

# THE IMPACT OF USING THE INFORMATION TECHNOLOGIES ON INTERNATIONAL BUSINESS DEVELOPMENT OF STATE-OWNED COMPANIES IN THE REPUBLIC OF CROATIA

Dalija Kuvačić<sup>1</sup>  
Vlasta Roška<sup>2</sup>  
Daniel Behtanić<sup>3</sup>

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**Abstract:** *Information technology is a driver of modern business and revolution that affects the competition of all participants in the local and global market. It affects the customer's strength and lowers costs, links business partners, triggers new business processes and participates in creating new products. The global business environment of companies crossing the borders of their country and doing business in other countries today is the standard that everyone is trying to reach. Such business goals have an impact on the economy of the whole country. The accelerated development of information technology has greatly influenced the international markets that were once limited by geographic distances. All companies in today's world market are equally competitive and can achieve significant success.*

*The main aim of this paper is analysis of the impact of using information technologies on the international business development of state-owned companies in the Republic of Croatia. We introduced the results of the survey research on target population of 122 employees in state-owned companies in the Republic of Croatia. The research was conducted in the period from August 27 to September 6, 2018. The data are processed statistically with the SPSS program. The results of our research have undoubtedly showed that state-owned companies in the Republic of Croatia that use advanced information technology and investing in IT education of their employees achieve significant success on the international market.*

**Keywords:** *information technology, international business development, state-owned companies.*

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## 2 INTRODUCTION

International business means business activity of a company that is related to international trade or international investment. In general terms, international business is the process of overtaking some goods from one to another owner with the basic purpose of getting each of them to the good that they do not produce. Exports of goods represent one aspect of international trade. The goal of each country is to obtain the best services, raw materials, energy and final products that would have spent too much resources in their country or they would not be able to produce them at all. To start the process of international business, it is a prerequisite for countries to be specialized in the production of a particular product with which to compete in the external market. The land borders today are no longer an obstacle to the international trade process. The international market is actually the space where international exchange is taking place.[1]

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<sup>1</sup> Zagreb University of Applied Sciences, Vrbik 8, Zagreb, Croatia

<sup>2</sup> Libertas International University, Zagreb, Trg J.F. Kennedyja 6, Croatia

<sup>3</sup> Environmental protection and Energy Efficiency Fund, Radnička cesta 80, Zagreb, Croatia

The development of modern technologies has greatly influenced the international markets that were once limited by geographic distances. Fifteen years ago, we could not even imagine that something would be ordered online, from China or Indonesia. The emergence of information technologies enabled all companies in the market to compete equally and try to take their share of the cake. Modern business and business environment are much more dynamic than it was twenty years ago. Consumer needs are much more intensive and more pronounced than before and this has resulted in innovations, new products, or improved versions of existing products. Today, new products are being created on a daily basis in the world. Some of them succeed, but most do not achieve some level of success. The emergence of new products also creates new markets.[2]

Today, there is growing awareness that merging two or more companies increases the likelihood of success on the market. Monopolism is diminished or almost excluded from the game and we can say that business success will only be achieved by companies that will best adapt to the new demands of the global market. New business relationships among partners are facilitated by the use of modern digital technologies. Companies are easier to connect and create a network of partnerships. It can be said that global virtual companies of the future will be able to activate and cooperate with each other on a new partner every day. Each partner has a particular role on the project he is working on and involved in all project innovations regardless of his location.[3]

## **2. USING OF THE INFORMATION TECHNOLOGIES AND INTERNATIONAL BUSINESS DEVELOPMENT OF COMPANIES**

E-business is a modern way of doing business that implies the use of Internet and information technology. Companies that want to take on the best position on the domestic and foreign markets must organize their business in a way that turns to e-business.[4] Information technology is a driver of modern business. It can be said that IT is the revolution that affects the competition of all the participants in the local and global market and affects the customer's strength and increases competition. In the long run IT seeks to reduce costs, connect business partners, launch new business processes, and participate in creating new products.

In today's conditions of globalization and market liberalization, the expansion of business operations into the international market is a key element not only of development but also of the survival of the national economy. Export as an economic activity is one of the simplest forms of international business on the international market. It is the most attractive and most appropriate business activity for all types of business and sizes of the enterprise with regard to the constantly decreasing transport and communication costs.[5]

Economic indicators related to Croatian exports are not favorable: only about ten percent of Croatian companies export products, inconsistencies in export, low added value of export products, steady growth of imports, long-term negative external trade balance. The export performance is measured by the level of individual enterprises, industries, branches and the overall national economy. Based on the survey and the cluster analysis on a sample of 88 Croatian exporters, the export performance of Croatian exporters was analyzed by objective and subjective indicators.

