

# Chapter 27

## The University Challenge in the Collaboration Relationship With the Industry

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### ABSTRACT

*Universities suffer from the impact of (1) life cycles associated with technological innovations, (2) the globalization of the economy and culture, (3) the educational needs of an increasingly knowledge-driven society, and (4) the training needs for high-performing professional activities. Solutions to these factors may be found in a positive attitude toward knowledge sharing and collaboration relationships. Collaboration has been considered a way to address the challenges of the 21st century, fostering the necessary innovation, growth, and productivity for all parties involved. Several studies reveal that collaboration can be strongly influenced by knowledge sharing. Collaboration relationships, besides the creation of new knowledge, may result in several outcomes and benefits for the university and society. This chapter aims to address and discuss the university challenges in the collaboration relationships with the industry based on the main results of some empirical studies developed during a research project.*

### INTRODUCTION

The diversity environment that characterizes the universities propitiates the development of sub-cultures, transforming their communities in complex social organizations composed by diverse cultures, and predominating the academic freedom and autonomy (Sporn, 1996), where close control can induce negative reactions (Starbuck, 1992). Besides this scenario, universities nowadays suffer from the impact (i) of life cycles associated with technological innovations (Gill, 2002); (ii) of the globalization of the economy

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and culture; (iii) of the educational needs of an increasingly knowledge-driven society; and (iv) of the training needs for high-performing professional activities (Bruckmann & Carvalho, 2014; Duderstadt, 2001). Solutions to these factors - which constitute major reasons for a change in universities around the world - may be found in a positive attitude toward knowledge sharing and collaboration relationships.

Knowledge sharing is needed to integrate the different disciplines, ideas, and knowledge of the institution's members (Nissen, Evald, & Clarke, 2014). On the other hand, collaboration refers to the relationship and high level of knowledge sharing between team members (Nissen et al., 2014), and is the creation base for new knowledge (Tan, 2016). Collaboration has been considered a way to address the challenges of the 21st century, fostering the necessary innovation, growth, and productivity for all parties involved. Several studies reveal that collaboration can be strongly influenced by knowledge sharing.

Like in the business sector, universities should encourage and promote internal and external collaboration. Collaboration relationships, besides the creation of new knowledge, may result in several outcomes and benefits for the university and society.

This chapter aims to address and discuss the university challenges in the collaboration relationships with the industry based on the main results of some empirical studies developed during a research project.

## **BACKGROUND**

### **The Collaboration Relationship Between University and Industry**

Today, universities are under intense pressure, motivated by the knowledge society and by the internationalization of institutions, where creativity, innovation, and entrepreneurship emerge as essential elements of competition. This scenario requires a focus shift from inter-organizational collaboration to intra-organizational collaboration, for the purpose of achieving other sources of resources, knowledge, and needed skills (Freitas & Verspagen, 2017). Collaboration has been considered one way to address the referred challenge, helping in the promotion of innovation, growth and productivity which are necessary for all parties involved.

The term “university-industry collaboration relationship” should be understood as an activity that involves the interaction between teams composed of people from academia (teachers, researchers and students) and company professionals. As suggested by Wohlin (2013), when universities enter into a collaboration relationship with the industry, they should not see it as just a place to study, but rather as a partner to do the study with. The objective of this collaboration is to create and share knowledge and technology, with neither party being relegated to a simple case study (Schubert & Bjør-Andersen, 2012). This collaboration is expected to benefit the related members and teams (teachers, researchers, students and professionals), the organizations that establish the relationship and, consequently, the surrounding society (Boyarchuk, Kharchenko, & Sklyar, 2018). According to Gray's view (1989), collaboration itself is not a solution, but an enabler in bringing about added value. To collaborate successfully, considerable effort is necessary (Gray, 1989).

Although both the university and the industry recognize the potential of the relationship, this is complex and often appears threatening to the organizations involved through value and objective conflicts. That said, it is not always easy to involve difficult issues, such as processes not clearly defined or management difficulties (Diamond & Rush, 2012; Gray, 1989). The university-industry collaboration relationship is characterized as a relationship between partners with different organizational and cultural

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