

Paper Title: **ICT as an effective tool for internationalization of higher education**

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# ICT as an effective tool for internationalization of higher education

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*The swift emergence of a global “information society” is changing the way people live, learn, work and relate. An explosion in the free flow of information and ideas has brought knowledge and its myriad applications to many millions of people, creating new choices and opportunities in some of the most vital realms of human endeavour.*

Kofi Annan, Secretary-General’s message to “The Net World Order: Bridging the Global Digital Divide” Conference hosted by the Business Council for the UN, New York, 18 June 2003 (delivered by Amir Dossal, Executive Director, UN Fund for International Partnerships).

## ABSTRACT

Globalization and new technologies have opened up a global market for education pressuring many institutions to be internationalized. Within mainly descriptive mode of analysis, this study investigates how internationalization of higher education can be facilitated by the effective use of information and communication technologies. Reporting findings from a case study of the Zagreb School of Economics and Management (ZSEM), a private business school in Croatia, this micro-level study focuses on intersection between internationalization and ICT and sees ICT as a central driving force for internationalization of higher education. Data on ZSEM's strategies and practices of internationalization and ICT use is collected using the following two types of sources: official documentation provided by school's administration and the information from the interviews with key actors in the organization. The data indicates five modes of internationalization where ICT is used to support and coordinate international activities. The goal of the study is to reveal how education targeted ICT use enables global academic cooperation which in turn builds human capacity, connects networks and information beyond their immediate environment.

**Keywords** – Information and communication technologies, internationalization of higher education, international academic collaboration, e-learning, transfer of knowledge, student mobility, global knowledge economy

### 1. INTERNATIONALIZATION AT ZAGREB SCHOOL OF ECONOMICS AND MANAGEMENT

ZSEM is a higher education institution founded to provide students excellent business education comparable with similar schools around the world. Curricula and program structure were done in cooperation with John Carroll University (USA, Ohio). ZSEM started integrating new communication technologies in its educational activities since its foundation in 2002.

Internationalisation in higher education usually refers to exchange programmes and student mobility. Its increasing importance is the consequence of multiple changes in the environment for higher education which includes the growth of the global information, knowledge-based economy and opening of the international labour market. Since internationalization of higher education can be seen as a proactive response to the catalyst globalisation [1], emergence of an international market for higher education poses challenges on both global and national level.

ZSEM is a relevant case for the investigation of how is ICT employed to internationalise higher education for several reasons. Firstly, there is institutional awareness of internationalisation as a source of competitive strategy. Representing an organizing principle, ZSEM's mission directly supports implementation of ICT as an internationalization tool: „The mission of ZSEM is to transfer values, knowledge, and skills that students need for long-term success in a globalized business world undergoing constant technological and market transformations.“ Secondly, being a business school operating predominately in national, but also to some extent, international market, ZSEM's educational programs are reaching both students and international faculty beyond national boundaries through ICT. Therefore, ZSEM utilizes ICT both in the instructional delivery and administration, as well as in its broad scope of international activities. Those activities include mobility of programs, faculty and students, offering courses in languages other than Croatian and accepting more international students.

In terms of international academic collaboration and educational exchange, ZSEM is integrating a growing number of international faculty in its programs, but it is also in the process of adoption of AACSB International accreditation standards. Unlike student mobility which is, according to van der Wende [2], only a narrow conceptualisation of internationalisation, the adoption of quality international standards such as AACSB, represents a form of institutional and system internationalization. Resulting in certification and equivalence in programs and degrees, it is an important step towards globalization of academic credentials.

## 1.1 AACSB accreditation

One of ZSEM internationalization strategies is the implementation of internationally established programs. For that reason ZSEM follows the accreditation standards such as AACSB (The Association to Advance Collegiate Schools of Business) [3] and EQUIS (the European Quality Improvement System [4]. ZSEM is the first Croatian higher institution that became an AACSB member. AACSB is an international nonprofit association founded in 1916 with the goal of accrediting educational programs of schools and universities in business education. AACSB certificate represents the highest standards achievable by business schools worldwide. Institutions accredited by AACSB confirm their commitment to quality and continuous improvement through a rigorous and comprehensive peer review. International accreditation assures quality and promotes excellence and continuous improvement in undergraduate and graduate education for business administration and accounting

## 2. E-LEARNING

Global networked society based on new digital technology has affected the process of education and added dynamics to the transfer of information and knowledge creation. We are no longer time or place restricted. Also, information technology directly lessens the costs and increases possibilities of academic interaction and cooperation. E-learning enables higher education institutions to reach out students, teachers, and researchers in foreign countries without physically moving them.

