

Information Technology as a Factor of Efficiency in Entrepreneurial Development

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Abstract – The scientific and technological revolution gave way to a new, more dynamic course in analyzing the development and growth of business systems. Information technology is significantly important in the era of the ever more emphasized global view on the world economy in which business systems try to maintain their positions and in the development sense create long-term programs as well as their competitive business features. It is without doubt that information technology can and must change the business philosophy of enterprises which is consequentially related to numerous savings, improvements, systematizations, which implies creating of a new strategic code of the business system itself in the sense of achieving better competitive advantages. The dynamism of implementing information technology is reflected on the accuracy, speed and extent of information, which have become a corrective factor or an innovative step in business decision making and maintaining and/or creating competitive advantages. In view of the fact that concrete savings and efficiency determine entrepreneurial development, primarily of small and medium size enterprises, it is unquestionable that competitive advantages can be achieved by applying the latest information technologies to the full.

I. Introduction

The period from 1960 till today has been marked by the dynamic development in the conditions of scientific and technological revolution in which technical, technological, information technology, robotics, and etc. frequent changes have been taking place. It was precisely these scientific achievements in specific scientific disciplines (electronics, information theory, mathematics and others) that have created the conditions and material prerequisites for the development of contemporary organizational theory, and through this for the development of business systems. However, even then futurology itself, as a science on future, had stressed two probable moments which are completely diametrical: a) the optimistic one – treats the future as a time frame for solving and emphasizing business opportunities, chances and challenges and b) the pessimistic one – on the basis of actual business inputs foretells a very ugly and unpromising future. It is absolutely clear that the first approach was realistically more acceptable and reasonable from the point of view supporting future prosperity and social usefulness of labor and that it called for a general mobilization of all available resources. However, the critics of social prosperity based on IT had nevertheless got their satisfaction in the second half of the year 2000 and during 2001 when serious difficulties developed causing around 500 world Internet or dot-com companies to disappear from the global economic

scene and leaving perhaps hundreds of thousands people directly or indirectly without jobs.

There is no doubt that numerous theoretical approaches have taken during this evolutionary process depending on the factors that were of primary importance at a particular time. But, since 1995 the term e-business, as a contemporary form of business organization that basically uses all IT resources (primarily Internet technologies) and implies the applicability of IT infrastructure, has been widely used in entrepreneurial and economic circles.

Relatively soon after that (1997), the editors of *Business Week*, an American business magazine, after intensive talks with the most prominent American economists and analysts promoted the term new economy (or information economy or economy of knowledge) that advocates and is based on intensive and dynamic use of information and knowledge (especially the Internet and e-business) which are in the function of continuous generating and developing of innovations, creativity and new values. Contrary to the classical business environment, the new market environment approaches the positioning of business systems from completely different positions that are primarily stressed in [1]:

1. Global economy;
2. Economy of radical changes and uncertainty;
3. Economy of knowledge, learning economy;
4. Internet economy.

One of the answers that actualizes the question of the importance of e-business undoubtedly lies in the reasons of its application themselves, and these include [2]:

- The aspiration to a better use of available business resources, especially information;
- The effort to achieve a better market and/or a more competitive position of the enterprise;
- The wish to achieve better business results, especially the ones most accurately measured – financial results.

II. Advantages and the resistance of small enterprises towards IT

It is almost frivolous to talk about social and economic (entrepreneurial) prosperity and welfare of the society without the knowledge and the use of information technologies. Since we live in a society where almost 99% of enterprises (worldwide as well as in Croatia) are either small or medium size companies and only 1% of enterprises relate to big business systems, it is obvious that precisely small and medium entrepreneurs must adapt and acclimate themselves to all social changes and adjust to the

challenges of the contemporary society in a relatively short period of time. On the other hand, it is a paradox that, regardless their small representation in the economic structure, it is precisely the big systems that are mainly the carriers of the economic development and the mainstay for small and medium size business systems that form the base of the global as well as the national economy of the Republic of Croatia. Since it is a case of partnership or cooperation business relations of small economies (including small and medium entrepreneurship) and big business systems, it is quite understandable that these small and medium size enterprises must at all costs present themselves promptly, systematically and with high quality to big business systems, position themselves in present and future business practice, where speed and the quality of information channeled through IT play a major role.

