional environment into its becoming a more proactive setting where the level of economic development could be raised with respect to the spirit of innovation bound by entrepreneurial mindset. Hence, the role model of Israel seems to prove a better understanding of the entrepreneurial phenomena, on the one hand, and regarding educational policy for promoting entrepreneurship, on the other, according to students’ attitudes.

There are number of limitations in this paper. Firstly, we lacked the longitudinal data collection which could provide more valid support for future work. The second important limitation is the number of factors that are being investigated. Further research should focus on country specific characteristics and among countries, not just between Israel and other clusters. The third limitation suggests that labor market needs to be examined on the role of institutions and entrepreneurial and educational support before making further recommendations in terms of entrepreneurship education support policies.

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Figure 1 Model to foster entrepreneurship education

List of tables

Table 1.

Questions forming the concept of desirability

|  |  |
| --- | --- |
| Questions | The range of possible answers |
| 1. “I would be enthusiastic.” | 1-Not at all/ 6-Very much |
| 2. “I would be tense” | 1-Not at all/ 6-Very much |
| 3. “I would love to do it” | 1-Not at all/ 6-Very much |
| 4. “My immediate family members would encourage me to do it” | 1-Not at all/ 6-Very much |

Table 2.

Questions forming the concept of feasibility

|  |  |
| --- | --- |
| Questions | The range of possible answers |
| 1. “Do you know enough to start a business?” | 1-Know everything/6-Know nothing |
| 2. “How certain of success are you? “ | 1-Very certain of success/6-Very certain of failing |
| 3. “How hard do you think it would be to do?” | 1-Very hard/ 6-Very easy |
| 4. “How overworked would you be?” | 1-Very overworked/6-Not overworked at all |
| 5. “How sure of yourself are you?” | 1-Very sure of myself/6-Very unsure of myself |

Table 3a.

Statistical summary according to clusters (desirability)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Israel | | | Austria & France | | | Lithuania & Poland & Slovenia | | | Croatia | | |
|  | N | Mean | STD | N | Mean | STD | N | Mean | STD | N | Mean | STD |
| “I would be enthusiastic.”  (1-Not at all/ 6-Very much) | 268 | 4,68 | 1,32 | 983 | 4,48 | 1,39 | 1013 | 3,38 | 1,71 | 1918 | 4,70 | 1,19 |
| “I would be tense”  (1-Not at all/ 6-Very much) | 269 | 4,40 | 1,25 | 983 | 4,33 | 1,31 | 1012 | 3,30 | 1,40 | 1918 | 4,21 | 1,31 |
| “I would love to do it”  (1-Not at all/ 6-Very much) | 268 | 4,02 | 1,62 | 983 | 3,96 | 1,64 | 1017 | 3,28 | 1,69 | 1918 | 4,66 | 1,50 |
| “My immediate family members would encourage me to do it”  (1-Not at all/ 6-Very much) | 266 | 4,26 | 1,53 | 983 | 4,38 | 1,54 | 1014 | 3,51 | 1,74 | 1918 | 5,07 | 1,26 |

Table 3b.

Statistical summary according to clusters (feasibility)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Israel | | | Austria & France | | | Lithuania & Poland & Slovenia | | | Croatia | | |
|  | N | Mean | STD | N | Mean | STD | N | Mean | STD | N | Mean | STD |
| “Do you know enough to start a business?”  (1-Know everything/6-Know nothing) | 274 | 3,59 | 1,00 | 983 | 3,94 | 1,53 | 1017 | 3,73 | 1,22 | 1918 | 3,49 | 1,19 |
| “How certain of success are you? “  (1-Very certain of success/ 6-Very certain of failing) | 274 | 2,60 | 0,88 | 983 | 3,37 | 1,18 | 1016 | 3,04 | 1,15 | 1918 | 2,82 | 1,06 |
| “How hard do you think it would be to do?”  (1-Very hard/6-Very easy) | 274 | 2,15 | 0,90 | 983 | 2,09 | 1,03 | 1019 | 2,65 | 1,22 | 1918 | 2,03 | 1,04 |
| “How overworked would you be?”  (1-Very overworked/6-Not overworked at all) | 273 | 2,39 | 0,95 | 983 | 2,19 | 1,09 | 1018 | 2,69 | 1,19 | 1918 | 1,86 | 0,99 |
| “How sure of yourself are you?”  1-Very sure of myself/6-Very unsure of myself) | 275 | 2,42 | 1,04 | 983 | 2,92 | 1,36 | 1027 | 2,76 | 1,22 | 1918 | 2,42 | 1,18 |

Table 4.

