

## **DEVELOPING A CONCEPTUAL MODEL BASED ON THE CORRELATIONS BETWEEN MARKETING HIGHER EDUCATION AND KNOWLEDGE BASED ECONOMY**

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### **Abstract**

The purpose of this paper is highlighting the bi-univocal relationship between the development of the Marketing Higher Education and the design of knowledge-based economy. On one hand, marketing science needs to incorporate the principles and the mentality of the knowledge based economy in order to develop itself separately from other socio-economic sciences and, on the other hand, knowledge-based economy needs to incorporate marketing techniques and philosophy to enhance economic relations in human communities, based not only on technology but primarily on the needs, expectations and aspirations of the people. Starting from an analysis of the state of art of the concept of knowledge-based economy and from an analysis of the current developmental stage of marketing science, particularly in Romania, this paper will highlight the strong links between those two areas and multiple interferences between them. The paper will also develop a conceptual model to emphasize these relationships.

**Keywords:** knowledge based economy, marketing, marketing higher education, macro-marketing, Romania

**JEL Classification:** M31, A13, A20

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### **Introduction**

A knowledge-based economy rises on exploitation of the human capital, and to adapt to such an economy it is required a significant change in the mentality on the political, academic, corporate, and personal levels. Thus, education, in general, and economic Higher Education, in particular, plays a major role in creating knowledge and providing it (Davis, Evans and Hickey, 2006).

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Identifying features of the knowledge-based economy was the subject of several researches conducted in recent years. Most of them have used a macroeconomic approach; others highlighted changes produces inside the enterprises.

According to an Australian study (Byrnes et al., 2010), the main features of a world-class company in the contemporary economy, based on knowledge are: (i) better trained work forces, (ii) a systematic approach of the planning and evaluation of the training of work forces, (iii) numerous methods for recruiting and training, as well as (iv) a close relationship with the educational and training services.

If at the beginning of the twentieth century, technology and technological innovation were seen as the main vectors of economic and social growth, the end of the century brought in the fore the importance of human capital as a strategic resource for any organization. Human capital is thus one of the key points of entrepreneurs (Reimers-Hild, Fritz și King, 2007).

Studying the characteristics of the knowledge-based society, Popa and Dobrin (2007) highlight some of its fundamental features: (i) knowledge replaces capital as the main resource of the economy; (ii) specific goods are related to information and communication technology that save energy consumption and the environment. In addition, education becomes more flexible, proactive and forward looking, ensuring continuity between the formal education and lifelong learning. Popa and Dobrin (2007) consider that learning processes will become more proactive and participatory; the narrow specialist will soon be replaced by the adaptable generalist while the focus will fall on the innovative learning with the purpose of ensuring a balance between individual autonomy and its harmonious integration into society.

Dinu and Curea (2007) consider education and information technology as the main channels of knowledge transfer, and the sectors included in the knowledge economy are high technology industries, communications, financial services and consulting, education, health, leisure activities, air and water transport.

Lifelong learning will change not only teaching and learning approaches, but will also consider teachers as students throughout their entire professional life. World Bank specialists (World Bank Education, 2003) draw attention to all these changes (table no. 1).

Education within the post-industrial era focused less on the transmission of new knowledge but more a modeling new behaviors, including abilities to solve problems and participate in decision-making process. Educational curriculum will include multidisciplinary studies and a variety of approaches of the learning process, based on a variety on alternative sources of knowledge (Riddell, 1996).

**Table no. 1: A comparison between the traditional learning model and lifelong learning**

<b>Traditional learning model</b>	<b>Lifelong learning</b>
The teacher is the source of knowledge.	Educators are guides to sources of knowledge.
Learners receive knowledge from the teacher.	People learn by doing.
Learners work by themselves.	People learn in groups and from each other.
Tests are given to prevent progress until students have completely mastered a set of skills and to ration access to further learning.	Assessment is used to guide learning strategies and identify pathways for future learning.
All learners do the same thing.	Educators develop individualized learning plans

<b>Traditional learning model</b>	<b>Lifelong learning</b>
Teachers receive initial training plus ad hoc in-service training.	Educators are lifelong learners. Initial training and on-going professional development are linked.
“Good” learners are identified and permitted to continue their education.	People have access to learning opportunities over a lifetime.

