

## CHAPITRE VIII

### From Subsistence to Business Behavior

#### 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 (Frese and De Kruif, 2000) (Olomi, 2001; Rutashobya, 1995). The greater the poverty, the more necessity business there is (Reynolds et al., 2001) (Rosam 2009).

Nearly all of poorest owners of businesses interviewed by Olomi (2001) 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 (Olomi 2001). It is still unknown when and how entrepreneurs decide to grow and what triggers the desire to grow (Dunkelberg and Cooper, 1982; Kolvereid, 1992; Kolvereid and Bullvag, 1996 and Kurantko et al, 1997) .

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 lagoons in his region was an opportunity for fish business (Bijaoui, 2012). He succeeded to collect funds in order to invest in a catching fish project from the local lagoon. 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 capability to lead.

#### 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 (1964) defines motivation as the contemporary (immediate) influence on direction, vigor, and persistence of action.

Campbell and Pritchard (1976) 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 Steer (2004) factors that energize, channel goals oriented, and sustain human behavior over time.

#### *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 perceive, or pay attention to objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner.

Timmons (1999, 2004) and Bijaoui (2012) 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.

#### *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 (Komaki, 2003).

Content theories identify factors associated with motivation. Maslow (1954) 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 (1961, 1971) 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.

### ***Means sustaining motivation***

#### Financial means

A salary is perceived as the reward for a work during a determined period. Beyond it, if there is not any incentive, people will not do any extra work, propose more efficient processes or possibilities for better business results.

Financial reward for more efficient work, solutions for better efficiency, will motivate people to be more ambitious and open minded to cooperation and leadership. Loans provided to entrepreneurs by governmental, public or international organizations, in order to support their business activities is also an intrinsic mean motivating entrepreneurs to take risk and develop their own business.

#### Professional means

Professional conditions can motivate both simple workers and specialists. Workers picking fruits and vegetables will do it in a professional and more efficient way, if they acquire some knowledge about it. A fruit or a vegetable continue to live after picking it. Picking conditions must keep the vegetable "sleeping", not any contact with source of energy as sun. For example, longer an avocado is linked to the branch higher will be the percentage of fat and shorter will be its shelf life. Deeper is the knowledge provided to the worker and more efficient will be his work.

A specialist is even easier to motivate by professional conditions such as training, purchasing of professional equipment or transfer of new knowledge.

#### Work conditions

Better work conditions improve work efficiency. Safe working place, meals at work, protection against rain, or chemicals constitute are the primary level of work conditions. The more advanced level is related to free medical insurance or loans for children education.

### **Cooperation and Human Capital**

Timmons (1999) 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.

### ***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 iPod 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.

### ***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, performance or time conditions. They change their mind any time they think creativity. 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 will be more outside the firm, meeting customers or specialists in order to propose new ideas. 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 required 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.

### **Leadership**

### ***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 (Brymer and Gray, 2006).

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 (Szilagyi & Sims, 1974), Fielder's contingency theory (Fiedler, 1967) and situational theory (Hersey & Blanchard, 1982).

### ***Leadership style***

Blanchard and Hersey (1982) 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 executives 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 decide and subordinates execute.

*Style 3: Low Directive/High Supportive* – Democratic "Supporting" leader shares 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.

### **The Education Open Incubators (ETOs) Anchored Cluster Model**

Education programs improve youth abilities yet do not create jobs. 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 (Burchell, Coutts, Hall, and Pye 2015). Youth Entrepreneurship interventions, for the most part, promote small,

necessity enterprises that don't generate jobs and development (Bateman and Chang, 2012).

Billions are put resources into education and training, in entrepreneurship programs and the principal target of economic development is far to be accomplished. The Education and Education Open Incubator (ETOI) could be one of the relevant options.