In accordance with the classical (traditional) concept investment into technologies was considered as an expenditure, while departments or sectors in charge of electronic processing of data were classified as a cost centers. As a result, from the organizational point of view, there was no emphasis put on the use of up-to-date technologies as a means of generating additional value. With the use of information technologies, the automation process speeded up the existing processes, however, this led to only minor savings. Apart from this, the efficiency of the existing processes was not taken into account, which resulted in the application of information technologies to automate those processes, which were a priori inefficient. This led to technological paradoxes since the potentials of the information technologies were turned into investment losses. In order to justify the investments into information technology and to achieve multiplicative synergic results it is (was) necessary to go about it inversely: first the direction of company's activities should be taken into consideration while forming strategy and then, in accordance with these guidelines, develop the operating processes. This strategic plan will then serve as a base for creating the IT application strategy.

One must however keep in mind that the study and implementation of information systems is a multidisciplinary field. Since information systems are sociotechnical systems this field can be divided into technical and behavioral approaches [3]. Even though information systems are composed of machines, devices, and "hard" physical technology, they require substantial social, organizational, and intellectual investments to work properly. The technical approach to information systems emphasizes mathematically based models to study information systems, as well as the physical technology and formal capabilities of these systems.

Behavioral issues arise in the development and long-term maintenance of information systems. Issues such as strategic business integration, design, implementation, utilization, and management cannot be explored usefully with the models used in the technical approach. The behavioral approach does not ignore technology. Indeed, information systems technology is often the stimulus for a behavioral problem or issue, stimulating changes in attitudes, management and organizational policy and behavior.

IT is undoubtedly the backbone of the economic and social development in the third millennium. Global communications, e-business and the Internet brought the developed world more benefits, wealth, development and democracy. For decades, the most developed countries have been creating an IT society and IT environment based on knowledge, innovation and entrepreneurship. IT, especially its main tool the Internet, has become the main propeller of development, the main generator of economic success and a means of correlation with the international society [1]. Information technology became, and will probably remain during the 21st century, the key element of achievements and existence of global civilization and modern economic, entrepreneurial, international and transnational environments.

III. The correlation of the competitive factors and e-business strategy

The perception of the social and economic life is constantly changing. Its dynamics depends on the society of changes, management of changes, changes present in IT and many other changes of various factors. Information is singled out as the most important resource while the demands of globalization as a rule dictate the self-importance of the most competitive business systems which, in the context of horizontal integrations, integrate even with their former competitors.

Creating competitive advantages is foremost an obligation and a task of small and medium size enterprises that have to find their straw of survival or a market niche which, in a certain way and for a period of time, guarantees stability and perseverance in the business environment. The question of prevalence became dominant, and only the most competent can meet the conditions, as well as those which have successfully balanced the importance of classical strategies with the IT strategy, in such a way that their competitors will not be able to imitate, at least for certain period of time. Even though, the theoreticians of company resource strategies advocated certain factors of company competitiveness, the biggest credit is given to G. Hamel and C. K. Prahalad, whose scientific contribution determined the rational theoretical framework for evaluating the company's efficiency, based on the so called interior competitiveness [4]. In theory and practice there are only two ways of achieving competitive advantages: a) low costs and b) diversification. The latter is manifested through the shaping or adaptability of business activities that somehow diversify the specific business system from the competition. The *modus vivendi* is based on the specific features of the product, how fast the company reacts, price competitiveness or range of products, and in accordance with one of the theoretical views, the overall premise is based on acquiring competences, among which are the competences gained through organizational learning (learning organization), harmony of organizational and technological (IT) integration.

It is the importance of technological (IT) integration which is promoted by the concept of e-business, and which allows every entrepreneur, in particular the small one, a whole new range of new and better possibilities. Among the most important general possibilities are the following [2]:

- a) Global availability of another's, and the scope of one's own, supply;
- b) Closer relations with customers and business partners;
- c) Reduction of business costs;
- d) Rapidity of information spread;
- e) Fast market emergence;
- f) Customers' loyalty.

