

ENTREPRENEURIAL EDUCATION AND E-LEARNING RELATIONSHIP

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Abstract: - This paper analyzes the problem of entrepreneurship education and relationship education e-Learning. The first part presents the main elements define entrepreneurs, entrepreneurship, entrepreneurship and entrepreneurship education.

Continue to cover the detailed teaching - learning as they are presented in educational pyramids.

The last part of the paper insists on the use of knowledge management as a method can be used for teaching e-Learning. It also insists that use of the driving entrepreneurship in e-learning integrated to allow for a development-oriented educational performance

Key-Words: - Entrepreneurship education, pyramid education and pyramid of knowledge e-Learning.

1 Introduction

1.1 Entrepreneurs and entrepreneurship

The Entrepreneur is a type economical agent specific to the market economy which has an entrepreneurial, active and innovative behaviour, risks and has private initiative specific to the economical competitive systems.

Entrepreneurs are those individuals with an inventive and creative spirit, an original thinking, capable of finding ideas and solutions being oriented towards improvisation and new ideas as well as towards the identification of efficient solutions to solve different problems.

The definitions of entrepreneurship and entrepreneurs refer to the role of entrepreneurs and include: risk, coordination, innovation, uncertainty, capital, decisions and resource allocation.

Three of the most frequent actions of entrepreneurs are:

- Risk seeking - Entrepreneurs usually want to assume risks associated to uncertainty;
- Innovation - Entrepreneurs support the generation, promotion and application if innovative ideas;
- Opportunity seeking - Entrepreneurs seek opportunities and obtain a profit from them.

The definition of entrepreneurship based on the actions undertaken is the following: Entrepreneurship represents the capacity and will manifested by the individuals, either on their own or as part of a team, inside or outside an organisation, to perceive, create new economic opportunities, new

production methods, new organisational charts, new market/product combinations and introduces the ideas on the market in spite of their uncertainty or other obstacles, by making the right decisions concerning allocation form and use of resources.

Even if certain individuals are recognised as being primary agents of the entrepreneurial activities, the origin of each innovation, start-up or entrepreneurial decision finally leads us to a single person. Therefore a modality of promoting the entrepreneurial spirit is to consolidate its features through education. One of the theoretical fundamentals for approaching the entrepreneurial features is the studies of the Harvard psychologist David McClelland.

He psychologically analysed the entrepreneurial concept focusing on the study of whom and why one becomes an entrepreneur. The importance of the motivational aspect of the entrepreneur is emphasised, the behaviour being determined by the need of personal realisation. It also suggested that, independent on the variations of economic development, highly motivated entrepreneurs, almost each and every time, find means of maximising the economic realisations.

He identifies 10 entrepreneurial skills which may differ in consistency from one country to another:

1. Initiative and seeking for opportunities;
2. Risk taking;
3. Demand for efficiency and quality;
4. Perseverance;
5. Commitment to the signed contract;
6. Information seeking;
7. Establishing the purpose/objectives;

8. Systematic planning and monitoring;
9. Persuasion and networking;
10. Self - confidence and independence.

1.2 Entrepreneurial spirit and education

Entrepreneurial spirit is an attitude ensuring an economic development process brought by the entrepreneur.

The preference towards renewal/innovation constitutes the only entrepreneurial motivation separating the entrepreneur from the other economic agents (managers, owners, investor etc.). Most of the economical, psychological and sociological

researches state that the entrepreneurial spirit is a process and not a static phenomenon; it is more than an economic factor as it deals with change and it is frequently associated to problems related to decisions and options.

The entrepreneurial spirit represents an individual or a group attitude characterised by the creation of a development process based on change and innovation decisions and options. Entrepreneurial spirit may be sustained, promoted, stimulated and even educated. In fig. 1 are presented block of diagram for the development of the entrepreneurial spirit.

