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## COMPETITIVE ADVANTAGE OF INFORMATIONAL TECHNOLOGIES AND COMMUNICATION SECTOR FOR THE ROMANIAN WEST 5 REGION

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**Abstract:** *The present work paper aims to analyse and to point out the competitive advantage of the Western 5 Region in the field of information and communication technology (ICT). Applying the Michael Porter's model was determined that the competitive advantage is given by human resources. The results of this research will help the decision factors at local level to understand that it may enforce the combination of development strategies*

**Key words:** *ICT, competitiveness, competitive advantage, human resources, strategy*

### 1. INTRODUCTION

The intensity of competition varies from industry or from a strategic group to another, where it appears a good strategic individualized segmentation. The intensity is determined by a number of factors that were be grouped by Michael Porter in a systemic model, called "Competitiveness's Diamond" (M. Porter, 1998).

The result of these forces will determine the potential performance potential of an industry, measured using the indicators of profitability. Depending on the resultant will be formulated certain strategies in an attempt to gain a more advantageous position in competition. Other economists have pointed out the modern concept of "knowledge" as the most recent new factor in competitiveness (N Negroponce, 1995).

### 2. THE METHODOLOGY OF THE RESEARCH

To analyse of external competitive environment of the ICT industry is resorting to the application of Michael Porter's model. It operates with the following concepts:

1) *External competitive environment* is defined by the immediate vicinity of the organization, sector, industry, consisting of items (individuals, groups or other organizations) with direct influence on business and on which may be exercised significant influence.

2) *The competitor* can be defined as that organization, sector, industry that is interested for the same type of resources like the considered organization, sector or industry.

The forces which represents Porter's model are shown in interaction in figure no.1. Applying the Diamond's model of Porter, analyse is carried out on national competitiveness for ICT domain.. It should be mentioned that were reconsidered the predefined forces and the model was adapted at situation of making the analyse. Thus, the analysis was based on:

a) The demands for ICT: Inside ICT's domain, the offer is greater than demand, the company has not fully aware of the advantages offered by ICT. Romanian companies that create exported software export "sporadically", on base of direct contracts with EU countries and the U.S.;

b) Local factors local: the graduates in ICT domain partially emigrate; native intelligence, innovative spirit, existing solutions are not yet integrated in a coherent planning.

c) Support industries and domains: education, research and development, production equipment.

d) Companies/competition in this field: 5 large external suppliers of hardware represented in Romanian West 5 Region; few Romanian manufacturers of computing equipment, few Romanian manufacturers for integrated solutions (systems' integrators); Romanian companies are not the force to compete with big international and external suppliers, due to conditions imposed; only few Romanian companies are ISO9000 certified.

### 3. THE RESULTS OF THE RESEARCH

According to analysis done, you can see that Romanian West 5 Region competitive advantage in this domain comes from the existence of human resources excellently prepared for this area. Romania's competitive advantage in ICT is closely related to resources and its potential in this field. The strategy to be adopted should ensure the optimal "exploitation" of existing potential in the context of present situation of Romanian opportunities' capitalisation. In figure no.1. is presented the system competitive advantage - critical factors of success - the resources of sectorial development strategy for the ICT sector or industry.

It should be highlighted the relation between national available resources, national achieved performances and the competitiveness, as shown in Figure no.2. These considerations point out the importance of domestic environmental analyse in which will be, in the final, implemented the strategy (Duda-Daianu, 2008).

The national internal medium contains all the elements on which industry or sector has a determining influence and, theoretically, a total control. The study of internal environment must establish what resources are available and if the sector is able to follow the chosen strategy. The understanding of internal environment is the first necessary step in establishing a strategy. The studies on resources generated a conceptual framework of analysis - the study of the sector or industry-based resources, used to explain the elements that build competitive advantages. The performance of an industry or sector is assigned to a configuration of own resources whose value is fixed by comparison in an external context.

The problem has two points of departure:

- The presumption of resources heterogeneity assumes that the ICT industry performs with an singular combination of its own resources;

- The presumption of resources immobility assumes that certain ICT own resources are difficult or costly to imitate or existing offer is inelastic.

Resources are attributes of the ICT industry which is presented as tangible and intangible forms and human resources (figure no.1). The items related to culture are analysed separately and are given special attention due to significant impact on the ICT industry. In the specialty literature (Amit R., 1993), the term of "resources" is associated with other concepts as skills or capabilities. Thus, basic or essential skills are collectively experience of industry shown particularly in combining the various skills associated with the production and technological integration of multiple streams.

