

# **Increasing the Competitiveness of Construction Industry Through Life Long Learning**

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## **Abstract**

The paper will analyse the position of local and regional construction companies in common European market. The factors that impact the competitiveness of local and regional construction companies will be discussed. The importance of life long learning as a tool for increasing the competitiveness of construction industries will be explained. The program of the life long learning, and experience in its application at the Faculty of Civil Engineering, Zagreb University will be presented. The possibilities for international co-operation will be discussed.

## **Key words**

Lifelong learning, construction, competitiveness

## **1. Introduction**

The globalisation of the market (Ridderstråle and Nordström, 1999), among the other industries is also present in construction. The fact is that particularly for bigger projects the bidders are often from across the whole world. There are examples that some companies are the biggest or major by turnover not just in their homeland, but in numerous of other countries.

Mentioned trends are particularly present in Europe, where the process of strong integration of the market is the reality. The harmonisation of legislation and technical standards and norms within the Europe will enable more than ever before the unification of the market in construction industry.

The explained situation is also present at the Croatian market. During the last fifteen years the companies from USA, Germany, Austria, Turkey, Italy, France and Czech Republic were present at the market as general contractors in building of big infrastructure mostly highways, but also water treatment and construction projects (Završki, 2002).

## **2. The competitiveness of construction companies**

We can see that protection of local market is becoming by time always weaker guarantee to gain the project in comparisons with competitiveness of global actors at the market. Therefore the competitiveness is becoming always more important.

The importance of increasing of the level of competitiveness of companies and whole construction industries is particularly important in the new European Union countries and EU accessing countries. The system of operating in scheduled economy through decades needs the time to be adapted to the market economy, and additionally to learn to act at the common European market.

On the other side some remarkable companies from central and eastern Europe, and even whole industries are well known in some parts of the world for good performed construction projects, and still have good relations with investors. That creates the possibilities for joint ventures of the companies from different European regions on the markets of third countries. The peace of increasing of the competitiveness impacts the chances of the companies to remain at the local market and particularly to get the chance to act at foreign markets, as general contractors or in conjunction with bigger companies.

One of the best known theorists of competitiveness M.E. Porter (Porter, 2004) discussing the requirements for the generic strategies of competitiveness for three of the most important of them more or less directly points out the importance of the skilled labour, scientists and creative people to achieve bigger competitiveness of the company. This fact is particularly important for the countries and the industries that have not big population, and numerous craft labour. Their comparative advantage can only be the knowledge and skills.

### **3. Lifelong learning in Croatian construction industry**

The Bologna declaration that drove the wide discussions across the continent, and is often the object of criticism, has for its declared goal the increasing of the efficiency of higher education, and implicitly the competitiveness of European economy. If there are suspicions about the adequacy of the methods to achieve the declared goals, the lifelong learning is one that is no doubt about. The lifelong learning has been never so actual but present in construction industries and education systems in different arts.

The kind of lifelong learning in Croatia has been organised by the faculties of civil engineering during a long time as an undergraduate study program for the mostly in construction industry employed people, what under the impact of numerous circumstances disappeared by time. The M.Sc. and Ph.D. study has been organised also as a part time program, suitable for employed people, what still exist. Some companies have had organised training programs for newly employed and particularly young engineers, what practice has by time unfortunately became rare. Professional societies and organisation have had organising the series of seminars and lectures on the professional issues.

The importance of knowledge in Croatian construction industry has been recognised recently except others by the authors of the civil code that requires the education of the professional engineers during their all practice. That is on the incentives to shape the new approach to the life long learning in construction industry, but also in academic institutions.

### **4. Lifelong learning program at the Faculty of Civil Engineering of Zagreb University**

To meet the needs of practice and to enable the transfer the newest knowledge to the practice and practitioners as the way of increasing the competitiveness of Croatian construction industry the Faculty of Civil Engineering from Zagreb University established in the academic year 2004 – 2005 the new

educational program meant for the professional engineers. The program consist of 43 seminars lasting two to three days, that covers nine professional fields, such are construction management, construction materials, structures, environmental protection, gheotechniques, hydro facilities, traffic facilities, legislations, and technical mechanics. The significant part of the program relates to the Euro codes and other European technical norms and standards, but also to the actual topics of profession, same like new methods and techniques.

The program is supposed to be the beginning of the development of stronger cooperation in between of the Faculty and the industry. Therefore the new ways in the realisation of the program are planned, such are tailor made programs for particular companies, or for the specialist from some specific fields of profession. The lecturers are not only the faculty members, but also the recognised professionals, and members of the ministries and public administration institutions. Beside of other previously mentioned kinds of lifelong learning and continuous education possibilities, it is to notice the development of the market of such educational programs, and even concurrency between them.

## **5. Possibilities for international cooperation**

The international cooperation is desirable in several ways. Firstly, there is significant population of engineers in neighbour countries understanding Croatian language that is welcome to attend the courses. That would between of others encourage the cooperation and partnering among companies internationally. Other way of international cooperation is in the process of improvement and quality assurance of the program by participation of international experts, same as possible establishing of benchmarking system and looking for the best practice of lifelong learning. Connected topic is the professional certification system, what becomes particularly important after application of B.Sc. – M.Sc. system promoted by Bologna declaration, what is for most of European countries new one, where the international standard would be desirable.

## **6. Conclusions**

We can conclude that global concurrency at the market, and particularly the European integrative processes implied the additional importance and actuality of lifelong learning in construction. The lifelong learning system requires wider, more quality and intensive solutions than before. The international cooperation can contribute to find them.

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