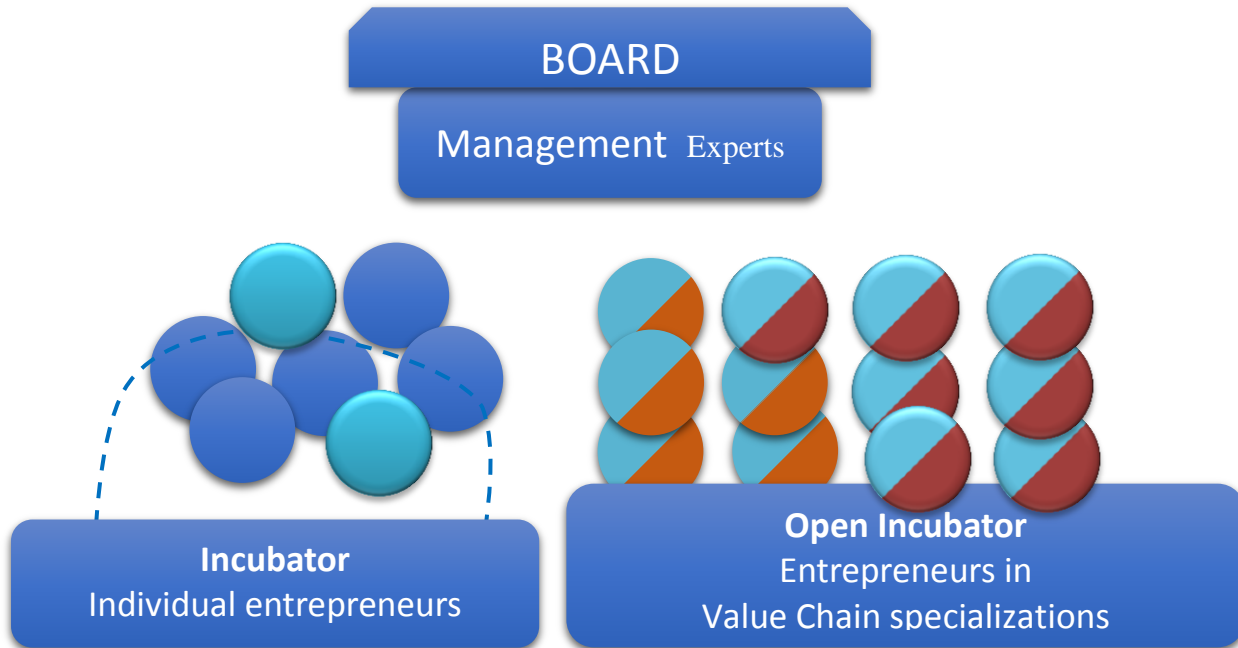
### ***The Open Incubator***

An incubator supports entrepreneurs who are ready to enter into a common location. The number is limited to twenty-thirty. The Open Incubator bolsters entrepreneurs in in the location they chose (Exhibit 1). The number could be hundreds and even thousands. The entrepreneurs are chosen by their business potential, their enthusiasm to collaborate with others, and their ability to add to economic development. The Open Incubator supports 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 Open Incubator model can be started by a public or private organization of which the goal is to help and improve the activities of the entrepreneurs belonging to a determined sector value chain.

**Exhibit 1: Open Incubator**



Herewith we propose to interface together academic business education with stakeholders of agriculture value chains in the formal and informal economy.

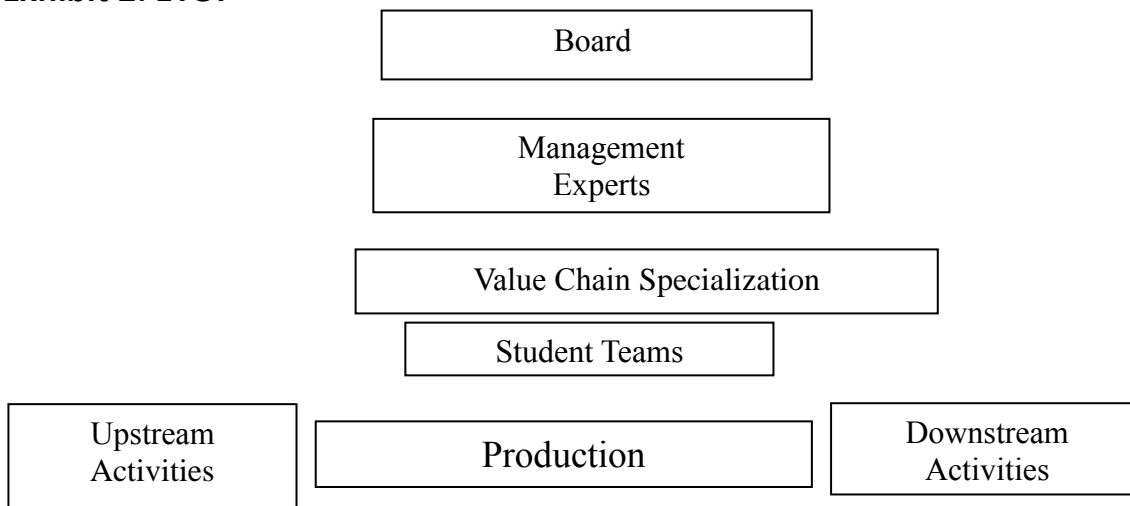
**The Education and Training Open Incubator (ETOI)**

ETOI educates and train students specialized in entrepreneurship, project management and marketing who work in group in an open incubator

supporting entrepreneurs belonging to a common value chain (Exhibit 2).

