

Chapter 3

A Study of the Convergence Between Entrepreneurship, Government Policy, and Higher Education in Oman: Entrepreneurial Ecosystem Perspective

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ABSTRACT

This chapter examines the inter-relationships between government policy and higher education in the development of entrepreneurship in Oman. Grounded in Isenberg's entrepreneurship ecosystem framework, the role of higher education in driving entrepreneurialism, as a distinct subset of 'education capital', is examined in the context of policy development and implementation in Oman. Interviews are utilised to gain insights into government initiatives deployed in the Omani higher education sector to develop indigenous entrepreneurs. Findings point to a dislocation between the approaches adopted in Omani higher education institutions and the context in which they have been employed. This is evidenced through three emergent themes: a desire for 'joined-up' policy on entrepreneurship, the role of higher education institutions in encouraging entrepreneurship, and the challenge of work preference. The study concludes that a lack of holistic appreciation of the entrepreneurial ecosystem precludes the emergence of entrepreneurship as a driver of sustainable economic development in Oman.

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INTRODUCTION

In an increasingly complex and volatile global institutional environment, entrepreneurship has emerged as a means for governments in both developed and developing countries to revitalise and/or secure economic growth. In mature economies, entrepreneurship principally helps to drive innovation; in emerging markets, it contributes towards job creation, knowledge development and overall sustainable development through the establishment of micro-, small- and medium-size enterprises (Schumpeter, 1989; Fritsch & Mueller, 2004; Fritsch & Schroeter, 2011; Drucker, 2014; Tunio et al., 2017). As further pointed out by Tunio et al. (2021), in the latter contexts where employment opportunities tend to be scarce, entrepreneurship can offer a unique route to financial independence for the youths. However, extant research indicates that entrepreneurial myopia that regards entrepreneurship as a monolith has emerged as a key barrier to effective entrepreneurialism outcomes (see Welter & Gartner, 2016 for overview; see also Bögenhold & Fachinger, 2007; O'Neill et al., 2009; Fritsch & Schroeter 2011; Elmes et al., 2012; Bögenhold, 2018). For example, Bögenhold and Fachinger (2007) highlight the issue with translating entrepreneurship as self-employment without acknowledging the contributions of the distinct types of self-employment to sustainable economic development. Viewed through the curtailed lens, entrepreneurial billionaires who contribute towards job creation and economic growth share the same category with the very marginal solo self-employed who run micro-firms that offer little beyond basic survival for the self-employed person Bögenhold (2018). Although all forms of self-employment help alleviate poverty (Tunio et al., 2017), it is the contributions of the former that help address the grand challenges of economic growth revitalisation (Bögenhold & Fachinger, 2007).

A fertile ground for narrow interpretation of economic entrepreneurship is the process of policy transfer (Dolowitz & Marsh, 2000), during which government policy makers pressurised by rapidly flailing economies search for entrepreneurship policy success stories from other countries to replicate, regardless of the often vastly different situational environments (e.g., Abraha, 2006;).

To strengthen entrepreneurship policy outcomes, Welter and Gartner (2016b) advocate contextualising entrepreneurship. The authors argue that considering the setting is crucial, as entrepreneurship outcomes are rooted in their specific situations, which have been generated by the distinct economic and socio-political and cultural environment. Extant literature posits that an apposite approach to contextualising economic entrepreneurship is to approach entrepreneurship from an 'ecosystem' perspective. Al Abri, Rahim and Husain (2018) suggest that an entrepreneurial ecosystem lens allows for the development of solutions to "market failures as well as to correct the deficiencies in ignoring the role of entrepreneurship in the economic system" (p. 194).

This study considers the development of entrepreneurship in the Sultanate of Oman by examining the inter-relationships between government policy and higher education. In so doing, the study builds upon the notion developed in extant literature that key capitals are required for entrepreneurs to flourish (Isenberg, 2010, 2014; Stam, 2015; Jensen, 2017; Spigel, 2017). Further, as initially highlighted by Isenberg (2014), the foundation of a sustainable entrepreneurial ecosystem is an understanding of how entrepreneurs develop within a system of interacting agents (organisations and individuals) in conjunction with other resources in their environments. Education is widely acknowledged to be one of the principal 'capitals' of an entrepreneurial ecosystem (Isenberg, 2014; European Commission, 2013; Spigel, 2017).

In this study, we narrow down to higher education as a key subset of education capital in the context of policy development and implementation in Oman. The role of higher education in driving entrepreneurialism as a strategy for economic diversification policies is also considered, and it is evaluated in

the context of the inter-relationships between government policy and higher education in the development of entrepreneurship in the Sultanate of Oman. The research question at the heart of this study is thus: *What is the impact of government policies directed at higher education for the development of entrepreneurship in Oman?*

BACKGROUND

The chapter begins with a brief overview of the economic and higher education contexts in Oman. It then describes the provision of enterprise and entrepreneurship support, education & research in higher education institutions in the Sultanate. Next, the paper introduces entrepreneurship, ecosystems and their relationship with higher education, which is followed up by the research approach applied. The chapter then presents an examination of the research's findings, with concluding comments presented at the end of the chapter.

The Omani Context: The Necessity for Enterprise and Entrepreneurship

The Sultanate of Oman, mirroring the neighbouring GCC countries, has until recently been a fast-growing emerging economy, fuelled by oil revenues (Mishrif, 2018). The country has been radically transformed with the implementation of a series of development plans beginning with the first five-year plan (1976–1980). The plans have aimed to deliver sustainable economic growth and social welfare. Oman's policy makers have been strongly influenced by the prevailing international discourse on economic development (Ennis, 2015) and progress has been framed through of a series of steps that advance the country to a future 'vision' of neoliberal economic reform (Fromson & Simon, 2019). Vision 2020, launched in 1996 and developed with the assistance of the International Monetary Fund (IMF), together with the recently unveiled Vision 2040, outline the country's trajectory of economic and social progress so far and, crucially, the espoused future developments.

Vision 2020 encapsulated a four-pronged approach focused on economic balance and sustainability, human resource development, economic diversification and private sector development, through which the Omani government would begin to disband the rentier state and build a market economy. The bottom line of the reform relates to the increasing urgency to move away from oil dependence by developing the fledgling private sector (Hamid & Amin, 2017) and the urgent need to engage the indigenous population in 'market' behaviours by equipping them with skills and knowledge (Al-Shabibi, 2020; Fromson & Simon, 2019; Al Lamki, 2000).

Ambitious 'Omanisation' targets issued by the Omani government in the last couple of decades have espoused replacing the extensive expatriate workforce with Omani citizens by reserving numerous professions for Omanis only (Al Lamki 2005; Ennis, 2015; Mishrif, 2018). However, the majority of the newly created opportunities exist in the private sector for which there is typically little demand among Omanis who prefer 'jobs for life' in the public sector (Al Lamki, 2005; Hvidt, 2015). Indeed, in 2018, the government sector employed 84.5% Omanis whereas in the private sector the figure stood at mere 14.9% (ToM, 2019). In an effort to address this disparity, Omani government policy began to heavily advocate the development of small and medium size enterprises via investment in entrepreneurialism (Al Lamki, 2005; Al Barwani, 2014; Ennis, 2015; Al Abri, 2018).