By penetration and presence on world's expanding market, entrepreneurs are, on one hand being exempt of local market environment stereotypes, but on the other hand they are also being exposed to new challenges of a global economic area. This conflict, with completely new challenges of market environment, should as soon as possible outgrow into a compromise determined by completely new rules of market behavior, new customs and the demands of potential and existing customers and clients, new legal framework, to completely new modes of dealing with business risks. The key question is what small entrepreneurs can expect from e-business and what chances, i.e. new opportunities and possibilities will it bring? The answers to this question can be summarized in ten points, "golden rules of success in e-business" [2]:

1. Reinforcement of the current position and market presence;
2. Detection of the niche market and the development of the market image;
3. Intensification of popularity and business relations;
4. Fast and qualitative reaction to changes and new demands on the market;
5. New services and new business offers;
6. Reduction of business costs;
7. Better stock management;
8. Monitoring of technological development;
9. Behavior in accordance with current market trends;
10. Protection (prevention) from financial failures.

The strategy of e-business should be compatible with the strategy of other business functions. The level of (in)compatibility of these strategies is (dis)proportional with the level of the implementation of information technology. Generally speaking, greater influence of e-business on entire strategy gives better guidelines or vectors of business focusing. However, the business system should critically analyse some relevant issues prior to developing the e-business strategy, such as [5]:

- a) What is the purpose and the objective of e-business implementation?
- b) Is the transition to e-business financially justified?
- c) Are there sufficient organisational resources, skills and capital to achieve the set objectives?
- d) Is the organisation ready for big changes and projects of such type?
- e) Which products and services are suitable for e-business?
- f) Is there a demand for such products and services?
- g) How will the implementation of e-business affect the existing products or services?
- h) Can e-business encourage users to develop a new need?
- i) Can e-business more efficiently satisfy some standard needs of the users?

- j) Can the implementation of e-business improve the quality of the service toward end users?
- k) Can the implementation of e-business improve current business processes or create new ones?
- l) Are our partners and suppliers also ready for transition to e-business?

Nowadays, the small entrepreneurs themselves achieve the biggest success on the Internet market and in e-business. Thus, a new type of entrepreneurs has evolved, so called small Internet entrepreneurs, which are open to changes, which are flexible, ambitious and unburdened with old stereotypes of perception and approach to business. Success of entrepreneurs of a new type - "the Internet entrepreneurs", in great measure is solely up to them. With all the advantages of modern technology, investment in one's own education is of great importance, so all its potentials could be utilised [2]. This type of entrepreneur has to be flexible at work, adaptable to changes, open to innovations and fast in reactions. Flexibility and adaptability, before everything else, require abandonment of one's own narrow frames and transformation toward becoming citizen of the world. Uninfected with local culture and perceptions, entrepreneur must develop new communication channels for establishing contacts and business relations regardless the natural business boundaries. Therefore, it is needful to develop human qualities of ethics, honesty, and morality, which should furthermore be based on generally adopted business principles and practices.

IV. Information technology in the framework of future increase of effectiveness of small and medium entrepreneurship in Croatia

Ten years back, the Internet, global multinational network connected more than 10 million computers and almost 200 million people. Some authors predict that, by the end of this decade, the Internet will be available to a much as a half of world's population. Initial curiosity and modest business activity progressively brought more dynamism into the entire business (and social) world, and certain advantages became arguments pro such as getting certain jobs, making their promotional sales campaign more dynamic, establishing future business contacts and relations. Precisely on the basis of these assumptions, the entrepreneurs that were successful, more flexible, faster, more cooperative and took the business more seriously, became the entrepreneurs of the world by getting business deals but also aiming at those to come. The Internet entrepreneur has evolved, and to put it mildly, waited for his chance in safety of world economic flows. However, the question is how competitively strong and prepared are Croatian entrepreneurs for the market competition in the 21. century based on IT?

