ENTREPRENEURSHIP IN THE INFORMATION SOCIETY

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Abstract
Entrepreneurship started to be recognized during the French monarch Louis XIV who stated that “the bourgeois and the craftsmen will become the artisans of richness”. Several national and international institutions whose main activity was the study of environment and entrepreneurial behavior defined the entrepreneurship in the following manner: “An entrepreneur is a person who, based on certain contractual clauses and conditions, undertakes to execute for another person and organizations, various works (industrial, constructions, etc.) in the exchange of a previously established reward”.

Keywords: entrepreneurship, economic performance, entrepreneur, innovation, financial risks, information society

1. Entrepreneurship
The competition is the essence of the entrepreneurial spirit, the force which leads to the development of the modern economies. The competition represents the means of survival of the companies which have to operate as efficiently as possible on the market, in order to deal with the fierce competition.

The entrepreneurship was considered a critical success factor of the economic performance. The analysis of entrepreneurship from a historical perspective was provided by Joseph Schumpeter in his book "The Theory of Economic Development" (1934)².

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Joseph Schumpeter (1934), considered by many as a genius of the 20th century economy, said: “In entrepreneurship, there is an agreement we make about a certain type of behavior which includes: initiative, organization and reorganization of the social – economic mechanisms and acceptance of the risk and failure”. The entrepreneurship as debate and analysis subject was introduced by the economists in the 18th century and it continued to arouse the interest of the economists from 19th century. Numerous studies were conducted in order to supplement the list of information about the activity and qualities which stimulate the results of the entrepreneurs. The common conclusion of these studies was that all the successful entrepreneurs displayed the following qualities: inner control, planning capacity, risk taking, innovation, usage of feedback, decision - making, independence. This list is in a continuous improvement process by adding new characteristics. According to the representatives of the behaviorist school\(^3\), which pays the highest attention to the elements characterizing the entrepreneurs, their main specific aspects are: innovators, leaders, risk - takers, independent, creative, tenacious, energetic, original, optimistic, result –oriented, flexible, materialistic.

2. **Definitions of the entrepreneurship**
   1. Creation of new businesses by individuals and small groups of individuals.
   2. Identification and development of opportunity

   The entrepreneurship implies the start and development of profitable businesses, the supply of a new product or service and the intention to create value for an individual or for a small group of partners.

   The entrepreneurship is “a process to create something different, valuable, by assigning the necessary time and effort, by taking the related financial, psychological and social risks and obtaining the monetary rewards and personal satisfaction”.

   The entrepreneurship includes: “the creation and management of new businesses, small businesses and family businesses” (USA Management Academy)\(^4\)

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\(^3\) American psychological trend initiated by John Watson in 1913, whose purpose is to investigate the objective behavior data

\(^4\) USA Management Academy
The entrepreneurial activity is a “process which takes place in different business environments and locations, which causes changes in the economic system, through innovations made by individuals who generate or respond to the economic opportunities, creating values both for the individuals, and for the society”. (Muzyca)\(^5\)

The entrepreneurship represents the “pursuit of an opportunity, the approach and making rapid changes, making multiphase decisions, using the resources of other individuals, conducting relations and human networks and rewarding the initiators for the newly-created value”. (Stevenson)\(^6\) Although it initially sounds quite tempting, it is important to know that the entrepreneurship implies a series of aspects which have to be taken into consideration before starting this approach. The benefits and satisfaction are high, but the sacrifices are equally high.

**Figure 1: Aspects taken into consideration in entrepreneurship**

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\(^5\) Dr. Daniel F. Muzyka is the President and Chief Executive Officer of The Conference Board of Canada,\(^1\) the RBC Financial Group Professor of Entrepreneurship at the University of British Columbia’s Sauder School of Business and Vice Chair and a public director of the Investment Industry Regulatory Organization of Canada.\(^2\) Muzyca

\(^6\) Howard H. Stevenson (June 27, 1941) is the Sarofim-Rock Baker Foundation Professor Emeritus at Harvard University.\(^1\) Forbes Magazine described him as Harvard Business School’s “lion of entrepreneurship”
There also are false assertions about entrepreneurship, namely:

- **Success in the field of entrepreneurship is the equivalent of a special idea**;
- **Entrepreneurship is easy**;
- **Entrepreneurship is a risky game**;
- **Entrepreneurship can only be found in small businesses**;
- **Entrepreneurial companies are similar to small businesses**;

However, the entrepreneurship is defined through (see table):

3. **The entrepreneur**

Starting from this definition:

“The entrepreneurs are the individuals who start their businesses and who make their company to grow, are the essential agents of the change which accelerates the generations, apply and spread innovative ideas. Thus, they insure not only the efficient usage of resources, but also the development of the economic activity”. (Encouraging the Entrepreneurial Spirit OECD 1998)

An entrepreneur needs to have an extremely developed entrepreneurial spirit, to be able to take risks, to have initiative, but also the power to influence other individuals. Although each entrepreneur is unique, there are several characteristics, motivations which have to be present at the individuals who intent to develop a business on their own, either a traditional business, or a non-profit business.