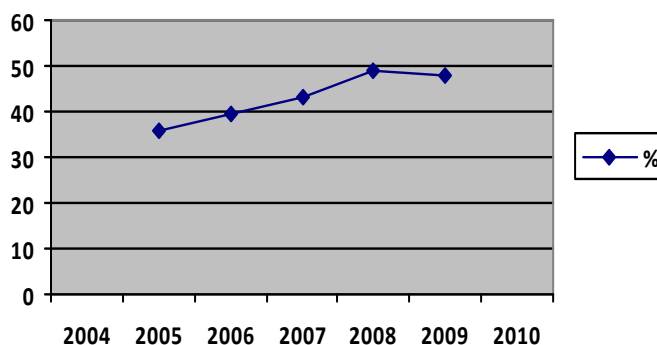
Source: World Bank Education, 2003, p. 78.

Universities, like any other organization, exist to meet the needs of individuals, having as the main purpose transmitting the highest satisfaction to the education consumers, both to personal and professional level (Meringe, 2006, p. 130). Any institution of Higher Education has a triple orientation: knowledge creation, knowledge transfer and public service.

After analyzing the correlations between Higher Education and the knowledge-based society, George (2006) concludes that the main question to be answered by governments, both from developed and developing countries, is related to which action should be taken so that the Higher Education would play a greater role in the economic progress without undermining its traditional roles in society. Furthermore, George (2006) considers that in the developing countries, their lack of infrastructure and academic tradition justifies an intervention form the state in order to support Higher Education to successfully compete with the neo-liberal education system from many developed countries.

The human capital investment issue becomes even more interesting while referring to the economic realities of Romania. The native work forces undergo an integration process into the European and world market. At this level competition represents a fundamental rule. After demolishing the economic and political barriers, a possessor of skills, knowledge and abilities find him in a real competition against the human capital of a high performance economic area. There are however many problems that arise from the shortcomings in the administration of such a valuable resource – human capital (Mursa, 2006).

An evaluation of the European Union countries, in terms of level of labor productivity, ranked Romania on the second last place, just above Bulgaria. Although the labor productivity levels rose constantly in the period 2005-2008 (from 35.9% to 48.7%), it suddenly decreased throughout the year 2009 reaching 48% (figure no. 1) (the labor productivity indicator is calculated by Eurostat as the ratio of gross domestic product (GDP) at the parity of the purchasing power and the average number of employees).



**Figure no. 1: Labor productivity in Romania (2005-2009)**

Source: Eurostat, 2011

In the context of the current economic crisis the recorded value of this indicator is even more worrying, making it necessary to adapt the capabilities gained from education to the specific requirements of the job market.

Besides the drawback caused by the economic crisis, the main cause of the differences in the labor productivity levels in Romania and other countries lies in the low level of investment in human capital during each educational cycle. Romania is among the states with low investment in education and poor performances in high school and university. (Ederer, Schuller, Willms, 2007, p.8). The need to adapt to the demands of the knowledge-based economy requires increasing investment in human capital at every stage of the learning cycle and in each stage of human development as well as adapting to lifelong learning in order to meet current market requirements.

Analyzing the main economic sectors of Romania, Dinu and Curea (2007) conclude that the only chance for Romania to enter in the European concert is to implement a national strategy to enhance education, considered as the main engine for creating workforces, and able to contribute to the growth of knowledge at a European level.

A broad analysis based on statistical data on the evolution of the Romanian education system leads Nicolae (2010) to the conclusion that education and access to modern computer techniques are means for Romania to become an outstanding competitor in building a knowledge-based society. The progress in education (for example, the number of high school graduates who followed an university during 2000 -2007 increased by 10%) and the high proportion of people who have access to computing devices and Internet are proofs for the potential possessed by Romania to join to the global knowledge society.

The same study (Nicolae, 2010) underlines the reference points that should be taken into consideration in the field of education: (i) promoting educational programs to ensure a balance between schoolwork and individual study, (ii) changing the student evaluation system, (iii) promoting an education for private life, (iv) a continuous research of the labor market changes, (v) customer-centered education, (vi) implementing a teacher evaluation system to test their skills (technical expertise, methodological and didactic training, mobility of thought, teaching style etc.).

### **1. Objectives and research methodology**

This research aims to explore the links between Marketing Higher Education and knowledge-based economy. The purpose of the theoretical research, identified as a fundamental research, is to develop a conceptual model, highlighting the relationship between the two concepts mentioned above.

