

# Academia-Industry Nexus Management

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The aim of this study is to discuss the importance of co-operation and separation between academia and industry. The academia-industry partnership is a feasible factor that affects innovations with students' transition to the job market. The empirical material was collected and analysed on the basis of data gathered by Slovene Human Resources Development and Scholarship Fund. The data applies to several academic-industry network projects founded by the aforementioned organisation. The case study of the survey outlines four project cases conducted by Faculty of Business, Management and Informatics. The results reveal exercises to exchange expertise and experience, helping the industry to become more competitive whilst offering students better employability and career prospects.

*Key words:* academia, industry, innovation, case study

## Introduction

To look ahead, to be farsighted, to be creative, to win, to solve problems, to be efficient - all these concepts are in close relation to the cool society in which we live (Srića 2016). Consumers are more aware of the new possible means of acquiring goods. Nowadays, transactions can be completed almost instantly using an internet application. Consequentially, companies are aware that it is necessary to develop relevant services that are adapted to the modern consumer. Firms have to be able to offer unique contents in comparison to their competitors. Due to different implementations, they represent an added and compelling value (Rudy and Johnson 2016). With the development of the four projects, we wanted to incorporate the contemporary characteristics of modern society, the nexus between academia and industry (Bartunek and Rynes 2014). This study follows previous studies on the academic and practitioner relationship of Bartunek and Rynes (2014). Business research often bears little

resemblance to business practice. Although this academic-industry gap is widely recognized and frequently lamented, there is little debate about how it can traverse (Bansal et al. 2012; McInerney 2015; Bartunek and Rynes 2014). But the topic is more than relevant at present times.

Moreover, an effective collaboration between academics and companies is essential for nexus in management (Bansal et al. 2012). Primarily, it can motivate a research theme relevant to trade. Secondly, it encourages implementation of fact-findings (Bartunek 2014). However, conducting collaborative research is not always easy.

Modern higher education initiate spectrum of competences to the students. The competences students can achieve during their studies. In this article we introduce four projects that students are involved with in order to achieve relevant job market competences (Gnanlet and Khanin 2015). The objective of the paper is to introduce the partners that they are involved with in academia-industry nexus (Bansal et al. 2012). We present the case study (Slaughter, Archerd, and Campbell 2004) of academia-industry partnership in Slovenia.

To the best of our knowledge, there has not been any previous publication that focuses on this topic for Slovenia. Additionally, there is scarce debate about this topic (Bansal et al. 2012). Moreover, we discuss the benefits, working conditions, time dimensions (Bartunek and Rynes 2014), project methods and results of the four projects conducted by the Faculty of Business, Management and Informatic (FBMI). The foundation partner involved is the Slovene Human Resources Development and Scholarships Fund (SHRDSF).

This article provides an academia-industry nexus management based on a literature review (Mawdsley and Somaya 2016). The case study (Bartunek and Rynes 2014; Bhaskar 2008; Heinonen 2015) with students, business executives and the academicians involved (Müller et al. 2013) hand out. Much of the research deals with the business's perspective. Usage of the third sector and non-profit management methods are a relatively new field of research (Schiller and Almon-Bar 2013), but not included in recent research yet.

The paper is structured as follows: in the next section (section two), we review literature on academia-industry partnerships to derive similarities and differences. In section three, we describe our methodological approach before (in section four) we analyse and discuss current trends based on empirical insights. The paper concludes by providing implications and suggestions for future research (section five).

## Literature Overview

Higher education institutions are going through turbulent times (European Commission 2014). Hitherto have the expectations of their potential contributions (Selsky and Parker 2005), conceptualization (Molly, Ployhart, and Wright 2011), teaching methods and syllabus (Cabantous and Gond 2014; Myers, Hill, and Harwood 2005) been so high. Simultaneously, doubts concerning the quality and execution of higher education institutions have never been so critically evaluated or universal (European Commission 2014; Lee 2014). Three different approaches would be required to study academia management (Bansal et al. 2012; Bartunek and Rynes 2014; Mawdsley and Somaya 2016; Selsky and Parker 2005).

Firstly, students and academicians can achieve independently, e.g. from internationalization (Biloslavo and Panjek 2011) and mobility (Mawdsley and Somaya 2016; Flander 2011) in academia. In a recent study, Gričar and Neary (2016) introduced prospects of student and staff mobility and the consequences of internationalization based on semi-structured interviews. The results demonstrated slight nuances between student and staff perspectives. The new paradigm in the European Union (EU) is that students who went abroad will be employable and suitable to become employers in Europe (Li and Lowe 2016). Alternatively, students studying at higher education institutions in their home country will gain lower skills and may be forced to search for jobs without the specified skills. Differences are also evident between languages and cultural determinates which generate the ability to understand the path to broader thinking (Gričar and Neary 2016).

