

## **The Impact of University-Industry Collaboration and Its Relevance to Technical Higher Education in Oman**

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**ABSTRACT :** *The current research paper is investigating the relationship between university and industry together and measuring such a type of relativity within Oman`s technical higher education system.*

**KEYWORDS:** university-industry, collaboration, technical college, Oman

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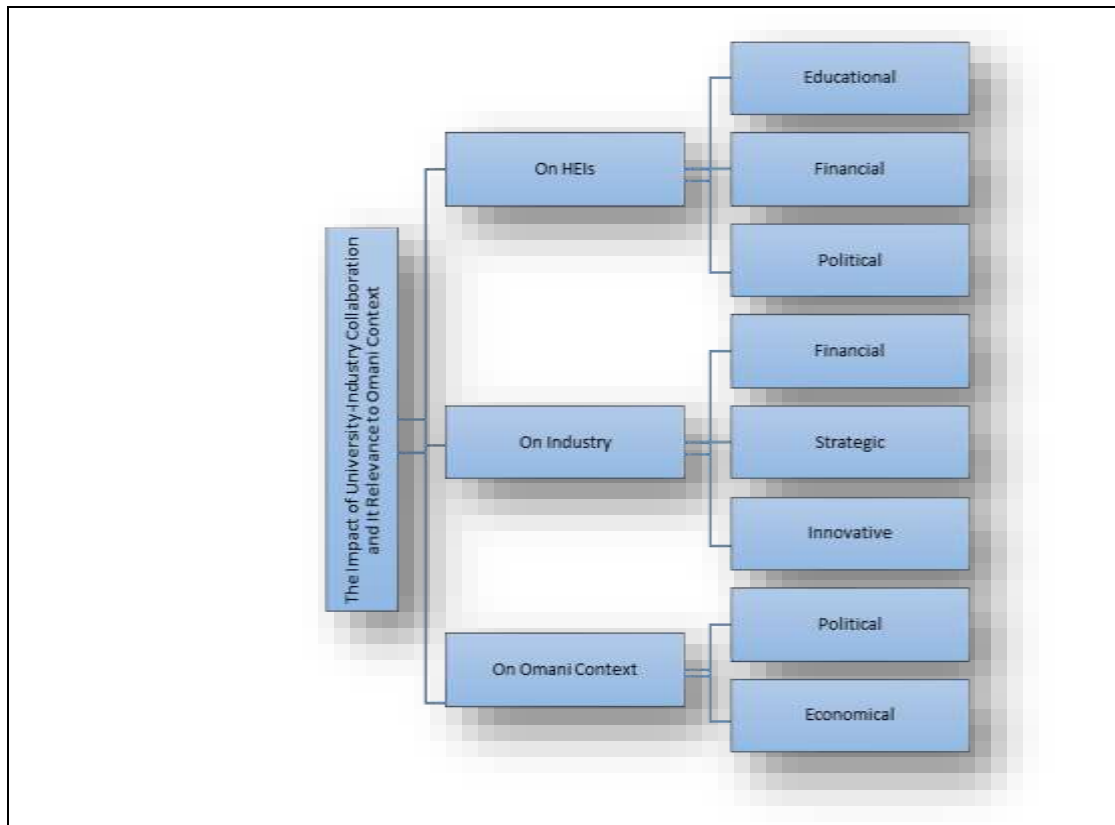
### **INTRODUCTION**

According to (Ogundimu, 2016), to remain competitive, forward, and bring about desired attainments, HEIs should count on mutually sustainable relationships with industries in the private enterprise. Guimón (2013), Kaklauskas et al. (2018), Prigge and Torracco (2006) argued that there is a promising scope for Higher Education Institutions (HEIs) and for-profit businesses to support each other. There is also a growing body of literature that recognizes the importance of University-Industry Collaboration/ Partnership (UIC) and the fundamental role it is likely to play in the future for the betterment of both universities and companies (Anastasiu *et al.*, 2017; Burns & Chopra, 2017; Chiang, 2011; Bratianu & Vatamanescu, 2017). In terms of the Omani Higher Education (HE) context, the paper will focus mainly on Colleges of Technology (CoTs), which are seven organizations set up across the country, because in respect of student admission, they receive the highest proportion in the country (Lontok, 2013). About 15,000 students are enrolled in CoTs in seven primary majors up to Bachelor levels, namely, "Engineering, IT, Applied Sciences, Business Studies, Pharmacy, Photography and Fashion Design" (Al-Kalbani, 2017). Therefore, it is very significant to address this issue and examine the extent to which UIC is useful. Additionally, it is my experience of working as a chairperson of the Industry-Community Engagement Committee at University of Technology and Applied Sciences in Shinas, Oman that has driven this topic. By reviewing the literature, three key themes have been identified. In the first and the second section of the paper, the impact of UIC on the HE and on the labour market will be analyzed respectively. The following section will discuss the imperatives of promoting UIC in the Omani setting. This article will ultimately consider what remains unclear regarding the nature of UIC.

