



EDUCATION OPEN INCUBATOR SUPPORTING INFORMAL ENTREPRENEURS GENERATED BY ISPALE ECOSYSTEM

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ABSTRACT

Introduction: An incubator supports entrepreneurs who are ready to enter into the common location. The number is limited to twenty-thirty. The Open Incubator bolsters entrepreneurs in the location they chose. **Context:** The Open Incubator educates and train students specialized in entrepreneurship, project management and marketing who work with entrepreneurs belonging to a common value chain. **Objective:** The students could be involved in logistic, marketing and sales activities and in the upgrading of the production. **Methodology:** Around an MNC, a mine or a hospital as a captive market, the open incubator improves entrepreneurs' efficiency, diminish the percentage of failure and create more value. **Results and conclusions:** Pragmatic courses on entrepreneurship and project management implemented on projects chosen by the students have a positive impact on their entrepreneurial and managerial behavior.

Keywords: *Entrepreneurship, Open Incubator, RDC, Mine, students.*

1. INTRODUCTION

The majority of small businesses in the developing countries have been created by people that cannot find jobs otherwise. They are subsistence driven and mainly want to earn just enough to live [1, 2, 3]. The greater the poverty, the more necessity business there is [4, 5]. Nearly all of poorest owners of businesses interviewed by 2 in his research appeared trapped by their incapacity to find the time to earn sufficient surplus to invest. Evolution from economic necessity appears to be rare [2]. It is still unknown when and how entrepreneurs decide to grow and what triggers the desire to grow [6, 7, 8, 9]. Few years ago the mayor of Songon, a suburb of Abidjan, Ivory Coast, decided to create jobs for unemployed young people and he thought that the lagoon in his region was an opportunity for fishing business [10]. He succeeded to collect funds in order to invest in the project. He purchased pirogues, nets and other relevant equipment. The selected youth started to catch fishes and sold it in the market. But they stopped to catch fishes when they had enough money in order to subsist. Necessity entrepreneurship cannot generate development. The main generators of business entrepreneurship are ambition, will to cooperate and leadership.

1.1 Motivation for ambition

Without motivation for ambition to achieve personal and social objectives, there is no interest to earn more what is required in order to subsist. This is a fundamental issue, which block any initiative of development. Atkinson [11] defines motivation as the contemporary (immediate) influence on direction, vigor, and persistence of action.

Campbell, J. P., & Pritchard [12] suggest that motivation has to do with a set of variable relationships that explain the direction, amplitude, and persistence of an individual's behavior, holding constant the effects of aptitude, skill, and understanding of the task. The three common denominators of those definitions are according to factors that energize, channel goals oriented, and sustain human behavior over time [13].

1.1.2 Factors that energize

Motivation for ambition can be the result of energetic forces within individual driving him to be ambitious. Behavioral scientists started to develop models on instinct theories in order determine the factors that energize. McDougall speaks about an inherited or innate psychological predisposition which determined its possessor to experience an emotional excitement and to act in regard to it in a particular manner. Timmons [14, 15] and Bijaoui [10] in their entrepreneurial reflection emphasize the need of creativity and curiosity opportunity oriented.

Curiosity starts with the interest of asking questions and seeking for answers. Creativity transforms those answers into added value for a current or new business. This added value is planned to achieve objectives defined by the entrepreneur as "success". The definition of success differs according to the interest of the entrepreneur, but it has to be defined in advance in order to act according to it.

1.1.3 Goal orientation

Motivation for ambition is driven by the willingness to achieve goals. Reinforcement models continue to thrive today as explanatory vehicles for understanding work motivation and job performance, as well as in the workplace in various performance management programs [16].