As regards the share of exports in the total business, the largest number of companies surveyed, 41 or 46.6%, have over 50% of exports in total business, 21 (23.9%) have export share of 26-50%, 17 (19.3 %) has an export share of 10 to 25% and 9 (10.2%) of enterprises less than 10%.

However, managers' thinking and their satisfaction with the company's export performance differs. Namely, only 8 of them (9.3%) expressed the highest level of satisfaction with their company's export performance, 33 (38.4%) rated 4, 31 (36%) grade 3, 10 managers (11.6% grade 2, and one respondent is totally unsatisfied with the company's export performance. [6]

Information technology also affects tangible and intangible business parameters. Under the tangible, we can have shorter production time, better business results, and lower costs. Undeniably, we can have better connectivity with partners, greater level of customer service, faster and better decision making, improved image, etc. [7] Enterprises that have a competitive advantage use IT as a means of creating value. They reduced production costs and at the same time increased the quality of products or services. Managers in such companies understand the advantages of information technology and play a significant role in creating a business strategy. Enterprises that need to lower their costs using information technology need to be aware that their spending will be huge, but the final result will be manifested through profitability and quality.[8]

### 3. THE GOALS, BASIS AND HYPOTHESIS OF THE RESEARCH

In this survey research there were involved 122 employees in state-owned companies in the Republic of Croatia. The research was conducted in the period from August 27 to September 6, 2018. All questionnaires were distributed by e-mail, and the Google Forms online service was used for the purposes of research.

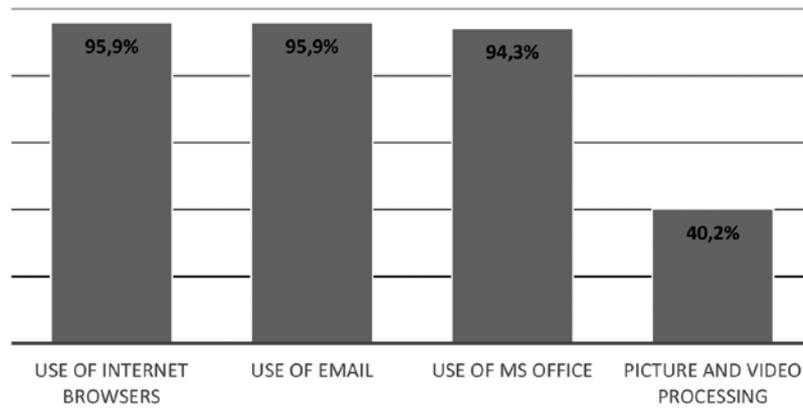
Women account for 56.6% of the sample, while the remaining 43.4% are men. The highest number of subjects of both sexes belongs to the age group of 36 to 45 (42.6%). A group of 26 to 35-year-old is 30.3%. 19.7% of respondents belong to the age group 46 to 55. No respondent is from the youngest age group, while the oldest age group belongs to 7.4% of the respondents. The same percentage of respondents have completed high school and college (14.8%). There are 9.8% of the respondents who have a master's degree or doctoral degree but the university level of qualifications (60.7%) prevails among the respondents.

For the statistical analysis, this paper uses the analysis stemming from chi-square tests and correlation coefficients to examine interdependencies. The statistical study used the software package SPSS 21. In the sequel of this paper we will explain how we tested the hypotheses based on the results of our survey. Individually we will analyze each H0 and H1 hypothesis.

**H0:** There is no significant correlation between the education level of respondents and the use of Internet browsers.

**H1:** There is a significant correlation between the education level of respondents and the use of Internet browsers.

The results of the survey have shown, as can be seen in graph 1, that 95.9% of respondents use Internet browsers, but the use of the Internet browsers differs according to the level of education of the respondents. The results of the survey have shown that 100% of respondents who have completed high school and college use Internet browsers, 2.7% of respondents who graduated at University do not use Internet browsers and 97.3% of them use it, and 16.7% respondents who have a master's degree or doctoral degree do not use it and 83.3% use Internet browsers in their day-to-day business.