Points and ranks concerning desirability

|  |  |  |
| --- | --- | --- |
| Points  (1-4) | Rank | Cluster |
| 5 | 1 | Croatia |
| 11 | 2 | Israel |
| 11 | 2 | Austria & France |
| 13 | 3 | Lithuania & Poland &Slovenia |

Table 5.

Points and ranks concerning feasibility

|  |  |  |
| --- | --- | --- |
| Points  (1-5) | Rank | Cluster |
| 8 | 1 | Israel |
| 10 | 2 | Lithuania & Poland &Slovenia |
| 11 | 3 | Croatia |
| 18 | 4 | Austria & France |

Table 6a.

Welch/Brown-Forsythe test (desirability)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Welch/Brown-Forsythe | Statistica | df1 | df2 | Sig. |
| “I would love to do it” | 169,257 | 3,00 | 1072,894 | ,000 |
| 166,389 | 3,00 | 1928,778 | ,000 |
| “My immediate family members would encourage me to do it” | 231,282 | 3,00 | 1039,430 | ,000 |
| 229,303 | 3,00 | 1896,368 | ,000 |
| “I would be tense” | 127,534 | 3,00 | 1098,059 | ,000 |
| 139,768 | 3,00 | 2169,055 | ,000 |
| “I would be enthusiastic.” | 163,912 | 3,00 | 1060,695 | ,000 |
| 202,891 | 3,00 | 2139,053 | ,000 |

a. Asymptotically F distributed.

Table 6b.

Welch/Brown-Forsythe test (feasibility)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Welch/Brown-Forsythe | Statistica | df1 | df2 | Sig. |
| “How hard do you think it would be to do?” | 67,519 | 3,00 | 1137,494 | ,000 |
| 85,517 | 3,00 | 2578,570 | ,000 |
| “How certain of success are you? “ | 66,775 | 3,00 | 1145,822 | ,000 |
| 70,211 | 3,00 | 2716,154 | ,000 |
| “How overworked would you be?” | 128,728 | 3,00 | 1110,132 | ,000 |
| 139,465 | 3,00 | 2393,532 | ,000 |
| “Do you know enough to start a business?” | 23,804 | 3,00 | 1141,506 | ,000 |
| 29,005 | 3,00 | 2663,677 | ,000 |
| “How sure of yourself are you?” | 41,152 | 3,00 | 1137,264 | ,000 |
| 45,130 | 3,00 | 2556,266 | ,000 |

1. Asymptotically F distributed.

Table 7.

T-test for equality of means between Israel and other clusters

|  |  |  |  |
| --- | --- | --- | --- |
| Independent Samples Test | Israel | Israel | Israel |
| t-test for Equality of Means | Croatia | Lithuania & Poland & Slovenia | Austria & France |
|  | Sig. (2-tailed) | | |
| “How hard do you think it would be to do?” | 0,04 | 0,00 | 0,33 |
| “How certain of success are you? “ | 0,00 | 0,00 | 0,00 |
| “How overworked would you be?” | 0,00 | 0,00 | 0,00 |
| “Do you know enough to start a business?” | 0,15 | 0,05 | 0,00 |
| “How sure of yourself are you?” | 0,92 | 0,00 | 0,00 |
| “I would love to do it” | 0,00 | 0,00 | 0,59 |
| “My immediate family members would encourage me to do it” | 0,00 | 0,00 | 0,26 |
| “I would be tense” | 0,03 | 0,00 | 0,43 |
| “I would be enthusiastic.” | 0,81 | 0,00 | 0,03 |

Table 8.

T-test for equality of means of gender differences

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| GENDER | Israel | Austria & France | Lithuania & Poland & Slovenia | Croatia |
| “How hard do you think it would be to do?” | 0,59 | 0,12 | 0,07 | 0,00 |
| “How certain of success are you? “ | 0,00 | 0,00 | 0,00 | 0,00 |
| “How overworked would you be?” | 0,05 | 0,06 | 0,07 | 0,00 |
| “Do you know enough to start a business?” | 0,08 | 0,00 | 0,00 | 0,00 |
| “How sure of yourself are you?” | 0,00 | 0,00 | 0,00 | 0,00 |
| “I would love to do it” | 0,00 | 0,00 | 0,94 | 0,00 |
| “My immediate family members would encourage me to do it” | 0,67 | 0,97 | 0,09 | 0,00 |
| “I would be tense” | 0,02 | 0,03 | 0,44 | 0,00 |
| “I would be enthusiastic.” | 0,10 | 0,00 | 0,73 | 0,00 |

Table 9.