From the very beginning, e-learning aspect was mandatory part of the program. ZSEM is currently the **only** higher education institution in Croatia which systematically uses e-learning in all the courses offered. Implementation of all the benefits of new digital technology in the education processes since 2002 provided opportunity to stimulate mobility of both students and faculty, and to develop curricula in accordance to European and global standards such as Bologna process and [5] and AACSB.

Currently, 1100 students are attending ZSEM programs in undergraduate and graduate level. They all have an opportunity of choosing among 100 different courses that implement e-learning. School's management has played an important role in the systematic implementation of e-learning as a teaching method [6]. E-learning at ZSEM means the following:

- It is mandatory for all the lecturers and all the students to use E-learning. Each class has to exist in an e-learning form and it is the duty of all the professors to continuously improve the quality and the scope of e-learning integration. [7, 8]
- All the courses use the same Learning Management System (LMS), in this case that is a WebCT [9]. The decision to use this particular LMS and not some other system developed in Croatia, was not only because WebCT is one of the world leading systems, but also because of the compatibility since it is used by a majority of our guest lecturers and partner universities across the globe. [10]

ZSEM's E-learning team has developed 11 standards that measure the quality of all the e-learning courses [11]. Those standards may be subdivided into 3 groups: static, dynamic and administrative. All the courses are regularly evaluated. In terms of quality assurance, two kinds of evaluations are carried out at ZSEM: the evaluation of the developed e-learning course done by e-learning team [11] and student evaluation at the end of semester [12].

### 2.1 Videoconferences

Thanks to videoconferences, ZSEM students have the opportunity to hear lectures by world leading experts and educators. The first videoconference was held in 2004. It was a welcome speech by the president of board of directors, Joseph Bombelles, prof. emeritus at John Carroll University in Cleveland (Ohio, USA). Continuation of videoconferences were guest lecturers in courses such as Marketing and Management where international faculty introduced ZSEM students with marketing and management practices and experiences from the other parts of the world.

Especially significant in this matter was an elective course „Introduction to Software Projects Management“ (SPM) which was developed in cooperation with Swedish university Mälardalen. A professor from Sweden had a videoconference lecture every week. Throughout the semester, the students communicated with the professor using WebCT and Skype. In his article „Holistic approach in education – Filling the Gaps between the Areas,, Crnkovic et al. compares the same course in two different locations – one at the Computer Science Faculty in

Sweden and the other at a Business School in Croatia [13]. After completing a course, ZSEM students have earned a certificate from the university in Sweden stating that they have passed the course although majority had never visited Sweden. SPM course was offered two times so far and about 30 students completed the course. Mutual recognition and equivalence of the course program represents an important step in the internationalization process.

On the other hand, ZSEM faculty increasingly uses different possibilities of videoconference as guest lecturers at different universities across the globe. So far only point to point videoconferences were used for teaching, that is videoconference between two different locations. In the future, it is planned to have a multi-point videoconference in which several different locations would be connected.

### 3. INTERNATIONAL ACADEMIC COOPERATION AND STUDENT MOBILITY

In order to fully engage in internationalization process and to maximize the positive impact of transfer of knowledge in a transition country such as Croatia, ZSEM has accentuated the process international academic cooperation with internationally recognized universities across the globe. The Figure 1 shows the growth of international cooperation between ZSEM and foreign universities. Rapid expansion of the number of the universities with which ZSEM signed contracts on mutual cooperation was the result of founding the International Office in 2004. Currently ZSEM has signed 55 contracts for international academic cooperation with 55 universities from 30 countries across the globe.