In 2012, the government established and has since invested significantly into a programme focused on entrepreneurship education for higher education institutions (HEI). The aim of the programme is to foster entrepreneurial knowledge, skills, and aspirations among the “rapidly growing demographic ‘youth bulge’” (Fromson & Simon, 2019, p. 103) in Oman (MoHE, 2015; Ennis, 2015). In 2016, the urgency to accelerate the implementation of Vision 2020 resulted in the establishment of National Programme for Enhancing Economic Diversification, Tanfeedh (Omanuna, 2020). The programme sets out a ‘roadmap’ and processes aimed at decreasing the contribution from oil activities to GDP to 26%; this would be achieved by diversifying the economy to five selected sectors: manufacturing, transport and logistics, tourism, fisheries and mining. These sectors were selected in order to provide job and entrepreneurial opportunities for Omani citizens (Hamid & Amin, 2017).

In January 2021, Vision 2040 was unveiled. It sets out the ambitious plan to have an overall workforce of 8 million by 2040, while simultaneously reducing the foreign workforce by 10%. Vision 2040 focuses on three areas: retraining programmes in agriculture and tourism targeted at Omani youths, despite the non-existent buy-in among the locals for careers in these sectors (e.g., Atef & Al Balushi, 2017); increasing the number of Omani citizens working as doctors (13,000) and teachers (64,000); and providing opportunities for Omani owned SMEs in the planned water and electricity megaprojects (Wrapping up Vision 2020, Solidifying Vision 2040, 2019). Crucially, central to all these programmes is the development of Omani-run value-adding businesses that move the economy away from the current rentier state model enabled by hydrocarbons.

However, as indicated in extant literature and demonstrated in this study, the ambitious plans set out in the Omani government’s plans appear to have been let down by ineffective implementation, despite heavy investments in private sector development. Numerous reports show that the combined market-related outcomes of the government policies directed by Vision 2020 fall short of the targets (Fromson & Simon, 2019; Mishrif, 2018; Hamid & Amin, 2017). These shortcomings are reflected in key economic indicators. Oman’s gross domestic product (GDP) annual growth rate averaged 5.6% from 2000 until 2012, reaching a high of 13.1% in December of 2008. This growth, however, was virtually completely driven by oil revenues. In 2014, 48% of total GDP was based on petroleum activities. Of the 52% of non-petroleum activity, significant elements were connected to the petroleum industry, such as the manufacturing of chemicals, transport and natural gas, together forming perhaps as much as another 15-20% of GDP (Oman, 2015). This significant imbalance in terms of GDP proved unsustainable and exposed the country to considerable economic strain. Following the collapse of the oil price in 2015, Oman’s real GDP growth collapsed to zero in 2017 (Hamid & Amin, 2017) and has since suffered further downward trend (Statista, 2021). The fiscal deficit reached US\$11.5 billion, around 19% of GDP, and serious concerns emerged about the country’s fiscal stability, economic growth, and overall socio-economic development (CIA, 2018). For example, job security emerged as a significant challenge. As reported by the Graduate Affairs Department of the Ministry of Higher Education in Oman (MoHE) in early 2016, only 47% of graduates in Oman were able to secure employment after graduation. There are also issues of matching student graduates with suitable jobs (Fromson & Simon, 2019) and reaching Omanisation targets in various sectors (Ennis & Al Jamali, 2014).

Moreover, despite the relative growth of Omani owned SMEs in the last decade (Al Abri, 2018; Varghese & George, 2015), Al Abri (2018) reports that the sector has failed to deliver on its GDP contribution expectations. Al Qassabi (2020) notes that the 37% decrease in new registrations from 2017 to 2018 as well as the attrition rate of SMEs indicate significant issues in this sector of the economy. Al Qassabi (2020) later observes that only around 30% of Omani SMEs are expanding or at a mature

stage of development, with nearly 55% either start-ups or in survival mode. This problematic SME environment represents a considerable threat to the ambition of private sector development fuelled by entrepreneurship, which had been identified as a key contributor to the country's economic diversification in Oman Vision 2020.

Mishrif (2018) posits that the contribution of non-oil industries to government revenues across the GCC, including Oman, remain small and their growth looks perilous once the commonly utilised government subsidies diminish. In Oman, the recent reductions in state subsidies have resulted in a drop in GDP at current market prices of 3.9% in first quarter of 2020 (i.e., pre-pandemic), despite an increase in oil and crude oil related activities (NCSI, 2020). The economy then further contracted owing to the Covid19 pandemic (Focus Economics, 2020) resulting in a decrease of Oman's real GDP of a crushing 10% in 2020 compared to the previous year.

Policymakers in Oman are therefore encouraged to take heed of the recommendations of numerous studies that have identified an under-developed entrepreneurship institutional environment (Al Qassabi, 2020) coupled with cultural values that do not lend themselves well to the encouragement of entrepreneurship; both represent major barriers to the emergence of a thriving private sector (e.g., Ennis, 2015; Al Abri, 2018; Al Qassabi, 2020; Al Shabibi, 2020).

Oman has undoubtedly expended significant investment in attempts to develop and encourage entrepreneurialism amongst Omani youths, particularly in higher education. However, despite these efforts, the institutional environment continues to fall short in equipping Omani youths with appropriate skills and mindsets, and in developing a conducive institutional and market context that encourages young Omanis to adopt market behaviours as entrepreneurs (Al Lamki, 2005; Ennis, 2015; Al Abri, 2018; Al Shabibi, 2020). Oman's 35,000-40,000 SMEs contribute a mere 15-20% of GDP (NCSI, 2018) compared with an average of 40% in emerging economies (The World Bank, 2021) or as high as 75% in some European Union countries (SMEs, 2014). This is particularly problematic since in Oman, as in most economies, small and medium sized businesses employ the majority of the working population.

Oman's indigenous population has been growing, driven by the economic development described above and concomitant improvements to healthcare and infant mortality, resulting in a society with 60% of the population below the age of 25. Since 2010, however, the growth of the indigenous population has been outpaced by the influx of expatriate workers. In 2010, the population of Oman was 2.8 million of which 2 million (71%) were Omani and 0.8 million (29%) were expatriate. By 2013 the population was 3.86 million, of which 2.17 million were indigenous Omanis (56%) and 1.7 million were expatriates (44%), mainly from India, Pakistan and Bangladesh; the increase in the Omani population in this period was 10%, while the growth in expatriates has been exponential at 110%. 1.35 million expatriates are employed in the private sector, most notably in construction (44% of expatriates). By 2012, the available workforce in Oman was 1.85 million. 80% was employed in the private sector, whilst 11% was employed in the public sector and a further 9% were registered with the public authority for social insurance.