Content theories identify factors associated with motivation. Maslow [17] proposed a steady progression over time up a hypothetical hierarchy as individuals grow and mature from physical needs to safety and security needs and social and self-esteem needs to finally self-actualization. McClelland [18, 19] ignored the concept of hierarchy and focused on the motivational potency of distinct levels of self and social actualization as factor to energize. McClelland calls the first level of business entrepreneurship self-actualization objective need for achievement. This level requires personal responsibility, calculated risks, and performance feedback and task accomplishment. The entrepreneur determines his personal economic and professional objectives and the conditions required in order to achieve it: tasks to accomplish, monitoring of the required performance under conditions of calculated risks. The second level is the self and social actualization objective defined as need for affiliation. The entrepreneur seeks for the approval of the business and social community. He acts in conformity with wishes and norms and he is interested by the feeling of others.

At the third level of self and social actualization objective the entrepreneurs seeks for power need. He leads follower relation, exercise control, take a leadership attitude.

1.1.4 COOPERATION AND HUMAN CAPITAL

Timmons (14) defines two criteria required in order to determine the required human capital. The first one refers to creativity skills. The second one refers to management skills. He defines four fundamental roles requiring different capabilities: Managers, Entrepreneurs, Promoters and Inventors.

1.1.5 Creativity versus management skills

Creativity requires curiosity, continuous up dated knowledge and something more: the capability to identify and develop new ideas or more specifically the right idea at the right time. The microwave oven invented by Raytheon was a creative idea but it was developed in 1950, when still a small percentage of women used to work.

At the opposite I Pod as a mobile music entertainment device, was a creative idea developed at the right time, when young and less young customers are open to mobile entertainment applications downloaded from internet such as games, video, TV show or songs.

Managerial skills refer to the capability to run a business efficiently by taking the right decision at the right time, by selecting the right people for the right job and by leading and monitoring the different activities in order to achieve the planned objectives with the planned budget at the planned time.

1.1.6 The four fundamental roles

Each role maybe fulfilled by different persons belonging to different positions and departments. The managers' role insures stability and continuous growth according to planned objectives, budget, timing and performance of each activity. The managers require high level of management skills, but low level of creativity because creative people think outside the box and so they don't accept, budget or time conditions. They change their mind any time they think creativity. They will be more outside the firm, meeting customers or specialists in order to propose new ideas. It is the opposite of stability.

The Entrepreneurs in the different positions and department have to be very creative because they have to seek and find improvements generating more value. They require also high management skills, because they work in close cooperation with the managers.

The Inventors are in charge of the technical and technological knowledge and are able to improve the value generated by products and processes. Research centers or international companies specialized in the relevant domains, could play the role of inventors. The Promoters understand the psychology of the customer and have the relevant network relations in order to push the products into the market. It can be trading companies specialized in the domain and have the trust of the customers.

2. LEADERSHIP

2.1 Leadership theory

The categories of leadership are as follows.

Leadership by Tradition. The leader is by tradition the father in the family, the chief in the village or the king in a country [20]. Trait theories of Leadership. Those leadership theories emphasize the personality of the leaders.

Leaders are those who are endowed with specific personality traits and or who accomplished actions approved and admired by followers. In politics Mao, Castro, Churchill or De Gaulle. In business, it can be Bill Gates or Ford. Formal Leadership Function. Leadership function reflects formal positions and the power to direct. The leader is elected or chosen in order to lead a party or a company because of his personal capabilities.

Human Relation Theories. Leadership is focused on relationships and accepted that those being lead also had agency. Contextual Theories of Leadership. They are considered as leaders those who are able to recognize environmental clues and adapt their behaviors to the context or situation. Illustrations of fifth stage are path-goal theory [21], Fielder’s contingency theory [22] and situational theory [23]

2.2 Leadership style

Blanchard and Hersey [23] discerned in their research between directive behavior and supportive behavior leader's attitudes. Directive behavior is defined as one-way communication, from the leader to the follower with close supervision.

Supportive behavior is defined as two-ways communication. The leader listens, provides support and encourages, facilitates interaction, and involves the follower in decision-making

Four distinct leadership styles are identified.

