# DEVELOPMENT OF DOCTORAL PROGRAMMES IN THE FIELD OF AGRICULTURAL ECONOMICS AT THE UNIVERSITY OF MARIBOR

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**Abstract** In this Chapter we present the development of post graduate Doctoral Study Programmes in the field of Agricultural Economics at the University of Maribor. The first part of the Chapter describes the development before implementation of the Bologna reform. Then we describe development after the Bologna reform, and after the last reform of Doctoral Studies at the University of Maribor in 2018.

## agricultural economics, study programmes

Keywords:

programmes, faculty, PhD, University of Maribor.

## 1 Introduction

The development of post graduate studies is a difficult and complex task. The modern Agricultural Economics is an interdisciplinary field. It is based on microeconomic theory, that tries to explain economic development in the area of Agriculture. The scientific field of Agricultural Economics is wide and very important in modern agriculture. Agricultural Economics is developed as an independent study discipline at many important universities. For instance, at the University of California, Davis, the PhD Programme of Agricultural and Resource Economics has been conducted for over 50 years, and is recognised as one of the best in the world [1].

The University of Maribor (Faculty of Agriculture and Life Science) introduced a post graduate Programme in Agricultural Economics in 1999 (the first academic year was 2000/2001). The introduction of the Programme meant a huge developmental step due to the following reasons:

- Until then, the Slovenian agricultural economists were forced to study in other countries.
- It was the first post graduate Programme at the Faculty of Agriculture and Life sciences.

We must gratefully mention that, at the time, the Rector of the University of Maribor, Prof. Dr. Ludvik Toplak and the late Dean Prof. Dr. Božidar Krajnčič, supported the development and introduction of the Programme enthusiastically, although there was only one Professor of Agricultural Economics at that time. The Programme enabled the development of a strong Agricultural Economics Department, and also Programmes at both Bachelor and Master levels. Until now, the University of Maribor has been the only University in Slovenia that offers Study Programmes of Agricultural Economics at Bachelor, Master and PhD levels, which puts us at great strategic advantage.

The aim of this Chapter is to present the historic development of Agricultural Economics at the University of Maribor. The content is divided into two parts: Pre Bologna reform and after.

# 2 Development of post graduate studies of agricultural economics at the University of Maribor

## 2.1 Agricultural Economics at the University of Maribor before 2007

A distinct lack of knowledge in Agricultural Economics (AE) in previous years has dictated the path and pace of the process where new postgraduate Study Programmes in this domain have been introduced at the Faculty of Agriculture and Life Sciences of the University of Maribor. New Study Programmes were designed to take into consideration the high degree of interdisciplinary nature of Agricultural Economics, which is embodied within it. Theoretical foundations of microeconomics, quantitative analyses, farm management, agricultural marketing, agricultural law, rural development and agricultural policy were those disciplines which constituted most distinctly the MSc and PhD Programmes in AE. Students coped successfully with a wide range of lectures taught by academics with different research backgrounds.

Several Professors from the Faculty of Business and Economics, Faculty of Law and Biotechnical Faculty were, thus, invited to complement different study areas, and to introduce to the students the high professional skills and knowledge required that are necessary for 'the state-of-the-art'. Abundant experiences from some of the most notable European universities were emulated in designing our postgraduate Programme. To alleviate this process, several Professors from England (the University of Reading) and Austria (BOKU) were also invited to give lectures. Students were, in this way, acquainted with the profoundly interdisciplinary approach that is a prerequisite for a modern postgraduate Study Programme.

The postgraduate Programme of AE (MSc and PhD) has been run by scholars from diverse disciplinary backgrounds – Economics, Management, Rural Development, Computer Science, Rural Sociology, Engineering, etc. Its profoundly interdisciplinary nature represented the big strength of our Programme. It was not a surprise that our Programme has gradually acquired a very good reputation across the country, and our students were very pleased that some important potential employers (Ministries, Agencies, etc.) have also been notified about it and approached some of the most successful graduates.

The new postgraduate Study Programme was launched at the beginning of the new millennium and first generations of students were very keen to enter it. There was a growing recognitionat that time of the necessity for students to be able to converge effectively with different reference literature, or link data across different sources. A bulk of publications (scientific papers and text books) in Agricultural Economics did enable them to pass this gap rather smoothly. Only thorough and meticulous study of an interdisciplinary subject such is AE can, namely, facilitate the understanding of the key issues that are motivated by the science. This comes neither easily nor quickly.

The perceived threat to academic freedom was overcome by giving Professors full independence in creating their 'modus – operandi'. Academics themselves defined a range of criteria and benchmarks against which the lectures and assessment (exams) would take place. Faculty management assured this process being possible by respecting 'a bottom-up approach'. It was always possible, however, to upgrade the prevailing situation by giving room to the more effective pedagogical and research novelties, unveiling new opportunities and improvements. A new knowledge gained could be a tremendous asset to all involved. The beneficiaries were both students and academics.

