

Anticipatory Inadequacies of Business Economics And Entrepreneurship Theory

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Abstract

Two general theories try to explain the economic life of firms – the business economics theory and the entrepreneurship theory. In this paper, both theories are examined to determine whether either of them, in their present form, is able to explain the complexity of economic life, and even more, to anticipate future states of economic reality for firms doing business in a rapidly changing environment. We argue that they have lost their predictive power and suggest that some paradigmatic shifts are to be undertaken. The common denominator of changes needed in business economics and entrepreneurship theory to fulfill the role of an inner predictive model is a shift from onesidedness to holism, by which the encoding of a business system will be improved.

Keywords: Business economics, entrepreneurship, systems thinking, business systems, anticipatory systems

1 Introduction

The twentieth century has been decisively marked by a business system as its most important and influential institution, and by the entrepreneurs who have created it. But only so in practice, for the importance of entrepreneurs has not yet been recognised in theory. Although the entrepreneur's function in society is as old as the institutions of barter and trade, the science of economics and other social sciences, e.g. sociology and psychology, have failed to define clearly the role of entrepreneurship and the entrepreneur.

In the last twenty years, the investigation into entrepreneurship has become a distinct academic discipline, which takes the learning of other disciplines and tries to integrate them into an autonomous body of knowledge. Although there have been a huge number of publications in the field of entrepreneurship, we still do not have an entrepreneurship theory - at least not a theory that enables us to anticipate future states of economic reality.

Criticism should also be directed toward economic science, not because it ignores entrepreneurship, but because it is a more or less closed, self-contained system, standing on equilibrium paradigms that have always been more of an intellectual exercise than a

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part of reality. Prevailing business economics is occupied with a Newtonian, mechanical concept of the functioning of economic activities and economic laws.

The business environment is no longer stable and routinistic, and hence the routinistic business and established economic analysis is no longer adequate. In the concept of the business system, three fuzzy and soft subsystems coexist: the subsystem of routinistic business, the subsystem of roadblocks to changes and the subsystem of changing by innovating. Canonic business economics is now concerned only with the routinistic subsystem and, therefore, the other two are not taken into account.

We know that the world modelled by the Newtonian Paradigm is a world of simple mechanisms or machines (Rosen, 1985; Mikulecky, 1999). The problem with traditional business economics is that it thinks and speaks in terms of laws, eliminates the nonquantifiable, is more or less value-free, thinks deterministically and "formulate(s) economic laws as if they were divorced from time and space" (Loebl 1980: 63). Although a human being is the most complex natural system and economics is *per definitionem* about what people do when resources are scarce, business economics keeps explaining business systems in a Newtonian mode.

We will show in the following pages that the entrepreneurship theory and the traditional business economics theory are not capable of serving as a predictive model. They are no longer able to "pull the future into the present" (Rosen, 1985: vii). The problem we face is that the variety of modern globalized world has increased significantly and cannot be mastered with the variety which is offered by immature entrepreneurship theory and worn-out business economics based on obsolete paradigms. Both business economics and entrepreneurship theory have to make some paradigmatic shifts that we characterize as a radical move from onesidedness to holism. Without such changes, theories will not be able to serve as a tool for anticipating the future and for mastering the changes the next millenium is likely to bring.

2 Entrepreneurship from Daniel Defoe to Systems Thinking

2.1 Building of the Entrepreneurship Theory

A term comparable to "entrepreneur" can first be found in 1697, when Daniel Defoe, with the term "projector," characterized the individual with similar attributes and roles as Joseph Schumpeter did with his creative and heroic innovator. Credit for introducing "entrepreneur" to economic literature must be given to Richard Cantillon, an Irish economist working in France, who in 1725 defined "entrepreneur" as a speculator who buys today at a lower price and hopes to sell tomorrow at a higher price, thereby creating profit. In a world of uncertainty, the entrepreneur is the primary agent of the economic system.

Today we can roughly identify two basic ways of looking at the entrepreneur and entrepreneurship. One is mainly employed by economists, and the other by strategic and management theorists. Rare economists who find it worthwhile to investigate the phenomenon, see entrepreneurship as an economic function which supplies the economic (and social) system with the potential for both growth and development. The entrepreneur is seen as an individual who reshuffles resources and moves them from an area of low productivity to an area where they can contribute to higher productivity and lead to capital gains.

