

The Course E-business in the Secondary Education Curricula – regional study

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Abstract: *The subject of research in this paper is the representation of the subject E-business in the curricula of secondary schools in the region. The development of information technologies has resulted in the emergence of new types of business. A growing number of organizations are recognizing the need for doing business through the Internet. As a promising field, subject to constant development, it finds a place in the plans and programs of universities, both technical and technological, and social and humanistic sciences. Apart from higher education, e-business, as a field, is increasingly being studied in secondary schools, i.e. it is part of secondary school curricula. The paper presents the results of the research, which included 96 educational profiles, in 14 secondary schools, in 4 municipalities of the Moravica district.*

Keywords: *electronic business; secondary school; education.*

1. INTRODUCTION

Computer literacy is part of the perception of a new type of literacy that is caused by the use of computers and the application of technology in all aspects of society [1]. Technology changes by leaps and bounds, existing skills become antiquated, and there is no migration path to new skills...to adapt to changes in the new technologies [2], [3]. In recent years, children are exposed to mobile devices and computers, as well as their use, from an early age [4], [5], [6].

Until 2020, in primary schools, in lower grades, as an elective, there was a subject called *From toy to computer* [7]. The subject *From toy to computer* was proposed for preschool teaching as well, and from 2020, students of lower grades of primary schools had the opportunity to attend the subject Informatics. From the 2017/2018 school year the subject of Informatics and Computing became a compulsory subject for fifth-grade primary school students [8].

In accordance with the development of techniques and technology, the labor market is increasingly demanding experts in this field. Informatics as a subject has been part of the secondary school curriculum for some time. However, this is not where the study of this area ends. Since 2017, specialized IT departments have been established in many high schools in Serbia. The classes are intended for students with special abilities for computing and informatics [9].

The variety of educational profiles offered in secondary schools in the territory of Serbia is defined in accordance with the needs of the market, and the aim is to profile young people for the job

market. The development of information technologies and their application in various spheres of life, in addition to educational profiles, provided the opportunity for the development of a new group of subjects, which are studied in secondary schools. One of the subjects that has been introduced in the curriculum of secondary schools in Serbia in recent years is the subject Electronic Business.

Regardless of whether it is viewed as modern business management via the Internet or the application of information technologies in business processes, the subject is mostly represented within the educational profiles of economic orientations.

2. METHODOLOGY

For the purposes of this paper, a survey was conducted that included 14 secondary schools in 4 municipalities of the Moravica district, namely [10], [11]:

- General secondary schools (3),
- Vocational secondary schools (8),
- Mixed secondary schools (1),
- Art schools (1),
- Special education secondary schools (1).

The research methodology is based on internet searches, i.e. internet presentations, both secondary schools, as well as presentations of the Ministry of Education, Science and Technological Development of the Republic of Serbia, the Institute for the Improvement of Education and Training of the Republic of Serbia, as well as the Legal Information System of the Republic of Serbia.

3. RESULTS

Based on the results of the conducted research, it was concluded that 14 secondary schools of the Moravica district offer the possibility of education in 96 educational profiles.

We analyzed the curriculum of each educational profile, in order to obtain data on the representation of the E-Business subject (Table 1).

Table 1. Overview of the representation of the subject E-business in the curricula of secondary schools in the Moravica district

Municipality	School	Educational profile	I	II	III	IV
Čačak	High school	Natural sciences and mathematics	CI	CI	CI	CI
		Social and linguistic	CI	CI	CI	CI
		Students with special abilities for computing and informatics	CA	CA	CA	
	Economic school	Economic technician	CI	BI	BI	EB
		Financial administrator	CI	BI	EB	
		Commercialist	CI		BI	EB
		Financial and accounting technician	CI	BI	EB	
		Trader	CI		BI	/
	Technical school	IT electrical technician	CI			EB
	Food and catering school	Tourism technician	CI	CI		
		Culinary technician	CI	CI		
		Catering technician	CI	CI		
		Cook	CI	BITH		/
		Pastry chef	CI	BI		/
		Waiter	CI	BITH		/
Gornji Milanovac	High school	General	CI	CI	CI	CI
		Social and linguistic	CI	CI	CI	CI
		General - English	CI	CI	CI	CI
	Economic and commercial school	Economic technician	CI	BI	BI	EB
		Financial and accounting technician	CI	BI	EB	
		Commercialist	CI		BI	EB
		Tourist and hotel technician	CI	BIT	BIT	
		Trader	CI		BI	
		Cook	CI	BITH		
Waiter	CI	BITH				
Ivanjica	High school	General	CI	CI	CI	CI
		Informatics	CA	CA	CA	
		Students with special abilities for sports	CI	CI	CI	CI
	Technical school	Economic technician	CI	BI	BI	EB
		Tourist technician	CI	BIT	BIT	
	Cook - Waiter	CI	BITH		/	
Guča	Secondary school	General	CI	CI	CI	CI
		Economic technician	CI	BI	BI	EB
		Financial administrator	CI	BI	EB	
		Trader	CI		BI	/

