



**BRITISH ACADEMY
OF MANAGEMENT**

BAM
CONFERENCE

3RD-5TH SEPTEMBER

ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM

This paper is from the BAM2019 Conference Proceedings

About BAM

The British Academy of Management (BAM) is the leading authority on the academic field of management in the UK, supporting and representing the community of scholars and engaging with international peers.

<http://www.bam.ac.uk/>

Management of the Entrepreneurial Ecosystem in Omani Using the Islamic Leadership Approach and the Adaptive Co-Management Model

ABSTRACT

This paper describes how the entrepreneurial ecosystem are managed in Oman and presents a conceptual framework that explores Islamic leadership model and the adaptive co-management concept as an alternative to the effective management of entrepreneurial ecosystem in an Arabic culture. The results of this study indicate that effective management will be attained when skills are developed through inclusion and information sharing, incorporating religious principles such as fairness in policy making towards building institutional links, respecting cultural aspects such as diversity for an adaptive ecosystem, prioritizing strong relationships leading to effective networks, and viewing humans as custodians of earthly resources leading to equitable allocation of resources in the ecosystem. Additionally, the adaptive co-management approach can help reinforce the Islamic model as it emphasizes on learning-by-doing, relationships and the capacity of the communities and resource users.

Keywords: adaptive co-management, Entrepreneurial ecosystem, Islamic leadership, Oman

I. INTRODUCTION

A. Background

Oman's economic growth and development has recently shifted from the declining oil dependent economy to other diversified sources of income generation such as enhancing the performance of entrepreneurship as an economic growth driver. One of the ways through which such economic goals can be achieved is through the efficient management of entrepreneurial ecosystems. However, the review of existing literature finds a limited research interest regarding how entrepreneurial ecosystems work as well as the policy-related challenges in the

management of entrepreneurial ecosystems. The challenge with Oman's entrepreneurial ecosystem, which resonates to those in emerging economies, is that opportunity to enter, the access to knowledge and skills and the access to capital is limited (Al-Shanfari, 2012). In addition, most entrepreneurs start up their ventures, not based on the opportunity but rather as a 'necessity' for income generation, and most of these start-ups are mainly concentrated in the informal sector where chances of business growth and expansion through the formal channels are limited due to the sectoral rigidity and the lack of capital and funding. Irrespective of these challenges, Oman has the opportunity for achieving one of the most effective entrepreneurial ecosystems mainly because it has a free economy, low taxes, stable government and growing sectors such as agriculture, tourism, light manufacturing, service and fishing (Magd and McCoy, 2014; Hakro and Omezzine, 2016). If these resources are well utilised, the country could achieve a diversified economic prosperity that is not only based to the oil reserves. With research studies estimating that Oman's oil reserves would run out by 2032 (Al-Shanfari, 2012), the urgency to develop an effective entrepreneurial ecosystem in the country as an economic diversification and diversification method cannot be under-estimated.

In order to achieve the desirable entrepreneurial ecosystem model that can foster economic growth and sustainability, studies show that several issues must be addressed. These include the lack of innovation and creativity (Arshi, 2012); the lack of information on entrepreneurship that limits most entrepreneurs from researching and testing their ideas (Schindehutte, Morris and Kodak, 2008; Short, Moss and Lumpkin, 2009); unfavourable culture (Spiess, 2008); poor governance policies (Kohli, 2014); and the "underlying entrepreneurial malaise" characterised by lack of indigenous entrepreneurship and scarcity of self-made and successful entrepreneurs who can be used as role models (Al-Shanfari, 2012), among others.

B. Research gaps and study contribution

Autio and Levie (2017) study found a limited research interest regarding how entrepreneurial ecosystems work as well as the policy-related challenges in the management of entrepreneurial ecosystems. Similarly, Neneh (2012) found that most governments in the MENA region uses a top-bottom approach in entrepreneurial policy and decision-making processes, which is contrary to existing empirical evidence showing the ineffectiveness of the top-bottom approach of policy in addressing systematic and complex issues such as the management of entrepreneurial ecosystems (Dissanayake et al., 2017; Stam, 2015; Kawamorita Kesim et al., 2016; Galán-Muros et al., 2017).

Despite the existing evidence showing that the policies formed to dictate the operation of these entrepreneurial ecosystems have been affected by Arabic cultural beliefs in various ways (Shah *et al.*, 2011); previous studies identify a lack of detailed analysis on the role of the unique Arabic culture in building or evaluating the entrepreneurial ecosystem policies (Coduras *et al.*, 2018; Davari and Najmabadi, 2018). For instance, a study undertaken by Stel (2013) found that close to 16% of entrepreneurship ideas in Arabic societies are not implemented because they are not endorsed by leaders in higher positions or local leaders in rural areas.

This study also identified a study gap in the use of adaptive co-management and Islamic leadership in the management of entrepreneurial ecosystems (Laplaza and Tanaya, 2017). The study found that the concept of Adaptive Co-management Model has been used in various fields of study, specifically in the environmental and tourism studies (such as Clark and Clarke, 2011; Plummer, 2013) but has rarely been applied in studying the entrepreneurial ecosystems. Many scholars have also noted that the role of religion and culture in entrepreneurship (Harrison and Roomi, 2018; Swanson and DeVereaux, 2017), specifically how the Arabic culture and Islamic leadership concepts affect the manner at which entrepreneurial ecosystems are managed in such distinctive cultural and religious settings (Gümüşay, 2015; Tlaiss, 2015; Mehtap *et al.*, 2017). This study could not find a single study that connects the concept of adaptive co-management to the Islamic leadership and Arabic culture of managing entrepreneurial ecosystems. It is with this regard that this study aims at bridging this theoretical gap by developing a management approach for the Omani entrepreneurial ecosystem, towards ensuring better efficiency and management of challenges within the ecosystems, based on the existing Arabic culture and Islamic leadership context in the country.

Besides identifying and fulfilling the identified research gaps, this study has other practical significance. For instance, the analysis of the entrepreneurial ecosystem in Oman is expected to identify and develop resourceful information on the existing challenges and changes that can be adopted to achieve the desired entrepreneurial ecosystem in the country (Naudé, 2013). This would ultimately enhance the current socioeconomic situation in the country. The study also makes significant contributions towards the development of the entrepreneurship capacity and formation of an approach that can assist Omani entrepreneurs to actively engage in entrepreneurship and utilise their skills to earn a living. The study also generates information that can be used to make major policy contributions towards the development of mechanisms of enhancing entrepreneurship that is collaborative and effective in Oman (Mathew, 2009; Bilal and Al Mqbali, 2015). In overall, this study contributes to the

exploration of alternative approaches to the effective management of entrepreneurial ecosystems in an Arabic culture. The review of existing literature found that the Islamic leadership model and the adaptive co-management concept have not been explored in the context of how entrepreneurial ecosystems are managed. In this regard, this study explains how Islamic leadership model and ACM can be used as solutions to better management of entrepreneurial ecosystem in an Arabic culture.