## LITERATURE REVIEW

### Themes in the Literature

Through critically investigating the previous studies which highlighted the notion of UIC, three substantial insights have been revealed, which could be classified into the effects of UIC on HE, the effects of UIC on industry and the need to contextualize the conception of UIC in Oman. Figure 1 below shows how the literature review sections are thematically outlined.



**Figure 1**

### Theme one: The Impact of UIC on Higher Education

Burns and Chopra (2017) pointed out that allowing graduates to participate in industry-related activities can play a pivotal part in rendering them gain a more profound understanding of their specializations. Similarly, Rambe (2018) and Valentín (2000) highlight that such involvement provides training to students and enables them to be engaged in real-life learning opportunities and boost job-based skills. In doing so, UIC will steer HEIs to work efficiently by concentrating mainly on preparing undergraduates to grasp the must-have 21<sup>st</sup>-century skills (Ab Kadir, 2015; Al-Harhi, 2011; Shah & Dixon, 2018). Another conceivable benefit that underpins this argument is what (Ogundimu, 2016) found out through his research on the effects of UIC on Nigerian

universities. He claimed that executing the UIC model has improved the quality of teaching and learning resources. That being the case, implementing this partnership will more likely lead to developing education standards in HEIs. However, (Vite-Leon, 2005) believed that a successful UIC pattern in some contexts might fail in others as domestic circumstances, socio-economic factors, and impediments need to be considered.

Moreover, financial and political benefits could be attained from this joining. In other words, HEIs have been demanded by education policy enactment actors for building up consistent links with multiple markets to fulfill the expectations of a knowledge-based economy (Bosetti & Walker, 2010). In addition, outsourcing is considerably deemed to be one of the tangible advantages for HEIs. For instance, academy research funding by private corporates has been prevalently noticeable among the countries that are members of the Organization for Economic Co-operation and Development (OECD) (Fan et al., 2019). This stage, hence, necessarily entails university academics taking initiatives to promote a culture of enterprise by involving students in industrial research so that interaction with industry can be constantly maintained (Lee, 2017; Ponomariov, 2009). On the other hand, Bosetti and Walker (2010), Tartari and Breschi (2012) argued that there are possible detrimental consequences of granting the industry to sponsor university research since it might diminish academics' autonomy and drive HE away from its primary mission.

In short, one interesting finding is that UIC is associated with students' learning improvement (Rambe, 2018; Valentín, 2000), albeit indirect, and other significant gains for HEIs are meeting local government vision and finding a partner to fund their research (Fan et al., 2019). In contrast, these benefits might be at the expense of academics' freedom and the core purpose of education (Bosetti & Walker, 2010; Tartari & Breschi, 2012). An implication of this is the possibility that some HEIs are still reluctant, despite promising advantages, to undertake UIC due to these barriers. It can, therefore, be assumed that further qualitative research is required to explore ways to reduce the obstacles to UIC.

### **Theme two: The Impact of UIC on labour Market**

Involving students in practical experience and exposure and establishing solid relationships with private organizations does not only avail the students and HEIs but also can provide valuable benefits for firms. For instance, HEIs can conduct research tailored to tackle challenges and concerns of industrial sector and seek feasible solutions (Perkmann et al., 2013). Also, some scholars (Valentín, 2000; Bellini et al., 2018) confirmed that utilizing universities' infrastructures and facilities, such as knowledge and technology-based resources, could be one more worthy gain for the free enterprise. López-Martínez *et al.* (1994) emphasized that Knowledge transfer and consolidating the competitive advantage are considered to be one of the leading motivation for industrial entrepreneurs to strengthen ties with universities. Nevertheless, UIC is not on all occasions is effective. To illustrate, Robertson (2006) stated that there had been

examples of non-success in industry-education partnership. In addition, Vite-Leon (2005) reported that around fifty percent of university-industry relationships do not endure in all contexts.