The ETOIs 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 organized by ETOIs management. ETOIs board is made by delegates out of the nearby proficient, education, fund and research foundations.

**Exhibit 2: ETOI**



The supported 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.

**ETOIs and anchored cluster**

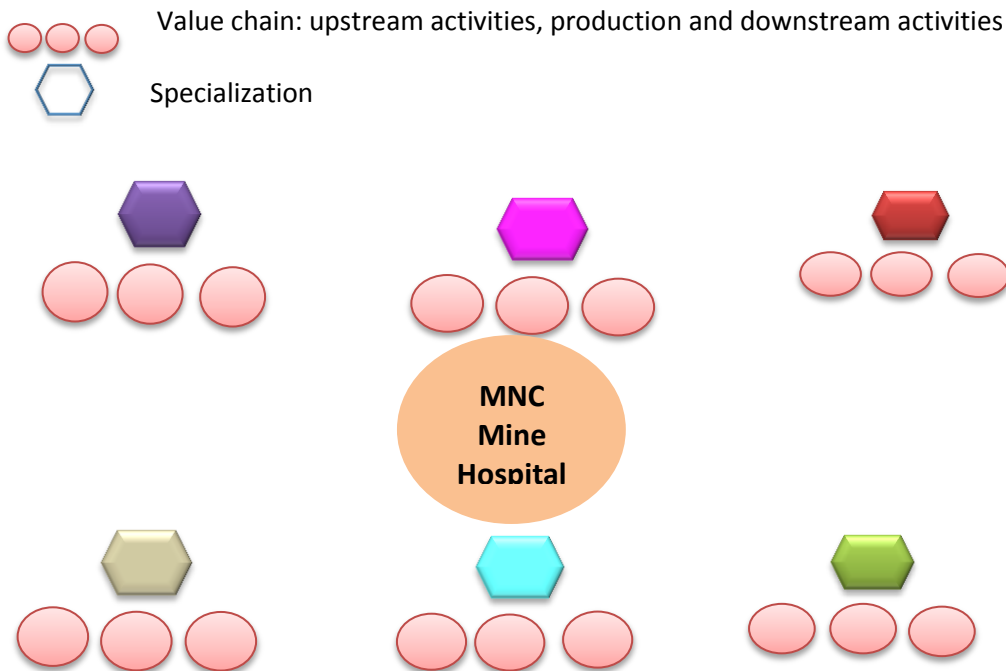
Around an MNC, a mine or a hospital, ETOIs in relevant selected domains could develop a

captive market. Each ETOI is a part of a cluster anchored to the selected big economic structure. At the long run the cluster supports the whole local economy (Exhibit 3).

The domains can be defined around a common raw material such as wood, cotton, milk, meat,

fruits or leather, a sector such as agriculture, furniture, electronic, paper or plastic industry or a specialization such as medical supply, healthy food or green products

### Exhibit 3: ETOIs Anchored Clusters



### ETOs Anchored Cluster to 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.

#### **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 (Jones, 2014). 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 (barrick website). 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.

**SWOT Analysis**

The 57 students of the second year in entrepreneurship and logistic in 2018 and the 20 students in the second year in 2019 oriented a SWOT investigation of the district so as to decide the potential upper hand of the locale as a rule.

The SWOT examination characterized the rich soil, the great atmosphere, the waterways around and the young populace as qualities for creating farming. The absence of energy, knowledge and logistic foundation are characterized as shortcomings. Natural resources of gold, copper, cobalt and diamonds create jobs and local demand of products and services.

Kibali gold mine built a road from Durba the city close to the mine to the outskirts of Uganda and two water-driven power stations.

The local market is concentrated in Durba city, which develops on account of the presence of Kibali

mines and its nearby employees, contractual employees, and families, expatriate employees and contractors.

The primary shortcomings are the dry season and the negative impact of the Mbororo nomads seeking for feeding their cattle and damaging on their way plantations.

It could be an opportunity for the region. Their experience could benefit of all sides if developed in cooperation with local farmers.