Style 1: High Directive/Low Supportive – Autocratic "Directing" leader leads the decision making process and tell to people what to do. They select good executants able to transfer and implement decisions.

Style 2: High Directive/High Supportive – Democratic "Coaching" leader transfers experience and knowledge to subordinates in order to improve their capabilities and open a two ways communication by hearing ideas and suggestions. But, the leaders finally decides and subordinates execute.

Style 3: Low Directive/High Supportive – Democratic "Supporting" leader share the decision making process with others and provide knowledge to subordinates in order to delegate power.

Style 4: Low Directive/Low Supportive – Laissez faire "Delegating" leader transfers decision making process and control. He acts as a visionary and defines rules and long term objectives. The followers implement his philosophy and act as leaders or future leaders.

3. THE EDUCATION OPEN INCUBATOR (EOI)

Programs supporting individual entrepreneurs have a constrained impact. Few of them reach the break even and a small percentage prevails to develop.

The desire that young entrepreneurs will generate jobs for other youngsters isn't genuine [24]. Youth Entrepreneurship intercessions, for the most part, promote small, necessity enterprises with limited business experience that don't generate jobs and development [25].

Billions are put resources into education and training, in entrepreneurship programs and the principal target of economic development is far to be accomplished. An incubator supports entrepreneurs who are ready to enter into a common location. The number is limited to twenty-thirty. The EOI bolsters hundreds of necessity entrepreneurs in the location they chose by sending trained students in entrepreneurship and project management. The necessity entrepreneurs are chosen by their business potential, their enthusiasm to collaborate with others, and their ability to add to economic development. The Education Open Incubator supports the necessity entrepreneurs along the value chain of a specialization from primary to support activities. Primary activities could be transportation, warehousing, production: distribution. Support activities could be purchasing services, technology transfer or human resources management.

The EOI educates and train students specialized in entrepreneurship, project management and marketing who work in group in an open incubator supporting local entrepreneurs belonging to a common value chain (Figure 1).

The management supports teams of students, each one is in charge of a group of entrepreneurs. The entrepreneurs improve their knowledge by participating to relevant training. The board is made by delegates out of the nearby proficient, education, fund and research foundations.

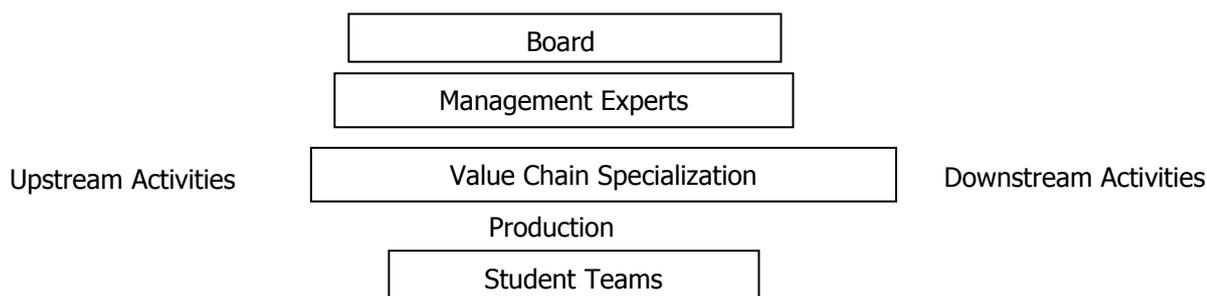


Figure1: The figure presents the education Open Incubator.

The supported necessity entrepreneurs will be more efficient and will be able to create jobs. The students acquire a professional experience and the habit to work in group and share activities and responsibilities. They will be able to create their own enterprise or to integrate an existing one.