The expansion in public sector employment of Omanis since the 'Arab Spring' in 2010 has been significant. By 2015, employment in the public sector was 194,326 of which 14% were expatriates; employment in the private sector that year was 1.49 million, of which 88% were expatriates. The pattern of employment in the private sector was almost diametrically opposite to the public sector. The main sub-sectors employing expatriates were construction (583,100), manufacturing (156,806), and wholesale and retail trade (154,400) (Oman, 2015).

In summary, the Omani economy is severely unbalanced, heavily dependent on hydrocarbons and expatriate workers. The enormous disparity in the private sector between expatriate and indigenous work-

ers is of particular significance. The paucity of the private sector's contribution to the economy is a key issue for the government. The government has pursued a development plan that focuses on diversification, industrialisation, and privatisation, with the objective of reducing the oil sector's contribution to GDP to 9% by 2020 and creating more jobs to employ the rising numbers of Omanis entering the workforce (Agency, 2015). The goal of indigenous private sector employment, however, is severely hampered by the reliance, to date, by the combination of expatriate employment, a generous social security system and the creation of jobs with better employment conditions across the civil service, police and army. However, these increases in income are often not linked with productivity increases (and subsequent taxation) within the domestic economy, akin to other oil-producing countries in the MENA region considered rentier states.

Oman further lacks a broad base of effective private sector companies. Many of the indigenous Omani companies that are considered successful are based on licensing (franchise) agreements, inexpensive energy and cheap migrant labour. As admonished by Mishrif (2018), their sustainability in the face of reducing fuel subsidies and increasing competition is questionable. Examining the data presented, the necessity to create a diversified economy and society underpinned by indigenous enterprise and entrepreneurship is clear.

Education and Higher Education in Oman

On Sultan Qaboos' accession in 1970 there were only three schools in Oman (for boys only) with low rates of literacy nationally. Sultan Qaboos University was founded in 1986 and was the first HEI in Oman. The government has invested significantly in education, creating a national education infrastructure in 40 years, from a base of zero. This is nothing but impressive. There are now 28 HEIs. Most are privately owned, for-profit ventures, whilst some are public – such as Sultan Qaboos University and the Higher College of Technology. HEIs come under the regulation of the MoHE. The private colleges and universities currently have around 35,000 students enrolled (MoHE, 2021). Sultan Qaboos University had 17,530 students enrolled in 2017 (Sultan Qaboos University, 2017), whilst the University of Technology and Applied Sciences had around 13,000 students enrolled in 2021 (University of Technology and Applied Sciences, 2021).

Education up to graduate level is free for Omani nationals. At the postgraduate level the Omani government provides generous scholarships for able students to continue their studies either at home or abroad. Engineering programmes have been the staple of many HEIs, but business studies and 'creative' areas of study are becoming more popular. Research output from Omani HEIs remains limited. This is a product of the relative infancy of the higher education sector and the fact that many of the more able Omani students take their postgraduate studies outside of the country, often in the US and Europe.

Current Provision of Enterprise and Entrepreneurship Support, Education & Research in Higher Education Institutions

The development of entrepreneurial activity has been the focus of considerable attention by the Omani government. As far back as 2013, an SME symposium, held under His Majesty Sultan Qaboos' directive, placed significant focus on HEIs as supporting SMEs and entrepreneurship. The key outcome of the symposium was that the MoHE signed into law a compulsory entrepreneurship courses for *all* higher

education students. This directive was followed by implementation guidelines produced by the Oman Education Council in 2014 (MoHE, 2013, 2020).

All HEIs in the Sultanate now offer entrepreneurship-focused courses as part of their curricula, yet this appears to have had little impact on the uptake of entrepreneurship among Omani youths (Alqassabi, 2020; Al Shabibi, 2020). Despite the insufficiency of Oman's entrepreneurship policy theretofore, the recently published Oman Vision 2040 affirms the role of HEIs as central actors in driving entrepreneurialism - positioning education, learning, scientific research and national capabilities as key to implementation of the development plan (Oman Vision 2040, 2020). The ultimate goal is to foster knowledge-based socioeconomic and human resource development.

Oman Vision 2020 and 2040 have been accompanied by numerous public and private sector initiatives to support enterprise and entrepreneurship. HEIs have been at the centre of these initiatives either in a direct role as partners in the development of these initiatives, or indirectly in an advisory capacity (Omanuna, 2020; The Education Council, 2018). Two important Oman Research Council (TRC) sponsored studies – Academic Entrepreneurship in Oman (The Research Council, 2013a), and a follow-on report, Proposed Action Plan for Transitioning Towards Academic Entrepreneurial Education in Oman (The Research Council, 2013b) - afforded valuable early insights into plans to enhance entrepreneurship in Oman. However, neither of the HEI programmes that the two studies appear to have been based on strong academic or other research into the specific context and requirements of Oman.

Some of the main government initiatives aimed at stimulating entrepreneurship with the aid of higher education include: establishment of a Main Committee and Executive Committee to oversee entrepreneurship curriculum development, with an emphasis on instilling skills and knowledge related to SME start-up and management as well as facilitating access to training programmes within the private sector (Yarahmadi & Magd, 2016); the Ministry of Manpower establishing SANAD in 2001 to provide Omani youth aged 18-40 access to seed funding and small-business development facilities to start new enterprises; Oman Arab Bank providing soft loans and streamlining complex bureaucratic process for Omani youth start-ups (Al Shabibi, 2020; Yarahmadi & Magd, 2016); incubators in Oman's technical colleges; Nizwa Technical College and Nizwa University setting-up their own incubators; and Injaz, a nonprofit organisation set up in 2001, which runs a programme to foster self-sustainability by offering students training in entrepreneurship via a business and education collaboration (Injaz, 2021). Within the private sector, the most notable initiative is the Intilaaqah initiative set up by Shell in 2015 to train young Omani entrepreneurs to start-up SMEs successfully (Intilaaqah, 2021).

Further noteworthy initiatives include the MoHE establishing an Academic Entrepreneurship Council (AEC) to spread entrepreneurship awareness through media, workshops and seminars, to organise events presenting entrepreneurial business ideas to business people and investors, to mediate the creation of new ventures by academic and private sector actors, and to institutionalise legal formats for collaborative arrangements; and the redesign of colleges of education curricula with the aim of developing graduate schoolteachers who can teach their pupils entrepreneurial skills and attitudes. The TRC has also launched a number of enterprise and entrepreneurship related initiatives, including linking entrepreneurs with key business leaders; an open grant programme for research in entrepreneurship; contracts for entrepreneurial support services; and, academic grants for entrepreneurship development and the protection of intellectual property rights.