Thus, A. Marshal’s paper, “Principle of Economics”(1890) mentions the importance of entrepreneurship, considering it “an engine for the development of the society”, his opinion belonging to the neoclassical theories. He considers the entrepreneur as being the supplier of merchandises and promoter of the innovation and progress processes, illustrating that the entrepreneur:

1. holds the full liability on the business, at the same time exercising its entire control;

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7 Encouraging the Entrepreneurial Spirit, OECD 1998
8 A. Marshal “Principle of Economics”(1890)
2. he can also be manager – entrepreneur who is liable both for the coordination of the workforce, management of the capital invested, and for the development of the production and viability of the business, taking the risk to this end;

3. he permanently seeks new innovation and modernization opportunities of the products and manufacturing processes, as well as reduction of losses in view of optimizing the costs;

4. the entrepreneur needs to have skill, ingenuity and special abilities, being able to simultaneously think at a wide range of things and activities.

Sorin Vaduva mentions that the entrepreneur:

5. can be considered the prototype of the successful manager who applies and capitalizes his professional experience (of manager and entrepreneur),

6. taking risks and liabilities as owner, leader, entrepreneur, manager, enterprising, having at the same time a behavior adapted to the competition environment.

At his turn, Kirzner, in his paper “Competition and Entrepreneurship”, describes the entrepreneur:

7. an active individual able to identify and exploit profit opportunities before the others

8. proves balance and develops the experience based on knowledge, vigilance and risk;

9. the qualities required for the entrepreneur are the vigilance, rapid reactions, capacity to make difference between the real and apparent opportunities;

The psychological profile of the entrepreneur has to include abilities and qualities or leader and innovator.

First of all, the entrepreneurship represents an activity for the objectives of the organization, its main purpose being the maximization of the profit.

The entrepreneurship is reported to a certain type of organization (usually, a SME with small or medium dimensions as number of employees), which highlights the significant particularities connected to the resource management process. In this context, the entrepreneurship is considered to be one of the most important functions in a society, if not the most important, on which that society relays.
Vesper mentions “The general field of entrepreneurship does not aim only the creation of new businesses by certain individuals”, he mentions that the entrepreneurship also has other dimensions concerning the profit opportunities, limitation of waste, risk –taking.

**MEANINGS OF THE ENTREPRENEUR CONCEPT**

In the paper “Entrepreneur”, Hebert and Link (1982) establish the following typological classification of the entrepreneur “species”:

- **an individual who takes risks and uncertainties** (Cantillon, Thunen, Mangoldd, Mill, Houwley, Knight, Mises, Cole, Shackle)
- **an innovator** (Bandeau, Bentham, Thunen, Schomoller, Sombart, Weber, Schumpeter)
- **a decision - maker** (Cantillon, Menger, Marshall, Wieser, Walker, Dynes, Mises, Shackle, Cole, Kirzner, Schultz)
- **a provider of financial capital** (Smith, Turgot, Ricardo, Bohm-Bawerk, Edgeworth, Pigou, Mises)
- **a leader** (Say, Walker, Marshall, Wieser, Sombart, Weber, Schumpeter)
- **a manager** (Say, Mill, Marshall, Menger)
- **an organizer or coordinator of human resources** (Wieser, Schomoller, Sombart, Weber, Schumpeter, Clark)
- **a company owner** (Wieser, Pigou)
- **a user of the factors of production** (Walker, Wieser, Keynes)
- **a contractor** (Bertham)
- **an arbiter** (Cantillon, Kirzner)
- **a person who allots resources for alternative usages** (Kirzner, Schultz, Herbert, Kink)
- **a person who imagines, develops and materializes visions** (Fillion)

4. **Entrepreneurship - various approaches in space and time**

The creation, growth, reduction and closing of companies became throughout time an important research field in the company’s demography (Van Wissen 2000). This new field of research concerns the analysis of the change of space – time pattern from a behavioral – analytical perspective (according to Nelson and Winter 1982). Interesting recent studies in this field
can be found, among others, in Briiderl and Schusserl (1990), Carroll and Hannan (2000) and Siegfried and Evans (1994). Many studies concerning the growth process of the companies originate from the industrial economy and organization and management subjects, along with notions of geography, demography or psychology (i.e., Caves 1998, Evans 1987, Gertler 1988, Hayter 1997, or Stintchcombe 1968).