4. EDUCATION OPEN INCUBATOR AROUND KIBALI GOLD MINE

The Institut Supérieur Prince Amani des Sciences de la Logistique et d'Entrepreneuriat (ISPALE), a private academic organization in Democratic Republic of Congo (DRC), collaborates with Galilee International Management Institute (GIMI) in Israel and the gold mine, Kibali Barrick Rangold, North East DRC to actualize the ETOIs Food supply moored group model.

4.1 The partners

ISPALE

Two years ago started its activities the Institut Supérieur Prince Amani des Sciences de la Logistique et d'Entrepreneuriat (ISPALE) at Tadu, in the province of the Haut Uélé, DRC. ISPALE is an academic institution providing BA in entrepreneurship and logistics.

GIMI

Galilee International Management Institute (GIMI), based in northern Israel, offers capacity building courses that go far beyond imparting skills and knowledge.

GIMI teach professionals in both the public and private sectors how to think differently. The programs present experience acquired over the years in Israel, a country world renowned for its innovative approaches, rapid development and esprit de corps.

KIBALI Gold Mine

Kibali Gold Mine is situated in the Orientale province of Democratic Republic of Congo (DRC) It is one of the largest gold mines of Africa Congolese (solutions website). 21,000 villagers, many of whom were seeking out a living digging for gold, were moved before excavations began [26]. Kibali built a town for the villagers called Kokiza, Kibali Gold Mine started as a joint venture (JV) of Rangold (45%), AngloGold Ashanti (45%) (South Africa) and Sokimo (10%) (DRC government) until the merger with Canadian Barrick Gold Corp. in 2018 [26]. The mine tried to support individual growers by microfinance loans but without any success. The purchasing department of Kibali mine imports most of the required products including mineral water from Uganda.

4.2 Kibali market

Local employees are 664 with their family, increase by 6 for every family, around 3984 ostracize representatives, 106, Local contractual employees 3870 and family, 23220 and exile temporary employees, 409, a minimum market size of least of 30,000 individuals [27].

5. ISPALE EOI

The results of the cross analysis of the regional competitive advantage and Kibali gold mine needs, suggested to improve local production in order to compete with the import of Kibali gold mine from Uganda.

EOI student teams cooperate with local growers and entrepreneurs in order to improve the quality and quantity of their products and services in the eighteen following domains.

Fish trading

Peanuts oil

Rice

Bananas plantain

Construction services

Drinking water system

Entertainment center

Pork

Poultry

Ducks

Apples

Hairdressing

Coffee

Pharma

Small Ruminants

Restaurant

Vegetables

Beans oil

6. ISPALE STUDENTS

In the ETOIs anchored cluster to Kibali gold mine, the students are going to fulfill the role of entrepreneurs and support the local growers and local entrepreneurs in their role of managers. Some of students could also fulfill the role of manager and promoter as involved in sales activities.

Co - leadership between the students and the growers and local entrepreneurs is required, style 3, as a democratic cooperation with transfer of knowledge in order to create a common language. The students will transfer knowledge on entrepreneurship and maybe management. Growers and local entrepreneurs will transfer to the students knowledge on their specialization.

6.1 Courses content

Project management

SWOT analysis

Project definition

Objectives

Levels

Processes

Budgeting

Innovative reflection

Innovation recognition

Innovation orientation

High-Low end innovation

Entrepreneurial reflection

Entrepreneurial process

Ambition

The entrepreneurial staff

Communication and conflict management

6.2 Students Profile and behavior

ISPALE has around 200 students in three specializations, entrepreneurship, logistics and ICT.

We are interested to understand their profile, their intention after their studies and the impact of the courses entrepreneurship and project management on their personal interest and their behavior.

We have selected a random sample of 120 students from the different years and specializations, Entrepreneurship (45), Logistics (60) and ICT (15) (Table 1).

Table 1: The sample.

| Number of students | First year | Second year | Third year | Total |
|-------------------------|------------|-------------|------------|-------|
| Entrepreneurship | 8 | 19 | 18 | 45 |
| Logistics | 6 | 15 | 39 | 60 |
| ICT | 1 | 14 | 0 | 15 |
| Total | 15 | 48 | 57 | 120 |

In ICT specialization 50% are women, in logistics specializations 22%, and 22% in entrepreneurship (Table 2).