Within the field of management and strategy studies, entrepreneurship is mainly viewed as an entrepreneur's activity. Studying entrepreneurship means studying the entrepreneur. The elementary unit of analysis for this kind of research is therefore the individual - the entrepreneur - and entrepreneurship is defined by his/her actions.

The history of economic thought is full of varying concepts of the nature and role of the entrepreneur. Hebert and Link (1989) identified twelve different themes that can be found in the literature: *"The entrepreneur is the person who assumes the risk associated with uncertainty. The entrepreneur is the person who supplies financial capital. The entrepreneur is an innovator. The entrepreneur is a decision-maker. The entrepreneur is an industrial leader. The entrepreneur is a manager or superintendent. The entrepreneur is an organizer and co-ordinator of economic resources. The entrepreneur is the owner of an enterprise. The entrepreneur is an employer of factors of production. The entrepreneur is a contractor. The entrepreneur is an arbitrageur. The entrepreneur is an allocator of resources among alternative uses"* (Hebert and Link, 1989: 41). At least three more may be added: *The entrepreneur is the destroyer of economic equilibrium. The entrepreneur is the creator of economic equilibrium. The entrepreneur is a resource completer.*

The research on entrepreneurship at the end of this century is far from being solely a realm of economic science. In the last twenty years, the investigation into entrepreneurship became a distinct academic discipline which took the learning of other disciplines and tried to integrate them into an autonomous body of knowledge (Bygrave, 1989). Filion (1997) estimates that more than 1000 publications now appear annually in the field of entrepreneurship, more than 50 conferences annual, and 25 specialized journals. Although there is no doubt that the theory of entrepreneurship must be *"flexible and multidimensional to reflect its multidisciplinary roots,"* (Filion, 1997) we still don't have an entrepreneurship theory (Ripsas, 1998).

2.2 The Entrepreneur as Innovator

The notion of entrepreneur as an innovator is ascribed to Joseph Alois Schumpeter, who placed the entrepreneur at the core of economic progress. Economic development is a dynamic process, and the entrepreneur is its driving force. Without the entrepreneur there is no development; the whole economy is in a routine "circular flow of economic

activities." The entrepreneur is needed to disturb the equilibrium. *"It is spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing. Our theory of development is nothing but a treatment of this phenomenon and the processes incident to it."* (Schumpeter, 1934: 64) Schumpeter's entrepreneur is the agent of change which he views as *"that kind of change arising from within the system which so displaces its equilibrium point that the new one cannot be reached from the old one by infinitesimal steps. Add successively as many mail coaches as you please, you will never get a railway thereby."* (Schumpeter, 1951: 64f)

Development takes place by the introduction of new combinations of resources. *"To produce means to combine materials and forces within our reach. To produce other things, or the same things by a different method, means to combine these materials and forces differently."* (Schumpeter, 1934: 65) Not every "new combination" is worth Schumpeter's analysis. Even though incremental improvements may in time lead to bigger changes that can mean growth, they do not constitute either a new phenomenon or development. In Schumpeter's view, only discontinuous changes represent development and only these Schumpeter regards as new combinations of production factors.

The one who introduces new combinations is an entrepreneur. Schumpeter assigned to the entrepreneur the role of innovator and drew a demarcation line between invention and innovation. His definitions of entrepreneur and enterprise are clear: *"The carrying out of new combinations we call 'enterprise'; the individuals whose function it is to carry them out we call 'entrepreneurs'."* (Schumpeter, 1934: 74) The definition of enterprise as a carrying out of new combinations stresses the importance of a very specific human property: the ability to think, to be creative and to innovate. For an enterprise to exist, an entrepreneur is needed. For an enterprise to grow, prosper and develop, an entrepreneur must constantly carry out new combinations of resources, which are at her/his disposal.

The survival of an enterprise depends on an entrepreneur's ability to innovate. The economic system (and the social, as well) needs an entrepreneur to carry out new combinations of production factors that will yield new products and services which satisfy the constantly changing needs of consumers. The process of "creative destruction" led by the entrepreneur takes place. When the old equilibrium is destroyed and a new combination is established, the business process starts to repeat in a routine way: the managerial role replaces the entrepreneur's role.