This approach begins since 1980, when, throughout a period of economic recession, a higher attention was paid to the creation of new companies. From a regional economic perspective, a detailed research was conducted on the geographical differentiation of the creation and development of the companies (Keeble and Wever 1986, Oakey 1993, Storey 1994, Suarez-Villa 1996, and Sutton 1998).

The tendency of creating new companies from that period lead to the tendency of neglecting the dynamics of the existing companies, especially of the manner in which they survive, develop or decline. From this perspective, the role of adopting new technologies also had to receive the corresponding attention (see, i.e., Davelaar 1991, Abernathy et al. 1983, Nooteboom 1993, Pettigrew and Whipp 1991, and Storper and Scott 1989).

Thus, studies were conducted on the life cycles of the companies concerning the competitive performances, the differentiation of the products, organizational restructuring. There are several reasons for which, among all the types of dynamics of the companies, the formation of new companies drew such increasing attention (according to Van Geenhuizen and Nijkamp 1995), the most significant being the fact that the companies produce work places. A second reason is that the new companies are often involved in the introduction of the products and processes on the market. Subsequently, they can provide a major challenge to the existing companies and they can motivate them to improve the quality of their products and services or to cut down the prices, introducing the competition element. The new companies are facing relatively high risks, due to the lack of organizational experience and cohesion. Subsequently, the rate of closing of the newly- created companies is relatively high and it tends to decrease throughout time. It is clear that the new successful companies within a geographical area significantly contribute to the economy and to the decrease of the unemployment rate in this region. However, we find a high regional variety and on sectors in the success or survival rate of the new companies (according to Acs 1994).
The research indicated that in most cases the companies change their strategies in terms of the markets and products. The study of the development paths of the individual companies from the spatial –temporal perspective is called the historical analysis of the company’s lifespan (Van Geenhuizen 1993). It mainly uses a case file and it aims to draw and explain the evolution of the companies throughout a longer period of time.

Attention is paid to the entrepreneurial reasons for the corporative change at the micro level. The factors which have to be considered are, among others, the business environment, the leadership, the connections between the strategic and the operational change, the human resources management and the coherence in management (see also Pettigrew and Whipp 1991).

Obtaining information is also an important element to be considered. In this context, the local environment (i.e., through subsidiaries) can also play an important role. It is widely considered that the metropolitan environment provides incubator conditions favorable for the creative entrepreneurship, because the conditions for the correct HR management and recruitment of the work force are the most favorable in this environment see i.e. Davelaar 1991, Leone and Struyck 1976, Pred 1977 or Thompson 1968).

However, it has to be admitted that other non-metropolitan areas also provide good conditions for the corporative change.

The reason is that in many non-metropolitan areas, the information needs are found in the local learning mechanisms, based on the local interrelation between the participants of a coherent production system, the local culture, tradition and experience (according to Camagni 1991, Ratti 1992, Storper 1992, 1993).

This vision approaches to another vision, which places the strong accent on the localization trend. The supporters of the latter sustain a disintegrated production, fixed on the local plan, based on change and flexible specialization.

Empirical evidences were found in technologized regions, such as Silicon Valley, Boston, the M4 Corridor and in semi –rural areas, such as the Third Italy. Although the success of the economic restructuring in these regions is undoubtedly obvious, proof of the omnipresence of the flexible specialization and concomitant localization, this was never sufficiently demonstrated (according to Van Geenhuizen and Van der Knaap 1994; Gertler 1988).
Beyond a trend towards localization, there also is a trend towards globalization, associated with the increasing influence of the multinational corporations and their global connections with smaller companies (Amin 1993).

According to the above mentioned observations, it is possible to claim that the modern entrepreneurship is based on various types of skills. An entrepreneur is definitely a hunter of opportunities, but in this approach, he needs to be all the time vigilant to the external environment which is in a continuous change.

Subsequently, the company’s demography is a multidimensional field of research, where the psychology, sociology, marketing, political sciences, economy, finances and management can be found. A demographical approach of the entrepreneurship can reveal various components of the spatial – temporal dynamics for the existing or newly – created companies. Detailed research is definitely necessary in order to identify the reasons and barriers concerning the successful entrepreneurship, however, there also is a clear need for a more sustained comparative analytical research – i.e. Breschi (2000), which lead to a cross analysis of the geography of the innovative activities.

