

Australian Higher Education Sector and Small and Medium Enterprises (SMEs).

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Abstract

The Australian higher education sector is ranked as the third largest in the world, accounting for 6.2% of the world's total, based on the number of international students. Australian SMEs collectively represent over 99% of all enterprises, contribute 57% to the gross domestic product, actively engage in innovative activities and provide over 67% of total employment. However, a limited number of SMEs source their ideas or information from the higher education sector. Australia has one of the lowest levels of collaboration between industry and universities in the Organisation for Economic Co-operation and Development (OECD). This paper seeks to address the gap in the academic literature by providing a review of the SME and higher education sectors and by exploring collaboration and engagement options for these crucial sectors.

Introduction

The SME sector does not exist in isolation, as it forms a significant part of a broader economy. Australia has shown continuous economic growth for the past 27 years (Australian Budget, 2018). In total, there were over 2.3 million active businesses operating in Australia, showing the fifth consecutive year of increase in numbers. The least common employing business entities (0.4%) were large businesses with more than 200 employees giving the SMEs the dominant share. According to the Australian Bureau of Statistics in 2016-2017 financial year, out of 318,000 businesses which were involved in innovative business activities, 99%

were classified as SMEs (Australian Bureau of Statistics, 2017). However, only 3% of SMEs sourced their ideas or information from the higher/tertiary education sector. Australia is lagging behind other economies on levels of collaboration between business sectors and higher education providers. In 2015, the National Innovation and Science Agenda was launched which requires universities to demonstrate how the research output is affecting the economic, social and environmental impacts.

According to the latest report published by Tertiary Education Quality and Standards Agency (TEQSA) (2018), the Australian higher education sector had 176 registered higher education providers, educated more than 1,4 million students, provided employment to 120,000 full-time equivalent staff and contributed AUD\$140 billion to the Australian economy. There are 43 universities in Australia which continue to have the largest market share, with 91 per cent of students choosing them for their education needs. Australian enrolments in this sector are dominated by international students, who bring the primary source of revenues for all higher education providers, which also contributes significantly to research funding (Universities Australia, 2018). The majority of international students (64%) choose the States of New South Wales and Victoria as their destinations to complete their degrees (Tertiary Education Quality and Standards Agency, 2018).

Academic and industry publications have been emphasising over the years that SMEs-universities collaboration is the critical element for driving innovation (Australian Council of Learned Academics, 2016; Deloitte, 2018; Grattan Institute, 2018; Mazzarol, 2014; Nielsen, 2017), but large companies still dominate the majority of partnerships between universities and business sector. The majority of collaborations are centred on joint research projects, therefore overlooking the possibility of engaging with the SME sector on additional levels which could include university job placements, seminars, training sessions and workshops for SMEs, rental of university equipment, facilities and premises, provision of academic advice on challenges

associated with daily business activities, new and existing research and development projects and submission of joint applications with SMEs for government grants. Close collaboration with universities could give SMEs access to the latest groundbreaking research studies which could potentially prop up business growth and innovation. For start-up businesses, it could mean bringing their new business ideas to life as *“only 9% of Australian SMEs brought a new idea to market in 2012-2013, compared to 19% in the top five OECD countries”* (Department of Industry Innovation and Science, 2015).

Discussion

The higher education sector has to adapt to the ever-changing environment that is primarily driven by rapid technological change, age demographics of students and preferences for modes of studies. The recent report published by the Australian Government (2015) indicated that labour force participation is expected to grow considerably for mature-age workers, which means, on average people will have a career that lasts for 50-60 years. Further, the McKinsey Global Institute (2017) reports that half of the current job responsibilities will be fully automated. As a result, the future workforce will require a different skill-set (OECD, 2018). A report published by Deloitte (2018) emphasises that 31% of workers who are interested in pursuing their studies further expect education providers to collaborate actively with the industry to deliver skill-based training. The Universities Australia (2018) shows that only 16 000 business entities in Australia are formally collaborating with universities and most of these businesses are classified as large.

The results concerning employment, industry value added, innovation and the culture of entrepreneurship provided by SMEs should not be underestimated. According to the Australian Bureau of Statistics (2001) definition, businesses fall under the SME category if they employ fewer than 200 people. In the latest statistical snapshot, it is evident that Australian

SMEs accounted for close to a 70 per cent of private employment and contributed to over 57% of Australia's GDP (Australian Bureau of Statistics, 2017). According to the Australian Innovation Systems Report (2017), Australia's level of entrepreneurial activity is ranked highly among other developed countries. Over 14 per cent of the Australian adult population (who are aged between 18 to 64 years) were actively engaged in starting a brand new business venture in 2016, collectively representing over two million early-stage entrepreneurs.

The interaction of higher education providers and the SME sector is vital for the overall economic growth and innovation (Deloitte, 2015; Department of Industry Innovation and Science, 2017; Green, 2015; Nielsen, 2017). Thus, current government policies should be aligned in promoting an economic environment in which SMEs and higher education providers foster improved collaboration and engagement. The 2018 Global Innovation Index report (2018) indicated that the overall ranking for Australia on innovation output was at 20 out of over 140 countries included in the list. This shows that Australia needs to improve its efficiency when it comes to innovation performance.

The improved and continued partnership between SMEs and the higher education sector can prop up the Australian start-up economy. The Start-up Muster (2016) survey results confirmed that four in five startup founders in Australia have graduated from university. It is imperative to assess the potential responsibility of university-SME sector collaboration on SMEs' level of innovation, growth and provision of employment. Universities Australia (2017) reports that from 2004 to 2011 start-up business helped to create more than 1.2 million new jobs and successfully contributed AUD\$164 billion to the Australian economy.

Collaboration between researchers and the industry allows the brightest minds to work together with business to create never-before seen, ground-breaking solutions to existing problems. SMEs which are better equipped with information and understanding of the current

and proposed collaborations with universities will have an advantage. Based on the latest data from the Productivity Commission (2019) smaller businesses are less likely to have a web presence or use fibre to connect to the Internet and SMEs are less likely to have received orders via Internet. At the same time, higher education providers have been rapidly changing curriculum to adapt to the latest changes in technology. This could create a mis-match between skill-set of the graduates and daily workplace tasks/projects requirements in SMEs which are lagging behind in having an online presence and adopting new technologies. University research and level of co-operation with the industry in Australia is classified among the lowest in the OECD (Australian Government, 2015). Many higher education providers tend to collaborate with large companies, having only limited exposure to the SME sector. Even though, the SMEs are leading the innovation indicators in comparison to larger entities, they still report having insufficient funds and time which further prevent or limit innovation (Australian Bureau of Statistics, 2017; Department of Industry Innovation and Science, 2017).

- If SMEs are dominating the innovation indicators why are only limited numbers sourcing their ideas from the higher education sector?
- Most importantly why is the higher education sector overlooking all the potential collaborations with SMEs?
- What could make SMEs more attractive for the higher education sector?

Conclusions and direction for future research

The future of higher education providers largely depends on developing and sustaining collaboration between higher education providers and SMEs and further stimulating students' entrepreneurial mindsets. According to the latest reports published by government and private organisations, universities have increased their collaboration with the industry, reshaped and enhanced educational support for entrepreneurs. However, there appears to be limited

information from SME owner-managers on their partnerships with universities in Australia. Thus, the direction for future research is to perform an analysis which is centred on SME owner-managers' views and opinions on the current level of collaboration and the development of the optimal model of engagement with the higher education sector in Australia to promote the innovation-driven economy.

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