Table 2: Gender classification.

| Number of students | Men | Women | Total |
|-------------------------|-----|-------|-------|
| Entrepreneurship | 35 | 10 | 45 |
| Logistics | 37 | 13 | 60 |
| ICT | 7 | 8 | 15 |
| Total | 79 | 31 | 120 |

The parents are farmers for 54% of the students for 32 %r civil servants and for 14% traders and others (Table 3).

Table 3: Fathers' employment.

| Number of students | Farmers | Civil servant | Traders and others | Total |
|-------------------------|---------|---------------|--------------------|-------|
| Entrepreneurship | 23 | 19 | 3 | 45 |
| Logistics | 34 | 15 | 9 | 58 |
| ICT | 6 | 4 | 4 | 14 |
| Total | 63 | 38 | 16 | 117 |

In all specializations the students were not pushed to study by their parents. It was their own initiative in order to develop their own business (Table 4).

Table 4: Reasons for studying.

| 0 ...5 level of importance | Parents | Employment | Support parents | Business | Number of Students |
|----------------------------|---------|------------|-----------------|----------|--------------------|
| Entrepreneurship | .7 | 1.9 | 3.0 | 4.9 | 45 |
| Logistics | .6 | 2.9 | 2.5 | 4.3 | 60 |
| ICT | 1.0 | 1.6 | 3.9 | 4.6 | 15 |
| | .7 | 2.4 | 2.9 | 3.8 | 118 |

The students were asked about their preferences between four possibilities, production, research, management or sales by quoting from 0 to 5 their level of interest. In entrepreneurship specialization the students prefer sales and management, in logistics, management and in ICT production and research (Table 5).

Table 5: Students main interest.

| 0 ...5 level of interest | Production | Research | Management | Sales | Number of Students |
|--------------------------|------------|----------|------------|-------|--------------------|
| Entrepreneurship | 2.2 | 2.9 | 3.4 | 3.8 | 43 |
| Logistics | 3.4 | 2.4 | 4.7 | 2.1 | 57 |
| ICT | 3.7 | 3.7 | 3.1 | 2.7 | 15 |
| | 3.0 | 2.7 | 3.9 | 2.8 | 115 |

After their studies the students expect to open their own business (in all specializations). They are less interested to find a job.

The economic level of the students family is good in food, education and health (around 3 quotation average on 5), but lower in housing (2.4) and very low in leisure (around 1).

6.3 Impact of entrepreneurship and project management courses

The courses on entrepreneurship and project management were given to the students in entrepreneurship and logistics specialization in the third year and to the students in the second year in entrepreneurship specialization. In our sample we have 76 students who listen the two courses and 44 who did not listen the two courses.

6.4 Students profile according to gender

60% of the student's men have a father who is a farmer compared to 35% for the students women (Table 6).

Table 6: Fathers' employment

| Number of students | Farmers | Civil servant | Traders and others | Total |
|--------------------|---------|---------------|--------------------|-------|
| Men | 52 | 26 | 8 | 86 |
| Women | 11 | 12 | 8 | 31 |
| Total | 63 | 38 | 16 | 117 |

The economic level of the students women is higher that the students men especially in food, housing and entertainment.

Students women are more business oriented in choosing their study specialization that students men. But their decision after the studies is less affirmative about creating their own business than students' men.

Students' women are production minded and less sales minded than students'men.