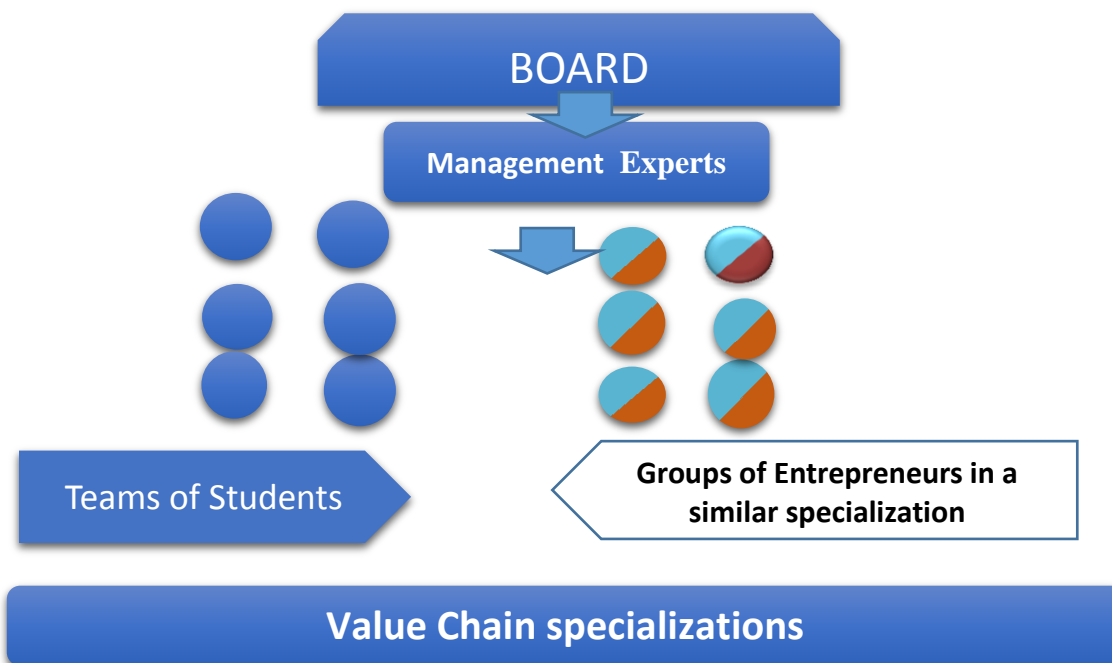
**Kibali market**

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 (Kibali yearly report, 2018).

**ISPALE ETOIs**

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 (Exhibit 4).

**Exhibit 4: ISPALE ETOIs**



ETOI 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-Cerviscan  
Small Ruminants  
Restaurant  
Vegetables  
Beans oil