C. Research purpose and methodology

The data generated in this study aims at answering the main research question, which is:

- How can the Omani entrepreneurial ecosystem be effectively managed?

The sub-research questions include:

- How are the entrepreneurial ecosystem policies formulated and implemented in Oman?
- What are the challenges to the effective management of entrepreneurial ecosystems in Oman?
- Which approaches can be effectively used in the management of entrepreneurial ecosystems in Oman?

By meeting the research aims and answering the research questions, this thesis final goal is to contribute to the conceptual framework that explores Islamic leadership model and the adaptive co-management concept as an alternative to the effective management of entrepreneurial ecosystem in an Arabic culture.

To answer these questions, the study assumed a qualitative theoretical approach based on a Glaserian grounded theory approach (Glaser and Strauss, 1967). The grounded theory would help in developing conceptual understanding of the main factors or issues that constitute the naturalistic worlds of these key actors. More importantly, the use of grounded theory would allow for meanings to emerge from the data in a systematic manner (Glaser and Strauss, 1967), which enhances our understanding of the subject matter, that is, the entrepreneurial ecosystems of Oman.

The qualitative data was collected using face-to-face semi-structured interviews with 36 key informants (18 entrepreneurs and 18 key experts) chosen from different areas of specialisation within the Oman entrepreneurial ecosystem. The data was analysed using the three coding systems, that is, open coding, selective coding and theoretical coding paradigm of the Glaserian

grounded theory (Glaser, 1992); and it helped in portraying the systematic representation of the interviewees' understanding and experiences within the entrepreneurial ecosystem. The coding and data analysis of the qualitative interview data was performed using the NVivo data analysis tool (Verma 2013). To uncover the layers within the general research question on how the Omani entrepreneurial ecosystem can be effectively managed, this study relied upon thematic analysis to carry out the interpretation. Thematic analysis is regarded as one of the most popular way of analysing qualitative data because it puts much focus on identifying, analysing and documenting themes or patterns that recur within data (Braun, Clarke and Terry, 2014). Thematic analysis was regarded as an important step in this analysis because it helped identify the patterns that are related to the specific research questions and it also helped in describing the study phenomenon (Vaismoradi et al., 2016). The patterns' identification process was carried out using the grounded theory approach and it involved a process of coding the data and developing the main themes.

III. LITERATURE REVIEW

Some of the works that led to the development of the concept of an 'entrepreneurial ecosystem' or 'environment' used the concept to describe how social and regional economic factors influence the entrepreneurship process (Dubini, 1989; Pennings, 1982; Bahrami and Evans, 1995; Van de Ven, 1993). Building on these studies and movements that de-centralised the focus from the individual entrepreneur as the solitary locus of value creation, the new contextual perspective emphasised on the significance of positioning the entrepreneurial spectacle within the wider perspective that incorporated the spatial, temporal, organisational, market, social and spatial dimensions of the context (Zahra et al., 2014). Welter (2011) adds that even though researchers and policymakers have become more sensitive to some contextual aspects of entrepreneurship such as the location, it is more often that the context of entrepreneurship is "taken for granted, its influence underappreciated or...controlled away" (p. 173-174).

With regard to how the entrepreneurial ecosystem policies are formulated and implemented, Audretsch and Thurik (2001) noted that the entrepreneurial ecosystem policymakers have shifted their focus from the public ownership, competition and regulation policy to privatisation, deregulation and minimal emphasize on competition policy. This new policy shift is aimed at empowering the formation and commercialisation of knowledge such as encouraging research and development, new firms start up and venture capital. In their analysis, Wennekers and Thurik (2001, p.80) found two common types of entrepreneurial ecosystem

policy interventions; one of which encourages the formation of technology-based firms within a selected industry while the other offers the newly formed ventures with the organisational, financial and technological support needed for their local and international growth regardless of the sector. Fuerlinger et al. (2015) argued that the role of the government in the promotion of entrepreneurship within a given region or country is cross-cutting. However, Minniti (2008) established that the general and fundamental question concerning if and how governments have the ability to influence entrepreneurial activity positively remains unresolved.

The challenges to entrepreneurial ecosystem policy have also been reviewed in the literature. For instance, Spiegel and Harrison (2018) identified the lack of strong and efficient government and the entrepreneurs support towards the development of an entrepreneurial ecosystem as a major challenge. Another challenge identified was the inexistence of culture that is localised and encourages values like innovation, networking, trust, learning and risk-taking is one of the main characteristics of an efficient and strong entrepreneurial ecosystem (Argote and Miron-Spektor, 2011). Further studies showed that such a localised culture is difficult to build without the role of the state and other key actors (Fuerlinger, Fandl and Funke, 2015). The role of the state in entrepreneurial ecosystems is not only to make and implement policies but also to cultivate the entrepreneurial resources, culture and community (Spiegel and Harrison, 2018). This process of cultivating the communities, resources and culture that are already existing rather than crating new resources from the state to the local level (top-bottom approach) has been defined as the “strategic management of place (Audretsch, 2015, p.12). However, as Audretsch (2015) explains, there are certain characteristics of culture such as risk-taking, trust and innovation that cannot be re-created but can only be developed over time through interactions, networking and knowledge advancement. This interconnection between the role of the state in creating strong entrepreneurial culture and community makes the discussion on the role of the local culture, specifically the entrepreneurial ecosystem culture.

Previous studies have found a link between the social structure and the government role in entrepreneurial ecosystem policy making. This pattern and link can be seen in the manner at which governments in various cultures carry out their decision-making processes. For instance, the majority of governments in the MENA region uses a top-bottom approach in entrepreneurial policy and decision-making processes (Neneh, 2012); while most of the western countries employ the bottom-top approach during the entrepreneurial policy-making process (Tappeh and Ghorbaninia, 2015). One of the assumptions drawn from such studies was that the Arabic culture of seeking the endorsement of a leader in higher position facilitates the top-bottom

approach where entrepreneurial policies and decisions are made at the top level (Tappeh and Ghorbaninia 2015). Further studies showed that the Arabic culture of seeking endorsement is also common at the individual level where entrepreneurs use it in decision making regarding the setting up of business enterprises (Straub et al., 2002). From these studies, one can assume that the culture influences the government role and the policy making process of entrepreneurial ecosystem policies. Thus, the manner at which entrepreneurial ecosystems are managed depends on the culture found that the characteristic of endorsement by a leader was observed in the top-down approach. Straub et al., (2002) argued that if a person in higher authority does not approve a business enterprise, then such an enterprise is likely to be unsuccessful.