7. Statistical analysis

We have defined a dependent variable called Entrep: 1 for students who did not listen the two courses and 2 to those who listen the courses and Y, year of study (1,2,3)

The independent parameters defined are as follows:

S specialization 1 entrepreneurship, 2 logistics, 3 ICT

ipp interest in production

ipr interest in research

ipg interest in management

ipv interest in sales

oc expect to work ion the incubator

op expect to open a business in the incubator

os expect to find a job

oe expect to continue to study

of expect to support business family

ob expect to open a business

Herewith the statistic results:

Y is correlated statistically (5%) with Entrep, ipg, oc and os

Entrep is correlated statistically (5%) with Y, ipv, oc, os and of

ipg is correlated statistically with ipr, y, oc, op, os and ofob and oc

op is correlated statistically with ipg, ob, oc, os of and oe

os is correlated statistically with Entrep, Y oc, op, of, ipg, ipr and ob

| | | Correlations | | | | | | | | | | | |
|--------|---------------------|--------------|---------|--------|--------|--------|--------|--------|---------|--------|--------|---------|--------|
| | | year | Entrep | Ob | Os | Of | Oe | Oc | S | Ipg | Ipp | Ipv | Ipr |
| year | Pearson Correlation | 1 | .761** | -.088 | .426** | .211* | .073 | .204* | -.009 | .253** | -.030 | -.017 | .079 |
| | Sig. (2-tailed) | | .000 | .347 | .000 | .023 | .440 | .029 | .921 | .006 | .749 | .853 | .396 |
| | N | 120 | 120 | 115 | 115 | 115 | 115 | 115 | 120 | 118 | 118 | 118 | 118 |
| Entrep | Pearson Correlation | .761** | 1 | -.060 | .278** | .252** | .097 | .176 | -.471** | .129 | .052 | .164 | .071 |
| | Sig. (2-tailed) | .000 | | .521 | .003 | .007 | .300 | .061 | .000 | .162 | .574 | .076 | .444 |
| | N | 120 | 120 | 115 | 115 | 115 | 115 | 115 | 120 | 118 | 118 | 118 | 118 |
| Ob | Pearson Correlation | -.088 | -.060 | 1 | -.047 | .186* | -.197* | .008 | -.095 | .000 | .277** | .274** | .155 |
| | Sig. (2-tailed) | .347 | .521 | | .617 | .047 | .035 | .932 | .311 | 1.000 | .003 | .003 | .101 |
| | N | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 113 | 113 | 113 | 113 |
| Os | Pearson Correlation | .426** | .278** | -.047 | 1 | .300** | .132 | .231* | .193* | .263** | .048 | -.123 | .281** |
| | Sig. (2-tailed) | .000 | .003 | .617 | | .001 | .160 | .013 | .038 | .005 | .617 | .195 | .003 |
| | N | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 113 | 113 | 113 | 113 |
| Of | Pearson Correlation | .211* | .252** | .186* | .300** | 1 | .124 | .395** | -.006 | .168 | .263** | .275** | .515** |
| | Sig. (2-tailed) | .023 | .007 | .047 | .001 | | .187 | .000 | .945 | .076 | .005 | .003 | .000 |
| | N | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 113 | 113 | 113 | 113 |
| Oe | Pearson Correlation | .073 | .097 | -.197* | .132 | .124 | 1 | .510** | .054 | .208* | .180 | .057 | .200* |
| | Sig. (2-tailed) | .440 | .300 | .035 | .160 | .187 | | .000 | .569 | .027 | .057 | .549 | .034 |
| | N | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 113 | 113 | 113 | 113 |
| Oc | Pearson Correlation | .204* | .176 | .008 | .231* | .395** | .510** | 1 | .024 | .280** | .317** | .282** | .353** |
| | Sig. (2-tailed) | .029 | .061 | .932 | .013 | .000 | .000 | | .800 | .003 | .001 | .002 | .000 |
| | N | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 113 | 113 | 113 | 113 |
| S | Pearson Correlation | -.009 | -.471** | -.095 | .193* | -.006 | .054 | .024 | 1 | .060 | -.144 | -.288** | .019 |
| | Sig. (2-tailed) | .921 | .000 | .311 | .038 | .945 | .569 | .800 | | .516 | .121 | .002 | .839 |
| | N | 120 | 120 | 115 | 115 | 115 | 115 | 115 | 120 | 118 | 118 | 118 | 118 |
| Ipg | Pearson Correlation | .253** | .129 | .000 | .263** | .168 | .208* | .280** | .060 | 1 | .000 | -.033 | .236* |
| | Sig. (2-tailed) | .006 | .162 | 1.000 | .005 | .076 | .027 | .003 | .516 | | .998 | .725 | .010 |
| | N | 118 | 118 | 113 | 113 | 113 | 113 | 113 | 118 | 118 | 118 | 118 | 118 |
| Ipp | Pearson Correlation | -.030 | .052 | .277** | .048 | .263** | .180 | .317** | -.144 | .000 | 1 | .357** | .316** |
| | Sig. (2-tailed) | .749 | .574 | .003 | .617 | .005 | .057 | .001 | .121 | .998 | | .000 | .000 |
| | N | 118 | 118 | 113 | 113 | 113 | 113 | 113 | 118 | 118 | 118 | 118 | 118 |
| Ipv | Pearson Correlation | -.017 | .164 | .274** | -.123 | .275** | .057 | .282** | -.288** | -.033 | .357** | 1 | .357** |
| | Sig. (2-tailed) | .853 | .076 | .003 | .195 | .003 | .549 | .002 | .002 | .725 | .000 | | .000 |
| | N | 118 | 118 | 113 | 113 | 113 | 113 | 113 | 118 | 118 | 118 | 118 | 118 |
| Ipr | Pearson Correlation | .079 | .071 | .155 | .281** | .515** | .200* | .353** | .019 | .236* | .316** | .357** | 1 |
| | Sig. (2-tailed) | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |

