

## **THE ECONOMIC AND SOCIAL IMPACT OF THE DEVELOPMENT OF E-BUSINESS APPLICATIONS**

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### ***Abstract***

*The world is facing an age of changing unseen before. The recession and the financial crisis which started in 2009 created a movement that reacted the international economic view. The worldwide economy is currently characterized by an increase in West, a change of power in East, including increasing risks everywhere and customers that are looking for the value. At the same time these decreases rushed the adoption of key technology- mobility, ,cloud' technology, artificial intelligence and social environment- which turns the economy and give rise to a new wave of obtaining prosperity, especially on the emerging market.*

***Keywords:*** *e-business, digital economy, BPR, ERP*

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The economic growth and the technology are influencing each other. At present economic conditions are favorable for technology investments as far as the markets are increasing their demands for maintaining the profit and the advanced markets are searching for new ways to cut the costs and to stimulate the innovation. It becomes a vicious circle as the digital technologies encourage the profit and to meet the consumers' demands, education and vocational training also the efficiently use of the fund and resources- which leads to a big economic growth. The leaders must be conscious of these new tests that their companies are facing as long as the markets are making progresses very fast.

By this horizon are prefigured six important changes that the companies should take in consideration for the next five years:

- Global digital economy is growing up. The Internet started the third wave of the capital which is going to transform a lot of aspects of the global economic market-from the consumer's behavior to the new models of business. The mobility, the cloud technology, the artificial intelligence and the social environments sustain this change, which occurs, in the advanced economies but also in the ones that are developing. (Martin, et al., 2012)
- The industries are going through a digital transformation. As the result of maturation of the digital economy, companies belonging to a large vision have seen their business models getting rich as long as they are competing with similar forces of technology and globalization. In the next five years, many branches, including the technology, telecommunications, entertainment, media, banking activities, en gross shopping and the health system will continue to be redefined by using the information technology.
- The digital distribution can switch the roles. Taking account of the economy powers from East and the reposition of these, the companies with a wealthy capital from developing markets which are investing a lot in technology - often overtaking their counterparts from the expanded markets. Those who are leading developed economies will have to learn how to deal with this competitive attempt.
- The consumer of the emerging market is the main character. The rapid economy growth hand in hand with the growing populations and the wages levels too, are situating the emerging markets in the center of the developing strategies of the corporations. The customers of the emerging markets - including the consumers, business and governmental sectors by offering extraordinary opportunities for the west companies which can adapt to their needs.
- Businesses done swift. The global economic market which is in flux, charged by the fast growing economies and new technologies have accelerated the speed of the majority economic activities from the development of the products to the consumers' answer. The artificial intelligence in real-time and the predictive analyses will be necessary not only for a faster deciding system but also for facing the risks and the unexpected market opportunities.

- The companies are reorganizing for integrating the digital economy. For being able to carry on their activities in the global digital domain where the new rivals are unrestricted by thinking and rigid policies, tricky west companies, are coming off from the hierarchical model of making decisions and are heading for a system/network structure more like to the market and organic.

These changes are going to have particular implications for the corporations in the next years. The new researches are showing a series of imperatives for the corporations' leaders. For example, the executive directors should have a flexible and predictable strategy for the developing markets. At the same time, the methods for improving the data analyze should be taken in account for anticipating the rapid changes of the global economic market. Let's not forget that a world in constant move it's increasing the risk of the security breaches. The companies have to use high security methods for their activities. After all, as the emerging markets are taking wings, the companies mustn't lose sight of protecting the market share in the country of origin because the rivals will try to develop right there.

### **Components of Interest for E-Business**

The strategy defines the interest area and the activities that should be known for achieving the business goals. The e-business strategy it's not an easy one, but fundamentally an e-business strategy will be managed by the market over - expansion and by the sales strategy. (Nanda & Khanna, 2011).

BPR - Business Process Reengineering is the rethinking and radical-fundamental redesign of business process for obtaining substantial improvements of the main performance indicators such as: cost, quality, the duration of a cycle production and pleasing the customer's demands.

ERP - Enterprise Resource Planning - is an accounting system for identifying and planning the resources of a company, for realizing, sending and calculating the customers' orders.

### **Business Process Reengineering (BPR)**

Business Process Reengineering (BPR) is the fundamental rethinking and the radical redesign of the business process for obtaining round improvements in contemporary critical performance indicators such as: cost, quality, assured service and the reaction speed (Hammer & Champy, 1993).

The keywords of the BPR concept have the following meanings:

- The fundamental rethinking. When the BPR occurs, it's important to be asked the most basic questions about how the organization works.

The answers of the following questions should be found: why is the organization doing what it is doing and why it chooses to act in this way. These basic questions facilitate hypothesizes examination which underlie the way how the organizations operate.