The above discussion shows that there is considerable evidence of intent on the behalf of the Omani government and HEIs. However, the majority of these interventions are reactionary responses to the perceived need for action, and are undermined by a lack of robust design or use of evidence on need,

method or impact. There is also little evidence that these initiatives been systematically assessed as a delivery system for overall policy effectiveness. As previously discussed, lack of contextualisation in entrepreneurship policy development fails to account for distinct local idiosyncrasies (Welter & Gartner, 2016), which typically results in underperformance in implementation. Oman policymaker's oversight of the need to approach entrepreneurship as a holistic ecosystem has arguably been one reason for the underperformance its entrepreneurship education policy; the cause of which this study examines.

Entrepreneurship, Ecosystems and Higher Education

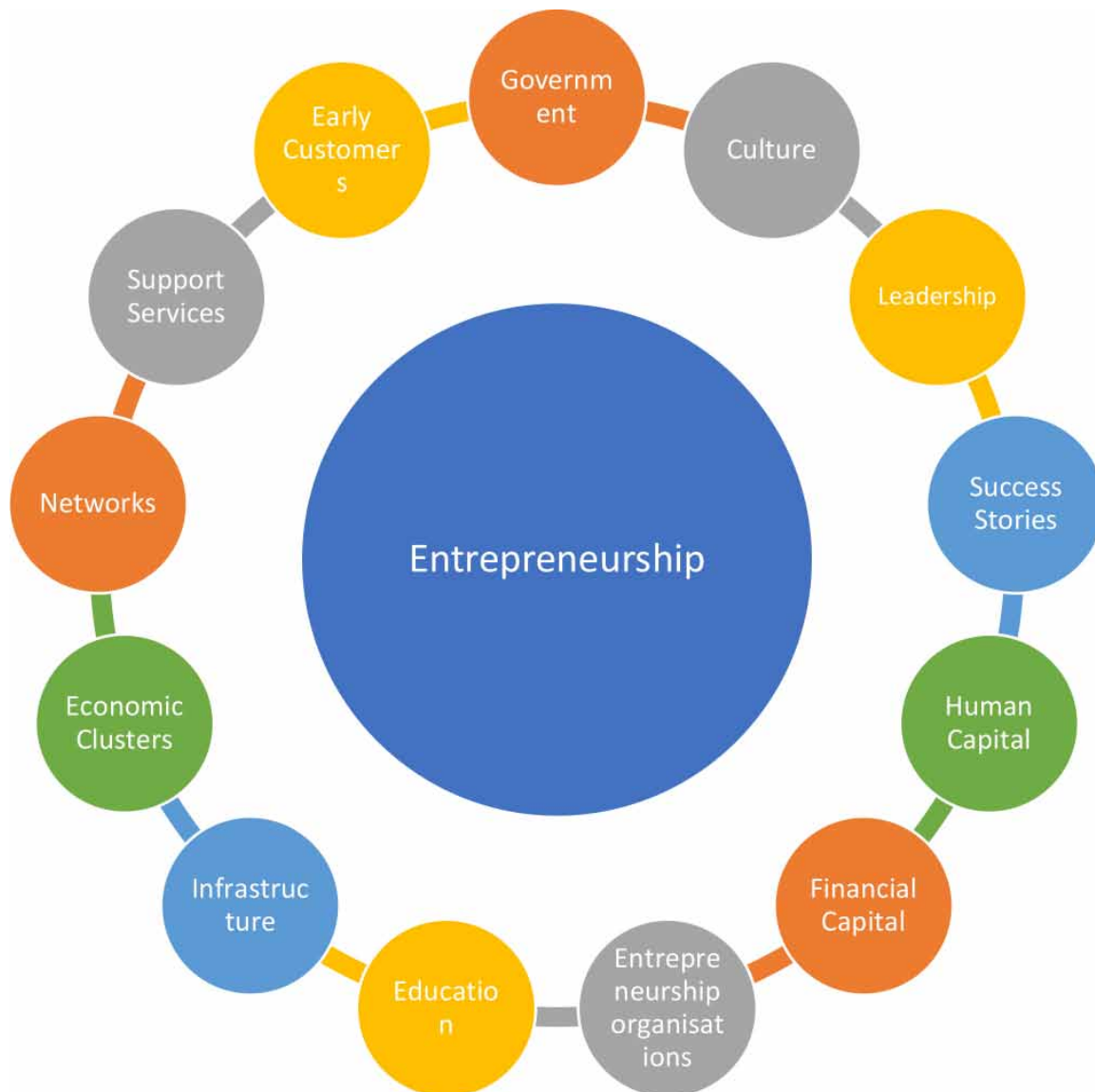
Six decades ago, Schumpeter (1961) cautioned that capitalist economic systems need to renew and diversify, which in turn requires the encouragement of innovation and entrepreneurship. Enterprise and entrepreneurship underpin economic activity: entrepreneurs create micro, small and medium sized organisations that are the foundation of an economy. Scott (2003) provides an overview of the field of entrepreneurship when he referred to the Academy of Management Entrepreneurship Division's domain statement: "The division defines the domain of the field [entrepreneurship] as the creation and management of new businesses, small businesses and family businesses, and the characteristics and special problems of entrepreneurs." (p. 12).

There is a vast array of literature on the development of entrepreneurship, many with normative frameworks that authors suggest can be applied to any situation. Kenworthy and McMullan (2013) question the practical implications and even worth of the volumes of normative and positivistic research into entrepreneurship. Scott (2003) describes the entrepreneurship research field as a "*hodgepodge*" (p. 11) that scholars add to arbitrarily. Although a plurality of perspectives allows inclusivity and development in the field, entrepreneurship as a subject area that is closed to new ideas and innovations appears rather ironic. Scott (2003) proposes that entrepreneurship research involves the examination of many strategic and what might be considered operational factors. This is an inclusive approach, and closer to real world experience. There is clearly a need to conceptualise entrepreneurship strategically, to envisage the 'big' questions and perhaps answers that underpin the subject.

Entrepreneurship, however, cannot be studied in a strategic vacuum. The operational factors that impact implementation have also to be researched. Daniel Isenberg has suggested that entrepreneurship should be considered holistically, as an ecosystem (Isenberg, 2010). This has resonance with some of the developments in business strategy literature (For example see: Bechtold, 1997; Beinhocker, 1997; Courtney et al., 1997; Stacey & Griffin, 2005) and in the strategic management field in the 1990s (Whittington, 2006). An entrepreneurial ecosystem incorporates an understanding that entrepreneurs develop in a system of interacting organisations and agents in conjunction with the other resources in their environments (Also see: Moore, 1993). Ecosystems are complex and adaptive systems; they incorporate multiple actors operating at multiple levels; and they exhibit entropy, that is to say they are vulnerable to degradation. Systems, however complex, that do not adapt will eventually die. Ecosystems are self-organising and move towards chaos when presented with a complex task. Although these complex adaptive ecosystems have weak cause-effect linkages, there is capacity for pattern recognition. This perspective on organisations and the systems they exist within can assist in understanding the successes and failures that we observe in the application of interventions aimed to ameliorate the organisation or system. Isenberg (2014) describes the term entrepreneurial ecosystem as a "... metaphor for fostering entrepreneurship as an economic development strategy" (para. 1). The diagram below depicts the thirteen

factor or agents that Isenberg and his colleagues identified. He describes these as the pillars on which the edifice of entrepreneurship stands.