Secondly, academicians should be inter-sectorial mobile (Choi and Tang 2016). As modern science fundamentally requires team effort, inter-sectorial collaboration (Selsky and Parker 2005) should be rewarded as stated by the European Commission (2006). Internal academic and career appraisal systems, as well as performance indicators, are essential to encourage researcher mobility, claim experts (Mawdsley and Somaya 2016). Good grades now mean better career prospects later on. Collaboration can also be one of the criteria taken into account when appraising institutions and academicians. Prizes and awards are another way of repaying the more upwardly-mobile scientists in cases of individual excellence (European Commission 2006).

Incentives for better working and salary conditions should be provided through inter-sectorial (also related to international) mobility

through internal academic appraisal systems. However, inter-sector mobility should not be enforced (Selsky and Parker 2005). Criteria for appraising inter-sectorial mobility should be linked to the benefit of the host institution, the researchers' group, or the individual academicians. Examples of criteria are: co-publications with the business executive partner (publications are important for industry reputation), list of contacts, launching of cooperation projects, commercialisation, and start-up or spin-off experience even for failures (Lee 2014).

Thirdly, we shall discuss academia-industry (management) nexus (McInerney 2015). Recent literature concerning this nexus (Bansal et al. 2012; Bartunek and Rynes 2014; Mendoza 2014) starts with a brief overview of the historical developments leading to the knowledge economy. Subsequently, this section offers a critical review of the literature primarily published on academia-industry management nexus. European higher education institutions have developed into a complex academic environment in which individuals and organisations increasingly compete for material, human and symbolic resources (Mendoza 2014; Lee 2014).

Mendoza (2014) investigates industry-academia linkages with particular attention on conceptualizations for future investigations. Higher education struggles to balance its public mission with market pressures to remain competitive. Whilst competition spurs institutions towards efficiencies, too much drives assignment out of their decision making (Bartunek and Rynes 2014; Slaughter, Archerd, and Campbell 2004).

The boosters argue that academia-industry management nexus are useful to transfer academic research to society and aid academia by having a socially relevant impact (Roessner et al. 2013; Philips et al. 2015). Boosters worry that such nexus dwindle basic academic work, knowledge for the purpose of knowledge, as well as free interpretation (lay out) of findings (Slaughter, Archerd, and Campbell 2004). In our recent study we have adopted intermediate positions around notations of complementarity and differentiated boundaries supported in the literature by Szelenyi and Bresonis (2014). There are surveys to explain how knowledge from the investigation flows among and between project managers and project management office members (academicians), using a mixed-method approach (Müller et al. 2013).

The academia-industry nexus is one of the most captivating, productive, and important networks in business discovery and development, albeit not always harmonious (Molly, Ployhart, and Wright

2011). The latter is an example from the natural sciences (Sanchez-Serrano 2011). The impact of academic findings has governed every aspect of business development, from the initial identification of targets to the understanding of economic and knowledge pathways of students, academicians and business executives. Consequentially it may be surprising that despite the great productivity of the academia-industry relationship, interaction between academia and industry in recent years has been under attack (Sanchez-Serrano 2011; Bansal et al. 2012). The authors explore these important issues as part of this paper and launch a case study to improve this and following nexus. Since the middle- to late-1800s, business has had an extremely close nexus with academia (Sanchez-Serrano 2011).

Without the chemical, physiological, and biological academic discoveries that have taken place in Europe throughout the 18th and 19th century, the pharmaceutical industry would never have come into existence. In times of service, there is need for co-productive academia-industry nexus in the service economy for innovations and for higher gross domestic product (GDP). The latter appertain even colossally for developed and East European countries (Mihók et al. 2015).

Slovenia should take a path of Western counties (Mihók et al. 2015) whilst launching the benefits for innovations and higher GDP (Juselius 2009). Since the industry's early years, when universities in France, Britain, and particularly Germany (followed by universities in the United States) provided the industry with a massive prosperity of expertise and innovation that were translated by an industry into products and more recently into services. The impact of academic discoveries has enormous influence on new products and services (Sanchez-Serrano 2011).