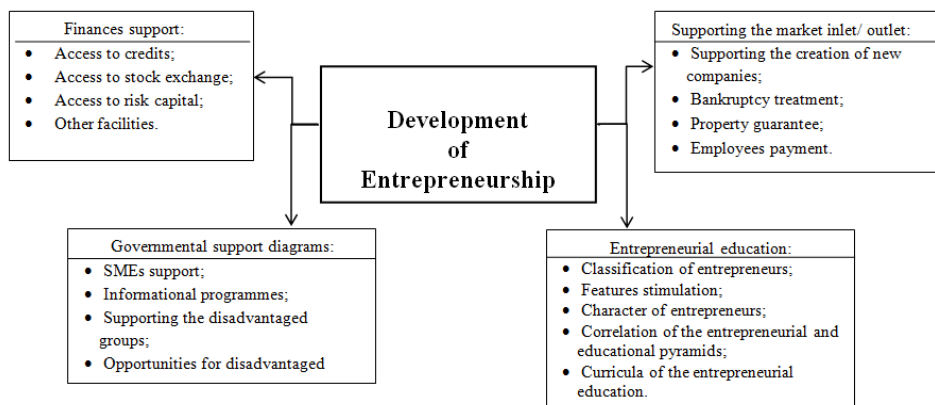


Fig.1 Elements for the development of entrepreneurship

Four groups of elements for the development of the entrepreneurial spirit are distinguished. The first 3 are groups for the improvement of the framework of the entrepreneurial activity, the 4th one being entrepreneurial education which prepared the long and medium term development.

An entrepreneurial education needs assessment was made in North America showing that these needs are felt from a high school stage. Most of the students want to start their own business, or if not, they want at least a job.

Young people do not believe that the State is able to take care of them, by observing the efforts of their parents and the loyalty towards the companies where work, therefore they try to take the necessary measures hoping in an economic growth. Young people desperately notice that the number of jobs within a company is reduced and nowadays one of the practices is the use of fixed-term contracts between the employer and the employee. Economic growth decline, the smaller number of working places for young people doubled by the loss of interest the State has for them, has truly become a real phenomenon.

As an answer to this phenomenon, both from the point of view of employees as well as from the point of view of economic growth and creation of

working places, entrepreneurial education is a concept which is becoming an essential resource for the negotiation and dominance of the new phenomenon.

Education nowadays is oriented towards the mentality and opportunity of getting a job. This kind of education, traditional and well defined gives: the content and attitude to get on even with a boss and eventually to react if the candidate is laid off. The access to entrepreneurial education is almost inexistent, although it would develop: the knowledge, skills and mentality necessary to create working places, in exchange for a vacant job.

The access to the initial entrepreneurial knowledge and spirit is sometimes made at home or in the family if there is such a tradition or a certain work oriented culture. These are rare cases in post-communist societies. The education they can access nowadays is focused on existent working places, qualification, and formation conspiring with the precarious social situation to limit the vision of a productive work. This vision is becoming a very narrow playfield expressed by the statement "Take-a-job", without valuing the high skills of the employees, condemning them to low incomes offering jobs, like computer monitoring.

It is quite a challenge to find new educational opportunities for young people in order for them to understand the role of entrepreneurship and to acquire knowledge and skills necessary for a successful entrepreneurship. Unfortunately there is a general acknowledgement, i.e. the course which should be the basis of the entrepreneurial education did not keep up with the economic requirements.

The signature of the entrepreneurship is characterized by three attributes: identifies or acknowledges the market opportunities and generates a business idea; manages the possibilities and use of resources in front of a risk; creates a company in order to apply the motivation of a business idea.

In order for the entrepreneurial education to succeed it has to consider the three characteristics when educating successfully in all the fields mentioned before: opportunity/recognition/redirection results in the presence of a risk and building a business.

Entrepreneurial educational curricula need to be extremely consistent: the class is confronted with a business idea selected by voting from the idea list; the means of allocating the business management functions depend entirely on the class; any eventual earnings are managed by the class; any eventual loss is supported either by the class or by an eventual sponsor.

Thus programs are welcomed by the students, professors or parents. Unfortunately, these programs are quite rare and are lost in the thicket of other classical programs. Moreover, these key experiences are totally compromised by the group or by the intervention of different institutions.

2 Entrepreneurial Support Pyramid and the Pyramid of Education

2.1 Entrepreneurial pyramid

This subchapter deals with the correlation between the entrepreneurial pyramid and the pyramids of education, namely the learning pyramid and the Bologna Pyramid.

At first, the so called Entrepreneurial Support Pyramid shall be presented; it supports the entrepreneurial spirit.