- The radical redesign. BPR invites rather to identify the origin of their problems and requires their resolution in a superficial way than actually fix those problems. The power of modern information technology admits the radical redesign of the business processes.
- Dramatic improvements. The BPR goal is the quantum leaps achievement in performance. BPR it is not recommended to the organizations that do not need surface improvements or weaker performances.
- Business processes. BPR concentrates on business projects not on the activities. The redesigned processes should be value-added that are going to exceed the departmental borders.

### **Principles of BPR**

- It concentrates on the clients and on generating better value for them;
- The employees should be involved and empowered to make decisions for improvement;
- The processes that do not bring plus value must be eliminated;
- BPR is supposed to focus on the people from the network and on the integration of related processes;
- The power exploitation of Information and Communication Technology (ICT) to avoid the supra-sophistication. The software tools should not replace the creative thinking;
- The critical analysis of the rules, regulations, practices and legislation in force.

### **The role of ICT in the BPR**

The Information and Communication Technology is an essential element of BPR. An awareness of modern ICT capacity is essential because the redesign effort is prefigured with options for the radical redesign. Examples of technologies which allow the BPR include:

- Shared database. It allows the existence of information in several places at once and not sequential as it used to happen before the release of shared database.

- Telecommunications networks. These allow the organizations to be centralized and decentralized at the same time. The telecommunications networks enable to the affiliated offices the access to information and are thus empowered to serve better the clients than it would happen in the case of centralized control of operations.
- Decision support tools. These management tools of knowledge allow the decisions to make part of each attributions.
- Wireless data communication and portable computers. Allow the field staff to work independently of the office.
- Automatic identification and tracking technology. A technology like this one allows remote monitoring the goods and solving such a problem like fixing the place where the goods are. It is important the involvement of the employee in the redesign og new processes and the adoption of adequate solutions in the field of ICT.

### **Enterprise Resource Planning (ERP)**

In the encyclopedia of the Internet it has been defined as: “*a system planner of the enterprise is an incorporated computer based on the application of administrating internal and external resources including tangible good, financial resources, human and material*”.

Practically, the resources planning of an enterprise combines some management functions into an integrated logical system and facilitates the flow of information for these functions. It is designed to automate and shape base processes of the organization into a centralized data base and it eliminates the need for systems which have no connection (Zota, 2009) between them and stored by various units of the organization.

Between 1960 and 1970 were maintained separated systems for functions or traditional departments like: sales, marketing, finance, public relations, manufacture and supply. These systems were often unsuitable, stored in different databases and demanded frequent updates. It was difficult to manage processes departments in fulfilling the functions. For example, payment and sales functions. The planning system of resources developed for replacing the islands of information by integrating these traditional business functions.

The success of the implementation of such a system has many advantages such as:

- The business consolidation and the improvement of the accuracy of information: The enterprise resources planning (ERP) is composed of different modules where a module is a component of the business. If the information is in a module like the receipt, it automatically updates the other modules that have no connection, for instance, the bills that have to be paid and the inventory. This update occurs in real-time, i.e. during the transaction. Thus, the information has to be entered only once at the beginning of the transaction, being eliminated the need for multiple entries of the same information. The probability of a duplicate or erroneous information has been minimized. The centralized structure of the data base also enables a better administration and better security means which minimizes the loss of sensitive data.
- Planning and management information system (MIS - Management Information System): Different decisions support tools such as planning and simulation engine functions as integral part of an enterprise resources planning, system which helps in the correct use of the human resources and materials. The constrained help based on planning supports the drafting of similar production schedules, thus improving its overall functioning of the installations and the equipment. As part of the management information system a planning resources system contains many standard and integral reports and a report which also produces ad-hoc reports, as how and when are required.
- The establishment of standard procedures. The enterprise resources planning system is based on the processes of international best practices which are adopted by the organization during the implementation. *“The departments are cleaned and they are ending with inefficient practices”*. Because of the top vision that is available upon management, the chances of theft, fraud and aging are reduced.
- Flexibility and technology. Thanks to the globalized environment where the production units, distribution centers and the offices of the organizations are in different countries but in an integrated manner the organization needs multi-

currency and multiple calculation models. These problems exist in the most resources planning systems, especially on the products offered by the first and second level of sellers. The vendors of this system adopt quickly the latest technologies from the centralized client server to the Internet. Unlike to the customized system, improvement of the latest technologies for a resources planning system is not complicated, but often assuming the adoption of packet services and patches.

Although the resources planning of an enterprise offers many advantages, its implementation necessitates a strategic decision involving significant resources (both financial and human), a correct evaluation and the redesign of a business process. There has to be a solid commitment from the leadership because a wrong implementation can lead to the bankruptcy of the company.

### **BPR or ERP?**

Making a conclusion of the previous subchapters we notice that technological information has the role of the key factor for the successful implementation of BPR. Furthermore, it is asked the question if it makes sense to be directly implemented ERP and BPR by adopting the worldwide practices, contained in ERP packages.

This approach would avoid investing in the redesign of business processes which is costly, time consuming and often risky. Also, the design processes from BPR may not be the best.