Herewith the results of regressions, Year, Entrep, Op and Os as a dependent variable and the second one with Entrep as a dependent variable.

Entrepreneurship studies as a dependent variable

The students who studied entrepreneurship (Entrep) are more sales (ppv) minded that those who did not study entrepreneurship. Adjusted R square is .599.

Years of studies as a dependent variable

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------------------------------------|-----------------------------------|-------------------|--------|
| 1 | Os, Ipv, Ipg, Entrep ^b | | Enter |
| a. Dependent Variable: year | | | |
| b. All requested variables entered. | | | |

| Model Summary | | | | |
|---|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .807 ^a | .652 | .639 | .422 |
| a. Predictors: (Constant), Os, Ipv, Ipg, Entrep | | | | |

| ANOVA ^a | | | | | | |
|---|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 35.982 | 4 | 8.996 | 50.498 | .000 ^b |
| | Residual | 19.239 | 108 | .178 | | |
| | Total | 55.221 | 112 | | | |
| a. Dependent Variable: year | | | | | | |
| b. Predictors: (Constant), Os, Ipv, Ipg, Entrep | | | | | | |

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .409 | .166 | | 2.464 | .015 |
| | Ipg | .054 | .025 | .128 | 2.180 | .031 |
| | Entrep | 1.052 | .088 | .724 | 11.962 | .000 |
| | Ipv | -.042 | .021 | -.120 | -2.036 | .044 |
| | Os | .062 | .022 | .172 | 2.780 | .006 |

a. Dependent Variable: year

There is a growing positive impact of the courses on entrepreneurship and project management over years: Entrep is positively related to year because the higher classes are studying this domain. Adjusted R square is .639

| Variables Entered/Removed ^a | | | |
|--|------------------------|-------------------|---------|
| Model | Variables Entered | Variables Removed | Method |
| 1 | year, Ipv ^b | | . Enter |

a. Dependent Variable: Entrep
b. All requested variables entered.