Figure 1. Entrepreneurial Ecosystem. Source: (Isenberg, 2015)



Isenberg (2010) states: “Unfortunately, many governments take a misguided approach to building entrepreneurship ecosystems. They pursue some unattainable ideal of an ecosystem and look to economies that are completely unlike theirs for best practices.” (p. 3) Isenberg is here clearly emphasising that context for the development of an entrepreneurship ecosystem is all important. Despite the ‘murkiness’ (Isenberg, 2010, p. 3) of developing practices that positively impact the entrepreneurial creation of

businesses, Isenberg believes that developing an “... incomplete and ever-changing set of prescriptions and relentlessly review and refine them” is necessary. The alternative, “... taking decades to devise a model set of guidelines, acting randomly, or doing nothing—all are unacceptable.” (Isenberg, 2010, p. 3)

Isenberg (2015) considers culture one of the thirteen elements in the entrepreneurial ecosystem. This runs the risk of compartmentalising culture unrealistically. Instead, it is suggested here that culture is better defined as the belief system that underpins an ecosystem (See: Schein, 1985; Triandis, 2004; Weick, 2005) and as such culture is core to an entrepreneurial ecosystem.

A key agent/human actor within the entrepreneurial ecosystem is education. Isenberg does not specifically highlight higher education as a sub-set of this element or agent. Nevertheless, a number of authors have explored the impact of higher education to the development of entrepreneurs and entrepreneurship (Gibb, 2002; Henry et al., 2003; Low, 2005; Foundation, 2008; Forum, 2009; Gibb et al., 2009; Gibb, 2012; Hisrich et al., 2020; Tunio, 2020; Ratten & Usmanij, 2021; Tunio et al., 2021). The Kauffman Foundation report, focussing on the USA (Foundation, 2008), states that “the nation’s ability to prosper and to thrive in an increasingly knowledge-based global society and economy depends on our having a progressively well-educated population.” Ducker (1985) further notes that “most of what you hear about entrepreneurship is all wrong. It’s not magic, it’s not mysterious; and it has nothing to do with genes. It’s a discipline and, like any discipline, it can be learnt.” (p. 143).

Gibb and others identify HEIs both as entities within which entrepreneurship can flourish and a catalyst for entrepreneurship in the wider communities they serve (Gibb, 2013; Galvao et al., 2019; Ratten & Usmanij, 2020; Hisrich, et al., 2020). Gibb (2013) emphasises the utility of an action learning approach to develop entrepreneurial capacity and capabilities – learning by doing (Also see: Senge, 1990; Revans, 1997). Ratten and Usmanij (2020) similarly find that despite the scarcity of studies that examine the impact of learning methods on entrepreneurial intention, there is a positive trend in entrepreneurial education towards more hands-on approaches to learning. Living labs, site visits, incubators and other forms of industry collaboration are emerging to equip students with relevant skills, abilities and attitudes. This approach has significant repercussions for HEIs, many of whom continue to prefer traditional models of didactic, class-based learning. Entrepreneurship education in HEIs includes linking entrepreneurship education to institutional goals; focusing pedagogy and staff development on developing the entrepreneurial potential of students; developing cross campus initiatives; and supporting student initiatives (Gibb, 2012). The UK’s higher education Quality Assurance Agency (2012) in its enterprise and entrepreneurship education guidance for UK higher education providers emphasises that the student experience should heighten enterprise awareness, develop an entrepreneurial mind-set, enhance entrepreneurial capability, and develop entrepreneurial effectiveness. It also provides a broad framework that higher education providers can use to articulate learning outcomes that can be applied across a wide range of types of delivery in terms of enterprising behaviours, attributes and skills. Gibb et al. (2009) in their report for the UK’s National Council for Graduate Entrepreneurship (NCGE) explain that “‘Entrepreneurial University’ is an exciting concept which defines those universities providing opportunities, practices, cultures and environments conducive to actively encouraging and embracing student and graduate entrepreneurship. They are places where entrepreneurship is part of the fabric of the institution.” (p. 1). Gibb et al. (2009) are clearly linking the impact upon culture that HEIs can have, particularly in the realms of entrepreneurship. Furthermore, academic entrepreneurship defined by Hisrich et al. (2020) as the “transfer of products/services through spins or the exploitation point of entrepreneurship” (pp. 12-13) by either the university staff or students that culminates in the formation of a new venture or enterprise demonstrates the tangible impact of entrepreneurship within the HEIs on

sustainable economic development. As noted by Tunio (2020), the entrepreneurial endeavours of HEIs, including the development of graduates with the skills and mindsets demanded by the socio-economic changes and technological advances (Ratten & Usmanij, 2020), academic research that facilitates marketable innovation (Galvao et al., 2019) and the facilitation and creation of new ventures (Hisrich et al., 2020), contribute significantly to sustainable development by co-creating socio-economic value with a broad range of societal stakeholders.

Although there is some ongoing debate about whether entrepreneurs are a product of nurture or nature (Galloway & Brown, 2002; Wilson et al., 2004, 2007), writers such as Rae and Carswell (2000) are unequivocal in their belief that there is a close relationship between learning and entrepreneurial achievement. They propose that learning is a dynamic process that enables entrepreneurial behaviour to occur. Beyond learning, exposing young people to entrepreneurship education may increase their interest in entrepreneurial careers (Dyer, 1994; Tunio, et al., 2021) as well as their entrepreneurial competences (Wilson et al., 2004). However, despite the clear benefits of entrepreneurial education, Ratten and Usmanij (2020) suggest that “there is a dark side in that not everyone is able to think or act entrepreneurially.” (p. 4). Wilson et al. (2007) find that although self-efficacy is a good predictor of entrepreneurial intentions, there is a strong influence of gender towards males. Although the authors further report that entrepreneurial education lowers the gender differences, Bögenhold and Klinglmair (2015, 2016) suggest that the gender differences persist in actual entrepreneurial behaviour where females typically engage in solo self-employment in micro-enterprises that tends to be part-time with lower earnings. Aside from gender differences, a study by Tunio et al. (2021) into the factors that influence Pakistani students’ engagement with entrepreneurial careers find alongside entrepreneurship courses and engagement in business incubators, self-efficacy, family background, and economic factors such as the level of unemployment in the country significantly influence entrepreneurship as a career choice. These studies indicate that a range of environmental pressures shape entrepreneurial intentions and behaviour.