We offered to students both theoretical and practical ways to study AE. There is a lot of academic study of AE going on at very prominent universities, but there are very little that actually do it. Our interdisciplinary approach allowed that the most successful students were given the chance actually to practice 'science', not just talk about it. One of the most important features of our interdisciplinary Study Programme was, hence, to embrace entrepreneurship, and to develop an evidence-based decision making model in AE. Most students were truly eager to adopt this way of inter-changeable communication. The study curricula were set up to render possible this way of proactive engagement of our postgraduate students. The consequent results of this approach were apparent, especially in their research work; essays and final theses. The Programme produced 42 Masters of Science in Agricultural Economics and 6 PhDs. The most successful students in the research field (publication in the journals with journal citation report impact factor) were able to enter PhD directly without defending their Master Thesis first.

## 2.2 Bologna reform and after

The Bologna reform was implemented in 2006. It enabled further development of the Study Programme in the field of Agricultural Economics:

- Bachelor (1st level), Master (2nd level), PhD (3rd level);
- At least 60 ECTS (1 year) of PhD is organised;
- Vertical connection through Study Programmes:
   Agribusiness; Management (B.Sc.) >> Agricultural Economics (Master) >> Agricultural Economics PhD.

Such Programmes were unique in the Republic of Slovenia, and they still represent a strategic advantage of the University of Maribor. The PhD Programme lasted 3 years, where the 2nd and 3rd years were aimed for preparation of the PhD Thesis. All candidates had to publish a research paper related to their PhD Thesis.

In 2018 new rules were introduced for PhD Programmes at the University of Maribor. Their most important part were new Standards for PhD supervisors and teachers, as well as the requirement of publication of a paper related to the PhD where the PhD student must be the first author.

The teacher and supervisor must meet the criteria of scientific activity, which means that they must be the first or lead author of at least 3 quality publications in a period of 5 years. A scientific book, scientific book chapters (both from the current list of accepted publishers by the Slovenian Research Agency), and papers in journals with Web of Science Journal citation report impact factors from the first ¾ according to the impact factor. To run a Doctoral Study Programme, the individual Faculty must have at least 6 teachers that meet the criteria fully according to the Rules of UM (4 have to be employed at UM).

Likewise, the subject with respect to soft skills such as project management and research methodology were included into the curriculum as compulsory subjects.

The PhD program is currently composed as follows:

1st year is organised
 Compulsory subjects: Research methods in AE (6), Project Management
 (6) (transferable skills)

2 individual research works subjects (30)1 optional course from the list, chosen with respect to the PhD subject (24)

Years 2-4 preparation of the PhD Thesis

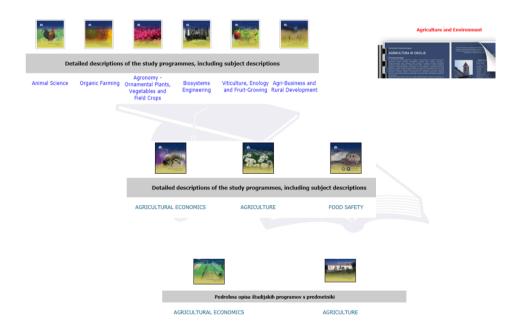


Figure 1: Vertical connection of Study Programmes at the Faculty of Agriculture and Life Sciences

Source: own

As can be gleaned from Figure 1 [2], the vertical connection of Study Programmes of the Faculty of Agriculture and Life Sciences at the University of Maribor [2] represents the main pillar of PhD Study Programmes. However, there is a possibility to study Agricultural Economics also from other fields (entry requirements are defined clearly in the admission rules).

Doctoral Study Programmes should be based on research activity, and PhD students should be included into existing research projects. In the case of Agricultural Economics this is not always true, because many students are employed at agricultural companies, or even run their own farms, and their PhD subjects can be related to a field from work. This presents an important connection of the Programme to the industrial sector, although it may not be in full accordance with the official policy of the University of Maribor, which says that a PhD should always be related to research projects.



Figure 2: Presentation of Agribusiness award to Dr. Matej Kolenko Source: own

In 2015 one of PhD students who developed informational solutions for his farm received an Agribusiness award from the leading financial newspaper, Finance. In general, it can be said that the Doctoral Programme has students from 3 different countries (Slovenia, USA and Serbia), and has a good academic reputation in Slovenia and wider. The coordinator of the Programme was one of the nominees for supervisor of the year by Mlada akademija, a leading society of young academics in Slovenia [5].

### 3 Conclusion

Many students have enrolled in our postgraduate Study Programme with the perspective of getting better job opportunities. Academia alone is unfortunately not enough anymore, but students need to be prepared effectively for the 'real world' after study. The interdisciplinary nature of AE can ameliorate their chances to get job in Agriculture, agriculture related activities and elsewhere. This is undeniably one of the major strengths of quality Study Programmes. One way in which we tackled this issue is through supporting students in launching their own businesses (farms), or encouraging them in starting research, or even an academic career. This is a very tough job indeed, but not an impossible one.

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