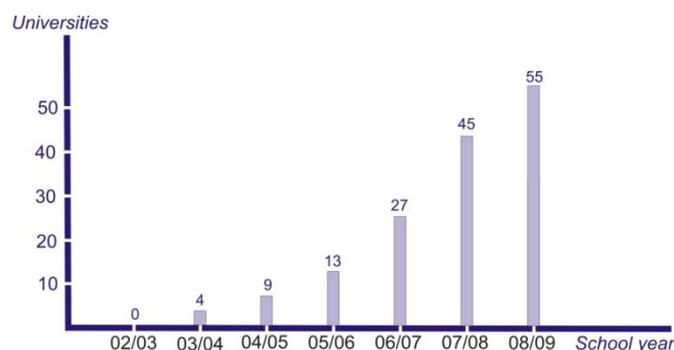


FIGURE 1  
INTERNATIONAL ACADEMIC COOPERATION AT ZSEM

Student mobility is a very important part of Bologna Process as well as AACSB accreditation. This trend has no tradition in Croatia. As a transition country, it was not until the Bologna Process implementation a couple years ago when Croatian universities started supporting student mobility. Currently, only 0.03% students in Croatia take part in an international student exchange.

Student mobility includes attending summer schools/semesters, but also visits to partner universities for a semester or more. Since student mobility in Croatia has no tradition, it was necessary to place a lot of effort in order to stimulate students to take part in international exchange. **It is important to note that the decrease in percentages is relative because the number of ZSEM students is not constant and it is growing every year.** The Table 1 shows student mobility across all four undergraduate academic levels. Compared to Croatian average percentage of 0.03%, ZSEM's student mobility is currently 5.22%. However, ZSEM is continuously taking needed steps to stimulate even larger numbers of students to participate in various forms of student exchange.

School year	Exchange program %	Summer school %	Total %
2002/2003		10.4	10.4

2003/2004		4.1	4.1
2004/2005		12.6	12.6
2005/2006		3.3	3.3
2006/2007	1	3.49	4.49
2007/2008	1.4	3.82	5.22
2008/2009	2.1	*	*

\* The lack of information for the summer school in the academic year 2008/2009 is due to the fact that this study was written at the beginning of 2009.

TABLE 1  
STUDENT MOBILITY ACROSS ALL FOUR UNDERGRADUATE LEVELS

Typically, when they reach 3<sup>rd</sup> or 4<sup>th</sup> year, students at ZSEM decide to go for a semester of two to study abroad at the university with which ZSEM has In the academic year 2008/2009, 60% of students participating in exchange programs were 3<sup>rd</sup> year students, and 40% were 4<sup>th</sup> year students (Figure 3). Unlike exchange programs, summer school is attended more by freshmen and sophomore students (Figure 4).

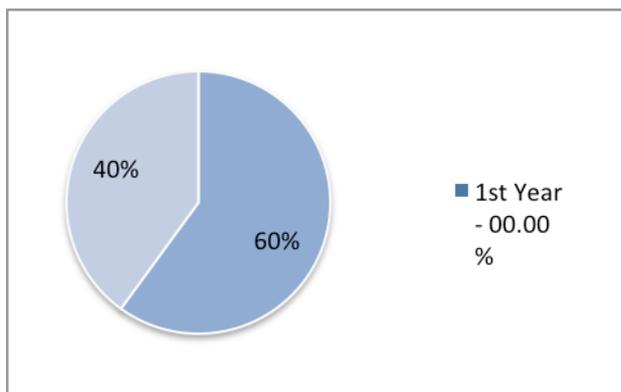


FIGURE 2  
STUDENT EXCHANGE PROGRAMS ATTENDANCE ACORDING TO THE YEAR OF STUDY

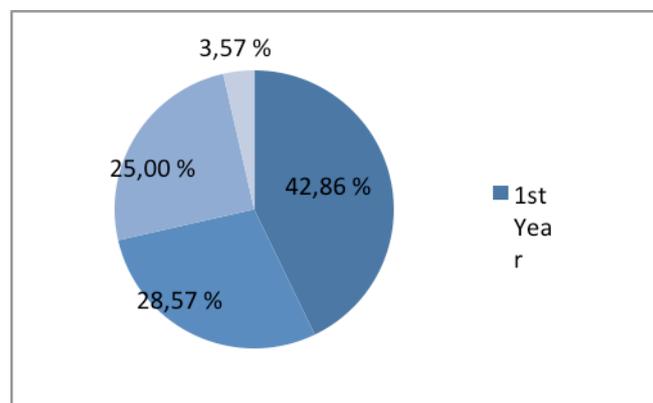


FIGURE 3  
SUMMER SCHOOL ATTENDANCE IN ALL FOUR UNDERGRADUATE LEVELS

Majory of ZSEM faculty has either an international degree or has take part in different forms of international education. The percentage of international lecturers has dramatically grown since the launching of several MBA programs in the last 3 year. Certain MBA programs such as Marketing, have all the courses taught