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .778 ^a | .606 | .599 | .30751 |

a. Predictors: (Constant), year, Ipv

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 16.719 | 2 | 8.359 | 88.404 | .000 ^b |
| | Residual | 10.874 | 115 | .095 | | |
| | Total | 27.593 | 117 | | | |

a. Dependent Variable: Entrep

b. Predictors: (Constant), year, Ipv

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .266 | .108 | | 2.469 | .015 |
| | Ipv | .042 | .014 | .177 | 3.021 | .003 |
| | year | .532 | .041 | .761 | 12.999 | .000 |

a. Dependent Variable: Entrep

Intention to develop a project (Op) in the incubator as a dependent variable

The students who want to develop a project in the incubator want also to work as employees (Oc) in the incubator in the intention to develop their own business (Ob). Adjusted R square is .285.

| Variables Entered/Removed ^a | | | |
|--|-----------------------------|-------------------|---------|
| Model | Variables Entered | Variables Removed | Method |
| 1 | Ob, Oc, Os, Of ^b | | . Enter |

a. Dependent Variable: Op
b. All requested variables entered.

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .557 ^a | .310 | .285 | 1.858 |

a. Predictors: (Constant), Ob, Oc, Os, Of

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 168.997 | 4 | 42.249 | 12.240 | .000 ^b |
| | Residual | 376.240 | 109 | 3.452 | | |
| | Total | 545.237 | 113 | | | |

a. Dependent Variable: Op

b. Predictors: (Constant), Ob, Oc, Os, Of

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.003 | .476 | | -.006 | .995 |
| | Oc | .341 | .094 | .318 | 3.640 | .000 |
| | Os | .192 | .096 | .171 | 1.998 | .048 |
| | Of | .217 | .099 | .200 | 2.186 | .031 |
| | Ob | .205 | .098 | .172 | 2.100 | .038 |

a. Dependent Variable: Op

To find a job (Os) as a dependent variable

The students who want to find a job after their studies have studied entrepreneurship (Entrep) and want to start to develop a project (Op) in the incubator after their studies.

| Variables Entered/Removed ^a | | | |
|--|----------------------------|-------------------|---------|
| Model | Variables Entered | Variables Removed | Method |
| 1 | Op, S, Entrep ^b | | . Enter |

a. Dependent Variable: Os
b. All requested variables entered.

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .515 ^a | .265 | .245 | 1.696 |

a. Predictors: (Constant), Op, S, Entrep

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 114.135 | 3 | 38.045 | 13.230 | .000 ^b |
| | Residual | 316.330 | 110 | 2.876 | | |
| | Total | 430.465 | 113 | | | |

a. Dependent Variable: Os
b. Predictors: (Constant), Op, S, Entrep

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -3.413 | .939 | | -3.634 | .000 |
| | Entrep | 1.655 | .374 | .409 | 4.429 | .000 |
| | S | 1.159 | .276 | .385 | 4.204 | .000 |
| | Op | .237 | .073 | .266 | 3.227 | .002 |

a. Dependent Variable: Os

8. CONCLUSION

Jobs and entrepreneurship supporting the economic development of requires cooperation between local necessity businesses and specialists minded entrepreneurship. Our model proposes to care groups of understudies/learners working together for improving the successfulness of necessity businesses along sectors value chains. More efficient entrepreneurs will diminish the percentage of failure and create more value. The students could be involved in logistic, marketing and sales activities and in the upgrading of the production. The acquired experience will serve them to develop their own business and create new jobs or to be hired by an existing enterprise. Thousands of jobs and entrepreneurs in each value chain will move the sectors represented from the necessity to business level generating sustainable economic development. Higher is the year of study, more entrepreneurship is studied and more the students are interested by management and sales activities. The students who want to develop a project in the incubator want also to work as employees in the incubator. Their intention is to develop their own business. The students who want to find a job after their studies have studied entrepreneurship and want to start to develop a project in the incubator. Pragmatic courses on entrepreneurship and project management implemented on projects chosen by the students have a positive impact on their entrepreneurial and managerial behavior.

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