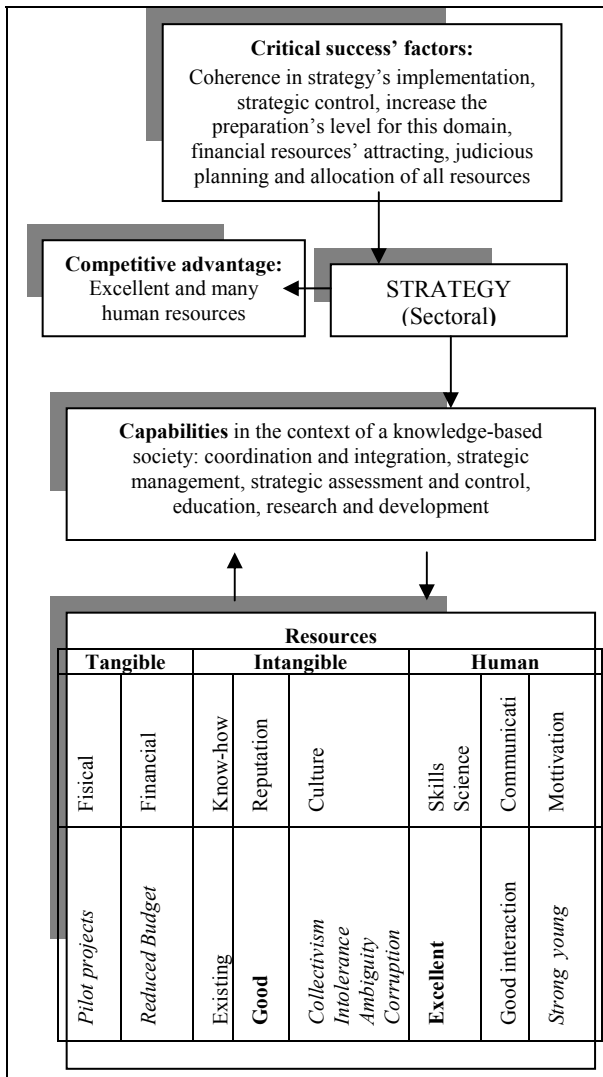


Fig.1. Resources, capabilities and competitive advantage. The methodology of strategy building

The strategic capability represents the industry's possibility of using value-generating resources at its disposal to create a privileged position in the market. Of principle, strategic capability implies the existence of resources and the possibility of its recovery.

Both skills and capability are associated to the industries, respectively to a group of people. The competence would represent the "theoretical" and the capability the "practice", in equal measure necessary to achieve a process of creative value. The relation between concepts is presented in figure no.2).

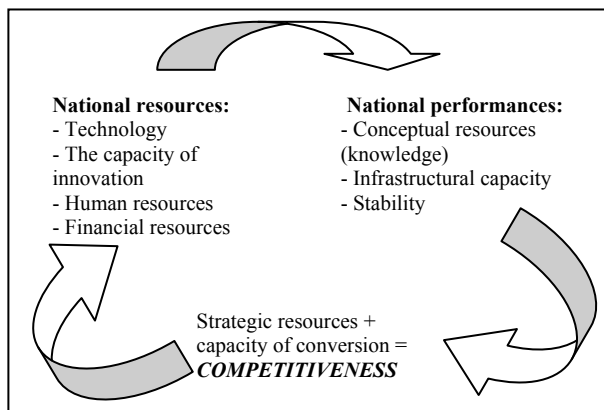


Fig.2. Compilation's method of national resources and performances for competitiveness

#### 4. CONCLUSION

Terms	Competitiv advantage	Strategy
Short	Low cost	<b>Reduction of prices</b> (an appropriate option because some products or basic services offered are clearly defined)
Long	Low cost	<b>Establishing fixed prices</b> (wrong choice for this domain)
Short, medium and long	Low cost	<b>Penetration of new external markets</b> for ICT goods and services manufactured in Romania ( right option)
Long	Lange range of services and products	The diversification of goods and products ( <b>an adequate option</b> )
Short	Lange range of services and products	<b>The offer's diversification</b> (introduction of solutions that will increase demand for access to information- acceptable option)

Tab. 1. Strategic options for ICT sector

ICT sector is a sector marked by strong developments in technology. Stage of development of an industry is given by the existing market demand, by production and dissemination of "knowledge". ICT industry in the Region 5 Western Romania is at the beginning stage of growth. The "placing" stage of ITC products has been exceeded. The market's penetration has become increasingly aggressive, products become increasingly standardized, which, in future, will lead to a decrease in prices.

To increase the competitive advantage and the economic development of the Western Region 5 in this area may be adopted various strategic decisions (Cojocariu A., 2005) based on one or more options presented in the table no.1.).

The results of this research will help the decision factors at local level to understand that it may enforce a combination of these strategies which are integrated, closely linked one to another:

- 1.) *Strategy of market development* (start-ups companies, launching large projects, the integration of existing projects, encourage the export of ICT products and services);
- 2.) *Strategy of penetration and market consolidation* (for example, the introduction of IT solutions in all areas);
- 3.) *Development offer new services and new products based innovation* (electronic libraries, distance education for the disabled, public services provided in electronic format, etc.);
- 4.) *Costs' reducing for services and products from the market* (reduction of tariffs for communications, etc.).

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