Educational tools for entrepreneurship promotion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Israel | Austria & France | Lithuania & Poland & Slovenia | Croatia |
|  | Mean | Mean | Mean | Mean |
| Creating specific programs in entrepreneurship | 4,72 | 4,09 | 4,37 | 4,50 |
| Incorporating courses in entrepreneurship within academic programs such as: management, engineering, technology, medicine, etc. | 4,35 | 4,20 | 4,23 | 4,45 |
| Developing internship programs in entrepreneurship | 4,15 | 3,83 | 4,65 | 4,64 |
| Creating incubators to support students' initiatives | 4,58 | 4,17 | 4,60 | 4,70 |
| Establishing websites for networking designed specifically for students wishing to become entrepreneurs | 4,42 | 4,32 | 4,28 | 4,81 |
| Establishing websites for tutoring in entrepreneurship designed specifically for students wishing to become entrepreneurs | 4,10 | 4,28 | 4,35 | 4,84 |
| Constructing formal and ongoing networking sessions with existing/successful entrepreneurs | 4,70 | 4,45 | 4,59 | 4,80 |
| Practical involvement of lecturers, teachers and/or course assistants in entrepreneurship | 4,51 | 4,49 | 4,59 | 5,22 |
| Constructing formal, ongoing visits to entrepreneurial enterprises | 4,36 | 4,15 | 4,56 | 4,92 |
| Constructing formal, ongoing visits to incubators | 4,17 | 3,83 | 4,19 | 4,64 |
| Developing a well-established research center for entrepreneurship | 3,92 | 3,93 | 4,14 | 4,58 |
| Developing a meaningful relationship with the community | 3,79 | 4,26 | 4,35 | 4,63 |
| Committing to robust, rigorous research in entrepreneurship at the school/department (including publication in the best journals) | 4,03 | 3,71 | 4,00 | 4,17 |
| Developing exchange programs with students in entrepreneurship programs at different academic institutions, or in different cities or countries | 3,99 | 4,24 | 4,57 | 4,58 |
| Commitment of senior administrators (e.g., entrepreneurship program directors, deans, advisory board members, etc.) to creating and sustaining performance excellence with a focus on students | 4,34 | 4,05 | 4,44 | 4,54 |
| Commitment to developing a special focus on innovation (e.g., through the curriculum, projects, etc.) | 4,34 | 4,36 | 4,53 | 4,66 |
| Building practical courses that teach best practices in entrepreneurship | 4,60 | 4,37 | 4,87 | 4,96 |
|  |  |  |  |  |
| Studying in small groups or teams (e.g., in preparing classwork and homework, etc.) | 4,45 | 4,31 | 4,50 | 5,00 |
|  |  |  |  |  |
| Commitment to expanding students' networking through professors and other students | 4,31 | 4,18 | 4,35 | 4,86 |
| Developing workshops to practice entrepreneurial 'know-how' | 4,46 | 4,31 | 4,81 | 4,91 |
| Valid N (listwise) | 265 | 983 | 964 | 1918 |

**Attachment (sample description)**

Students were distributed as follows: 1918 Croatia, 541 Austria, 442 France, 295 Israel, 415 Lithuania, 331 Poland, and 306 Slovenia. 63,61% were female and 36,39% male . Most of them were single 93,40%, some married 5,89% and some divorced or widowed (0,71%).

87,92% full time students and 12,08% part time. As to years of age 85,98% were 25 or less. They attended undergraduate and graduate studies of which most of them were in the first year (39,60%). List of universities is given below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country** | **F** | **%** | **Gender** | **F** | **%** |
| Croatia | 1918 | 45,15 | female | 2699 | 63,61 |
| Austria | 541 | 12,74 | male | 1544 | 36,39 |
| France | 442 | 10,40 | Total | 4243 | 100,00 |
| Israel | 295 | 6,94 | **MS** | **F** | **%** |
| Lithuania | 415 | 9,77 | single | 3962 | 93,40 |
| Poland | 331 | 7,79 | married | 250 | 5,89 |
| Slovenia | 306 | 7,20 | divorced/widowed | 30 | 0,71 |
| Total | 4248 | 100,00 | Total | 4242 | 100,00 |
|  |  |  |  |  |  |
| **F/P** | **F** | **%** | **Age** | **F** | **%** |
| full-time | 3727 | 87,92 | <20 | 1260 | 29,68 |
| part-time | 512 | 12,08 | 21-25 | 2390 | 56,30 |
| Total | 4239 | 100,00 | 26-30 | 405 | 9,54 |
| **Year of study** | **F** | **%** | 31-35 | 117 | 2,76 |
| 1st | 1678 | 39,60 | 36-40 | 41 | 0,97 |
| 2nd | 1184 | 27,94 | 41-45 | 16 | 0,38 |
| 3rd | 674 | 15,91 | 46+ | 16 | 0,38 |
| 1st | 512 | 12,08 | Total | 4245 | 100,00 |
| 2nd | 189 | 4,46 |  |  |  |
| Total | 4237 | 100,00 |  |  |  |