

Impact of Institutional Framework for Academic Entrepreneurship and Innovation

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Abstract

Academic entrepreneurship has undergone significant transformation in recent years. It pertains to the initiatives undertaken by universities to facilitate the commercialization of intellectual property within the university premises and the surrounding regions. There is one significant outcome resulting from this paper. That universities/academic institutions have adopted a more deliberate and calculated approach in their execution of this activity, displaying a heightened level of strategic thinking. The paper contended that it is opportune to reconsider the concept of academic entrepreneurship. In order to enhance the rigor and relevance of future studies on the topic of academic entrepreneurship, it is imperative for theoretical and empirical research to acknowledge and consider these changes. This paper presented how academic institutions impact essential research inquiries that must be explored in order to expand our comprehension of academic entrepreneurship and innovation.

Keywords: Academic Institutions, Entrepreneurship, Innovation

1. Introduction

In recent years, there has been a notable surge in the attention given to academic entrepreneurship. As a result, university spinoffs (USOs) and entrepreneurial academics are now being recognized as significant contributors to the emergence of novel and often transformative ideas. Based on empirical evidence, many studies on academia and entrepreneurship indicates that universities play a crucial role in fostering innovation and driving economic growth at both regional and national levels (Bienkowska, Klofsten & Rasmussen 2016; Marzocchi, Kitagawa & SánchezBarrioluengo 2017). Therefore, it is essential for academics, practitioners, and policymakers to comprehend the process and possible consequences of academic entrepreneurship, which may be roughly defined as the commercialization of scientific research findings (Balven, Fenters, Siegel & Waldman 2018).

The importance institutions contribution for academic entrepreneurship has been widely recognized in the literature, evidenced by the notable increase of relevant publications in the past years (Gümüşay and Bohné 2018; Zavale and Langa 2018). Prior research signals the potential to better understand this phenomenon at the individual, organizational, and thus at institutional levels (Hayte, Nelson, Zayed & O'Connor 2018). Based on the recent developments and governmental initiatives, academic institutions are challenged to balance more traditional activities of education and research with increasing commercialization efforts (Galan-Muros, van der Sijde, P., Groenewegen & Baaken 2017). This has facilitated the development of various research threads in the academic entrepreneurship literature, which has focused on antecedents and consequences of entrepreneurial universities, the process and key determinants of USO development,

and the entrepreneurial competencies of researchers engaging in research commercialization activities (Hayter et al. 2018; Mathisen and Rasmussen 2019).

The presence of academic spinoffs has been shown to have a positive impact on the economic development and prosperity of the areas in which they are situated (Vincett, 2010). According to the knowledge spillover assumption of entrepreneurship, academic spinoffs possess the capacity to assimilate information produced by universities and then translate it into economic knowledge, hence facilitating economic development (Acs, Audretsch & Lehmann 2013). A broad agreement has emerged in Europe about the need of promoting knowledge transfer initiatives and engaging academic staff in the process (Siegel and Wright, 2015). Numerous developed countries have developed coherent methods. But policy restrictions pertaining to academic spinoffs have been established with the intention of providing incentives for their success, irrespective of their actual effect. The absence of targeted strategies has resulted in the preferential development of enterprises exhibiting both high-growth potential and bad economic performances (Mathisen and Rasmussen, 2019). In recent years, there has been a growing belief that university spinoffs do not achieve the same level of performance as their startup counterparts (Salvador, 2011).

In order to comprehensively assess the tangible effects on the geographical area in which an academic innovation operates, as well as its overall success, it is essential to conduct an examination of the underlying reasons for its establishment (Hessels, Van Gelderen, Thurik 2008). Academic spinoffs may be founded with the intention of capitalizing on an opportunity driven by economic considerations, or as a response to the growing challenge faced with the diverse demands of its residents. In the many academic institutions cases, there spinoffs serve as a means to deliver social services to the community. Similarly, the emergence of necessity-oriented academic spinoffs, which aim to safeguard academics against potential unemployment, is more prevalent (Roach and Sauermann, 2010). It is anticipated that opportunity spinoffs would enhance the value provided by the local industrial sector, whereas necessity spinoffs are seen as advantageous in terms of mitigating unemployment.

Categorizing Technology Transfer offices (TTO's) activities based on the type of academic spinoffs they facilitate may offer insights into the observation that recent empirical studies have not identified a definitive influence of TTO offices (Belitski, Aginskaja & Marozau 2019; Siegel and Wright, 2015) The contribution of this paper is to understand the academic performance and innovation through the lens institutional framework.

The significance of universities in fostering and cultivating entrepreneurial ecosystems

Academic spinoffs are driven by economic rationales, as per the neoclassical economic theory, which posits that their major emphasis after formation is supposed to be on expansion (Hessels et al., 2008). However, a considerable number of entrepreneurs, even those with an academic background, make a deliberate decision to refrain from expanding their commercial ventures. Entrepreneurs who are compelled to pursue entrepreneurship as an alternative means of livelihood (Horta, Meoli & Vismara 2016) are anticipated to demonstrate a strong commitment to the academic spinoffs they create and prioritize their sustainability.