On the Islamic leadership model in the entrepreneurial ecosystem, Egel and Fry (2017) state that since the historic times, leadership in global organizations have continued to adopt western style of leadership where critical values have been undermined as these organizations have aimed at profitability and situational management. However, the Islamic countries have remained resilient to their spiritual beliefs and have found ways to incorporate these, alongside with their cultures to their leadership styles. Some of the key identities of Islamic leadership are; belief in inclusivity and fairness, respect for culture and humans as custodians of earthly resources (Egel & Fry, 2017). According to Shah (2006), in the Islamic religion, leadership is not only about the authority, but also a responsibility towards guiding people into righteousness, through actions and words. Notably, Arab countries abiding to the Islamic cultures are characterized by long reigns of leadership by families which not only seek to grow their populations but also share the authority with the locals. The six key leadership principles that guide ILM include: Skills development, strengthening of institutions, cultural diversity, distribution of resources, strengthening relationships and proper management of resources. All these elements have a role in the entrepreneurial ecosystem and can contribute to the maximization of the ecosystem. However, the ability to analyse and select implementation approaches will support the attainment of the desired goals within an ecosystem. According to Ahmad and Ogunsola (2011) and Egel and Fry (2017), most leaders in the Arab countries are maximizing these Islamic leadership models but these initiatives have mainly been witnessed in integrity related initiatives where high levels of ethics have been achieved in Islamic based initiatives. Additional researches also note that the continued rule of families has in some cases undermined the resources sharing initiatives as witnessed in Arab Gulf countries. This has led to limited inclusivity with stakeholder feeling ignored or remaining disadvantaged in the quest to grow the economy. For effective management of the EE, it is critical that the leaders develop

ways to utilize and maximize the noted six principles towards a balanced ecosystem as this will help to eliminate possible challenges like mistrust among stakeholders, poor skills development due to lack of a common policy and failure in the small to medium sized businesses due to lack of information, capital and professional advice or mentorship.

IV. THEORETICAL FRAMEWORK

In order to meet the identified study research gaps, the end-goal of this thesis is to contribute to a theoretical framework on the effective management of the complex socioeconomic and socioecological structures of entrepreneurial ecosystem. This study focuses on how Institutional theory, Adaptive Co-Management (ACM) theory and the Islamic Leadership Model can be used to respond to the identified gaps in the entrepreneurial ecosystem management. The institutional theory provides some conceptual explanation that can be used in building sets of propositions on the role of norms in the entrepreneurial ecosystems policy making processes and how this contributes to the effective management of entrepreneurial ecosystem (Dacin et al., 2002; Isenberg, 2011; Feld, 2012; Clingermayer and Feiock 2011). The Islamic leadership model further extends the discussion on the role of culture and religion, on the management of entrepreneurial ecosystem (Ramadani et al., 2017); and it is reviewed as an alternative approach to the management of entrepreneurial ecosystems. Lastly, the adaptive co-management is used to bring knowledge on the dynamics and governance systems that can be effectively used in the management of the gradually-adapting entrepreneurial ecosystems (Plummer et al., 2012; Fabricius and Currie, 2015; Olsson et al., 2010); and similar to Islamic leadership model, the ACM is also considered as an alternative approach to the management of EEs. These three theories were chosen due to their relevance and prevalence in explaining how social cultures influence the entrepreneurial ecosystem policy processes and how this ultimately determines how the ever-changing entrepreneurial ecosystems are managed.

V: GROUNDED THEORY DATA ANALYSIS

The data collected using semi-structured interviews with 36 interviewees (18 key players and 18 entrepreneurs). The interview data was first transcribed from Arabic to English prior to analysis. The analysis of the data collected from the interview participants was informed by the

Glaserian grounded theory approach (Glaser and Strauss, 1967), as explained earlier. The data was analysed using the three coding systems, that is, open coding, selective coding and theoretical coding paradigm of the Glaserian grounded theory (Glaser, 1992); and it helped in portraying the systematic representation of the interviewees' understanding and experiences within the entrepreneurial ecosystem. To uncover the layers within the general research question on how the Omani entrepreneurial ecosystem can be effectively managed, this thesis relied upon thematic analysis to carry out the interpretation. Thematic analysis is regarded as one of the most popular way of analysing qualitative data because it puts much focus on identifying, analysing and documenting themes or patterns that recur within data (Braun, Clarke and Terry, 2014). Thematic analysis was regarded as an important step in this analysis because it helped identify the patterns that are related to the specific research questions and it also helped in describing the study phenomenon (Vaismoradi et al., 2016). The patterns' identification process was carried out using the grounded theory approach and it involved a rigorous process of coding and theme development.

The grounded theory was informed by interpretive paradigm that allows the researcher to not only rely on these questions exclusively, but rather, to let other ideas and issues that emerge from the data. The interpretive approach was used also because it allows the research participants to express their opinions freely without any manipulation or direction. The qualitative findings show that even though there some positive factors that support the growth of the entrepreneurial ecosystem, there are more challenges facing entrepreneurship in the country, and some of these challenges are hindering the efficiency of the positive factors. The statistical qualitative results ecosystem has some strong pillar and entrepreneurial framework components that works that is combined with a group of stakeholders that support these ecosystems. In theory, an ecosystem is a natural system that is formed according to the variables. The ecosystem maintains a certain form of a balance and in most cases, one pillar or component supports the ecosystem more than the others since it is not all the components that can offer the same support because they vary in their capacity.

While it is typical of an entrepreneurial ecosystem to have some components that are non-performing and others that are working more efficiently, the Omani ecosystem is yet to have that balance. This is because the challenges are more than the factors fostering the growth of the entrepreneurial ecosystem in Oman. More importantly, the challenges identified have more limiting effect. For instance, the lack of entrepreneurial knowledge and skills can have a more damaging effect than, for example, market openness. This is because with the right knowledge

and skills, entrepreneurs are more likely to create innovative products and come up with sustainable solutions that can solve the lack of market openness issue. In most cases, when an entrepreneur designs an innovative product, its uniqueness can help it market itself because customers are looking for uniqueness. However, this does not mean that entrepreneurship skills and knowledge should be prioritised over the market openness component. The ecosystem treats all the components with same importance, and none should be sacrificed over the other. The most important is to have a balance, which is evidently missing based on the findings of this study. This implies that there is a lot of efforts needed to create the balance.