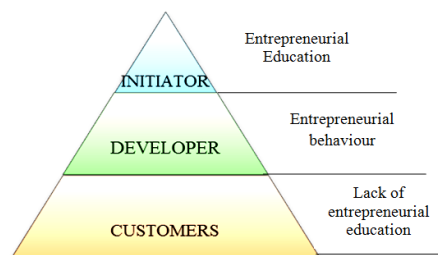


Fig. 1 The entrepreneurial support pyramid

The application of the entrepreneurial spirit may be observed in fig. 1, which represents a useful model both for understanding the strategic challenges as well as to identify the priority field on which the efforts of the education should focus.

The application of the entrepreneurial spirit is made through 3 important layers: the initiator, the developer and the clientele.

Therefore, the support pyramid is used as the organisational framework for understanding the realisations and the lacks of entrepreneurial education (on a client level), the entrepreneurial behaviour education (on the level of the development team) and in the entrepreneurial education (on the level of the initiator). In present times the entrepreneurial education management efforts are directed towards the acquisition of new skills of the business processes and the potential of entrepreneurial behaviour of the development team. The education level of the development team is an indirect benefit of the modern educational strategies such as learning through cooperation emphasising on team and group work as well as on problem solving.

2.2 The Learning Pyramid and Bologna Pyramid

Let's analyse which is the learning pyramid and what is its relation to the entrepreneurial support pyramid.

In the laboratory for education from the National Institute of Education from the USA, researches were carried out at the end of the last century concerning the efficiency of knowledge acquisition in the process of education.

It has been discovered that the level of efficiency depends on the means the knowledge is transmitted:

- 90% if the following method is applied: "teach others and immediately apply the knowledge";
- 75% if the following method is applied: "learning and doing";
- 50% if the following method is applied: "group discussions";

- 30% if the following method is applied: “demonstration”;
- 20% if the following method is applied: “audio-visual”;
- 10% if the following method is applied: “individual study”;
- 5% if the following method is applied: “teaching the lesson”.

Based on the statements above the Learning Pyramid was developed, the structure of which spreads on seven levels, fig. 2. The most efficient method being “teach others and apply”, ensuring 90% of knowledge retention while the less efficient one is “teaching the class” which means only 5% is remembered.

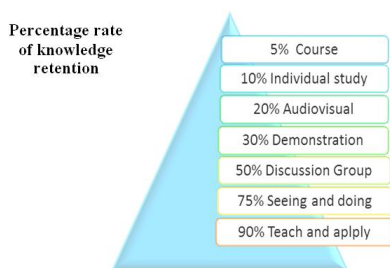


Fig. 2 The Learning Pyramid

The Learning Pyramid shows that only taking part actively in the learning process shall ensure the efficiency of the students. For a teacher to be efficient he should plan the lessons and activities as for the students to be actively involved in the learning process.

The development of an educational system compatible to the European one in order to allow a connection between university and knowledge transfer to the student was possible with the Declaration of Bologna.

All European countries have agreed to the Bologna Process regarding the implementation of standards and strategies required by it.

This educational system is based on the following 3 key elements: mobility, employment oriented and competitiveness. Therefore the education of divided on 3 levels: Bachelor Studies, Master Studies and Doctoral Studies. This is the Bologna Pyramid [2].

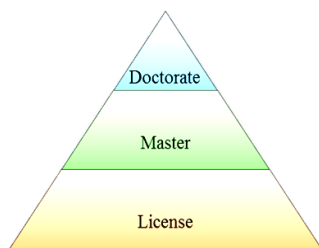


Fig. 3 The Bologna Pyramid

3 e-Learning Integration of the Entrepreneurial Education

This chapter presents the means in which the correlation between the knowledge, development, and entrepreneurial pyramids is realised and how their e-learning integration.

3.1 The knowledge pyramid and the development pyramid

According to Ackoff, the informational content of the human mind is layered according to knowledge classes, creating 5 categories:

- Data: facts and numbers;
- Information: data useful for answering “who”, “what”, “where”, and “when”;
- Knowledge: application of pieces of information for answers to “how”;
- Understanding: appreciating “why”;
- Wisdom: assessing the understanding “wisdom”.