**ETOs anchored cluster to Kibali gold mine**

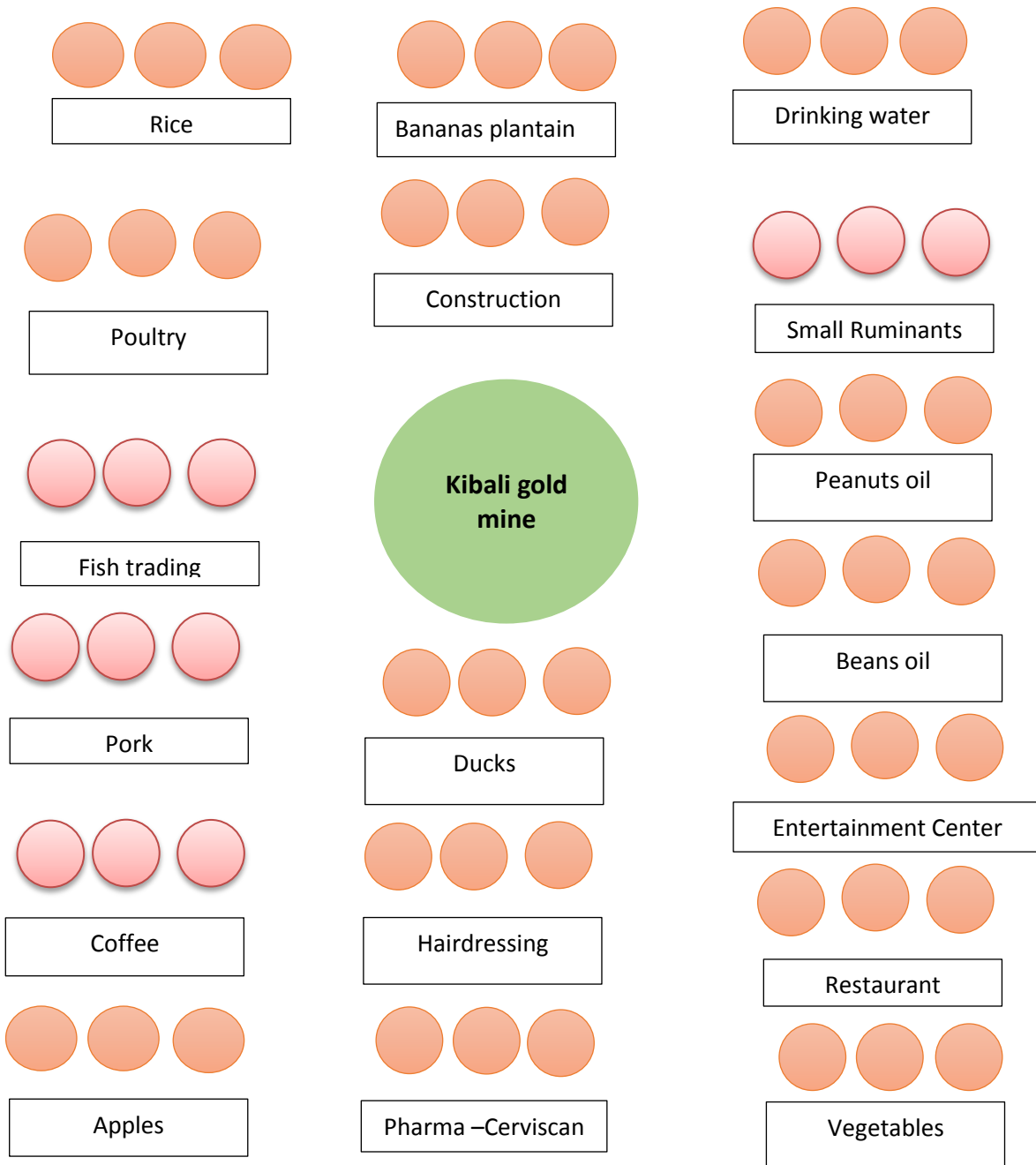
other specializations. Each one of them will be a part of the regional cluster (Exhibit 5).

The ETOIs could be the starting point of a cluster around Kibali gold mine which can be extended to

**Exhibit 5: Cluster of food supply ETOIs anchored Kibali Gold mine**



Value chain: upstream activities, production and downstream activities





The ETOIs will be funded in the long run by revenues generated by the development of the employment initiatives of the entrepreneurs.

### 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.

### 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
<b>Total</b>	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
<b>Total</b>	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
<b>Total</b>	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 mainly their own business (Table 4).

**Table 4: Reasons for studying.**

0 ...5 level of importance	Parents	Employment	Support parents	Business	Total
Entrepreneurship	0.7	1.9	3.0	4.9	45
Logistics	0.6	2.9	2.5	4.3	60
ICT	1.0	1.6	3.9	4.6	15
	0.7	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, logistics, management and in ICT production and research (Table 5).

**Table 5: Students main interest.**

0 ...5 level of interest	Production	Research	Management	Sales	Total
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 (Table 6). They are less interested to find a job.

**Table 6: Students intention after studies.**

0 ...5 level of interest	Incubator work	Incubator project	Find a Job	Continue study	Family business	Own business	N. of S
Entrepreneurship	2.2	2.6	1.2	2.3	2.4	4.3	45
Logistics	2.0	2.0	2.4	3.0	2.1	3.7	58
ICT	2.1	3.0	1.7	2.2	2.7	4.1	12
Total	2.1	2.3	1.9	2.7	2.2	4.0	115

The economic level of the students family is good in average on 5), but lower in housing (2.4) and very food, education and health (around 3 quotation low in leisure (around 1) (Table 7).

**Table 7: Students economic level.**

0 ...5 level of satisfaction	Entrepreneurship	Logistics	ICT	Total
Food	3.5	3.4	3.9	3.5
Housing	2.7	2.5	2.9	2.6
Education	3.5	3.5	3.4	3.5
Health	2.8	2.5	4.0	2.9
Entertainment	1.5	1.2	1.9	1.6
Number of students	44	55	8	107

### ***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 (Table 8, 9).

Table 8: Have listen entrepreneurship and project management course.

Number of students	Second year	Third year	Total
Entrepreneurship	19	18	37
Logistics		39	39
Total	19	57	76

Table 9: Did not listen the course entrepreneurship and project management.

	First year	Second year	Total
Entrepreneurship	8		8
Logistics	6	15	21
ICT	1	14	15
Total	15	29	44

### 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 10).

Table 10: 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 (Table 11).