The analysis of the role of government in developing the entrepreneurial ecosystem policies show that they use a top to bottom approach in policy and decision-making where policies come from the top and do not involve or engage entrepreneurs. The interviews have reflected that government has an essential role in the entrepreneurial activity, but it does not involve the other key actors in this process. This leads to lack of ownership amongst the entrepreneurs and creates distrust amongst the various stakeholders and key actors. The need for more government involvement and follow-ups was also noted, with many respondents requesting for more involvement of the various stakeholders in the policy and decision-making processes. There were also calls for the government and other stakeholders to increase opportunities for entrepreneurs to tender. The findings show that Oman government tends to apply the top-bottom approach in his policy making processes, which in most cases, does not involve the views of the other stakeholders. This explains why there was mixed opinions among different respondents of this study. On one hand, the entrepreneurs felt that the government has not been doing enough in terms of policy making and program implementation. On the other hand, the policy makers felt that Oman government has enough policies and programs in place that support the entrepreneurs. The entrepreneurs felt that they have been left out on the policy making and decision-making process while the policy makers felt that the entrepreneurs and other key stakeholders had been involved. These results are shown in the tables below.

THEME	MAJOR CATEGORIES	MINOR CATEGORIES
Challenges facing entrepreneurs in Oman	Inadequate entrepreneurial experience, knowledge and skills	Entrepreneurial programs and courses
		Lack of mentorship and support systems
		Inadequate role models
		Lack of business management tools and systems
		Unclear vision and perspective
Lack of knowledge of entrepreneurship policies and procedures		

		Lack of awareness of entrepreneurs' business concepts
		Lack of creativity and innovation
	Capital/Financial	Capital/funding
		Low revenues and profits
		Lack of coordination between banks and funding institutions
	Attitudes and culture	Lack of trust between key actors
		Entrepreneurship not regarded as a career
		Low appreciation respect for entrepreneurs
		Negative cultural outlook and mentality towards entrepreneurship
	Low stakeholder engagement	Entrepreneurs not engaged in the community
		Poor leadership
		Disregard/poor implementation of proposed solutions
		Lack of support from the government agencies
		Poor communication amongst key actors
		Less youth engaged
	Weak systems and policies	Low access to projects
		Unfavourable laws and legislations
		Low emphasis on youth entrepreneurship
		Poor distribution channels
		Corruption and lack of transparency
Bureaucracy		
Conflicting laws between different institutions		
High fees		
Permits and licenses are hard to get		
Access to resources such as land, funds		
Markets	Weak domestic and regional markets	
	Lack of product/services exhibition initiatives	
	Poor market coordination	
	Competition	
	Existence of black market	

THEME	MAJOR CATEGORIES	MINOR CATEGORIES
Factors fostering Omani entrepreneurial activity	Institutions and Networks	More media coverage and publicity of successful entrepreneurs
		Cooperation between different actors and stakeholders
		Increased technological uptake
		Existing laws and systems
	Support	Less monopoly
		Product innovation channels (e.g. exhibitions by Chamber of Commerce)
		Organisations/institutions supporting entrepreneurial initiatives
		Local communities support/promote entrepreneurial activities

		Multiple sources of funding
		Support from role models
		Appreciation of local talent
		Youth facilitation

THEME	MAJOR CATEGORIES	MINOR CATEGORIES
Solutions to improve Omani entrepreneurial ecosystem	Law reforms and intervention	Reform entrepreneurial laws, rules, regulations and policies
		Provision of guidance, facilities and infrastructure
		Development of standards
		More government involvement and follow-ups
		Legislation of SMEs laws
		Execute proposals made during meetings/conferences
		Increase opportunities for entrepreneurs to tender
		Restructure Omani banking system
		Ease financial laws to increase financial access
		Make government operations virtual/online
		Less bureaucracy
		Better planning and execution/implementation
	Education	Successful role models involved in entrepreneurship at local level
		Compliance from entrepreneurs
		Educate entrepreneurs on the entrepreneurial rules, procedures and policies
		Need for universities and colleges to offer entrepreneurship training
		Training programs from organisations
		Change the education system
		Scientific rehabilitation (more scientists and engineers)
		More funding to the universities
		Support graduates with entrepreneurial knowledge
	More research	
	Stakeholder engagement	Support incubators and accelerators
		Industry-specific support
		Sponsorships
		Entrepreneurs felt like the meetings are waste of time
		Mentorships
		Increased connectivity between stakeholders
	Culture	Change the cultural outlook that government jobs are better careers than being an entrepreneur
		Behavioural rehabilitation
		Change the double standards morality

VI: RESULTS

A. Formulation and implementation processes of EE in Oman

This study uncovered supporting evidence that can describe how entrepreneurial ecosystems of Oman are managed. The findings show that Oman government tends to apply the top-bottom approach in his policy making processes, which in most cases, does not involve the views of the other stakeholders. This explains why there was mixed opinions among different respondents of this study. On one hand, the entrepreneurs felt that the government has not been doing enough in terms of policy making and program implementation. On the other hand, the policy makers felt that Oman government has enough policies and programs in place that support the entrepreneurs. The entrepreneurs felt that they have been left out on the policy making and decision-making process while the policy makers felt that the entrepreneurs and other key stakeholders had been involved. The top-bottom approach is described as ineffective in addressing systematic and complex issues such as the management of entrepreneurial ecosystems (Audretsch, 2011). The top-bottom approach of policy making can be effective in addressing specific non-complex structural and market issues such as offering subsidised funding for new ventures or improving entrepreneurs' approach to research and development facilities (Galán-Muros et al., 2017; Blackburn and Schaper, 2012). However, as several studies in various entrepreneurial ecosystem show, the top-bottom policy approach has proven to be ineffective addressing systematic and complex issues such as the management of entrepreneurial ecosystems (Dissanayake et al., 2017; Stam, 2015; Kawamorita Kesim et al., 2016; Galán-Muros et al., 2017).

Entrepreneurial ecosystems are complex socioeconomic structures that are embedded in multifaceted interactions between organisational and individual stakeholders that constitute of the ecosystem (Spigel, 2015); and they represent institutional and dynamic embedded interactions between entrepreneurial ability, attitudes and aspirations..." (Acs et al., 2014). Given these features of entrepreneurial ecosystems as complex structures implies that EE cannot be effectively managed using the conventional top-bottom approaches as suggested by previous studies (Dissanayake et al., 2017; Stam, 2015; Kawamorita Kesim et al., 2016; Galán-

Muros et al., 2017). In this regard, this study concludes that the use of top-bottom approach to entrepreneurial policy and decision-making is ineffective. This further leads to the conceptualisation that the Oman entrepreneurial ecosystem cannot be effectively managed by relying on ineffective approaches such as top-bottom approach.