5. Knowledge society and information society

Knowledge society and information society is the society where the production and consumption of information is the most important type of activity, the information is known as being the main resource, the technologies of information and communications are basic technologies, and the information environment, along with the social and ecologic environment – an environment for the existence of the human being.

The notion of knowledge society is used throughout the world, being an abbreviation of the term Knowledge –based Society. The information society represents more than the knowledge society, and it actually includes it.

Knowledge is the information with sense and information which acts. The information society is characterized through the democratization of information, communication, understanding and cooperation. In essence, this society is based on the Internet.

The information society is a new higher qualitative lifestyle which involves the intensive usage of the information in all the fields of the human activity and existence, with a major economic and social impact.
The information and communication technologies had to create a new environment, the digital environment, where huge data and information quantities with an inestimable content of knowledge are stored and transmitted. There is nothing new if we repeat the idea which existed 35-40 years ago, namely that in the future, our life could no longer be conceived without the daily interaction with this new, but incredible real virtual world. The access to this works was still considered simple and the technologies had to be developed in order to help us become performing. More than 2.5 billion people from the entire world can already enjoy the benefits of the access to this new world and more than 10 million of them are in Romania.

Drucker\(^9\) thought that the “computer alphabetizing” will be rapidly an old-fashioned concept, as obsolete as the concept of “telephony alphabetizing”, it is certain that the digital alphabetizing cannot come on its own, because the computers did not become a common good and the capacity to use them does not exist, but it has to be formed through trainings.

Moreover, the information technologies evolve extremely fast.

The information society based on knowledge means more than the progress of technology and applications of the computer science and telecommunications, also integrating the dimensions: social (with impact on the health care, social security, labor and labor market, education and continuous training), ambient (with impact on the usage of resources and environmental protection), cultural (with impact on the preservation and development of the national and international patrimony) and economic (entrepreneurial and managerial culture, new companies based on knowledge, innovation).

Two large classes of vectors of the knowledge society were defined:

- technological vectors and functional vectors

**The technological vectors of the knowledge society are**\(^{10}\):
  - The Internet, developed through geographical extension, usage of broadcast bands up to the largest possible bands, inclusion of every institution, each residence, each citizen within the network
  - Expert systems with artificial intelligence

\(^9\) Peter Ferdinand Drucker (November 19, 1909 – November 19, 2005) was an Austrian who emigrated to the USA, consultant, professor and author of certain writings, which contributed to the philosophical and practical foundation of the modern business corporation. He was leader in the development of management education and he invented the concept of management by objectives.

\(^{10}\) Nica Dan - "Guvern, cetatean, societate informationala"
- Nanotechnology and nanoelectronics, the main physical support for information processing

**The functional vectors of the knowledge society are:**
- Knowledge management for the entrepreneurial companies, organizations, institutions, national and local administrations
- Biological and genomic knowledge
- Health care system at the social and individual level
- Environmental protection and insurance of the durable and sustainable society through a specific knowledge management

The Digital Business Ecosystem is unique, because it provides a new approach of the Business Standards. The service offers converge at a common standard or at the promotion of observance of a centralized data model.

In this context, the DBE accepts a progressive approach which dynamically supports the formation of service chains which are most suitable for the business, flexibility, partnerships, which can be established through a communication between Web and Web 2.0. The technical implications of such a vision are considerable, they provide potential for the approach of digital ecosystems in order to provide innovations which could challenge the most important players on the market.

Within the DBE context, the traffic concerning the data broadcast is not only part of an intelligent network, but also each “virtual server” is made of a collection of servers which cooperated in order to provide the secure and flexible functionality of a server. Moreover, it is important to underline that a centralized solution cannot easily compete with decentralized solutions.

The dynamics of the networks, their efficiency and costs reflect the understanding of the interaction between the organization forms, decentralized decision-making processes and information technology, as well as their effects on the organizational performance, operations of increasing the efficiency and decision –taking in various business situations (Galbraith, 1977, Mintzberg, 1978; Burgelman, 1988; Huber, 1990). There are also other relevant considerations for this debate, such as decentralized organizational configurations (Galbraith: 1994, 1995), intense usage of new communication technologies (Bettis and Hitt, 1995; Fulk and De Sanctis, 1995), as well as the intensification of the competition according to the types of activities (D'Aveni, 1994; Thomas, 1996).
However, the main point is the facile capacity of reaction of small companies to the changes from the economy, as well as the role that TIC can play in facilitating the changes.