2. 3 Anyone Can Be an Entrepreneur: Entrepreneurship is a Human Activity

The heroic role of the Schumpeterian innovative entrepreneur is not for everyone. Not every woman or man has the necessary intelligence, power, skills, courage and knowledge to be an entrepreneur. Ludwig Von Mises, the main representative of the

Austrian school of economics, offered some good news: everybody is capable of entrepreneurial activities, for they invariably exist in all human activities (Moss, 1995: 98). In carrying out entrepreneurial activities, some people are more successful than others and, from a sociological point of view, can be called "entrepreneurial types of people." But not all entrepreneurs are of the same breed: in addition to ordinary entrepreneurial people there are "entrepreneurs – promoters," pioneers that see the future more clearly than the crowd and that drive and promote economic development (Von Mises, 1949: 254 - 255).

Again, Mises reserved for entrepreneurs the central role in the economic system. "In so doing, he criticized the overwhelmingly accepted Robbins' orthodox definition of economics as the science which studies "*human behavior as a relationship between ends and scarce means which have alternate uses.*" (Robbins, 1935: 16)

The performing of entrepreneurial activity is crucial for a rapidly changing modern economy in which production factors do not come together incidentally. An entrepreneur is needed to combine them. Taking the entrepreneur out of the economic system means taking out the driving force (Von Mises, 1949: 249). Thinking about entrepreneurship in Mises' way does not exclude the self-employed, small business owners and managers, Schumpeterian innovative entrepreneurs in big companies, or anyone else undertaking entrepreneurial decisions (Schultz, 1990: 35).

Mises recognized that people are not calculating machines that endlessly optimize (e.g. consumers calculating when marginal utility will equal marginal costs when they decide which and how many goods to buy; producers calculating when marginal revenue will equal marginal costs when they decide what and how much to produce; employees calculating when marginal income will equal negative marginal utility when they decide how many hours to work, etc.), they are also *alert to opportunities* (Barreto, 1989: 17).

2. 4 To Be an Entrepreneur One Has to Be Alert to Opportunities

The alertness of an entrepreneur to hitherto unperceived opportunities is especially emphasized in the thinking of Israel Kirzner. His entrepreneur is vigilant and alert, always on the watch for potentially unexploited opportunities that no one else recognizes and for potentially valuable resources that are currently not in use (Kirzner, 1973: 35). The main role of the entrepreneur in the economic system is to look diligently for hitherto unperceived opportunities (Kirzner, 1973: 39).

Kirzner perceives the role of the entrepreneur in relation to economic equilibrium quite differently from Schumpeter (Kirzner, 1973: 72-75). As we have seen, the function of Schumpeter's entrepreneur is to disturb the existing equilibrium of the economic system. Entrepreneurial activity disrupts the monotonous routine of "circular flow of economic life," and the entrepreneur is the driving force inducing change and generating new opportunities. If Schumpeter's entrepreneur destroys equilibrium,

Kirzner's entrepreneur creates it. The starting position of Kirzner's entrepreneur is a state of disequilibrium. Nobody but the entrepreneur can bring about changes that will lead to the equilibrium of the economic system. Changes he will induce, will alter the existing pattern of wrong decisions associated with many missed opportunities. The entrepreneur will coordinate the market constituents that were in disharmony because of erroneous decisions in the past, and will tune up the market instruments.

Kirzner's entrepreneur is not a heroic and pioneering innovator, as painted by Schumpeter. He/she is an ordinary person who is thoughtful and alert, and therefore capable of recognizing and exploiting existing business opportunities, which await discovery. The entrepreneur stands in the center of processes taking place in a market economy.

2. 5 An Entrepreneur Has to Complete Inputs and Fill in the Gaps in the Market

Life (and a market) is not perfect. The role of an entrepreneur is to fill in the gaps and to contribute to the functioning of the market. An important task the entrepreneur must fulfill is to employ inputs which are inherently ambiguous and undefined, although needed for production. Without those "soft" production factors, such as leadership, motivation, capability of solving a crisis situation, responsibility, etc., there is no output. An entrepreneur possesses all these critical and unique characteristics. Leibenstein (1968: 75) seems to support this position when he characterizes the entrepreneur as having four major attributes: *"he connects different markets, he is capable of making up for market deficiencies (gap-filling), he is an 'input-completer,' and he creates and expands time-binding, input-transforming entities (i.e., firms)."* Not all people have input-completing and gap-filling capabilities, only entrepreneurs; therefore, entrepreneurship is a scarce resource.

Four major characteristics of the entrepreneur are stressed by Leibenstein (1968: 75): *"he connects different markets, he is capable of making up for market deficiencies (gap-filling), he is an 'input-completer,' and he creates and expands time-binding, input-transforming entities (i.e., firms)."* Not all people have input-completing and gap-filling capabilities, only entrepreneurs; therefore, entrepreneurship is a scarce resource.