Emergent from the above discussion is the effect of the social environment on entrepreneurship. The context in which enterprise and entrepreneurship occurs is investigated by a still-growing literature (Martinelli, 2003; Bögenhold & Fachinger, 2007; O’Neill Jr et al., 2009; Fritsch & Schroeter, 2011; Elmes et al., 2012; Spigel, 2017; Spigel & Harrison, 2018; Bögenhold, 2018; Galvao et al., 2018). Variances in space and location produce different drivers for the encouragement or discouragement of enterprise and entrepreneurship. As raised in the opening section to the chapter, the distinct environmental factors existent across the world resulted in entrepreneurship driving innovation in developed countries as opposed to the more developmental role developing economies. For example, Tunio et al. (2017) show that in developing countries where employment opportunities are scarce, self-employment enabled by information and communication technology contributes towards the alleviation of poverty. These variances are features of an ecosystem as described by Isenberg. As Welter (2011) indicates, economic behaviour can be better conceptualised within its historical, temporal, institutional, spatial, and social contexts. Welter also cautions that the context within which enterprise and entrepreneurship occurs can either be an asset or a liability. Spigel (2017) likewise notes the important of taking into account local specificities when developing entrepreneurial policy. Taking a relational perspective, Spigel identifies cultural, social and material attributes as the most commonly identified aspects of entrepreneurial ecosystems and demonstrates the importance of the relationships between those attributes. He further argues that, for example, new material attributes such as “entrepreneurial support organisations, state-financed start-up investment schemes, or new university technology and knowledge transfer programmes are unlikely to succeed if they are not underpinned by complementary social and cultural attributes” (p. 52). Thus,

culture is central to context and extant literature shows that a better contextual understanding will result in more relevant evidence-based interventions. Accordingly, we expect Oman's particular context possesses unique characteristics that determine its entrepreneurial ecosystem.

METHODOLOGY

The complexity and multi-layered nature of entrepreneurial ecosystems and the under-researched Omani context necessitated an explorative research technique. Interviews were selected as an appropriate method of data collection, enabling the research team to access individual perceptions, meanings and their constructions of their realities (Punch, 2005).

Sample Selection

Purposive sampling targeted informed participants in the utilisation of higher education to develop entrepreneurship in Oman (Sekaran, 1992; McBurney, 1994; Coyne, 1997; Creswell, 2006; Saunders et al., 2009). The sampling drew on the research team's collective intuition, informed by study of the subject, the population, experience, observation and reflection (Patton, 1990; Babbie, 1995). This approach enabled the collection of information-rich data from a relatively small sample (Patton, 1990). Since this study aimed to obtain insight on the convergence of higher education policy and initiatives on entrepreneurship, the first sampling criterion was known or probable insight into the topic, and the second was to achieve a maximum variation of key respondents across government, higher education, industry and students. In total, fourteen interviews were completed comprising: two interviews with government officials; four interviews with higher education lecturers; four interviews with students in higher educations; and four interviews with industrialists.

Data Collection

Several authors (Durgee, 1985; Bryman, 1988; Burns, 2000; Deetz, 2000; Denzin & Lincoln, 2000; Flick, 2002; Mason, 2002) regard interviewing as an appropriate method to obtain data on meaning, values, interpretation, social construction processes and human interactions. Unstructured or open-ended interviews (Noaks & Wincupp, 2004) offer maximum flexibility when attempting to explore a complex research topic and obtain rich data (Silverman, 2006) and thus an unstructured approach was adopted. Interviewees were asked simply to talk about the impact of government policies directed at higher education for the development of entrepreneurship (in Oman). They were informed of the subject and the purpose of the research prior to the interview. Experienced researchers conducted all interviews. They were conducted in English and took between thirty and ninety minutes; each interview was recorded and transcribed.

Data Analysis

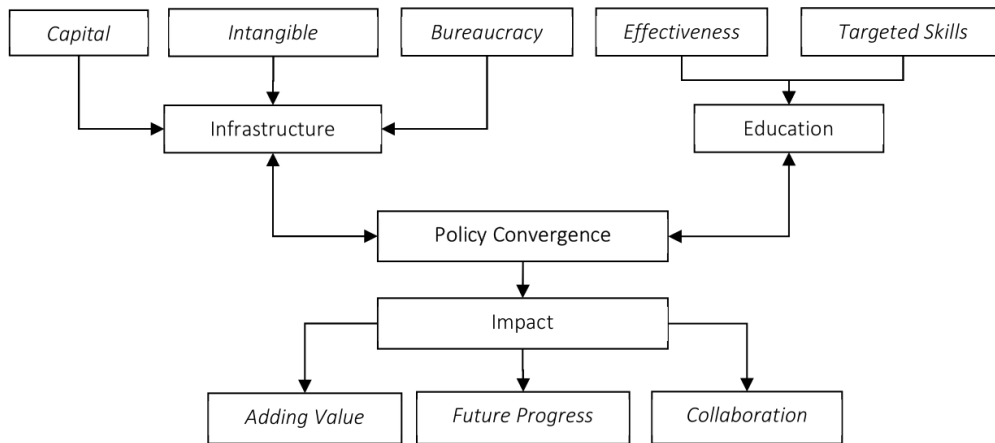
Thematic analysis was undertaken to identify and report patterns across datasets. As the research was exploratory, a range of views were sought, and an inductive thematic analysis method was applied as outlined by Braun and Clarke (2006). Digital recordings were made and subsequently listened to in

order to confirm dependability of the interviews. Next, the recordings were sent for transcription. The data was then coded and collated, codes were analysed and arranged as potential themes. These themes were further refined into high-level themes that represented each interview and the relationship across all interviews.

FINDINGS AND DISCUSSION

The study identified three main themes: education, infrastructure, and impact (See figure below: Key Themes) that prove useful when considering the Omani entrepreneurial ecosystem and higher education's impact upon that system.

Figure 2. Key themes and sub-themes identified, connected by the concept of policy convergence



Education includes formal educational input, mainly vocational and applied. Infrastructure refers to the resources including time, people and capital, invested in developing entrepreneurship. These are key elements of an entrepreneurial ecosystem. Impact emerged as a theme and was found to focus on added value, future progress in developing entrepreneurship and collaboration between partners in an ecosystem. This theme is interesting in that it is not an element identified within Isenberg's (2010, 2014, 2015) framework. Impact is the outcome of the interaction of the agents identified by Isenberg. Of course, impact can either be perceived or actual and distinguishing between the two is sometimes difficult. These themes are further elaborated upon below. In particular, education (training) is identified as a key theme and the focus of this paper.

Education

Although the term 'education' is applied in this paper, the term 'training' was more often applied by respondents as they critiqued initiatives or the need for initiatives to foster entrepreneurship. A lack of policy convergence was clear from respondents in this area. Specifically linking schools, further and

A Study of the Convergence Between Entrepreneurship, Government Policy, and Higher Education in Oman

higher education as well as on the job training as a holistic response. One respondent from an education institution stated:

There is no clear progression between the Ministries of Education, Higher Education and Ministry of Ministry of Commerce & Industry. We try to teach skills at a young age, but as they transition there is no clear communication between the different agents.

