

INFORMATION AND COMMUNICATION TECHNOLOGY IMPACT ON BUSINESS PERFORMANCE INCREASES

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ABSTRACT

This paper represents theoretical and practical research of business value of informatics and communication technologies – ICT and their usage with the goal to improve strategic economic values of one state.

Implemented analyze in this paper has confirmed that the richness and competitiveness of the nation in correlation with the level of ICT usage. Nations who bravely started with the largest penetration of ICT has significantly enlarged its competitiveness, especially the technological one. Analyze showed that Bosnia and Herzegovina stands on the bottom of the scales that measures competitive and technological performances, and that stays behind the neighbor countries as well.

Conclusion is that self-sustainable economy can be build by the nurturing of the company competitiveness, through the organization of certain macro-economic and institutional-lawfully frame and through creation of sufficient adequate top-managers and their input on the head of business. ICT are background for successful business activities and the base of the economy and source of changes in whole society regions. Therefore, economically, scientifically, cultural and completely social development on one state society shall be based on this technology.

Keywords: Information and Communication Technologies, Gross National Products, Management

1. INTRODUCTION

Many scientists have been pleasantly surprised by the strength of the economic recovery of the global economy. The global economy is at its accelerating pace as a result of faster development and of the penetration of information and communication technologies (ICT) which generate almost instantaneous influx of information and capital^[6].

Professor Klaus Schwab, Chief Executive Office of the WEF (The World Economic Forum), in his introduction into "The Global Information Technology Report 2004/2005", says:..."It is clear that ICT will continue to play even bigger role in increasing the efficiency of the growing integrated global economy and enable the countries to improve allocated resources and strengthen the growth of prosperity"^[13].

This work represents part of theoretical and practical research of the ICT business value and its use with an aim to improve the performances and upgrade strategic values of the nation's economy. The work has been created out of a belief that the ICT nowadays is one of the most important prime-movers of the modern 21st century economy. This problem was worked out in detail in the Master Thesis Paper "Impact of ICT-a on Business Efficiency"^[10].

2. PROBLEM POSTULATION

The WEF (The World Economic Forum) published in 2005 their 25th jubilee editions of "The Global Competitiveness Report" (GCR)^[13] and "The Global Information Technology Report" (GITR)^[6]. These reports encompassed 104 world countries which generate 97% of the world Gross Domestic

Product (GDP). These reports can help in understanding the key factors which direct economic growth and explain why some countries, using the ICT, have become more successful in increasing their wealth and welfare for the citizens^[6].

The question that arises from the very start is: "Is there a link between the wealth of the nation and the prevalence and the level of use of ICT in some countries". More and more in the past years, the attention has been given to the WEF's reports on the competitiveness and the Network (electronic) readiness of a nation.

In the analysis made by the World Bank as part of "The Global Information Technology Report 2004/2005"^[6], there is a correlation between the GCI (Growth Competitiveness Index) and NRI (Network Readiness Index). Data mentioned in the report confirm the presence of a great technological gap between the developed and undeveloped countries in the world.

According to this analysis, there are three basic levels and two sub-levels of development of some countries, which led to a conclusion that there is a strong correlation between the GCI and NRI (with the correlation coefficient = 0,9259). As the index of network readiness of a country grows, so the global competitiveness index grows. This does not mean that the growth of the network readiness index would increase the global competitiveness index and vice-versa, but rather the fact that the two indexes are in a correlation^[6].

All of that make us conclude that there is obviously an inseparable link between the global competitiveness (GCI) and the national network readiness (NRI). Since GCI levels are strongly linked with the GDP per capita of a nation, it can lead us to a conclusion that the NRI is in strong connection with the GDP per capita, which will be examined in the following elaboration.

3. ANALYSIS

The statement that NRI and GDP per capita are strongly linked made us examine if there is a correlation between the GDP per capita and basic indicators of the electronic readiness of a nation (number of Internet users, number of hosts, number of main telephone lines and number of mobile telephones), and GDP and basic indicators of the nation's electronic readiness.

3.1. The link between Gross Domestic Product per capita and indicators of electronic readiness

Gross Domestic Product per capita (GDP per capita) is a variable which has a great importance as an indicator of global competitiveness.

Our analysis was carried out at a sample covering 239 world countries, on the basis of data from "The World Fact book 2005" report^[1]. Results of the analysis are presented and they show that:

- The value of the correlation coefficient between GDP per capita and number of Internet users amounts to 0,113251,
- The value of the correlation coefficient between GDP per capita and number of hosts amounts to 0,050079,
- The value of the correlation coefficient between GDP per capita and number of mobile telephone lines amounts to 0,095581,
- The value of the correlation coefficient between GDP per capita and number of main telephone lines amounts to 0,071542.