Leibenstein's picture of the economy is very different from the (neo)classical one. His way of visualizing the economy reveals an important point relevant for less developed economies: the less market institutions are developed and the less developed and stable are the "rules of the game," the more *holes and tears in the net* exist. On the one hand, this means that many unexploited opportunities exist which are waiting for entrepreneurs to seize them. On the other hand, entrepreneurship in such an environment is much riskier and of uncertain outcome, and therefore less attractive for potential entrepreneurs to join the tasks of input-completing and gap-filling. A lack of entrepreneurs exists, and the "darkness" of such an economy increases - *a circulus vitiosus*.

2. 6 The Ability to Deal With Disequilibria

Theodore Schultz (1975) argues not only that the entrepreneur has the abilities to deal with disequilibria, but also that such abilities can be gained and increased, especially with education. In accordance with the theory of human capital, he considers entrepreneurship to be found not only in business but also in many other human activities. In a dynamic economy, people go through different phases during their life-cycle – including, for many, an entrepreneurial one. *“A wide array of people at various points over the life cycle are entrepreneurs; not only bureaucrats and farmers but also laborers, students, housewives and consumers are entrepreneurs.”* (Schultz, 1980: 437) To agree with such a generous definition of entrepreneur, we have to accept the underlying concept that the essence of entrepreneurship is the *“ability to deal with disequilibria”*. (Schultz, 1975: 830) In a modern economy, many people - not only those engaged in business - consciously reallocate their resources in response to changes in economic conditions. *“Like intelligence, entrepreneurial ability is one of the general attributes of human beings.”* (Schultz, 1990: 6)

The elementary entrepreneurial ability characteristic of most people is not only the ability to deal with disequilibria, but also the ability to reallocate their resources. Every modernizing economy is in a state of permanent disequilibrium. The changes brought about by modernization result in perpetual questioning about how to allocate one’s time and resources. The entrepreneurial abilities to deal with disequilibria and to reallocate resources can be innate or acquired. The acquired part can be enhanced by experience, training or schooling and represents an investment in human capital (Schultz, 1990: 86).

Schultz emphasizes that people, when choosing freely, will usually endeavor to acquire abilities that will yield them the optimal utility from future earnings that are constrained by the resources at their disposal. The acquired abilities are very different and increase in variety with increasing specialization. They are largely the product of learning and experience, which take place when people are faced with changes in economic conditions. Unfortunately, the abilities acquired when reacting to one type of change in economic conditions are not productive when another (and different) change takes place (Schultz, 1990: 95 - 97).

2.7 Productive, Unproductive and Destructive Entrepreneurship

Another warning should also be taken into account: not every entrepreneurship is aimed at development. Baumol (1990, 1993) talks about productive, unproductive and destructive entrepreneurship. His basic idea is that *“entrepreneurs are always with us and always play some substantial role”* (Baumol, 1990: 894). But the array of roles they play is very diverse, and there is no guarantee that the entrepreneur’s efforts will be allocated in a way that follows the innovative and constructive image we usually have of entrepreneurs.

The rules of the game and the structure of payoffs that prevail in a particular society and time determine the behavior of entrepreneurs. "*...it is this set of rules, and not the supply of entrepreneurs or the nature of their objectives that undergoes significant changes from one period to another, and helps to dictate the ultimate effect on the economy via the allocation of entrepreneurial resources*" (Baumol, 1990: 894). Many definitions and roles can be found in the entrepreneurship aggregate: business founding and management, innovative entrepreneurship, imitative entrepreneurship, unproductive entrepreneurship and rent-seeking entrepreneurship (Baumol, 1993).

Unproductive entrepreneurship refers to the performing of entrepreneurial activities that enrich the entrepreneur, but do not increase the wealth of a society. In some cases, they may even play a destructive role (apart from the entrepreneurship of military dictatorships, destructive wars, etc.), especially when they obstruct the dissemination of technological knowledge and inventions.