The hypotheses that will be analyzed are the following:

*H1. Teaching activities in Marketing Higher Education are major contributors to the formation of high-class specialists in marketing and marketing activities developed afterthought will lead to a more rational distribution of resources and an increased economic and social efficiency within the knowledge-based economy.*

*H2. Fundamental research developed in Marketing Higher Education leads to substantial theories, methods, models, tools and techniques whose implementation in social and economic activities will lead to an increased level of applied knowledge.*

*H3. Knowledge-based economy creates the premises for a higher scientific approach of specific marketing problems, which will be reflected mainly in the fundamental marketing research conducted in specialized Higher Education institutions.*

*H4. Marketing Higher Education as well as the knowledge-based economy is influenced by several factors, among which the most important are: innovation, technology and human capital.*

The research method used was the inductive analysis, based on causal explanation. The processes and phenomena from the surrounding reality, especially from Romanian economy and society, analyzed from a logical perspective, were considered as arguments in our attempt to reflect the aspects of the relationship between Marketing Higher Education and knowledge-based economy.

## **2. The role of the Marketing Higher Education within the knowledge based economy**

Marketing appeared 100 years ago as a modern way to handle businesses. It was quickly discovered as an efficient tool for growing business as well as a potential to develop the science.

Marketing Higher Education played, and will continue to play an important role in the creation of high-class specialists and fundamental research activities able to define functions, concepts, categories, patterns that contribute to the crystallization of the science of marketing.

Although some consider that marketing has emerged in Romania after the change of the political and economic system in 1989, the reality is different: the roots of marketing are found around four decades ago and are closely related to the Academy of Economic Studies in Bucharest and to professor C. Florescu (Zaharia and Grundey, 2009). In 2011 will be celebrated 40 years of Marketing Higher Education in Romania, as well as the establishment of the first marketing department in a Romanian university, and the foundation of the first Association of Marketing Professionals in Romania – AROMAR (Pop, 2011).

Marketing Higher Education is customized in various areas of the Higher Education through a stronger connection to the economic practice. Most of the concepts, methods and techniques of marketing have emerged first in the practice of companies and they were later theorized. In Romania at least the marketing academic staff shows a real interest in collaborating with private companies. This has positive consequences because marketing students are educated encountering the realities of the socio-economic life. Furthermore, the marketing academic staff embraces the customer oriented mentality, thus the partnership approach with their students. All this leads to a labor market supply formed by well trained professionals, able to correctly apply marketing in the organizations they work for.

The proper application of marketing can bring significant benefits not only to the companies who practice it, but to the entire society. Identifying the needs and expectations of consumers, and providing products and services that meet their requests, lead to an

increase of the rationality of the economic process and a more efficient use of the resources. Of course, these claims were valid also in the industrial society of the twentieth century, but under the specific technological conditions of the knowledge-based economy, marketing is refining its methods and is starting to have a more important contribution to the progress of society. The use of databases, data mining techniques and neuromarketing are just some of the recent developments, showing the connections between the theory and practice of marketing and technological innovation.

These arguments confirmed the first hypothesis.

From a theoretical point of view, the relationship between Marketing Higher Education and knowledge-based economy relates to macro marketing, defined as “the study of marketing processes, activities, institutions, and results from a broad perspective such as a nation, in which cultural, political, and social, as well as economic interaction are investigated.” (American Marketing Association, 2011).

This vision of marketing at the macroeconomic and macro-social level may seem eccentric today when marketing is viewed as playing a key role at the microeconomic level. In fact, it was not always like this. Until the ‘50s, when the concepts of marketing mix and marketing management revolutionized the marketing thinking, directing it towards a microeconomic view, marketing was perceived as a tool to be used at macro-social level to regulate various processes and phenomena that occur in society (Tamilia, 1992). Otherwise said, studying the linkages between marketing and society as a whole that it simply represents a return to the origins of the marketing concept.

### **3. The influence of the knowledge-based economy on Marketing Higher Education**

“Knowledge-based economy” is an expression meant to describe trends in developed economies, the growing dependence of these economies on knowledge, information and high-level skills and the growing need to have access to them, both in the business and public sector (OECD, 2005).

Zaharia (2009) considers that, for Romanian universities, academic research is a very sensitive matter. “In the struggle of developing a more competitive economy and society, the research component of the academic activity is considered to be an encouraging factor“ (Zaharia, 2009).