Industrial companies pursue to headhunt competent graduates who are equipped with top employability skills and a 'solid education background' through liaising permanently with HEIs so that companies' daily operational practices and innovative tasks can be performed well (Anastasiu et al., 2017; Bratianu & Vatamanescu, 2017; Ponomariov, 2009). Tomlinson (2012) showed how it is important for the world of industry to ensure that students' employability skills have been enhanced before graduates are recruited into the labour market. According to Gribble et al. (2015), "employability means that university graduates must, in addition to technical skills assumed with the credential, demonstrate a set of personal aptitudes and capabilities... interpersonal skills" (p. 404). Tomlinson (2018) asserted that education policy recently had been transformed in the UK to align standards of teaching with market-driven solutions. He insisted that the conclusive mission of the HEIs is to safeguard "the future employability of graduates: the key rationale for participating in higher education" (p. 8).

To sum up, UIC will enhance graduate career readiness and employability skills and develop their productivity (Jackson, 2016). UIC, as well, will secure financial benefits to the private sector by reducing costs, sharing risk, providing groundwork research, and offering innovative business solutions (Perkmann et al., 2013; Valentín, 2000; Bellini et al., 2018). On the contrary, some UIC cases have failed to thrive and go the extra mile (Robertson, 2006; Vite-Leon, 2005). A possible explanation for this might be attributed to scholars' lack of awareness or motivation toward UIC. Thus, further research should be undertaken to investigate professors' perceptions on the impact of UIC.

### **Theme three: Imperatives of Promoting Sustainable UIC in Oman**

Notwithstanding that Oman's government revenue relies to a great degree, more than 77%, on oil and gas resources, Oman 2040 vision strives to cut back on its dependence on petroleum and concentrates on diversification, privatization, and industrialization alternatively to reduce the oil sector's share to the Gross Domestic Product, 51% (Al-Mawali *et al.*, 2016; Al-Maskari *et al.*, 2019). Al-Harhi (2011), Slotte and Tynjälä (2003) underscored this industrial growth stipulates the provision of an adequate labour force and human capital with a variety of expertise and skills to maneuver industrial estates efficiently in Oman. For this purpose, Matriano (2019) stated that HEIs are expected to play a crucial part in qualifying the national workforce to meet the needs of industrial firms and open business innovation. However, this objective cannot be achieved without creating conditions for universities and enterprise zones to function mutually. Benayoune (2018) identified that Omani youngsters are reluctant to work in the logistics sector owing to the lack of training and skills. He warned that in the Oman private sector, only 11% of the workforce are nationals, whereas 89% are expatriates.

This is exactly why UIC is indispensable and needs to be strategically implemented in the CoTs in Oman.

Based on the CoTs mission, graduates are expected to acquire professional skills to contribute effectively to economic development (EduCouncil.gov.om, 2010). However, in 2017, a survey was conducted by the Ministry of HE in Oman to assess the extent to which graduates are job ready from employers' perspectives. The study revealed that the local workforce is not well prepared for the workplace (Ogss.gov.om, 2017). A premise can be made that the deficiencies are primarily grounded in the gap between the economy's needs and HEIs' strategy deployment.

In claiming so, CoTs have no choice but to ensure a systematic collaboration with the local market to deal with this issue virtually. Therefore, a further study focusing on bridging the gap between CoTs and capital market practitioners in Oman is recommended.

## **CONCLUSION**

This study set out first to assess the influence of UIC on both firms and HE organizations globally and second to investigate its relevance to the CoTs in Oman particularly. By scrutinizing more than thirty qualitative and quantitative research, the paper has identified that UIC would subserve HEIs in raising standards, boosting students' job-market skills, satisfying government policymakers, and financing research. Yet, what is not clear is the extent to which UIC could directly affect students' desired outcomes. Although the literature has addressed the potential barriers to UIC, there has been no detailed investigation of how to diminish these impediments. Previous research has established that universities are expected to enact policies and embark on new strategies to precisely match the market needs. Besides, through commercializing academic research, it would be less costly for companies to tackle their challenges, and they can access new ideas and facilities. However, causal factors leading to UIC failure in some contexts remain speculative.

Concerning the Omani context, despite extensive research ; Al-Harathi, 2011; Slotte & Tynjälä, 2003; Matriano, 2019; Benayoune, 2018) has explicitly implied that it is imperative for HEIs in Oman to keep in close touch with industry, up to now, far too little attention has been paid to the impact of UIC on CoTs. This, as a result, would be a fruitful area for further work.

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