Scientific collaborations between academia and industry have a long history in the United States and in other countries, reported Haller (2014). The ethical pitfalls of scientists and their patents dealing directly with industry stimulated much public discussion as studied by Haller (2014). This evolution is discussed, and recent developments with models of possible productive collaboration and rules are engaged.

Other authors also analyse aspects of nexuses with academia. Kamitani et al. (2013) analyses government-industry-academia collaborations in Japan from the view point of compatibility and motivating factors to collaborate among partners. The strategic motivation is not directly related to government-industry-academia collaboration outcomes, but rather the leadership of government that

is essential towards the results. Saguy's (2013) percept to academia-industry nexus is innovation. A review of the literature (Misterec and Lewicka 2014; Saguy 2013) demonstrates that innovation may be defined in various ways. This is including its narrow technological aspect and wider capture considering organizational and process changes in companies. Innovation is the application of a new: idea, invention, technology, model, or process to a product or service that satisfies a specific consumer need and can be replicated at an economical cost (Heinonen 2015). Innovation creates value and plays a vital role in growth and social well-being (Saguy 2013). Innovation contributes to economic growth (Karasek and Dermol 2015).

The motivation of our research comes through the four projects made in academia-industry nexus management over the past two years, e.g. 2014 and 2015 (see <http://pkp2.altervista.org>). Projects were formed at the FBMI. The organization was a project carrier. The purpose of the paper is to induct increasing academia-industry collaboration into economy and management (McInerney 2015). The first objective of the paper is to present an overview of the literature. The second is to provide a case study of recent academia-industry nexus.

### Methodology and Data Collection

Mounting economic coerce, environmental provocations, diminishing resources, the exponentially accelerating pace of science and knowledge development, and the proliferation of open innovation call for a resume estimation of academia-industry relationships. Fundamental research as the sole power of academia is not extensively sustainable. Time is precious, it is our responsibility to provide leadership, conviction, to encourage and embark upon this journey to stimulate efforts and institutionalize innovation (Haller 2014; Saguy 2013).

An explanatory case study was conducted to understand the comprehension flows between academia members (students, academicians) and business executives. The underlying philosophical standpoint is critical realism (Lawson et al. 1998, Bhaskar 2008) whereby an underlying objective reality is assumed through the mechanics of project structures, giving rise to events of management. These in turn encourage to the subjective reality of experiences, such as knowledge exchange within the project management community (Müller et al. 2013).

An embedded case study approach design with a multiple unit of analysis was used for this study (Yin 2009). A sequential mixed

method approach (Teddlie and Tashakkori 2010) primarily allowed for a qualitative study to understand the organization of projects and its structures, processes, roles, and responsibilities, especially in terms of the project management community; Secondly, for subsequent developments of findings across an entire study. A social network is hereby defined as a specific set of links amongst set persons, with the additional property that the characteristics of these linkages as a whole may be used to interpret the social behaviour of the persons involved (Müller et al. 2013).

Data collection was conducted through a created case study database. The roles of written databases are case study notes, documents, tabular materials and narratives. All the documents are made available upon request. All documents are saved in the cloud.

Academicians of the following higher education institution were involved: FBMI. Students of the following higher education institutions were involved: FBMI, Novo Mesto, Faculty of Health Sciences of Novo Mesto, Faculty of Information studies in Novo Mesto, Faculty of Economics in Ljubljana and Podgorica, Faculty of Business and Management Sciences of Novo Mesto, and Faculty of Chemistry and Chemical Technology in Ljubljana. Associated business executives were: Repa system solutions - retail sale per mail, Gašper Repanšek, Vigros - wholesale and retail, Idearna - advertising agency, and Stor, Dorian Savič, involved in the sale. The funder of the projects was SHRDSF.

### Empirical Insights

Academics seek data for publication and funding to support their research (Frieske et al. 2015). Given the nature of the phenomenon, our empirical research mainly relies upon a qualitative exploratory research approach based on project work and document analysis.

The Europe 2020 strategy is focused on the EU capacity to create millions of new jobs to replace those lost in the past economic downturn. European Commission provides future standards of living. The quality of live will depend on the innovation ability of products, services, business and social process (Saguy 2013).

### CASE STUDY

The businesses for this case study are small and medium sized enterprises (SME) of development and manufacturing services with headquarters in Slovenia. Recently, Repa.si, Stor, Vigros and Idearna undertook a position by adding a project to the creative path towards practical knowledge (PKP) (Gričar, Rodica, and Bojnec 2016) to their

TABLE 1 Number of Project Collaborated Academia-Industry in 2014/2015 Overall in Slovenia

Number of projects	2014		2015	
	Slovenia	FBMI	Slovenia	FBMI
Applied to the tender	312	2	598	5
Grant received	211	1	246	4

NOTES Adapted from Javni sklad Republike Slovenije za razvoj kadrov in štipendije (2016).

business process. They have had been elaborateness by business executives. The academia institution for this case study is FBMI.