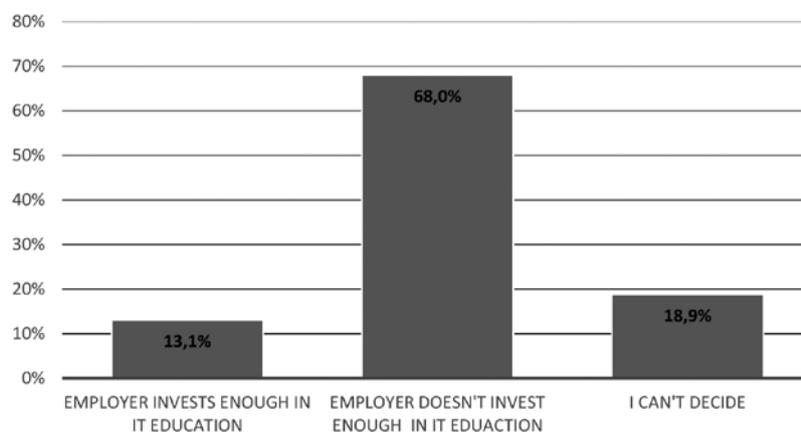


**Graph 1.** Computer skills of respondents

When the results were analyzed by the method of Pearson Chi-Square, it turned out that there was a significant correlation between the education level of respondents and the use of Internet browsers ( $X^2 = 8.080$ ,  $p < 0.044$ ). With reference to the  $p$  lower than 0.05, it was confirmed that in this case there is a significant correlation with regard to this result, hypothesis H0 is rejected and H1 hypothesis is confirmed.

**H0:** There is no significant correlation between the age of respondents and attitude towards IT education in their company.

**H1:** There is a significant correlation between the age of respondents and attitude towards IT education in their company.



**Graph 2.** Employer's investment in IT education

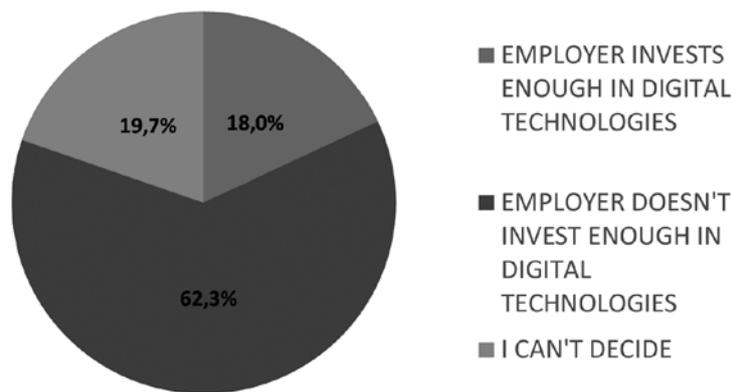
The results of the survey have shown, as can be seen in graph 2, that 68% of respondents believes their employer does not invest enough in IT education, 13.1% believes their employer invests enough in IT education, and 18.9% of respondents could not decide. When we further analyzed the correlation between the age of respondents and their attitude toward the IT education in the company, the results have shown that 62.2% of respondents aged 26 to 35 do not think their employer is sufficiently investing in IT education, 21.6% think they are investing enough, and 16.2% do not know.

69.2% of respondents aged 36 to 45 do not think their employer is sufficiently investing in IT education of employees, 3.8% think they are investing enough, and 26.9% do not know. 79.2% of respondents aged 46 to 55 do not think their employer is sufficiently investing in IT education of employees, and 20.8% think it is enough. 55.6% of people over 55 do not think their employer is sufficiently investing in IT education, 11.1% think they are investing enough, and 33.3% do not know the answer.

When the results were analyzed by the method of Pearson Chi-Square, it turned out that there was a significant correlation between the age of respondents and attitude towards IT education in their company ( $X^2 = 14.866$ ,  $p < 0.021$ ). With reference to the  $p$  significantly lower than 0.05, it was confirmed that in this case there is a significant correlation with regard to this result, hypothesis H0 is rejected and H1 hypothesis is confirmed.

**H0:** There is no significant correlation between the sex of the respondents and their opinion that IT technologies contributes to greater autonomy in making business decisions.

**H1:** There is a significant correlation between the sex of the respondents and their opinion that IT technologies contributes to greater autonomy in making business decisions.