Table 11: Students economic level.

0 ...5 level of satisfaction	Men	Women	Total
Food	3.1	4.6	3.5
Housing	2.3	3.5	2.6
Education	3.4	3.5	3.5
Health	2.8	3.1	2.9
Entertainment	1.5	2.2	1.6
Number of students	79	28	107

Students women are more business oriented in choosing their study specialization that students men (Table 12)

Table 12: Origin of students' initiative.

0 ...5 level of importance	Parents	Employment	Support parents	Business	Total
Men	0.7	2.3	2.9	3.6	87
Women	0.8	2.5	2.8	4.3	31
	0.7	2.4	2.9	3.8	118

But their decision after the studies is less affirmative about creating their own business than students' men (Table 13).

Table 13: Students intention after studies.

0 ...5 level of interest	Incubator work	Incubator project	Find a Job	Continue study	Family business	Own business	Number of students
Men	2	2.7	1.7	2.6	2.3	4.3	87
Women	2.7	2	2.4	2.8	2	3.1	28
Total	2.1	2.3	1.9	2.7	2.2	4.0	115

Students' women are production minded and less sales minded than students' men (Table 14).

Table 14: Students main interest .

0 ...5 level of interest	Production	Research	Management	Sales	Total
Men	2.8	2.8	3.9	2.9	84
Women	3.5	2.6	4.0	2.5	31
	3.0	2.7	3.9	2.8	115

### 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 ipp, 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.

### Years of studies as a dependent variable

Higher is the year of study (year) and more management (ipg) and sales (ipv) activities are emphasized as preferable to production activities. The students integrate, due to the studies, the importance of those activities in order to improve their chances to develop a business or find a job.

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

Model	Variables Entered	Variables Removed	Method
1	Os, lpv, lpg, Entrep <sup>b</sup>	.	Enter

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

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.807 <sup>a</sup>	.652	.639		.422

a. Predictors: (Constant), Os, lpv, lpg, Entrep

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.982	4	8.996	50.498	.000 <sup>b</sup>
	Residual	19.239	108	.178		
	Total	55.221	112			

a. Dependent Variable: year  
b. Predictors: (Constant), Os, lpv, lpg, Entrep

Coefficients<sup>a</sup>

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

a. Dependent Variable: year

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.

Variables Entered

Model	Variables Entered	Variables Removed	Method
1	year, lpv <sup>b</sup>	.	Enter

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

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.778 <sup>a</sup>	.606	.599		.30751

a. Predictors: (Constant), year, lpv

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.719	2	8.359	88.404	.000 <sup>b</sup>
	Residual	10.874	115	.095		
	Total	27.593	117			

a. Dependent Variable: Entrep  
b. Predictors: (Constant), year, lpv

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.266	.108		2.469	.015
	lpv	.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

Model	Variables Entered	Variables Removed	Method
1	Ob, Oc, Os, Of <sup>b</sup>	.	Enter

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

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.557 <sup>a</sup>	.310	.285		1.858

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

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	168.997	4	42.249	12.240	.000 <sup>b</sup>
	Residual	376.240	109	3.452		
	Total	545.237	113			

a. Dependent Variable: Op  
b. Predictors: (Constant), Ob, Oc, Os, Of

Coefficients <sup>a</sup>						
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			
Model	Variables Entered	Variables Removed	Method
1	Op, S, Entrep <sup>b</sup>	.	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 <sup>a</sup>	.265	.245	1.696

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

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114.135	3	38.045	13.230	.000 <sup>b</sup>
	Residual	316.330	110	2.876		
	Total	430.465	113			

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

Coefficients <sup>a</sup>						
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

## CONCLUSION

Jobs and entrepreneurship supporting the economic development of a district or a country cannot be created by programs focused on individual entrepreneurs only.

Our model proposes to care groups of understudies/learners working together for improving the successfulness of businesses along ETOIs value chains around an anchored cluster.

More efficient couples entrepreneurs and businesses will diminish the percentage of failure and create more value. The students (entrepreneurs) could be involved in logistic, marketing and sales activities and in the upgrading of the production of businesses.

The acquired experience will serve them to develop their own business and create new jobs or to be hired by an existing enterprise.

Each ETOI in the cluster anchored to Kibali gold mine will be at the long run a regional specialized cluster.

Thousands of jobs and entrepreneurs in each value chain will move the agriculture and the other sectors represented from the necessity to business level generating sustainable economic development.

Higher is the year of study, 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.