When fostering entrepreneurship in emerging market countries, we need to have in mind that for achieving economic growth and development, it is important to 'correctly' allocate the efforts of entrepreneurs. If entrepreneurs are free to select where to allocate their entrepreneurial talents, visions, efforts, knowledge and skills, they may allot it to any of the following of Schumpeter's entrepreneurial activities: the introduction of a new good, the introduction of a new method of production, the opening of a new market, the conquest of a new source, or the carrying out of the new organization of an industry. Because the supply of entrepreneurship in any society is limited, it is important for the development of a society to determine which activities will have priority. Why should entrepreneurs be more interested in the introduction of new goods than in carrying out the new organization of an industry, if not because of the present "rules of the game"? The rules of the game, which prevail in a certain society at a particular time, determine the motivation, values, and calculations of entrepreneurs about where to invest their abilities and efforts. The rules of the game determine the structure of payoffs for entrepreneurial behavior. The entrepreneur is an allocator of resources and simultaneously a resource that can be allocated.

Baumol proposes to expand Schumpeter's list of entrepreneurial activities with another one: rent-seeking innovations. "*If entrepreneurs are defined, simply, as persons who are ingenious and creative in finding ways to add to their wealth and prestige, then it is to be expected that not all of them will be overly concerned whether an activity that achieves these goals adds much or little to the social product, even whether it is an actual impediment to production*" (Baumol, 1993: 28 - 29). If the rules of the game in a certain society are of a kind that does not oppose entrepreneurial rent-seeking activities or even supports them, more and more entrepreneurial efforts will be allocated to these activities. In this case, because of the limited supply of entrepreneurship, economic development will be slower than it might be if the society supported productive entrepreneurship.

The rules of the game are important for encouraging entrepreneurial activities, as many of Baumol's examples show. We should bear in mind that (1) the rules of the game that determine the relative payoffs for different entrepreneurial activities change dramatically in time and space, (2) entrepreneurial behavior changes from one economy to another in response to variations in the rules of the game, and (3) the allocation of entrepreneurship among productive and unproductive activities may deeply influence the innovativeness of the society and the rate of dissemination of technological innovations.

In his discussion of entrepreneurship, Baumol brought good news: the allocation of entrepreneurship «*between virtue and villainy,*» and «*...between productive and unproductive activities*» (Baumol, 1993: ix) can be directed and does not need to rely on slow cultural changes in order to «*find measures to redirect the flow of entrepreneurial activity toward more productive goals*» (Baumol, 1990: 919).

2. 8 A Systemic Look at Entrepreneurship

Entrepreneurship process is a complex and dynamic process. It is also a highly individualized and holistic process. By saying «individualized,» we wish to stress that the whole entrepreneurial venture decisively depends on the individual entrepreneur and his/her team. Without the entrepreneur, there is no entrepreneurship. The process is holistic because so many different influences take place and many viewpoints are to be employed to control it. Therefore, it is hard to comprehend the process without systems thinking.

We should take into account the subsystems and subprocesses which constitute it, supersystems in which it occurs (environment, national and international markets and economies), superprocesses which the entrepreneurial venture is a part of (economic growth and development, social transformation, transitional processes), fuzziness and softness of entrepreneurial actions, interdependencies, mutual impacts, etc. (Rebernik, Mulej and Kajzer, 1996).

For the success of the entrepreneurship process, the attainment of holism is of major importance. At least three possible subsystems that can form the totality of the entrepreneurship process and be of major influence on its efficiency and effectiveness can be introduced:

- a subsystem of three main *functions*: entrepreneurial, proprietorial and managerial;
- a subsystem of three main *factors*: entrepreneur, resources and opportunity; and
- a subsystem of four desired entrepreneurial *attributes*: dream, dare, do and delegate.

The business system is the central institution of modern society. At the very heart of the business system is the entrepreneur who combines the factors of production and transfers them from an area of lower productivity and yields to areas where higher yields can be realized. The main function of the entrepreneur is to search for opportunities and to create and exploit them. Because business opportunities change continually and can be exploited only within a given time frame, it is very important for the entrepreneur to recognize them in time, evaluate their profitability, estimate the risk involved, identify and collect the resources needed for exploitation of the opportunity, and to organize needed resources in such a way that the opportunity can be exploited to its full potential. The entrepreneur has to anticipate the future, and he has to do this more accurately than his competition. In entrepreneurial ventures prospers anticipatory systems that have better predictive model.

Once an opportunity is spotted and needed resources gathered and organized, the entrepreneurial function is superseded by the managerial function and managers take charge of running the everyday business. Entrepreneurship deals with pursuing opportunities regardless of the resources the entrepreneur currently has at his/her disposal and with establishing a new business (Timmons, 1994). On the other hand, management is concerned with running a given business. The entrepreneur searches for opportunities to be exploited, and the manager seeks the methods and means of effective and efficient utilization of the resources the entrepreneur has gathered for such opportunities.