The main challenges to the effective management of the entrepreneurial ecosystem in Oman is the lack of skills, knowledge and experience; poor institutions, systems and policies; lack of capital and financing; negative attitudes and unsupportive culture; inaccessibility to markets; and low stakeholder engagement.

B. Approaches to the effective management of EE in Oman

To determine the approaches can be effectively used in the management of entrepreneurial ecosystems, this study conceptualised a theoretical framework that can effectively solve the identified challenges. From the theoretical framework perspective, the Islamic leadership model was identified as one of the alternatives to the identified challenges. The Islamic leadership approach can support the application of a bottom-top approach to entrepreneurial ecosystem policy making. This study has identified that the top-bottom approach applied in the decision-making process is ineffective. The alternative to the top-bottom approach is the bottom-top approach, which can be made more effective if the Islamic leadership model was applied because this would help eliminate the socio-cultural practice of seeking the endorsement from the leaders (Tappeh and Ghorbaninia, 2015). The reason why the Islamic leadership model is important in supporting bottom-top approach is because it encourages leaders not to put their personal interests first, but rather, do good deeds for the sake of Allah, the Muslim community and for the humanity/entire community (ummah) through the propagation of all that is good (Ali, 2009). The Islamic leadership model stipulates that particular considerations such as community engagement and contributions should be prioritised when formulating policies relating to the management of EE (Itani et al., 2011).

The Islamic leadership model can also be used to deal with the challenge of low stakeholder engagement, unsupportive culture and negative attitudes. The literature informs us that cultural beliefs and personal interests affect the ability of political leaders to make the relevant policies with the intent of ensuring entrepreneurial ecosystem is suitable for creation of new businesses and improvement of existing businesses (Khalil and Olafsen 2010). However, if the Islamic principles of inclusiveness are applied, these inadequacies in making policies can be overcome

and the right policies can be created to enable potential entrepreneurs to perform their entrepreneurial duties in an effective manner (Bruton, Ahlstrom and Li 2010). In the formulation of policies pertaining to entrepreneurial ecosystems policies, leaders should not be allowed to make decisions based on their positions (Mohammed et al., 2011). Rather, the contributions to the policies should be made from various stakeholders such as entrepreneurs, a number of professionals who understand entrepreneurial environment and a number of leaders whose contributions are all incorporated into the new entrepreneurial policies (Day and Harrison 2007). Islamic leadership model can lead to formulation of policies affecting entrepreneurship and the right decisions will be made to create a suitable environment for the operation of business enterprises (Pinillos and Reyes 2011). This model is important in creating entrepreneurial policies because it provides leaders with skills of being inclusive in the decisions they make pertaining to entrepreneurial ecosystems (Stel 2013).

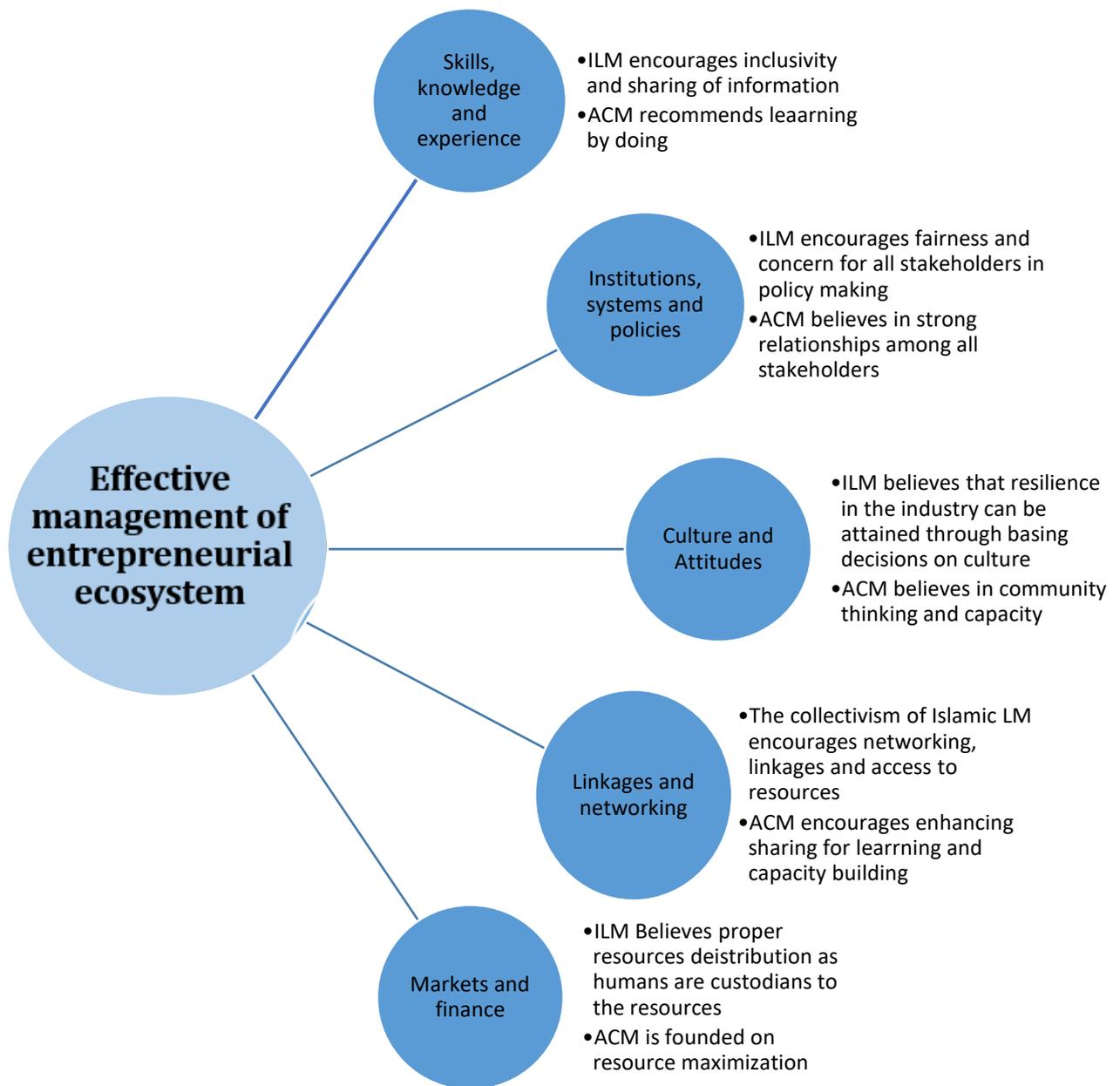
While the Islamic leadership model can deal with most of the main challenges identified, this paper contends that a stronger framework for the effective management of the entrepreneurial ecosystem would be reinforced if the Islamic leadership model was combined with the adaptive co-management concept. The adaptive co-management ACM puts much emphases on learning-by-doing, relationships and the capacity of the communities and resource users (Olsson et al., 2004). In order to have effective and well-functioning entrepreneurial ecosystem, it is important to have learning and entrepreneurial knowledge channels as well as collaboration and networking among key actors such as mentors, investors, government agencies and entrepreneurs (Folke et al., 2005). The lack of knowledge, skills and experience was identified as a key challenge to thee effective management of entrepreneurial ecosystem. Thus, adopting the ACM concept in the management of the entrepreneurial ecosystem would contribute to better learning and knowledge sharing systems as well as proper usage of resources, connectivity and networking.