EB – Electronic Business; CI – Computing and Informatics; CA – Computer Application; BI – Business informatics; BIT – Business Informatics in Tourism; BITH – Business Informatics in Tourism and Hospitality

By analysing curricula, we concluded that the subject E-business is represented in 11 out of 96 teaching plans of educational profiles, in only 5 out of 14 secondary schools. It is interesting that the subject E-business is represented in higher years,

as an elective within the educational profiles of economic orientations, as a professional subject.

By analyzing course programs, it was concluded that electronic business, as a field, is studied in

segments and through subjects with different names.

One of those subjects is Computing and Informatics. The subject is part of a group of general education subjects, which are compulsory in the curriculum in all secondary schools in the first year of schooling, except within the educational profiles of IT-oriented high schools and secondary schools for special education. It is important to note that the Computing and Informatics subject contains a low percentage of E-Business.

Within the educational profiles of high schools for students with special abilities for computing and informatics, the subject Computer application is studied. The aim of the subject Computer application is identical to the aim of the subject Computing and Informatics [9], [12].

When it comes to professional subjects, which in the curriculum include more significant elements of the field of e-business, they are the subjects Business Informatics, Business Informatics in Tourism and Business Informatics in Tourism and Hospitality.

Table 1 shows the educational profiles, in which the subject of Computing and Informatics is represented in another, except in the first year of schooling, as well as educational profiles whose curriculum includes the subjects E-Business, Business Informatics, Business Informatics in Tourism and Business Informatics in Tourism and Hospitality, as well as Computer Application [10], [13], [14], [15].

4. CONCLUSION

E-business, as a new form of business, is an inevitability of modern life. Although some countries have been quicker to accept the changes in the way of doing business, neighboring countries are still working on it. In Serbia, this type of business is more and more prevalent.

In order for companies to survive on the market, it is necessary to follow the dynamics of market development and business trends. The question is no longer whether a company will expand its business to the Internet, but the question is at what point will it realize that doing business via the Internet is a necessity.

In Serbia, the awareness of electronic business has not reached the level, so that electronic business is seen as one of the priorities for introduction and understanding, at all levels of organizing society.

There are a large number of factors that directly or indirectly affect the effectiveness of the introduction and implementation of electronic business, and some of them are insufficiently developed legal regulations, infrastructure, insufficient staff expertise, insufficient IT skills of the population, level of awareness, etc.

Educational institutions take on the role of educating future generations, who will be trained to work in the new environment. Introducing the subject of e-business in secondary schools can significantly increase awareness of the very concept of doing business via the Internet and reduce economic losses caused by insufficient staff expertise.

The results obtained from the research are indicators of the fact that, in recent years, the need to introduce the subject of e-business in high schools has been recognized, both through the introduction of the subject of e-business and through the introduction of other subjects, which include elements of e-business in the curriculum. Educational profiles that lead in this are economic educational profiles.

Although the representation of the subject of electronic business in the curricula of secondary schools is insufficient, there is a noticeable and praiseworthy tendency of growth.

Since it is a business that is significantly different from the traditional way of doing business, it is necessary to work on raising the level of awareness of e-business and its concepts.

In addition to what has already been presented, the above is also necessary for the purpose of raising awareness of the levels and measures of security, awareness of an area that is becoming inevitable and that is more and more a part of our lives every day. The importance of the application of electronic business needs to be recognized, both for the individual and the company as well as the entire country.

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