This shift towards objectification of academia-industry nexus was identified in the case study also as project management. PKP project management is a well-established and recognized discipline within FBMI, Repa.si, Stor, Vigros and Idearna. The majority of managers are highly experienced, complete with professional project management certification which is granted internally. PKP project management is well structured and formalized within this institution.

An assignment of PKP project managers to projects is contingent upon the project type, scope and importance of the projects. PKP project managers are appointed from the ranks of academicians, academic managers and business owners, unit managers or technical experts. PKP project managers are consulted from the student body when it comes to performance evaluations of the PKP project.

The majority of projects are shorter than one year and are of the operational service type, such as internet sites, sandwich management, cost calculator and new regulations. There are eight individuals within the institutions, each located in different units. Collectively they form a (virtual) corporate, led by a PKP manager who reports to the president of the project applicant and to the funding organisation. Elaborateness were functional in 2014 and 2015, accompanied by almost 35 students in four different PKP projects.

The academician PKP mission was to facilitate, organize, and manage the PKP project as a way of doing work. This virtual corporate PKP consists of four sub-units. Each sub-unit consists of PKP project managers (academicians, business executives) and students. Each sub-unit has a student leader (imitator). The first group is named Development of a Mobile Application for Ordering a Service and a Recipe/Standard for a Sandwich with a Mobile Application (Sandwich). The second nomenclature is the calculation of transportation costs for SME (TransCost). The third nomenclature is an e-guide for allergens under the new regulation (E\_PA). The fourth nomenclature



is an application for recognizing the essence of herbs (H4U). The aforementioned nomenclatures were also the titles of the projects funded by SHRDSF. In table 1 we present the projects. Firstly, the ones applied to the open tender. Secondly, the true projects that have been in progress in Slovenia and at the FBMI. We can see that at the second tender in 2015 we were the prizewinner by 80%, whereas the overall Slovenian success was 41%.

#### DEFINITION OF PRACTICES

The definition of practices includes the development of methods, processes and techniques. We have used three methodological approaches in the PKP project assignment. We have studied scientific and expert literature that covers the theoretical knowledge regarding the nature of the PKP project. Based on this study of the literature, we have defined the activities of the project. The project assignment has been performed with different methods distinctive of interdisciplinary and multidisciplinary projects (Molly, Ployhart and Wright 2011).

This is executed according to the testing and weighing of ideas, the presentation of results, their meaning and implications in the PKP projects regarding the studied service and its problems. Although the stress focuses on the methodological steps, the core of the project assignment is the applicative transfer of knowledge amongst the economy, the students and the higher education institution within the set activities of the PKP projects.

The set activities were carried out with several methods that are typical of scientific research and professional work. In the PKP projects fields, we used methods of: mechanical and thermal treatment of foods, methods of food safety, planting, herbs recognising and production of primary foods. When defining the computer programming and programming language that we used: the working methods in the computer room, modelling, computer-aided planning and the basic and advanced methods for working with files. The project also includes the scientific methods of sensory analysis, the survey method, the comparison method and the method of describing and summarising. For the quantitative definition of the PKP project assignments, we have also incorporated the methods of descriptive statistics.

#### AUTHORIZING AND VALIDATING OF PROJECTS

The findings of an academia-industry collaboration in Finland (Pohjola, Puusa and Iskanius 2015) indicate that although the experi-

ences of working in collaboration were mainly positive, the forum was not designed to be company oriented. Instead, the higher education institutions and the research organisations were the most beneficial. While higher education institutions engage in discussions at an abstract level, companies value more concrete tasks and measurable results. We also noticed that companies, unlike higher education institution, do not have the mechanisms to take advantage of the knowledge and utilise it to enhance their dynamic capability (Bartunek and Rynes 2014; Pohjola, Puusa and Iskanius 2015).

The PKP classifies projects as first class. This categorization is a composite of several measures of project scope, complexity and the importance of academia-industry nexus (Gričar, Rodica, and Bojnec 2016). Such examples include the academicians actively directing the students towards achieving the set objectives of each project.