The key themes of the adaptive co-management are also applicable in the formulation of a conceptual framework for managing entrepreneurial ecosystems in an Arabic culture. These key themes include: complex systems thinking; adaptive capacity and resilience; learning, knowledge and social capital; institutional designs; conditions of success and failure; partnerships and power sharing; and policy implications (Armitage et al., 2017). The combination of these key themes of adaptive co-management to the main theoretical stipulations of Islamic leadership model can be further conceptualised to formulate a theory for entrepreneurial management.

C. Conceptual framework on the management of entrepreneurial ecosystems

The conceptual framework to the effective management of the entrepreneurial ecosystem was developed based on the identified challenges and the theoretical stipulations of the Islamic leadership model and the adaptive co-management concepts.





The application of both ILM and ACM helps to emphasize the value and minimize the weaknesses of any approach to the EE management process. To begin with, skills development through inclusion could be limited by the lack of institutions to support the demand for skills. However, through ACM, the Omani government is reminded that learning not only takes place through a class setting but also through the workplace and work experiences. This is learning by doing as enshrined in the ACM. Institutions are also expected to develop policies based on fairness as guided by the Islam religion. Fairness can only be attained through continued engagement among all stakeholders in the policy making process. The ACM notes that this

engagement not only presents an opportunity for improved decision making but also a platform for fostering relationships. Notably, by aiming at better relationships, the institutions are able to use existing links to enhance participation and effective policies. From the cultural point of view, the continuing diversification of thinking will enhance change in attitudes towards entrepreneurship. However, this should not only be done for the economic benefit of the country alone but also towards building the people's capacity to grow and develop themselves as encouraged in the ACM. Linkages are also emphasized through networking as these relationships promote learning and attitude change. The ILM clearly values the power of strong networks. ACM is also keep on relationships and thus, encourages continued communication for better relationships not only among stakeholders but also within their own environments. Entrepreneurs should maximize forums consisting of other stakeholders to share experiences and evaluate progress. Finally, both ILM and ACM aim at ensuring resource distribution. This is because all resources are meant for the population and thus, this population must utilize and maximize these resources.

D. Responses to the research questions

- *How can the Omani entrepreneurial ecosystem be effectively managed?*

To determine the approaches can be effectively used in the management of entrepreneurial ecosystems, this study conceptualised a theoretical framework that can effectively solve the identified challenges. From the theoretical framework perspective, the Islamic leadership model was identified as one of the alternatives to the identified challenges. The Islamic leadership approach can support the application of a bottom-top approach to entrepreneurial ecosystem policy making. This study has identified that the top-bottom approach applied in the decision-making process is ineffective. The alternative to the top-bottom approach is the bottom-top approach, which can be made more effective if the Islamic leadership model was applied because this would help eliminate the socio-cultural practice of seeking the endorsement from the leaders

While the Islamic leadership model can deal with most of the main challenges identified, this thesis contends that a stronger framework for the effective management of the entrepreneurial ecosystem would be reinforced if the Islamic leadership model was combined with the adaptive co-management concept. The adaptive co-management ACM puts much emphases on learning-by-doing, relationships and the capacity of the communities and resource users (Olsson et al., 2004). In order to have effective and well-functioning entrepreneurial ecosystem, it is important

to have learning and entrepreneurial knowledge channels as well as collaboration and networking among key actors (Folke et al., 2005). The lack of knowledge, skills and experience was identified as a key challenge to the effective management of entrepreneurial ecosystem. Thus, adopting the ACM concept in the management of the entrepreneurial ecosystem would contribute to better learning and knowledge sharing systems as well as proper usage of resources, connectivity and networking.

The key themes of the adaptive co-management are also applicable in the formulation of a conceptual framework for managing entrepreneurial ecosystems in an Arabic culture. These key themes include: complex systems thinking; adaptive capacity and resilience; learning, knowledge and social capital; institutional designs; conditions of success and failure; partnerships and power sharing; and policy implications (Armitage et al., 2017). The combination of these key themes of adaptive co-management to the main theoretical stipulations of Islamic leadership model can be further conceptualised to formulate a theory for entrepreneurial management.

- ***How are the entrepreneurial ecosystem policies formulated and implemented in Oman?***

The findings show that Oman government tends to apply the top-bottom approach in his policy making processes, which in most cases, does not involve the views of the other stakeholders. Studies show that entrepreneurial ecosystem management conventionally rely on the top-bottom approach of policy making and addressing specific non-complex structural and market issues such as offering subsidised funding for new ventures or improving entrepreneurs' approach to research and development facilities (Galán-Muros et al., 2017; Blackburn and Schaper, 2012; Audretsch, 2011). However, as several studies in various entrepreneurial ecosystem show, the top-bottom policy approach has proven to be ineffective addressing systematic and complex issues such as the management of entrepreneurial ecosystems (Dissanayake et al., 2017; Stam, 2015; Kawamorita Kesim et al., 2016; Galán-Muros et al., 2017). This explains why there was mixed opinions among different respondents of this study. On one hand, the entrepreneurs felt that the government has not been doing enough in terms of policy making and program implementation. On the other hand, the policy makers felt that Oman government has enough policies and programs in place that support the entrepreneurs. The entrepreneurs felt that they have been left out on the policy making and decision-making process while the policy makers felt that the entrepreneurs and other key stakeholders had been involved.