Croatia was once, in the IT sense, one of the pioneers in the region with the relatively satisfactory IT use, with a developed telecommunications infrastructure and a desired professional reputation on the national and international scene. However, in the last decade of the last century the developmental gap between Croatia and the world widen, and investments into equipment didn't have the desired dynamics. The drain of IT experts abroad became inevitable.

Electronic business is more than just another way to sustain or improve existing business practices. Some authors indicate that e-business is a «disruptive» innovation that is radically changing the traditional way of doing business [6], while others stressed the evolutionary aspect rather than a disruptive change [7]. Research conducted by Spremić [8] concluded that Croatian companies do not find e-business as an important or «disruptive» innovation that can radically change the traditional way of doing business. Management in the surveyed companies has a reactive attitude towards e-business project implementation. However, it is encouraging that more and more companies are in the process of developing a strategic plan for e-business.

In accordance with the current IT status of the Republic of Croatia in the wider sense, in addition to the business systems as fundamental economic units in the narrow sense, it is clear that IT strategies should spring from global trends of the IT society, the political initiative of the EU (eEurope). its objective is to improve Croatia's inherited competitive advantages with new advantages brought on by the Internet, information technologies and learning organization. In the economic conditions based on knowledge, the people, the IT infrastructure, entrepreneurial business structure and the speed rate of organizational learning have become the most important resources. the society of knowledge is built on IT, which at the same time represents the indispensable technological infrastructure and the key factor of change. Therefore, the role of the State is crucial in creating the predispositions and incentives to such processes, but the economic carrier of all this changes will be the intellectual and industrial entrepreneurship in global market conditions.

In order to develop the society of knowledge based on entrepreneurial management, it is advisable to work rapidly on investing into and applying up-to-date information technology. Most of all, it is necessary to strengthen the entrepreneurial culture and to raise the level of technological knowledge of entrepreneurial management. Despite a certain setback, with the application of the IT strategy, which will support the development strategy of all entities and by learning from the world's most prominent business practices, it is possible to overcome the development gap and define new development potentials of the Republic of Croatia.

V. Conclusion

The dynamics of today's global economy tears down traditional temporal, geographical and competitive barriers. Different business processes take place in different parts of the world at different times, decisions are made at all locations where there are ongoing processes, which creates a business dynamics to which one should adjust accordingly. The economic development moves towards the activities based on knowledge, information, high technologies and services. The new economic paradigm of the society is based on the information as its most valuable commodity.

The Internet market and e-business define the new category of entrepreneurs, the small Internet entrepreneurs

that are open to changes, flexible, ambitious and unburdened by old perceptions and ways of doing business. The e-business strategy must be harmonized with the strategy of other business functions. The level of compatibility of these strategies depend on the level of e-business implementation. The bigger the influence of e-business in overall strategy is, the bigger is the importance of e-business strategy and its level of correlation with other business functions' strategies.

The potentials of the up-to-date technologies should be systematically used by the Republic of Croatia as well as by its economic environment (but also in other areas) in order to reduce the development gap between Croatia and EU member states. In addition, the starting point of IT strategy should be based on the global trends of IT society, political initiative of the EU and one's own (national) comparative specific features. In order to strengthen the society of learning and knowledge, investments into and the use of up-to-date information technology should be based on the principles of entrepreneurial technology management.

The transition to a more dynamic electronic form, which as a rule does not require big direct investments, should be a priority of the Croatian contemporary economic (entrepreneurial) environment, since investing relatively modest means and through (self) education of the Internet entrepreneurial creates the predispositions for dynamic and systematic transformation from the traditional into the IT environment, acquiring competitive advantages, the reengineering of business processes and so on. In financial terms it is a matter of not so big investments versus expected overall benefits and the necessity of IT integration, which is *conditio sine qua non* and should not represent a reason for obstructing the transition to e-business. Therefore, IT is an implicit factor and of priority importance for entrepreneurial development and upon the intensity of its use depends the level of prosperity of Croatian economy (entrepreneurship) and the prosperity of overall society as a whole and as such represents a precondition of (future) acquiring of competitive advantages.

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