On the other hand, is a big risk in this approach and if an ERP package is not properly chosen. The orientation of the process and the ownership will be missing to the employees which can lead to major difficulties of implementation.

### **The use of ICT Within Companies**

Ten years ago, the corporations were the place where you had access to the best technologies. The companies were fast connections, computers, more powerful calculating machines, the latest software and better mobile devices. Their employees were aware of the fact that these tools, offered by the companies that they were active, were much stronger technologically than that they were owning at home.

However, in just a decade, this concept has been changed as the technology has become increasingly powerful, permissive and accessible to the general public.

The fast adoption of smartphones and tablets put the computing power into the hands of the consumers from all over the world. The cloud computing offers access to software tools which that once was impossible to reach. As well social media that connects friends, colleagues and people with same interests and aims that allows them to share their ideas, to create action groups and even to find new solutions to their common problems.

As a result, the new technologies and the tools that are used by these are adopted more and more, first in our everyday lives and often, they are involved in the business world as a result of the employee's needs and customers' demands. This is what we call nowadays "Consumerization of IT". As it shows (Russo, 2011) in essence "Consumerization of IT" refers to the people's expectations about how the technology should work in all the aspects of their lives, how they do business, to communicate with their friends, to search, to make acquisitions etc. To adapt, the companies have to adapt cloud computing, mobility and social media (Stoica, 2013).

This evolution has far-reaching ramifications, so most of the organizations have not fully realised the fact that both their customers and employees expect to do business anytime, anywhere and in anyway. However, the top companies understand that to be behind the curve of strategic technology use as (O'Leary, 2009) shows, not only puts their companies in competitive disadvantages but it also weakens the ability to interact and to strengthen relationships with the clients.

A Digital IQ research, done by PricewaterhouseCoopers company in 2011 and published at the end of January 2012, (PricewaterhouseCoopers, 2012) over 500 corporate executives in the United States confirm that we are in a fundamental transformation of the way in which information technology is used in the company and the market.

Whether we realize it or not, the organization and the development of the companies has totally changed. The processes and the relationships that usually remained inside the four walls of the company are now externalized through mobile devices in cloud computing and are accessible to participants in social media.

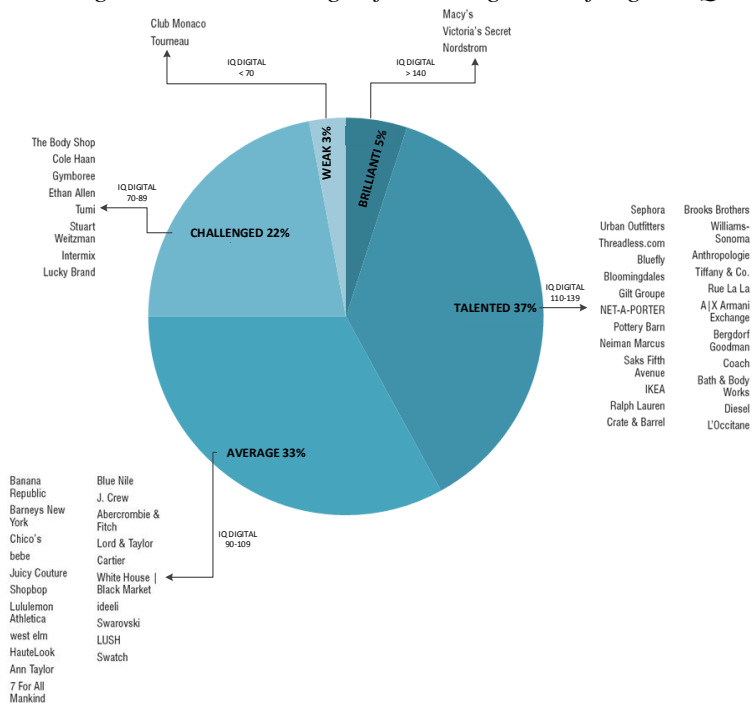
The four main tendencies of the aggressive adoption of cloud computing (both the private and the public zone) increased the mobility both for the employee and for the customer through the use of extensive and persistent social media for almost all layers of society with unprecedented access to information on any company based on an old-style organization to



remain behind in an alarming rhythm. Business must increase their digital IQ, now, or risk to remain behind for a long time after.

A study done by (Galloway & Guthrie, 2010) demonstrates us that the increase of digital IQ of your company, which is the way in which technologies and digital channels to meet the needs of customers and business partners, it is essential to take full advantages of the recent changes in the global digital economy. In fact, we find that many of the top performing organizations have taken these important tasks and we expect them to draw after more and more competitors as the world becomes increasingly digital, connected and mobile. In continuation of the study by (Galloway & Guthrie, 2010) followed by a study realized by (Galloway, 2011) on big brands, known all over the world as to digital IQ. A classification on this regard, we have exemplified in Figure 1.1.

Figure 1.1 – Percentage of marks / grades of digital IQ



Source: Digital IQ Index: Specialty Retail / L2 A Tink Tank for Digital Innovation

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