- ***What are the challenges to the effective management of entrepreneurial ecosystems in Oman?***

The main challenges to the effective management of EE identified included low stakeholder engagement, experience/knowledge and skills, institutions, systems and policies, attitudes and culture, markets and capital/financial challenges. The availability of support systems and the networking/connectivity opportunities were identified as some of the existing factors that contribute to the efficiency in the management of entrepreneurial ecosystem. In order to enhance the efficiency in the management of EE, the respondents recommended for law reforms and government invention, more educational and training investment, stakeholder engagement and more focus on enhancing the culture. The most noted challenges to the effective management of entrepreneurial ecosystems are the policy vulnerability and the government's use of the top-to-bottom approach in policy and decision-making that do not involve or engage entrepreneurs, which creates a disconnect and lack of balance in the ecosystem. Low stakeholder engagement and poor implementation of set policies also hinder entrepreneurship in the country.

- ***Which approaches can be effectively used in the management of entrepreneurial ecosystems in Oman?***

From the theoretical framework perspective, the Islamic leadership model was identified as one of the alternatives to the identified challenges. The Islamic leadership approach can support the application of a bottom-top approach to entrepreneurial ecosystem policy making. This study has identified that the top-bottom approach applied in the decision-making process is ineffective. The alternative to the top-bottom approach is the bottom-top approach, which can be made more effective if the Islamic leadership model was applied because this would help eliminate the socio-cultural practice of seeking the endorsement from the leaders (Tappeh and Ghorbaninia, 2015). The reason why the Islamic leadership model is important in supporting bottom-top approach is because it encourages leaders not to put their personal interests first, but rather, do good deeds for the sake of Allah, the Muslim community and for the humanity/entire community (ummah) through the propagation of all that is good (Ali, 2009). The Islamic leadership model stipulates that particular considerations such as community engagement and contributions should be prioritised when formulating policies relating to the management of EE (Itani *et al.*, 2011).

The Islamic leadership model can also be used to deal with the challenge of low stakeholder engagement, unsupportive culture and negative attitudes. The literature informs us that cultural beliefs and personal interests affect the ability of political leaders to make the relevant policies with the intent of ensuring entrepreneurial ecosystem is suitable for creation of new businesses and improvement of existing businesses (Khalil and Olafsen 2010). However, if the Islamic principles of inclusiveness are applied, these inadequacies in making policies can be overcome and the right policies can be created to enable potential entrepreneurs to perform their entrepreneurial duties in an effective manner (Bruton, Ahlstrom and Li 2010). In the formulation of policies pertaining to entrepreneurial ecosystems policies, leaders should not be allowed to make decisions based on their positions (Mohammed *et al.*, 2011). Rather, the contributions to the policies should be made from various stakeholders such as entrepreneurs, a number of professionals who understand entrepreneurial environment and a number of leaders whose contributions are all incorporated into the new entrepreneurial policies (Day and Harrison 2007). Islamic leadership model can lead to formulation of policies affecting entrepreneurship and the right decisions will be made to create a suitable environment for the operation of business enterprises (Pinillos and Reyes 2011). This model is important in creating entrepreneurial policies because it provides leaders with skills of being inclusive in the decisions they make pertaining to entrepreneurial ecosystems (Stel 2013).

While the Islamic leadership model can deal with most of the main challenges identified, this thesis contends that a stronger framework for the effective management of the entrepreneurial ecosystem would be reinforced if the Islamic leadership model was combined with the adaptive co-management concept. The adaptive co-management ACM puts much emphasis on learning-by-doing, relationships and the capacity of the communities and resource users (Olsson *et al.*, 2004). In order to have effective and well-functioning entrepreneurial ecosystem, it is important to have learning and entrepreneurial knowledge channels as well as collaboration and networking among key actors such as mentors, investors, government agencies and entrepreneurs (Folke *et al.*, 2005). The lack of knowledge, skills and experience was identified as a key challenge to the effective management of entrepreneurial ecosystem. Thus, adopting the ACM concept in the management of the entrepreneurial ecosystem would contribute to better learning and knowledge sharing systems as well as proper usage of resources, connectivity and networking. The key themes of the adaptive co-management are also applicable in the formulation of a conceptual framework for managing entrepreneurial ecosystems in an Arabic culture. These key themes include: complex systems thinking; adaptive

capacity and resilience; learning, knowledge and social capital; institutional designs; conditions of success and failure; partnerships and power sharing; and policy implications (Armitage *et al.*, 2007). The combination of these key themes of adaptive co-management to the main theoretical stipulations of Islamic leadership model can be conceptualised to formulate a theory for entrepreneurial management.

VIII: CONCLUSIONS

The promotion of entrepreneurship in Oman is motivated by both necessity and ideological trend. The findings show that despite the Omani government effort in improving the entrepreneurial ecosystem of the country, the policies and programs devised are far from ideal and stakeholders are not engaged in the policy and decision-making process. This research concludes that the objectives of the study have been were satisfactorily achieved based on the data findings attained and discussions made in the previous chapters. The study has shown that even though there some positive factors that support the growth of the entrepreneurial ecosystem, there are a lot of challenges that are hindering the efficiency facing entrepreneurship in the country. Those willing to learn more about the Omani entrepreneurial ecosystem can learn a lot from these findings. In the next sections, the reference materials and appendices are presented.

REFERENCES

- Aaltonen, A. (2016). Factors Shaping Entrepreneurial Ecosystems and the Rise of Entrepreneurship: A View from Top Management Journals. *Helsinki: Demos Helsinki*.
- Acs, Z.J., Audretsch, D.B., Lehmann, E.E. and Licht, G., 2016. National systems of entrepreneurship. *Small Business Economics*, 46(4), pp.527-535.
- Acs, Z. J., Szerb, L., & Lloyd, A. (2017). The global entrepreneurship and development index. In *Global Entrepreneurship and Development Index 2017* (pp. 29-53). Springer, Cham.
- Acs, Z. J., Szerb, L., & Lloyd, A. (2017). The global entrepreneurship and development index. In *Global Entrepreneurship and Development Index 2017* (pp. 29-53). Springer, Cham.
- Ahmad, K. and Ogunsola, O.K., 2011. An empirical assessment of Islamic leadership principles. *International Journal of Commerce and Management*, 21(3), pp.291-318.
- Armitage, D., Alexander, S., Andrachuk, M., Berdej, S., Brown, S., Nayak, P., ... & Rathwell, K. (2017). Communities, multi-level networks and governance transformations in the coastal commons. *Governing the coastal commons: communities, resilience and transformation*. Routledge, Abingdon, UK, 231-251.
- Arshi, T.A., 2012. Entrepreneurial intensity in the corporate sector in Oman: The elusive search creativity and innovation. *International Business Research*, 5(9), p.171.
- Audretsch, D. B., Falck, O., Feldman, M. P., & Heblich, S. (2012). Local entrepreneurship in context. *Regional Studies*, 46(3), 379-389.
- Audretsch, D. B., Obschonka, M., Gosling, S. D., & Potter, J. (2017). A new perspective on entrepreneurial regions: linking cultural identity with latent and manifest entrepreneurship. *Small Business Economics*, 48(3), 681-697.
- Autio, E. and Levie, J., 2017. Management of entrepreneurial ecosystems. *The Wiley Handbook of Entrepreneurship*, pp.423-449.
- Bilal, Z. O., & Al Mqbal, N. S. (2015). Challenges and constraints faced by small and medium enterprises (SMEs) in Al Batinah governorate of Oman. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(2), 120-130.
- Blackburn, R. and Schaper, M., 2012. Government, SMEs and Entrepreneurship Development: Policy. *Practice and Challenges*. Gower Publishing, Surrey.
- Braun, V., Clarke, V., & Terry, G. (2014). Thematic analysis. *Qual Res Clin Health Psychol*, 24, 95-114.