3.2. The link between Gross Domestic Product and indicators of electronic readiness

This is why we continued our analysis through the observation of relation between GDP and basic indicators of electronic readiness of a nation (number of main telephone lines, number of mobile telephones, number of hosts and number of Internet users).

Our analysis was carried out on a sample covering 239 world countries, on the basis of indicators from "The World Fact book 2005" report^[1]. Results of the analysis are presented in diagrams (Figure 1.) and they show that:

- The value of the correlation coefficient between GDP and number of Internet users amounts to **0,965845**,
- The value of the correlation coefficient between GDP and number of Internet hosts amounts to **0,632468**,
- The value of the correlation coefficient between GDP and number of mobile telephone lines

- amounts to **0,831733**,
- The value of the correlation coefficient between GDP and number of main telephone lines amounts to **0,953071**.

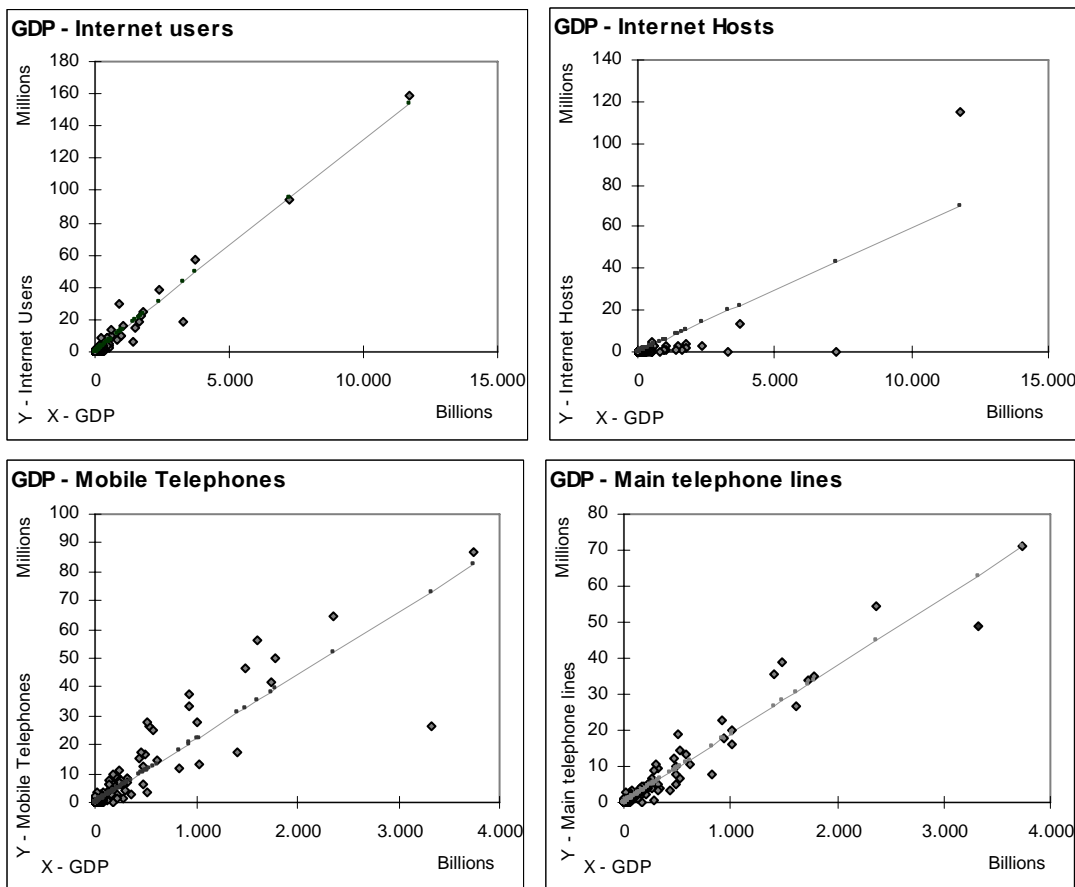


Figure 1. The correlation between GDP and indicators of electronic readiness

4. CONCLUSION

The analysis that we carried out showed:

- That there is a high correlation link between GDP (wealth of a nation) and basic indicators of the electronic readiness of a nation (especially number of Internet users and main telephone lines).
- That there is a low correlation link between GDP per capita (wealth of an individual) and indicators of electronic readiness of some nations.

The above mentioned facts make us to come to a conclusion that:

- There is a necessity for the presence of the nation's determination to create a long-term national strategy of the development of information society. The nations that have invested into the creation and implementation of ICT infrastructure are at a high level of electronic readiness.
- The education system in general is a cornerstone of the development of society based on the implementation of IC technologies in all spheres.
- In the era of global economic and technological currents it is very important that top managers master all aspects of ICT application in both production and management.

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