Respondents, however, were general highly supportive of individual government initiatives. This is perhaps a response to the multitude of government initiatives and the realisation that action has to be taken in this generation in preparation for a post hydro-carbon economy.

A key issue for HEIs identified by respondents was the career aspirations of higher education students. It was reported that a majority of students wish to enter the public sector, owing to the relatively high salaries offered, job security and identifiable entry and progression routes offered by employers such as the civil and police services. Respondents observed that as yet there has been no comprehensive attempt to address career aspirations of young Omanis. This issue was exacerbated post 2011 when the government increased the size of the public sector and the remuneration packages for Omanis in public service in response to civil unrest, albeit limited.

Some higher education programmes now have compulsory elements within them that introduce and aim to develop entrepreneurial skills, but all respondents felt that Omani students could not be coerced into entrepreneurship. Concurring with extant literature (e.g., Gibb, 2013; Ratten & Usmanij, 2020; Hisrich et al., 2020), providing the skills and mindsets to enable Omanis to become entrepreneurs was seen as important, but there were some voices that believed that courses on entrepreneurship per se were ill-advised. One respondent commented:

Entrepreneurship is a way of thinking. It cannot just be taught like finance and law. If higher education is to engage with developing entrepreneurial capacity amongst our students, it must be developed as part of the whole educational experience from the earliest years.

One student stated:

The problem [in developing entrepreneurship] is in the secondary schools and it is too late in university.

The ‘way of thinking’ refers to embedded beliefs, a facet of the cultural values that an individual holds. This supports the perspective that at the centre of the entrepreneurial ecosystem is culture.

A criticism of the extant higher education system voiced by respondents is its over-reliance on didactic approaches to learning. Respondents observed that the dominant approach in higher education in the Sultanate focuses on teaching, knowledge and memorisation, and as such constrains the learning required to develop entrepreneurs. The existing system focuses on baseline knowledge. Akin to the observations by Ratten and Usmanij (2020), there was a widespread belief that entrepreneurship education should move towards experiential learning, through which people can learn by doing, with perhaps less structure. One business studies student stated:

We study and memorise facts but when we leave [higher education] we don't know the real world.

A Study of the Convergence Between Entrepreneurship, Government Policy, and Higher Education in Oman

Several respondents identified that higher education tutors lacked the skills to deliver impactful entrepreneurship courses and programmes. Specialist courses such as entrepreneurial marketing that instil good business practices and practical managerial skills are lacking. Although marketing courses are widely taught at Omani universities, a specialist course would explain the logic behind the need to collect market feedback by removing the worry of intellectual property theft as well as the crucial importance of analysing the opportunity through an ‘opportunity assessment plan’ (Hisrich & Ramadani, 2018). This criticism was clearly linked to the didactic style that is dominant in Omani higher education. In the development of new and innovative approaches to higher education (for Oman), both academics and government officials interviewed saw a need to be far more collaborative across Oman’s higher education sector. There was a recognition that Oman has limited resources and a limited talent-pool, and that both should be harnessed - across institutions and sectors - to maximise impact.

Access to finance has been provided in a number of forms by the Government for Omanis who wish to establish businesses. Some respondents saw HEIs as potential incubators for entrepreneurs and their products or services. This was disputed by one respondent who stated:

In many areas the students are ill-prepared to establish businesses that can be competitive either locally, nationally or internationally. There is a danger of Oman being over-run with cupcake outlets rather than businesses that can really add value.

Infrastructure

The interaction of the different elements of Oman’s entrepreneurial infrastructure was highlighted by respondents. The infrastructure theme aggregated many comments on the constraints of local delivery systems. Respondents suggested that inexperienced entrepreneurs are largely unaware of the existing regulatory environment in which they operate. Respondents also suggested that the Omani political and socio-economic environments have entrenched, and largely inefficient and ineffective structures cemented by excessive bureaucracy. Newly established enterprises find difficulties accessing information related to both the sources of investment and the available intangible resources for expert advice and guidance. Strengthening this aspect of the infrastructure by, for instance providing basic marketing advice but tailored to the entrepreneurship field (Hisrich & Ramadani, 2018) may help reduce the significant attrition rate among Omani small and medium enterprises identified by Al Qassabi (2020).

Nevertheless, respondents generally believed that there was a range of favourable policies and procedures for entrepreneurship development currently in place in the Sultanate. These included access to capital; availability of intangible resources such as expert advice and guidance; removal of ‘red tape’; and supportive educational policies. These apparently contradictory views can be traced to the individual experience of respondents within the context of a rentier state paradigm.

Impact

The potential impact of entrepreneurship initiatives targeting higher education students was questioned by a number of respondents. A common view was that Omani youth prefer jobs either in government or in the oil sector, for the rational reasons that these sectors are familiar, safe, well remunerated and perhaps less challenging than other areas of employment. These respondents questioned the likelihood

of influencing HEI students' behaviours, attitudes and beliefs towards entrepreneurship, suggesting that young people's views would already be formed and ingrained before they join a HEI.

Several respondents believed that entrepreneurship education should begin in primary education. One respondent stated:

The skills that entrepreneurs need are acquired at an early age. Determination is not a skill but something that an entrepreneur requires and develops in the playground as a young child.

These views correspond with Wilson et al. (2007) that socio-cultural factors have a strong influence on entrepreneurial intentions where societal expectations are likely to “shape self-efficacy at an early age, long before actual experiences take place that may further shape or solidify one's self-confidence in different domains” (p. 397).

Respondents further indicated that there are also differences in perceptions as to the effectiveness and actionability of the government's existing policies. This was particularly the case for higher education according to key stakeholders. Several government and higher education respondents remarked that some of government initiatives were ‘off the shelf’ solutions adopted from Western models. They were concerned about the effectiveness of simply adopting policies from overseas, referring to Oman's unique culture and the necessity for interventions to be locally sympathetic. This has resonance with Welter (2011) and Isenberg (2010) belief that ecosystem development should be based on local conditions and direct policy transfer is short-sighted (Dolowitz & Marsh, 2000), resulting in predictable underperformance (Welter & Gartner, 2016). In Oman, the key challenge in developing entrepreneurship is changing Omani culture; this concerns changing the perceptions of all the agents in the system, including, government, parents, teachers, lecturers, employers and students. Several programmes intended to foster entrepreneurship amongst Oman's youth have been introduced (as have other initiatives) from international examples with very limited consideration of their suitability for Oman, or adaptation. Its perceived underperformance reflects the views of Spigel (2017) overlooking local specificities when developing entrepreneurial policy infringes on its efficacy.

Respondents consistently shared the belief that government entrepreneurship policies require updating, particularly around the role of higher education; they also shared a view that future policies should be co-developed through collaborative discussion – resulting in policies that while framed by the macroeconomic needs assessed by government, also take account of industry views on actionability of proposed programmes and the education/training implications of each. One industry respondent stated:

Although the government does talk to us, I think there needs to be more dialogue between the stakeholders to understand and develop Omani enterprise.