The level of “understanding” influences the other 4 and contributes to training, development and prioritisation of all 4 levels. This hierarchy is structured according to the duration of the acquisition and holding on to the knowledge. Therefore, the “data” are rapidly acquired but they last, as the “information” is structured more difficultly but they last longer, especially if they are repeated, therefore “knowledge” is acquired in time and last a lifetime, “understanding” is formed through demonstrations while “wisdom” is considered permanent, it being the human wisdom.

The Pyramid of knowledge is hierarchized as it is in fig. 4, each level supporting the one following one.

The levels are formed by abstraction, by reason of the following roles:

- The “Information” level is formed by understanding the relations between the data;
- The “Knowledge” level is formed by understanding the models;
- The “Wisdom” level is formed by understanding the principles and models.

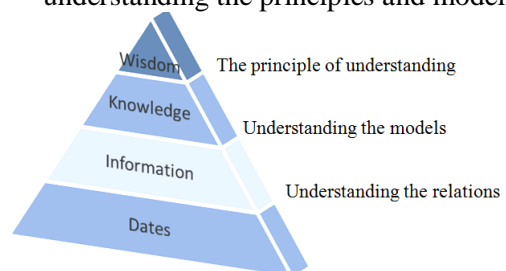


Fig. 4 The pyramid of knowledge

Creating and developing the levels is made in time and through education and also need to be managed.

Oracle magazine called “Knowledge Management” (KM) as such: Knowledge management promotes an integrated approach for the identification, capture, recovery, sharing and assessment of information as usable assets. These informational assets may include data bases, documents, policies, procedures, as well as capturing the accumulated expertise.

With the use of such a Knowledge Management system the companies save money and time, becoming more adaptable, better understanding the role of the partners, of the processes, of the clientele, of the competition, and of the business. Efficient knowledge management requires document type information, as well as operational instruments – collaboration of those who contributed to the creation of the knowledge base. Employees require access to the data necessary for understanding the entire context, and knowledge management helps any company to obtain information from their own experience. Using the KM method, the best practices are stored by the entire company, each employee receive exponential powers by accessing the system.

Knowledge Management together with the entrepreneurial spirit contributes to institutional development as it may be seen from the Development Pyramid in fig. 5.

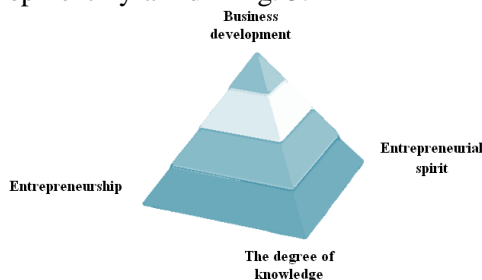


Fig. 5 The Development Pyramid

The entrepreneurial spirit was inserted here which uses the Knowledge Management and entrepreneurship and realises the institutional development.

3.2 The development of the entrepreneurial spirit through e-Learning

The paper has developed two concepts: entrepreneurial spirit and e-Learning oriented education.

The educational spirit becomes a part of the culture of the community, receiving a historic feature in time. It may be accelerated through education. This kind of education may be classically made, but with less efficiency and higher costs, or through e-Learning.

Entrepreneurship is, in essence, a characteristic of a person.

The potential of the entrepreneurship to increase the number of jobs has not been lost by the international community. Therefore, the General Assembly of the United Nations has adopted a resolution called “Entrepreneurial and privatisation spirit for economic growth and sustainable development by encouraging the members to promote and to facilitate the increase of local entrepreneurs and entrepreneurship”. This resolution is a reflection of the following international idea: “lighting the flame of entrepreneurial spirit gives the nations and to the people the knowledge and the skills to fish rather than to actually giving them fish”.

The educated entrepreneurial spirit relates to the market economy influencing the economic growth. Fig. 6 presents the model of this relation. The economic growth of a country depends on the capability of creating new work places through entrepreneurship. The successful entrepreneurship, in its turn, requires well prepared, aspiring entrepreneurs who are able to lead being aware of the risks.