in English and besides the ZSEM faculty, several guest lecturers, mainly from the USA are teaching the same course.

#### 4. EXECUTIVE EDUCATION AND LIFELONG LEARNING

With the rapid ICT development and the process of globalization, **poluživot** znanja is becoming shorter and in certain fields it lasts only 5 to 6 years. Therefore, it is important to increase students' awareness of the significance of life-long-learning (LLL) and the fact that education must be continued after acquiring university diploma. ZSEMs Executive Education Center offers variety of programs for professional improvement in the field of management, marketing, banking, finances and others.[14] These intensive seminars are developed and executed in cooperation with the top domestic and international experts, and they are all conceptualized within the frame of contemporary needs of the global market. So far more than a couple of hundreds of participants from leading Croatian firms have participated in LLL programs at ZSEM. As of February 2009, there are 15 seminars planned for this year. The Figure 4 shows geographical distribution of guest lecturers. 56.25% planned lecturers are from the USA, 25% from Croatia, and 18.75% from the rest of Europe.

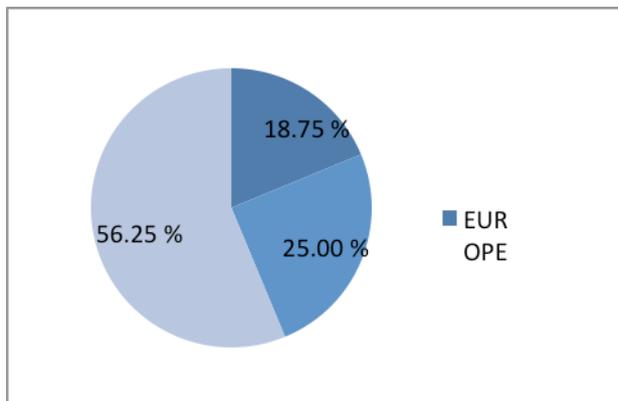


FIGURE 4

DISTRIBUTION OF GUEST LECTURERS

#### 5. CENTERS OF KNOWLEDGE

ZSEM Centers of Knowledge are another point of internationalization initiative at ZSEM since their main function is to organize various seminars and conferences with the goal of stimulating exchange and creation of knowledge among Croatian and international experts. Japanese Center was established in 2003. Its main activities are oriented towards education, training, collecting and providing information, research and publishing with the aim to connect Croatian and Japanese academic, cultural and business community. In order to introduce Croatian business community with the secret of Japanese economic success, Japanese center continuously organizes kaizen seminars. Program is helpful for understanding Japanese management philosophy of achieving significant results through continuous small improvements. In 2006 and 2007 Japanese center has organized a two-week study trip to Japan. Students had a chance to see and visit numerous places which are normally closed for tourist. This trip was an excellent opportunity for immersion and better understanding of the specifics of Japanese culture [15]. Besides Japanese Center, there is also Center for American Studies, Center for European Studies, Center for Business Ethics etc.

## 6. CONCLUSION

Due to rapid growth of the knowledge economy, the transfer of knowledge and internationalization of educational services becomes an inevitable issue that every higher education institution has to focus on. Globalization of educational markets posed a pressure for higher education institutions to actively engage in internationalization initiatives and ICT often serves as an effective tool for supporting and coordinating their international activities. Besides speed, cost-saving, transcendence of time and distance, and opportunities for cross-cultural learning, effective ICT implementation enables extension of international relationships, helps adoption of quality international standards and strengthens ties with institutions abroad. Through the process of internationalization and expansion of knowledge networks across boundaries, higher education becomes “industry of the future” [16] in the new economy where human capital and innovative knowledge production are crucial for economic performance.

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