Fixing the boundaries between the managerial and entrepreneurial function is artificial because in practice both are intermingled. There is a continual switching between them. On one pole, we find the function, which senses its opportunity to take a chance, disregarding the resources under current control. On the other pole, there is the function, which encourages efficient management, emphasizing efficient use of current resources (Stevenson and Sahlman, 1986). Attempts to demarcate between the entrepreneurial and managerial roles and business systems' orientations forces us to see that entrepreneurship as a business function is of no single type, but rather a palette of behaviors (Stevenson, Roberts and Grousbeck, 1989).

What is the role of the owner in this triangle? The owner provides resources, usually capital. For his/her stake in the game she/he claims a return on investment. For the owner, the business system is nothing but an investment: instead of putting money in the bank to earn interest he puts it into business to earn more money. For the sake of harvesting the residual, the owner makes certain that managers perform their jobs efficiently and effectively.

The company is a product of the entrepreneur's endeavor to exploit the business opportunity and to capitalize on it. The entrepreneurial venture consists of three elementary subsystems: the entrepreneur and his team, needed resources, and a business opportunity. Not only must all three be present simultaneously, there must be a *fit*

between them (Bygrave, 1994). The elementary subsystems depend on each other, and can stand only as a whole. They are relational in a sense that the whole results from the interaction of each element. The importance of *fit* shows the importance of a systemic approach when contemplating the entrepreneurial process. The entrepreneur must be capable of spotting a business opportunity and gathering resources. If any of the elements are missing or are not complementary, the entrepreneurial process cannot take place.

There are external and internal conditions for encouraging entrepreneurial activities within the business system. The external influential factors fostering the entrepreneurship are the availability of venture capital, institutional support for translating scientific and technological ideas into a successful venture, active support of governmental and local authorities, protected property rights, and accelerated removal of the barriers hindering entrepreneurial behavior (Smilor, 1986; Baumol, 1993). Also of importance are the social status and the quality of life of both current and future entrepreneurs.

The business system can maintain and develop entrepreneurship if management structures focus on encouraging new ideas, providing resources for the development of new ideas, encouraging the flexibility and empowerment of employees, tailoring the reward structure that encourages innovativeness, etc. A new type of managing a company is needed: a type of management that is better suited for modern, turbulent times that require many entrepreneurs and a broad array of entrepreneurial behavior. The introduction of new combinations of production factors is accelerating, and a modern company needs an ever increasing number of entrepreneurs. Instead of traditional management, an entrepreneurial management is needed.

Elsewhere we argued that companies are created by entrepreneurs and destroyed by administrators (Rebernik, 1997). In accordance with that presumption, we discussed some characteristics of both approaches to running a company and concluded that both are needed. On that basis, we may draw the conclusion that an appropriate mix of entrepreneurial and managerial (administrative) activities is needed for sustaining the competitive advantage of a company. Companies go off the right track, not because administrative ways of managing prevail, but because entrepreneurship disappears.

To keep a company successful, one needs to assure that resources are updated in accordance with changing opportunities in the environment. Moreover, that the entrepreneur does not lose any of his important dimensions, especially not the ability to overcome barriers to change. To prevent the company from falling into a crisis, emphasis should be placed on entrepreneurial management to avoid gliding from an innovative to a routinized business, and to prevent administrative structures from prevailing over entrepreneurial processes.

The success of a business system depends on the entrepreneurial actions of the decision makers in an organization. In entrepreneurship, there is a lot of tacit knowledge

(Polanyi, 1967); knowledge that cannot be articulated. Entrepreneurs know more that they can express. The entrepreneur owns, in regard to a particular opportunity, a more wholistic view of the world than others. His model of the future is more accurate and reliable. Because "learning processes generate predictive models" (Rosen, 1985: 385), the most successful entrepreneurs are also the best learners. With learning, they acquire private information that enable them to anticipate future economic conditions, gather resources and organize the venture to create something of value for the customer. A clear information asymmetry exists. The bigger the information asymmetry, the bigger the chances for alert entrepreneurs to recognise profitable opportunity. To exploit the opportunity, they must be able to take into account as many viewpoints as possible. They must recognize the whole; making the holistic view of reality is of utmost importance.