Secondly, the academicians direct students towards the purpose of each project. Thirdly, the business executives actively participate in the implementation process of the project. Fourthly, the business executives introduce the students with the virtual work and sale – advantages, disadvantages, opportunities and competences. Fifth, the business executives actively introduce the students with the working process and guide them towards the parts of each project that are connected to the research in the project. Sixth, the students develop the project and form it together with the managers. Seventh, the students keep a progress timeline/report on the project and of the status of the project in the time when the project implementation is in progress. Eighth, the students acquaint themselves with virtual organisation and availability in the market. Ninth, the students prepare the final report alongside the academicians. This report contains information regarding who, when and how they have contributed to the realisation of each project. Tenth, the business executives and PKP manager prepare the final report on the performed project and give an opinion about the status of the project for further work. Eleventh, in the final phase of each project the working mentor evaluates whether the process is capable of competing on the market. The working mentor also specifies the intellectual property amongst the students and the company.

#### BRIEF OVERVIEW OF THE ACADEMIA-INDUSTRY NEXUS MANAGEMENT IN SLOVENIA

The mission of higher education institutions includes teaching, research and community service. This mission would inform graduates with up to date knowledge, carry out applied and basic re-

TABLE 2 Brief Overview of a Case Study of Academia-Industry Nexus Management

PKP projects	Duration	Companies	No. of students
Sandwich	6 months (2014)	Repa.si	5
TransCost	6 months (2015)	Vigros, Idearna	7
E_PA	6 months (2015)	Repa.si, Stor	10
H4U	6 months (2015)	Vigros, Idearna	10

NOTES PKP – path towards practical knowledge.

search for worldwide assist and finally serve the local/global community (Hanieh et al. 2015). Hanieh, et al. (2015) have shown a weak academia-industry cooperation in Palestine. They conclude that European experience of industry-academia partnership can be the base for developing similar programs and activities for Palestine and other developing countries. The brief overview of the Slovenian case study is tailored in table 2. In order to close the gap between academia and industry it is suggested to implement a syllabus improvement by including sustainability concepts and improving teaching methods (Gričar and Neary 2016).

Signing academia – industry nexus agreements is considered as the first step in building industry – academia partnership, but it is not sufficient as far. These nexus agreements have to emphasize the social equity, economic prosperity, environmental protection and global control, whilst solving the industrial technical and logistic obstacles. Cooperation may include carrying out scientific research activities and applying the results of these academicians to solve real problems within industry. The current partnership situation at the FBMI in Slovenia is presented as a case study in table 2.

The project Sandwich presented a unique chance to develop one of the business ideas in the field of natural science. The preliminary planning of the project was formulated by students and was based on searching for ideas and brainstorming development possibilities and the later upgrade of the product. Whilst developing the idea, we were connected and working alongside the Slovene company REPA. The web page of the project is <http://pkpsandwich.weebly.com/>.

The purpose of the User's Guide manual of the project 'TransCost' is to explain the usage of application and steps that have to be undertaken for the successful calculation of transportation costs. The steps in the guide are explained in order as they correlate with the application. These stages are numbered from 1 up to the last step in a single tab. You will be able to see and use two specific cells that require a numeric or verbal input. Regardless of the type of input,

each cell will directly perform an act within the application or indirectly within the chosen tab. Certain cells in excel are locked and are not meant to be used or modified by the user. Because the business needs the application for transport cost calculation we worked with Slovenian companies Vigros and Idearna. The web page of the project is <http://transcost.altervista.org/>.

The project 'E\_PA' presented a unique chance to develop one of the company's business needs in the field of natural sciences. The result of the academia-industry cooperation is a modern step to the allergens. The information given to the customers should be clearly stated in the restaurants, shops, and everywhere the customer could purchase non-packed food. The print of the allergens from the Excel sheets is user friendly and easy to manage by employees. Whilst developing the need, we were connected and working with the Slovene company Repa.si. The project is unique in its development of interdisciplinary and multidisciplinary in the fields of numerous expertise. This nexus included gaining various types of knowledge in fields such as: food technology, cooking, computer programming, internet use, econometrics, market research and computer networking. Web page of the project is <http://alergeni.altervista.org/>.

The sole purpose of the H4U web page is to provide useful information for daily use to each person. We presented in one place most of the illness symptoms and its natural solutions. The essence of herbs are studied for the relevant information's posted on the web page. Students have been working with the industry to prepare a user friendly web page. Nexus of academia-industry has been evaluated as part of this project. The web page of the project is <http://zelisca.info/>.