The role of universities has undergone a transformation that has led to a growing convergence with the business sector. There are various conditions that are indicative of the changes in the underlying factors that drive economic development. In addition to its research and teaching endeavors, academia's third mission encompasses its capacity to influence the circumstances that foster economic transformation and the development of industrial competitiveness (Siegel and Wright 2015).

The concept of the 'entrepreneurial university' has gained global recognition (Etzkowitz, Webster, Gebhardt & Terra 2000), highlighting the importance of direct knowledge transfer from academia to the marketplace. In relation to this matter, there has been a focus on initiatives that seek to transform universities into centers of entrepreneurial activity by fostering the creation of spin-off ventures. The perception of new innovative ventures as a relevant strategy for universities to commercialize knowledge has been identified as a key factor in the significant increase in entrepreneurial activity originating from academia (Siegel, Waldman & Link 2003). The motivations underlying these dynamics are inherently connected to the innovative capacities of these emerging enterprises, as well as their socioeconomic effects in relation to expansion and progress (Ferreira, Fayolle, Fernandes, & Raposo 2017).

In accordance with this line of reasoning, academic institutions across the globe are undertaking endeavors to cultivate settings that foster entrepreneurial mindsets among both students and faculty members (Guerrero, Urbano, & Fayolle 2016). However, the literature on entrepreneurship and institutional collaboration has managed to confront the extent of these transformations by examining the significant fluctuation in universities' inclination to produce spin-offs. Indeed, despite the presence of notable instances of success, the generation of entrepreneurship within universities often yields unsatisfactory results (Siegel and Wright, 2015). The relationship between the productivity of institutions in terms of academic entrepreneurship and the presence of essential capabilities to support their objectives can be observed. However, it is important to note that university-level policies vary considerably among different institutions (Belitski et al., 2019).

However, there is still a prevailing emphasis on analytical research that overlooks the possible connections between various factors that influence academic entrepreneurship (Galán-Muros, van der Sijde, Groenewegen, & Baaken 2017). Therefore, it is imperative to develop additional methodologies to address the diverse range of contextual factors that influence entrepreneurial activity, as their effects cannot be assumed (Urban & Chantson, 2019).

The relationship between universities and entrepreneurial activity: The prevailing consensus acknowledges that universities serve as pivotal actors in the functioning of the knowledge economy (Czarnitzki, Doherr, Hussinger, Schliessler & Toole 2016). In addition to fulfilling the role of providing society with skilled individuals, educational institutions also devote significant resources for conducting research and facilitating the dissemination of economically valuable knowledge. University spin-offs have emerged as effective means of technology transfer within this particular context. In recent years, there has been a growing recognition among researchers and professionals that universities play a significant role in fostering entrepreneurship. This acknowledgment highlights the importance of universities in generating and disseminating knowledge (Guerrero and Urbano, 2012).

Academic entrepreneurs possess the capacity to assume a prominent position within the intricate workings of innovation systems. This phenomenon occurs due to their role in facilitating the dissemination of knowledge for commercial purposes, thereby establishing a link between research endeavors and industrial undertakings (Perkmann & Walsh, 2007). According to Audretsch (2014), universities can be perceived as facilitators of entrepreneurial capital. In the long run, it is anticipated that these initiatives will extend beyond the scope of individual firms. Instead, it is expected that increased entrepreneurial activity will lead to economic growth, development, and improved competitiveness among various actors.

The heterogeneity in entrepreneurial capabilities across universities can be attributed to various factors, as highlighted by Di Gregorio and Shane (2003) and Huyghe and Knockaert (2015). The subsequent phase of this theoretical framework pertains to assessing the inherent institutional conditions established to foster academic entrepreneurship within universities, as well as examining how organizational and environmental characteristics can influence faculty members' inclination to engage in academic entrepreneurship.

Despite the recognition of academic entrepreneurship as a valid pursuit in recent years, it continues to encounter obstacles in various institutions, primarily due to concerns about compromising research independence (Rasmussen et al. 2014). Moreover, it is not uncommon for universities to endorse conflicting incentives with regards to entrepreneurial endeavors. Many academic institutions often possess explicit entrepreneurial missions, yet the evaluation of faculty primarily centers around publication indicators (Benneworth, Pinheiro & Karlsen 2017).

Conclusions

The discourse surrounding the relationship between universities and academic entrepreneurship has placed excessive emphasis on the connection between research and the third mission. When considering academic entrepreneurship from a broader standpoint, which encompasses the indirect impact of universities on alumni-led start-ups, it becomes necessary to investigate the degree to which graduates choose to establish their businesses within the local community or relocate to other regions. Therefore, it is imperative to adopt a more diverse range of academic entrepreneurship practices in response to the evolving role and objectives of universities. This prompts the question of whether individuals should engage in academic entrepreneurship and, if so, how they can effectively navigate this intricate endeavor. This gives rise to a range of concerns pertaining to the development and execution of strategies within universities, as well as the formulation and evaluation of policies within government institutions. Furthermore, this phenomenon also presents opportunities for further exploration in the domains of organizational behaviour, organizational theory, human resource management, ethics, and social responsibility. Additionally, it highlights the need for increased scholarly attention towards investigating social networks in the context of academic entrepreneurship. Furthermore, it has been observed that graduates from prestigious universities exhibit a higher degree of geographical mobility compared to their counterparts from less renowned institutions.

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