3 Worn-out Business Economics

In his book on humor in economic science, Herbert Stein (1996) wittily describes four evolutionary phases of economic science:

- *the classical period*, when economists were writing about the economy – that is, about the process by which society is organized to create wealth;
- *an open season in economics*, when instead of writing about the economy, economists began writing about economics – that is, about the professional analysis of the system;
- *early narcissism*, when economics had become excessively esoteric, and so technical and sophisticated that only economists really understood it; and finally, economics grew into
- *higher mathematical narcissism*, when economics became an "exercise in mathematics," with an overwhelming tendency to "express in complicated mathematical terms what seem to be rather simple ideas" (Stein, 1996: xiv).

Prevailing business economics is occupied with a Newtonian, mechanical concept of the functioning of economic activities and economic laws (Mulej et al., 1992; Georgescu-Roegan, 1971). The main reason for the insufficiency and inappropriateness of prevailing traditional business economics for business systems which operate in turbulent environments is that the paradigm of economics was created in the entirely different circumstances of a relatively stable environment, where a static look at the firm was sufficient. As circumstances have changed radically, there is now an urgent need to establish a business economics theory which goes beyond markets, and is able to embrace and explain all the essential elements and linkages of modern business.

With the sterility of (neo)classic economics in mind, the last two and a half decades have shown that a number of alternative approaches have evolved; namely, the behavioral theory of the firm, the agency theory, transaction cost economics, evolutionary economics, and the resource-based view of the firm. These approaches are not fully mature yet and are yet to gain all the attributes of a normal science. For the

time being, none of these theories is capable of offering a holistic view of an enterprise. They are much better suited than traditional business economics for investigation of man and his/her creativity. This is especially true, because they concentrate on research of the hierarchy, i.e., the firm, and they no longer view the market as the only possible coordination mechanism nor ownership as a middleman for business system efficiency and effectiveness.

The business environment is no longer stable and routinistic, and hence the routinistic business and established economic analysis is no longer adequate. In an enterprise, three fuzzy and soft subsystems co-exist: the subsystem of routinistic business, the subsystem of roadblocks to changes and the subsystem of changing by innovating. Canonic business economics is now concerned only with the routinistic subsystem and, therefore, the other two are not taken into account. Instead of one-sidedness, the highest possible holism needs to be achieved. (That is what "systems thinking" has been trying to achieve for over four decades!) In order to attain a more holistic perception of economic reality, we also need paradigmatic shifts in our mentality.

Until recently, creativity (outside the frameworks of sociology and psychology) within a company, was nearly exclusively a topic of organizational and management sciences. Economics, anchored in the classic and neoclassic microeconomics tradition, did not really know what to do with creativity. With its concentration, first and foremost, on markets and prices, production and cost functions, supply and demand, allocation of production resources and opportunity costs, etc., business economics failed to acknowledge creativity, innovativeness and entrepreneurship.

During the 70's and 80's, the situation changed. In order for an enterprise to be able to cope with the growing complexity of its environment, quite a number of economic approaches evolved, which challenged the neoclassical neglect of the creativity and innovativeness of both the individual and the group. In accordance with Ashby's Law of Requisite Variety (Ashby, 1956), the variety of business economics had to be increased to be able to control the increased variety of companies and their environment. But this change occurred only partially in the academic sphere.

The radical changes in economic reality in recent decades demanded a radical rethinking of the role of man and his/her creativity. The enterprise environment is no longer stable, hence a static approach is no longer adequate. Current business economics theory still treats the human in an extremely narrow sense, only as a factor of production: namely, labor which, along with capital and land, are necessary for the production process. Even more, labor as a factor of production is considered only as a physical phenomenon. Words like quality, creativity, cooperation, imagination, emotion, individuality, corporate culture, synergy, even entrepreneurship and innovativeness, are not used in traditional business economics. Without them, however, there is no innovation, no innovative business, no quality, no efficiency and no long-term business system effectiveness. The science of business economics is still

overwhelmingly interested in people only as expenses or costs. Unless people are an item in the balance sheet, or in the income statement, canonic business economics pays no attention to them.

Upon viewing business economics as the science of the rational use of scarce resources, and looking at the development periods during the last century, we can discern the following phases:

- Factors of production (land, capital, and labor) were cheap and easy to access by entrepreneurs. This was the time of the formation of the basic paradigms of business economics, which made it into a normal science in the space of a few decades.
- Factors of production became increasingly scarce, more expensive, and needed to be organized to be exploited as rationally as possible. That is why the technological and economic principles of rationality were deployed.
- The production potential of the “hard” production factors (land, capital, physical labor) is now diminishing and becoming scarcer and hence more expensive. Creative ideas and entrepreneurship, which were able to give birth to new value and new profit, are increasingly becoming important factors of production. It is only fresh and bold ideas, by which business opportunities can be identified and the necessary resources can be acquired for their fruitful exploitation that still assures progress.