We identified communication channels for reporting and communicating about the tasks related to the project (European Commission 2012). We assessed the progress made on the tasks we were assigned on a weekly basis. Moreover, we agreed to publish our work on the Cloud storage based solution, Google Drive. The latter is convenient as it enables the modification of documents that are used regularly. Everybody involved had full access to a Google Drive PKP group and its files. Managers were monitoring the students' progress on the project with internal Google Drive files. An additional advantage of having managers was the broad knowledge of inter/multidiscipline areas that they offer. During the project, we paid specific attention to how we could communicate more with the public, as well as with potential stakeholders also emphasized by the European Commission (2012).

## The Statements and Discussion

There are several implications to the society from the PKP projects. This is most essential with regards to fashionable forces affecting dialogue process associated with academic-industry nexus. As we have indicated, these nexuses are not separate from management forces. The SHDRSF is one important example which makes SHDRSF recent movement away from Slovene Research Agency. The latter based almost entirely on scholarly impact to research excellence. On the other hand SHDRSF make formation that explicitly includes the impact of the research on practice as a way of assessing scholarly outputs. The Slovene government is playing a role in the ongoing academic-industry nexus.

In other words, this is a time when the proposed new system suffers from a set of internal contradictions regarding dimensions of academic-industry nexus are particularly important. Thus, it provides an exceptionally good opportunity for academicians to reflect on the rigidity we are undergoing in this domain of economics and management and consider what we need to do to keep going the appropriate degree of undergoing as opposed to trying to resolve the gap in academia-industry nexus gap. The statements of some people involved in the present academia-industry nexus management, can summarize the case study findings.

‘The man who moved a mountain was the one who began by carrying away small stones.’ This old Chinese proverb from philosopher, Confucius, served as a guidance throughout the business idea and is simultaneously my life motto. If we wish to see something magnificent and stable, our start must first be made of small steps. The latter relates to either the final goal of achieving business, or personal ambitions, wrote by a student.

The project PKP is an awesome idea! All work following the formal education is practical and students need more prior knowledge of practical work. Above all, the project team required team work, coordination, the sharing of ideas and the gaining of new experiences. As a sole trader, I find these kind of projects invaluable because they inspire new perspectives on life and business that the academia can gain, as well as new trends that exists amongst youth. I am satisfied with the execution of the project which has exceeded my expectations. In addition, ‘I am pleased with how much the students were involved in the project and their enthusiasm,’ wrote the owner of the company.

I observed the progress of the project with great enthusiasm, in

particular how the team had approached potential problems: with initiative, innovation, dedication and hard work from academic and business executors. The project consisted of practical experiences, specific competences, knowledge and skills that are essential in today's competitive market place. Evidence of this latter statement can be seen courtesy of the two members of our team who found employment directly after this project. There will soon be a third, pending another member's completion of formal education. Connecting formal education with the economy through this kind of project is warmly welcomed and I hope that this is only the start of something greater to come wrote a person of the project applicant.

Since the beginning of participation in the P&P projects, I have enthusiastically introduced and involved my staff and the headquarters. The new 'TransCost' application of cost calculator and H4U essence web page of herbs has been recognized as a tool of company work. Therefore, the business decided at the beginning of the P&P project to actively participate. Consequently, through the active participation in the P&P project, 'TransCost,' we have again delved into the cost of transport. Previously, it was 'over the thumb.' For our conclusion, we manage to correlate new business partnerships said second of the business executors involved. The state is suitable for cross-sector partnerships as an effective mechanism for private environmental governance, mentioned and measured empirically by Hahn and Pinkse (2014).

The first Slovenian study on academia-industry nexus topic. One benefit of our approach may be in opening up the debate about the academia-industry nexus management beyond groups of academics to include industry more entirely.

## Conclusion

The foregoing study sheds light on facing industry and academia nexus management in Slovenia. The contents are summarized by the gap existing between the two mentioned sectors in economy and managers. A brief study for the situation of higher education institutions and related obstacles has been discussed, showing some data and an overview of the teaching/learning techniques. The status of industry has also been discussed, showing data and the activity that need to be undertaken. Some references and experiences from other countries have been illustrated here for comparison purposes.

The future perspectives of academia-industry nexus management, the analysed case study has been introduced. In this co-funded model, the awareness and market needs feedback is used to create

modern techniques capable of nexuses the two sectors to each other. Three sides have been included in the nexus – business executors and academicians. The latter consists of students and teachers or researchers.

Finally, this academia-industry nexus management can have the opportunity to see day light if it is applied on two tracks. The first is based on syllabus development, whilst the second track is based on making modern structural economic policy and innovative quality management strategy.

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