Andersen and Segars (2001) indicate that the computer networks can provide the decentralization of the decision-making factors, extremely fast access to the relevant information, which would accelerate the decision-making process reported to the formal approvals which had to be obtained in a long series of hierarchical levels, which, due to the excess of information, lead to decisions which were not taken in due course (Minzberg, 1992).

Thus, the SMEs, which have no centralized and organizational authority, have a structure which provides flexibility in order to modify the strategies in a short period of time.

They can interact through the flexible and dynamic networks, which can support the business interactions. It is important to mention that any fragmentation of the TIC network can stop the organizational system.

Briefly, within a Business Digital Ecosystem, the SMEs have the possibility to:
• Maintain the local economy
• Avoid dependency on a centralized server
• Avoid the fragmentation of the networks and losses of partners due to the hacker attacks, server failures, etc.

An important role in this information society is played by the economic opportunity.

The economic opportunity is defined as:
- an intended future condition, different from the current condition and at the same time a belief of another individual (the entrepreneur) that its successful achievement is possible (H.Stevenson)\textsuperscript{11}
- necessity and potential demand for a product or service, in a certain context, which, through identification, consideration and satisfaction through an economic process by an individual or group of individuals, can generate a profit in the future (O.Nicolescu)\textsuperscript{12}

\textsuperscript{11}Howard Stevenson-A perspective on Entrepreneurship
\textsuperscript{12}Ovidiu Nicolescu - ASE Bucharest, Chairman of CNIPMMR
The premises of the shift to the information society are dictated by the extremely strong dynamics of the new economy, where the digital technologies render more and more cheap and facile access, processing, storage and broadcast of the information.

The huge volume of available information creates opportunities for their exploitation by creating new products and services, creating new entrepreneurial activities and increasing the number of work places. Within the context of the new economy, specific to the information society, the digital information transforms itself in economic and social value, creating new entrepreneurship opportunities, but also deeply modifying at the same time the life of the citizens.

The technological evolution represents the origin of an information society based on the social – temporal independence of the human activity, which provides multiple economic, social and political possibilities, but also inevitably generating various issues.

Despite the difficulties concerning the analysis of the inevitable issues which can arise, a general consensus was established concerning the shift of the modern society towards the information age.

6. Role of technology
The new technologies specific to the 21st century from the communication and information field have a higher potential to generate new goods and services, creating opportunities to launch new companies into businesses. At the same time, they allowed the reduction of the transaction costs, decreasing the minimal efficiency thresholds in many fields of activities.

The reverse side is the amplification of the entrepreneurial activities, determining a set of changes in the field of technologies.

6. Role of the economic development
The three categories of factors which highlight the economic development of a society influence the entrepreneurial offer through the availability degree of the resources for the new companies. Thus,

- The economic development, the level of its development represents the most important factor which influences the opportunities from the business environment. At the same time, the shift of certain companies from manufacturing to services creates new opportunities, because in
the service field the barriers existing on the market are smaller than in the manufacturing field.

- The income on capita represents an important factor which leaves its mark on and influences the modifications from the structure of the activities, amplifying in a certain manner the entrepreneurial opportunities. Thus, the increase of revenues determines the increase of the demand for services, thus determining the diversification of the consumer demand.

- Strong diversification of the demand. Such a diversification will allow the new companies to stand up to the strong, traditional companies which dominate the market. The new companies aim to conquer new niches on a competition market in certain fields of activity, thus the suppliers of new and specialized products are favored by this diversification.

7. Conclusions

There is an extremely strong connection between entrepreneurship and the information system.

Within the context of the new economy, specific to the information society, the digital information transforms itself in economic and social value, creating new entrepreneurship opportunities, but also deeply modifying at the same time the life of the citizens.

The purpose of approaching the digital systems is to structurally develop, regulate measures which can allow the entrance on the market of the SMEs into a new approach, facing the advantages which the large dominating companies already enjoy, which can exploit the economies on the e-business market.

The digital ecosystems provide a protection means for the consolidation of SMEs potential, for a higher inclusion of the SMEs into the knowledge – based economy.

The benefits of these companies will contribute more efficiently to a dynamic market and to a sustainable economic growth.

Within the globalization context, this approach can support the production networks at the worldwide levels, the organization model, creating positive effects for innovation and economic growth.
The information society is a new higher qualitative lifestyle which involves the intensive usage of the information in all the fields of the human activity and existence, with a major economic and social impact. This allows the development of the entrepreneurial activities at a sustained pace, and provides the entrepreneurs with the possibility to make the best decisions which would permanently lead to an economic growth, taking into consideration the fact that the information society provides them with a complete and fast information system.

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