The increasing importance of knowledge, new ideas and entrepreneurship is evident. We can say that a decade or two ago, the “hardware” period in which hard production factors dominated, came to an end. People and their creativity have now become the crucial production factor, and economic science must be reformed and transformed to adapt to new realities. Some paradigmatic shifts of business economics must be made.

4 Shifts in Business Economics and Entrepreneurship Research

The turbulent changes in an enterprise's environment has disclosed some weak points of business economics as a normal science:

- It does not take into account that human creativity has become a scarce resource.
- It does not take into account that the hierarchy exists alongside the market, as a coordination mechanism, and alongside them exist other coordination mechanisms, that are far from having a profit motive as their basis.
- It does not take into account the fact that in the “information age,” owning ideas and information is more important than owning capital.

We currently face the problem of how to “*de-memorize*” the fundamentals of business economic studies, which fail to pay attention to the human, entrepreneur and entrepreneurship. In this sense, “*de-memorizing*” also means switching from limiting oneself to a single viewpoint (of a profession, nationality, religion, interest, or other kind of specialization) to an openness to viewpoints different from one's own. The common denominator for such a switch to take place, are interdependence of different

specialized views, and human awareness of them. Since the time when the entire body of knowledge of mankind became too great for individuals to absorb, specialization and typification have entered the scene, and hence simplification. Simplification, though, has not addressed reality, but only thinking about reality. This has caused oversights and, as a consequence of (over)simplification, led to new complexities and complications.

| | FROM | → | TO |
|------------------------------------|--|---|---|
| BUSINESS ECONOMICS | <ul style="list-style-type: none"> • closed system • firm as a black box • market as a sole coordinator of economic activities • static • equilibrium as a rule • owner and manager • human as a cost • simple • describing | | <ul style="list-style-type: none"> • open system • firm as a white box • market and hierarchy coordinate economic activities • dynamic • equilibrium as an exception • entrepreneur • human as an asset • complex • anticipating |
| ENTREPRENEURSHIP THEORY | <ul style="list-style-type: none"> • closed • one-sided • ownership • psychological profiles and resources • static • searching for opportunities • simple • descriptive • capital based growth • profit driven | | <ul style="list-style-type: none"> • open • holistic • entrepreneurship • resources and opportunities • dynamic • investing in opportunities • complex • anticipating • information based growth • value driven |

Fig. 1: Changes needed in business economics and entrepreneurship theory

In the field of entrepreneurship research, a shift from the entrepreneur to resources and opportunities is taking place. Within economic science, the twentieth century has been denoted with Robbins' definition of economics as being the science which studies *“human behavior as a relationship between ends and scarce means which have alternate uses.”* (Robbins, 1935: 16). We dare to predict that the economics of the next century will be denoted by entrepreneurship focused not on existing resources, but on opportunities.

In Figure 1 we sketched some of the shifts that have taken place within business economics and entrepreneurship research. With them in mind, we can conclude that the

common denominator of changes taking place in business economics and in entrepreneurship is most probably the *shift from one-sidedness to holism*. Without it, the debated theories will not be able to explain the complexity of economic life, and even less able to anticipate future states of economic reality for firms doing business in a rapidly changing environment.

5 Conclusions

Business economics and entrepreneurship theory in their current condition are incapable of performing the role of a predictive model within a business system. Obviously, the natural system, i.e., a business system and a formal system, i.e., business economics and entrepreneurship theory are not congruent. The discrepancy between a system and a model emerged because in recent decades reality evolved faster than the theories that should explain it. Business systems became more complex, dynamic and complicated than business economics and entrepreneurship theory were able to interpret. Therefore, the "inferential structure of the formal system" (Rosen, 1985: 331) does not mirror the actual behavior of the system modelled; i.e., the business system.

The conclusion that follows is that a business system has to be studied more thoroughly, considered as a whole, and analyzed from as many viewpoints as possible in order to recognize all the important characteristics, laws and specific phenomena that will permit the creation of an adequate formal system. Speaking in terms of Ashby's Law of requisite variety, this means that an increased variety of business economics and entrepreneurship theory is needed. With respect to anticipatory systems, modelling relations between business systems and formal systems must be developed that will enable the predictive model to make specific and accurate predictions about the future of business systems.

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