Higher Education, the sector that creates and disseminates knowledge, plays a key role in developing this type of economy. In turn, the society acknowledges the importance of Higher Education and ensures its optimal development. These relates to various kinds of resources (financial, material, human) available to universities for developing curriculum and research in all fields of interest. Particularly, the influence of the knowledge-based economy on Marketing Higher Education approaches some specific issues related mainly to academic research in the field of marketing.

Ironically, the comprehension of the marketing academics of the realities of the economic life can be a handicap when it comes to fundamental scientific research that generates knowledge. Most of the marketing tools and methods have been designed to serve the organization in making management decisions. The role of these tools and methods in fundamental research is relatively limited. In addition, the approach is different in

fundamental marketing research comparing to applied marketing research. The applied research is based on a query of the customers through various direct research methods, qualitative or quantitative. To have preconceived ideas, in this context, would be a mistake. What is requested from the marketing specialist involved in studying consumer requirements is primarily to determine and commensurate correctly with these requirements, then to take action in adapting the organization's activity to these requirements.

On the contrary, the theorist involved in a fundamental research should start by pointing out his own ideas, from his own perspective on reality and then to bring solutions to the problems. The mere knowledge of reality is necessary but not sufficient in a fundamental marketing research. This is especially true, since, in most cases, the reality we are talking about represents the opinion expressed by the consumers. For example, the results of a survey are excellent when they are used to adapt the activity of a company to customers needs, but most often are irrelevant for the development of a scientific theory. And, even when that research was based on a quantitative methodology, perfectly designed and implemented, it could still be irrelevant for the theory of marketing. The receptiveness and flexibility of the marketing theorist come to be, in this context, flaws rather than qualities.

It is significant that the knowledge-based economy can play an important role in changing mentalities. In a society based on scientific research, on innovation and high-tech technology, human resource, involved in basic marketing research can be more easily shifted to a truly scientific approach. In this sense, knowledge-based economy can influence, in turn, Marketing Higher Education.

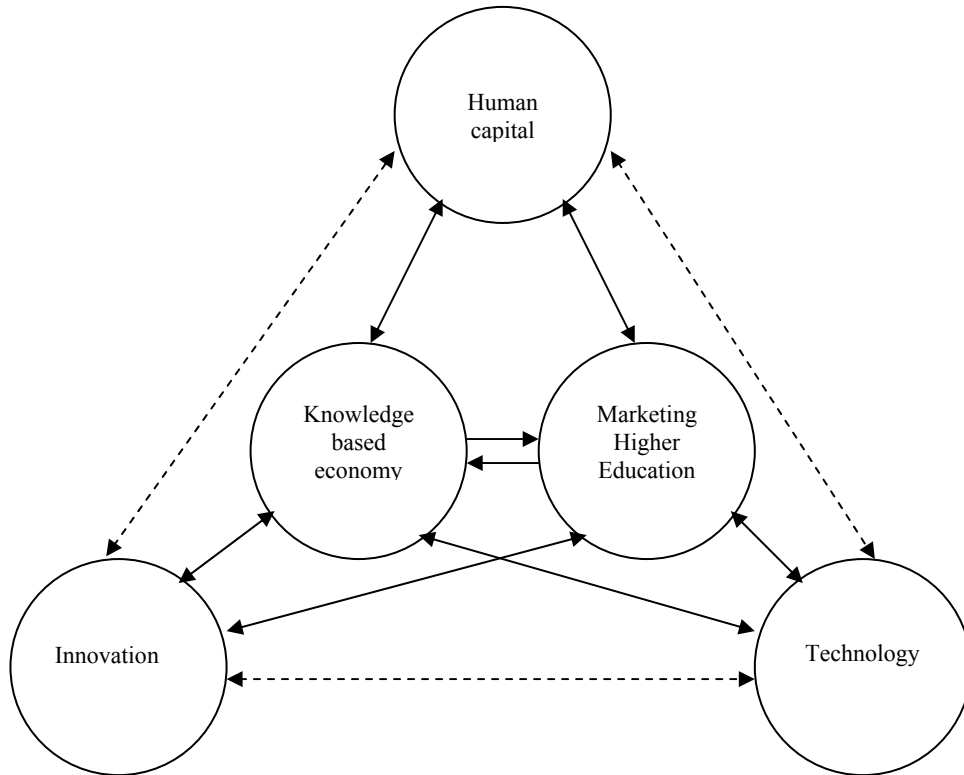
Based on these arguments, we consider that the hypotheses H2 and H3 are confirmed.