Policy convergence carries the potential of greater impact, both in terms of cost effectiveness and economic impact: generating and supporting entrepreneurs who will contribute to the Sultanate's sustainable development. Public policies informed by practitioner perspectives on their conduciveness to success and actionability, it was suggested, also offers the potential of more stability and greater longevity for start-ups. This approach would also allow for careful consideration of the types of self-employment to be promoted by the institutional actors, heeding reports that not all forms of self-employment carry equal capacity to contribute to economic growth and sustainability (Bögenhold, 2018).

Respondents saw a place for HEIs in Oman to house experiments in developing entrepreneurship. Again, this is in line with Isenberg (2010) who identified the need to relentlessly experiment to find context-specific solutions in the quest to develop successful entrepreneurial ecosystems. Interestingly, respondents also believed that HEIs should evaluate government initiatives in rigorous and objective ways. This goes beyond an input into training and would require HEIs in Oman to develop a sophisticated research capacity - in itself, another complex ecosystem.

The research findings indicate that greater collaboration between those responsible for entrepreneurship development and education policy makers is required, including establishing appropriate channels of communication. Better communication links can help to grow mutual understanding, trigger the cross-pollination of ideas and improve alignment. Such communication is vital to the development of integrated policies, both economic and educational, which can help to nurture a new generation of young entrepreneurs equipped with relevant behaviours, skills and knowledge. Without successfully integrating the cultural, social and material attributes to perform as a complementary whole, the Omani entrepreneurial ecosystem is unlikely to succeed (Spigel, 2017). In the meantime, however, there is a need to ensure that current entrepreneurs, and those inclined to engage in establishing and developing SMEs, are engaged within a supportive ecosystem. This requires a 'total (holistic) approach' by government to address all aspects of the ecosystem, of which higher education is only one part. Overall, the findings indicate that the entrepreneurial ecosystem in Oman would benefit from advancing fully from the under-developed triple helix model of innovation to the quadruple helix based on strong relationships and spill-over of knowledge between the university, industry, government and civil society actors to drive economic development (Galvao, et al., 2018),

CONCLUSION

The development of entrepreneurial capacity is essential for any economy (Schumpeter, 1989; Drucker, 2014). It must, however, be remembered that entrepreneurial activity is the product of the complex interaction of a number of agents and it is difficult, if not impossible, to assess the impact of any contributing factor in isolation. The strength of Isenberg's ecosystems approach to understanding the development of entrepreneurship is that it combines grounded research and practice. Governments, such as in Oman, must consider all the agents and relationships that contribute to creating entrepreneurship in an economy, not in isolation, but as elements of an integrated system where agents interact with each other (Isenberg, 2014; Spigel, 2017). As this study demonstrates, culture is at an ecosystem's core. Education and perhaps higher education can be viewed as an agent in the ecosystems that can help change the prevailing culture, enhancing the entrepreneurial capacity and capability.

Entrepreneurship education in Oman continues to attract attention and investment. For example, all university students have to complete an entrepreneurship course developed by a number of HEIs in Oman. This might increase the awareness of entrepreneurship and introduce some of the requisite skills, but in itself will likely have only a limited impact as the initiative does not address the core motivations of individuals. This type and the myriad of other government initiatives need to be applied, monitored and researched holistically.

The infrastructure, training and impact themes that emerged from the research equally cannot themselves be considered in isolation. They are individually important, but should be considered as part of the entrepreneurial ecosystem in Oman. As suggested by Spigel (2017), a well-functioning entrepreneurial

ecosystem requires a carefully blended mixture of cultural, social, or material elements that ensure that positive attitudes towards entrepreneurship, resources, networks, institutions and organisations rooted in a particular place are in place to support high-growth entrepreneurship. The necessity to develop Omani solutions for Omani issues is clear and matches Welter (2011), Isenberg (2010, 2014), Welter and Gartner (2016b), as well as Bögenhold's (2018) understanding that ecosystems have to be considered in terms of their local environments. This is not to say that Oman cannot learn lessons from other economies and societies (and vice versa) but interventions must always be tailored to the specific context. Key to the context are the extant cultures that are found within an ecosystem.

Alongside higher education initiatives, this study has established a consistent view of the need to continue reforming Oman's legal, bureaucratic, and regulatory frameworks to better support entrepreneurs. Evolution in procedures and training is essential as Oman finds its own solutions. Oman will have to, as Isenberg (2014) identifies, experiment relentlessly and holistically. This is where higher education perhaps could have its most significant impact. Experiments undertaken need to be systematically and objectively assessed and universities can either house some of these experiments, such as incubators, and / or provide the independent research capacity to assess initiatives.

The overall impact of higher education and education more generally on entrepreneurship is debateable. Several of the respondents believed that higher education is not critical to the development of a regional entrepreneurship ecosystem. Assessing whether this is in fact true for Oman or any other economy is fraught with methodological hurdles. There is inevitably a time delay between a future entrepreneur's educational experience and them establishing a successful start-up business. Moreover, their higher education experience will be one amongst many factors in the entrepreneurial ecosystem influencing an outcome. Nonetheless, many of our respondents believed that including entrepreneurship education in higher education has a positive impact on Omanis, particularly in a society that lacks an entrepreneurial base and requires rapid transformation to diversify its economy. Perhaps higher education's greatest contribution to developing entrepreneurship in Oman may prove to be its power to change the values and belief systems. The changes required, however, will have to be supported by evidence of impact and considered as part of the total entrepreneurial ecosystem.

Theoretical Implications

The findings of this research add to the existing body of literature on entrepreneurship policy and its implementation in Oman and wider Gulf region through the prism of an ecosystem and an agent within the system, higher education. Whilst previous literature has recognised the importance of entrepreneurship and general policy, this is the first study to explore in-depth, the relationship between higher education planning, policy and the implementation in the Sultanate. This research amplifies the work of Isenberg, his colleagues at Babson and others.

Practical Implications

This study is useful to policymakers particularly as the country has just embarked on Oman Vision 2040, which expects education to play a vital role in transforming the economy. The findings of the study highlight the importance of collaboration in policy implementation, to increase practical economic impact. Thus, policymakers should seek greater collaboration between their own departments and practitioners in public policy decision-making. Done well, collaboration can strengthen the connection between policy

ambition and actual impact on the ground, moderating and resolving misunderstandings that can stifle socio-economic development. Such a collaborative approach develops key capacities both human capital and economic capital, that carry long-term advantage and increase the magnitude of in-country value.

Research Limitations

This study was a single study conducted within Oman. It is recognised that the relatively small sample of key respondent interviewees provides a limited perspective on the subject. Therefore, the results may not be generalisable. Results may not have currency outside of Oman or similar economies. Thus, a future study should seek a wider participation, particularly the inclusion of a wider body of stakeholders. The study was conducted at a single point in time; therefore, it will include some lag between policy decisions being taken today and the eventual impact upon entrepreneurs.

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