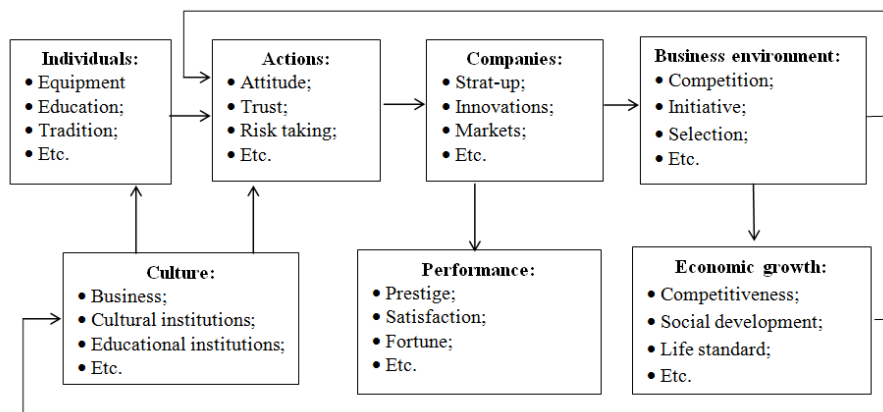


Fig. 6 The relationship between entrepreneurial and market economy

Efficient initiatives of the entrepreneurial education shall be more and more essential for the extension of the flow of potential leaders in the educational systems.

The entrepreneurial activity comes from the individual – entrepreneur level.

The entrepreneur is therefore induced by the attitudes, reasons, skills, and psychological endowments of an individual. Moreover, the entrepreneur is affected by the context in which he operates. Therefore, the entrepreneurial reasons and actions are influenced by the educational, cultural and institutional factors, by the business environment and by the macroeconomic conditions.

Distance learning has been the development base of e-Learning education. The first generation of distance learning has implemented 4 models:

1. The correspondence model;
2. The multimedia model;
3. The Tele - eLearning synchronous education model;
4. The flexible internet learning model.

The first generation of distance learning is a type of content based e-Learning, namely Content Management (CM).

As it may be observed, the first e-Learning generation focuses on Content - Management (CM), namely on course development, electronic publishing, communication and students' support considering the social pedagogy of distance learning. The development and the experience of using this model lead to the need of changing the CM technology to the KM one. This type of e-Learning is also called Learning – 2.



Fig.7 The e-Learning pyramid

KM uses automatic answer systems which scan the e-mail input text and intelligent answer, without human intervention, reducing therefore educational costs and increasing on a global scale the access to learning opportunities in an asynchronous model.

This method is: an “intelligent flexible learning model”, which allows a high leap considering the performance as well cost/efficiency.

Entrepreneurial education follows to provide the students with the knowledge, skills and the motivation to successfully encourage entrepreneurship. Entrepreneurial education is available through primary schools curricula as well as university and post-university ones.

4 Conclusion

In this paper was a study on entrepreneurship education using e-Learning.

He also made the analysis of different methods of teaching/learning and highlighted the importance of so-called educational pyramid: the Learning, Bologna, knowledge and those who are involved in the socio - cultural: pyramid Entrepreneurial Development and e-Learning.

Using e-Learning resources, effective methods of teaching/learning principles of entrepreneurship education, focusing on acquisition of knowledge and their effective management can make an effective educational development cause.

References:

- [1]Vasista K., Tatapudi S., Vasista N., Sarma N., Sarma S., Knowledge management strategy for NGOS Towards Contributing to Corporate Social Responsibility: A View from Tatapudi Trust, International Jurnal Of Marketing, Financial Services & Management Research, Vol. 1 No.4, April2012, ISSN 2277 3622
- [2]Bela Markus, Learning Piramyds, From Pharaohs to Geoinformatics FIG Working Week 2005 and GSDI-8 Cairo, Egypt April 16-21, 2005
- [3]Bashar S. El-Khasawneh, Entrepreneurship Promotion at Educational Institutions: A Model Suitable for Emerging Economies, WSEAS Transactions on Business and Economics
- [4]Wang R., Tearle P., Cultural disconnection in virtual education: a small-scale study of a higher degree level course in educational research, Proceedings of the 5th WSEAS International Conference on Distance Learning and Web Engineering
- [5]Bubatu R., Barbu C., The e-Learning education impact in human resource training, 5th International Symposium Occupational Health and Safety – SESAM 2011
- [6]Barbu C., Databases, University of Petrosani, 2012