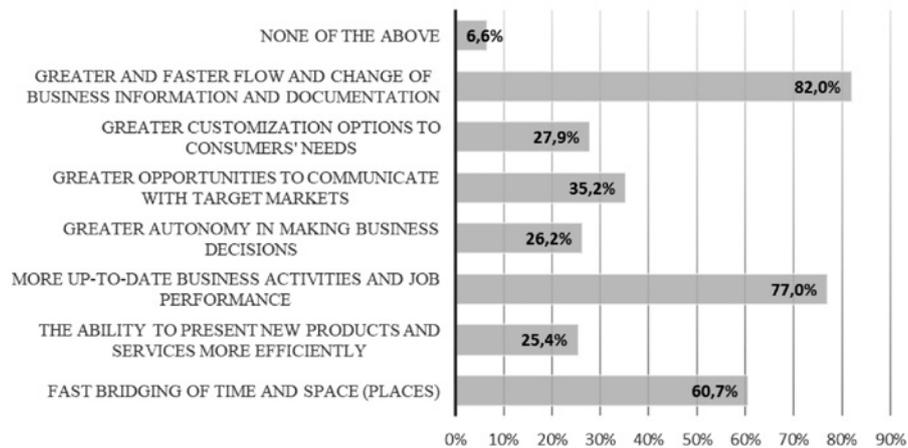


**Graph 3.** Employer's investment in digital technology

The results of the survey have shown, as can be seen in graph 3, that 62.3% of respondents believes their employer does not invest enough in digital technologies in the company's business, 18% of respondents believes their employer invests enough in digital technologies in the company's business and 19.7% of respondents could not decide. When we further analyzed the correlation between the sex of the respondents and their opinion that IT technologies contributes to greater autonomy in making business decisions, the results have shown that 64.2% of male respondents do not think that IT technology contributes to greater autonomy in making business decisions, while 35.8% responded positively, while 81.2% of female respondents do not think IT technology contributes to greater autonomy in making business decisions and only 18.8% of them responded positively to this question.

When the results were analyzed by the method of Pearson Chi-Square, it turned out that there was a significant correlation between the sex of the respondents and their opinion that the IT technologies contributes to greater autonomy in making business decisions ( $X^2 = 4.481$ ,  $p < 0.034$ ). With reference to the  $p$  significantly lower than 0.05, it was confirmed that in this case there is a significant correlation with regard to this result, hypothesis H0 is rejected and H1 hypothesis is confirmed.

- H0:** There is no significant correlation between the level of education of respondents and their opinion that introduction of IT technologies in the company provides greater customization options to consumers' needs.
- H1:** There is a significant correlation between the level of education of respondents and their opinion that introduction of IT technologies in the company provides greater customization options to consumers' needs.



**Graph 4.** Benefits of introducing IT technology to the company

The results of the survey have shown, as can be seen in graph 4, that that 27.9% of respondents believes that introduction of IT technologies in the company provides greater customization options to consumers' needs. We further analyzed the correlation between the level of education of respondents and their opinion that introduction of IT technologies in the company provides greater customization options to consumers' needs.

The results of the survey have shown that 61.1% of respondents who finished high school disagree with this statement, and 38.9% agree. 44.4% of respondents who finished college disagree with this statement, 55.6% of them agree. 79.7% of respondents with a University diploma disagree with this statement, and 20.3% of them agree, while 79.7% of respondents with a master's or doctoral degree disagree with this statement but 20.3% of them think that the introduction of IT technologies in the company provides greater customization options to consumer's needs.

When the results were analyzed by the method of Pearson Chi-Square, it turned out that there was a significant correlation between the sex of the respondents and their opinion that the introduction of IT technologies in the company provides greater customization options to consumer's needs ( $X^2 = 10.826$ ,  $p < 0.013$ ). With reference to the  $p$  significantly lower than 0.05, it was confirmed that in this case there is a significant correlation with regard to this result, hypothesis H0 is rejected and H1 hypothesis is confirmed.

#### 4. CONCLUSION

Companies that have a competitive advantage use information technology as a means of creating value. Information technology is a driver of modern business. The results of our research have shown that state-owned companies in the Republic of Croatia that use advanced information technology and investing in IT education of their employees achieve significant success on the international market. The results of the survey presented in this paper have shown that there

is a significant correlation between: the education level of respondents and the use of Internet browsers and the age of respondents and attitude towards IT education in their company. The research results are in fact the major contribution of this paper.

The results of our research have shown that there is a significant correlation between the sex of the respondents and their opinion that IT technologies contributes to greater autonomy in making business decisions and also between the level of education of respondents and their opinion that introduction of IT technologies in the company provides greater customization options to consumers' needs. The results of the survey have shown that 68% of respondents believes their employer does not invest enough in IT education and there is a potential for great progress in the future. This research results can be used by all managers in state-owned companies as an indicator of the direction in which state-owned companies should be developed. This research results can be the perfect base for future research on a similar topic.

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