#### **4. Developing a conceptual model based on the correlations between Marketing Higher Education and knowledge-based economy**

Developing a conceptual model, which will correlate Marketing Higher Education with knowledge-based economy and highlighting, at the same time, the factors which influence this relationship, represents a difficult and complex approach.

An innovative aspect is the fact that there are connections between all components of the bilateral model. The causal reactions occur in both directions, and the influences are mutual.

The model is presented in figure no. 2.



**Figure no. 2. A conceptual model reflecting the correlations between Marketing Higher Education and knowledge based economy**

In the above figure is presented the conceptual model where can be identified four types of correlation:

- The center of the model underlines the bilateral ties between Marketing Higher Education and knowledge-based economy. As explained previously, Marketing Higher Education offers to the knowledge-based economy both well trained specialists and a set of theories, methods, techniques and scientific instruments which economic and social organizations can use in their marketing activities. In turn, knowledge-based economy creates an intellectual and technological context which offers Marketing Higher Education many opportunities in deepening fundamental research, with positive consequences on the development of marketing science.

- Links between knowledge-based economy and its three main factors of influence (human capital, technology and innovation) are more complex than just bilateral ties. Human capital, technology and innovation are the three essential poles for the development of knowledge-based economy. They are an integrated part of the knowledge-based economy, and function as its engine. What distinguishes the new economy from the old one is the unprecedented technological progress, the importance given to human capital, seen as the main source of progress and the openness to innovation and constant search of improvements for the society.



- Bilateral relations between Marketing Higher Education and the same three main factors of influence (human capital, technology and innovation) are the keystone in understanding the model. The relationships between Marketing Higher Education and human capital aim, in a sense, to provide for labor market marketing specialists with a high level of initial education and continuing training throughout their careers, and in the opposite direction, attracting creative professionals to alma mater, so that they can present to students from different levels of training (bachelor's, master's, doctoral) the latest developments in marketing practice. Marketing Higher Education fully benefits of the technological advances, particularly of the recorded information technology. Marketing research study on consumer behavior, marketing and strategic planning and integrated marketing communication have seen revolutionary changes in the age of high technology. Moreover, marketing and marketing education may offer new opportunities for applying technology in various organizations, in full compliance with the requirements of the external environment in which they operate. Finally, links between Marketing Higher Education and innovation are profound and they concern, on one hand, the increase of knowledge that can lead to academic marketing research at both fundamental and applied level, and on the other hand, the innovative specificity of knowledge-based economy will stimulate further scientific inquiry in marketing education.

- The last category concerns the inter-connection relations between the three factors of influence. In the knowledge-based economy, human capital, technology and innovation do not act independently of each other. Conversely, the three phenomena stimulate and reinforce each other, leading to a synergic effect valuable to economic and social development.

Shown in dynamics and in its entirety, the model confirms all the four hypotheses that started the research and highlights the many facets of the relationships between its components.

### **5. Limits and further research**

The foremost limitation of this research is its mainly theoretical character. The conceptual model is to be tested and validated through a series of experimental research. In addition, this research could lead to a direct determination of numerical values, able to commensurate various relationships between components, leading to the operationalization of the model.

This is therefore the main perspective for a future research.

### **Conclusions**

The article intends to analyze the connection between Marketing Higher Education and knowledge-based economy, aiming to develop a conceptual model to illustrate them.

After an analysis arguments have been identified to sustain the bi-univocal relationship between the two concepts. Marketing Higher Education plays an important role in developing the new type of economy, by training experts and maintaining them at the highest professional level throughout their career, which will provide business theories, methods and business models, as well as open and flexible mentality. In turn, the

knowledge-based economy is strongly influencing education in general and Marketing Higher Education in particular. This influence occurs through the available resources, but also by providing the proper climate for the development of academic research.

Factors that influence knowledge-based economy and Marketing Higher Education have been also identified and analyzed. It was established that the main role in this direction is played by human capital, technology and innovation.

The connections have been graphically stated, creating the basis of a conceptual model. Subsequently, in a future research, it will be tried to operationalize the model, based on some direct studies.

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