Driving Factors for Converting Teaching-Oriented Universities Into Entrepreneurial Universities: A Turkish Case Study

Serdal Temel, Ege University, Bornova, Turkey
Susanne Durst, University of Skövde, Skövde, Sweden

ABSTRACT

In order to accelerate economic growth, many countries have developed and implemented different programs and mechanisms. Benefiting universities’ knowledge production and human capacity are one of those mechanisms and therefore entrepreneurial universities, in particular, are considered as a strategic factor in order to realize this target. While in many advanced economies, mainly in Europe and United States, entrepreneurial universities have been established over the years, but this has not been realized in emerging economies. Against this background and the activities found in Turkey, this article sheds light on the current state of Turkish universities regarding their development into entrepreneurial universities. Main findings show that existence of IP policy and TTO is driving factors for entrepreneurial universities. In addition, IP awareness activities in the campus, novelty search and using patent during academic promotion motivates universities to become more entrepreneurial.

KEYWORDS

Emerging Economies, Entrepreneurial Universities, Innovation, IPR, R&D, Technology Transfer Offices, Turkish Universities, University-Industry Collaboration

INTRODUCTION

Innovation has been defined as one of the main engines of competition for companies and for this reason countries implement different approaches to enhance their innovation skills. One of them is developing external linkages and by taking advantage of opportunities the companies developed from information outside their own firm boundaries. External partners that provide firms with new information could include organizations such as universities, public sector organizations, competitors, suppliers and customers in their own or in related industries.

Specifically, small and medium-sized enterprises (SMEs) are should benefit from these external organizations (Egbu, Hari, & Renukappa, 2005) because of their natural limitations. The impacts of regional and national innovation strategy and also collaborations between universities and SMEs are currently the major concerns of technology and innovation policies in many emerging economies. The underlying assumption is that a greater focus on university collaboration will contribute to the knowledge assets of SMEs, which will, in turn, make them more competitive in a global economy.

Universities are one of the important sources of information and knowledge to develop better and more competitive products in emerging industries (Feldman & Kelley, 2006). Innovation in
In this context refers to the creation and successful introduction of new products and processes in the market place. As such, university-industry link has emerged as a key component of the national innovation system. However, universities no longer confine themselves to their traditional roles in teaching and research but are increasingly engaging in entrepreneurial and business activities known as ‘third stream activities’. This phenomenon is attributed to the pressure exerted on the universities to commercialize their research findings to generate revenue to cover some of the operating costs including research costs. The success of many academics as entrepreneurs in various technology fields has also contributed to this trend. The direct involvement of universities with industry can be seen in activities such as research funding, training partnerships, and technical services contracts. Apart from these, the industry also sponsors research centers and researchers and offers sponsorship or endowment of chairs (Laursen & Salter, 2003; Siegel, Westhead, & Wright, 2003).

Over the last 25 years, universities have been acknowledged as one of the main sources of competitiveness; but, some of the research has suggested that only advanced economies benefited from the universities for innovation (Mian, 2003). Therefore, the universities in emerging economies should learn from the practices of universities in advanced countries such as the Europe and USA. It is obvious that this is a big challenge for universities as regards funding, quality, and relevance (Mian, 2006), especially in emerging economies.

Advanced countries have already created different methodologies to maximize their benefit from including technical and human resources of universities as much as possible. Techno Parks, incubation centers, contracted research with industrial partners and Technology Transfer and Licensing Offices are some of those instruments that have been implemented to achieve and to develop value-added services and products. The expected outcomes are to accelerate the growth of economies including. However, despite the numbers of highly-skilled people, laboratories, company needs, and demands, dynamic and enthusiastic students many projects to develop technology have not been successfully brought in the market because of the limitations both in the national innovation ecosystem and academic entrepreneurship (Schramm, 2004).

Innovation and entrepreneurial ecosystems in most emerging economies not mature yet and there are still a number of problems that need to be overcome. One of the reason is that in many universities in emerging economies are mainly focusing teaching and thus there is almost no time and motivation for researchers to collaborate with industry and to develop research projects that may bring a new technological product to the market. The other reason is that intermediating organizations such as university-industry collaboration centers and Technology Transfer Offices either do not exist or are recently established and therefore there is not established capacity to provide necessary services to the researchers. Furthermore, researchers are also not very experience about benefiting from these offices. Thirdly, IPR policies which define the rights and responsibilities of researchers of universities are not yet defined or if available these rules and regulations are not very encouraging for innovation and entrepreneurship. Last but not least, in place of developing and producing high value products and services, the companies in emerging economies mainly focus on mass production, and therefore collaborations with universities are very limited. Furthermore, those universities which manage to overcome these barriers and actually produce products from research results often realize that the demand or interest from national industries or from multinationals located in emerging countries, is extremely limited even non-existing, indicating the lack of a suitable eco-system.

The aim of this paper is to define the role of different types of instruments intended to support the formation of entrepreneurial universities in emerging economies, in order to help close the identified gap, using the data from Turkey. Based on the last 10 years of economic performance, Turkey is classified among emerging economies (World Bank, 2015) and it is trying to benefit from universities as a source of economic growth. Although the Turkish state has started supporting innovation and entrepreneurial activities much later than many developed countries, it has set up different programs to create direct links between universities and industries and introduced new programs to initiate academic entrepreneurship (Temel at al., 2013). Currently, there are 77 Technoparks, established at
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