- Bruton, G. D., Ahlstrom, D., & Li, H. L. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship theory and practice*, 34(3), 421-440.
- Carree, M.A. and Thurik, A.R., 2010. The impact of entrepreneurship on economic growth. In *Handbook of entrepreneurship research* (pp. 557-594). Springer, New York, NY.
- Charmaz, K. (2014). *Constructing grounded theory*. Sage.
- Chigunta, F. (2017). Entrepreneurship as a Possible Solution to Youth Unemployment in Africa. *Laboring and Learning*, 433-451.
- Chittick, W. C. (2010). *The Sufi path of knowledge: Ibn al-Arabi's metaphysics of imagination*. Suny Press.
- Chowdhury, F., Desai, S., & Audretsch, D. B. (2017). *Corruption, Entrepreneurship, and Social Welfare: A Global Perspective*. Springer.
- Ciarli, T., Parto, S., & Savona, M. (2010). *Conflict and entrepreneurial activity in Afghanistan: Findings from the national risk vulnerability assessment data* (No. 2010, 08). Working paper//World Institute for Development Economics Research.
- Coduras, A., de la Vega, I., & Salman, M. B. (2018). Entrepreneurial Ecosystems in Arabic Countries: A Recent Overview. In *Entrepreneurship Ecosystem in the Middle East and North Africa (MENA)* (pp. 283-302). Springer, Cham.
- Cohen, B and Munoz, PA (2015) Toward a Theory of Purpose-Driven Urban Entrepreneurship. *Organization and Environment*, 28 (3).pp. 264-285.
- Cope, J. (2005). Researching entrepreneurship through phenomenological inquiry: Philosophical and methodological issues. *International Small Business Journal*, 23(2), 163-189.
- Cordesman, A. H. (2018). *Bahrain, Oman, Qatar, and the UAE: Challenges of security*. Routledge.
- Crowe, P. R., Foley, K., & Collier, M. J. (2016). Operationalizing urban resilience through a framework for adaptive co-management and design: Five experiments in urban planning practice and policy. *Environmental Science & Policy*, 62, 112-119.
- Dacin, T. M., Goodstein, J., & Richard Scott, W. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of management journal*, 45(1), 45-56.
- Davari, A., & Najmabadi, A. D. (2018). Entrepreneurial Ecosystem and Performance in Iran. In *Entrepreneurship Ecosystem in the Middle East and North Africa (MENA)* (pp. 265-282). Springer, Cham.

- Davis, M.K. and Winn, J., 2017. Islamic Leadership Models: Lessons from Early Islam. In *Entrepreneurship and Management in an Islamic Context* (pp. 19-31). Springer, Cham.
- Dissanayake, D. M. N. S. W., Ranwala, R. S., & Wimalasiri, R. K. S. H. (2017). Resource Based View as a Governing Tool for Corporate Entrepreneurs: A Practical Viewpoint. *Journal of Business and Technology*, 84.
- Edoho, F. M. (2016). Entrepreneurship paradigm in the new millennium: A critique of public policy on entrepreneurship. *Journal of Entrepreneurship in Emerging Economies*, 8(2), 279-294.
- Egel, E., & Fry, L. W. (2017). Spiritual leadership as a model for Islamic leadership. *Public Integrity*, 19(1), 77-95.
- Fabricius, C. and Currie, B., 2015. Adaptive co-management. In *Adaptive management of social-ecological systems* (pp. 147-179). Springer, Dordrecht.
- Fan, Z., & Zhang, R. (2017). Financial inclusion, entry barriers, and entrepreneurship: Evidence from China. *Sustainability*, 9(2), 203.
- Feld, B.C., 2012. Adolescent criminal responsibility, proportionality, and sentencing policy: Roper, Graham, Miller/Jackson, and the youth discount. *Law & Ineq.*, 31, p.263.
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience thinking: integrating resilience, adaptability and transformability. *Ecology and society*, 15(4).
- Fuerlinger, G., Fandl, U., & Funke, T. (2015). The role of the state in the entrepreneurship ecosystem: insights from Germany. *Triple Helix*, 2(1), 3.
- Galán-Muros, V., van der Sijde, P., Groenewegen, P., & Baaken, T. (2017). Nurture over nature: How do European universities support their collaboration with business?. *The Journal of Technology Transfer*, 42(1), 184-205.
- Galanou, A., & Farrag, D. A. (2015). Towards the distinctive Islamic mode of leadership in business. *Journal of Management Development*, 34(8), 882-900.
- Gaughan, P. H., Javalgi, R. G., & Young, R. B. (2018). An Institutional Theory Approach to Improve Planning for Innovation and Entrepreneurship Ecosystems in Developing Economies. *KnE Social Sciences*, 3(10), 122-130.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15-31.

- Glaeser, E. L., & Kerr, W. R. (2009). Local industrial conditions and entrepreneurship: how much of the spatial distribution can we explain?. *Journal of Economics & Management Strategy*, 18(3), 623-663.
- Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European journal of information systems*, 21(2), 135-146.
- Goulding, C. (2017). Navigating the complexities of grounded theory research in advertising. *Journal of Advertising*, 46(1), 61-70.
- Gümüşay, A. A. (2015). Entrepreneurship from an Islamic perspective. *Journal of Business Ethics*, 130(1), 199-208.
- Hakro, A. N., & Omezzine, A. M. (2016). Oil prices and macroeconomic dynamics of the Oman economy. *The Journal of Developing Areas*, 50(1), 1-27.
- Harrison, P., & Roomi, M. A. (2018). 5. Islamic insights on entrepreneurial leadership. *Research Handbook on Entrepreneurship and Leadership*, 106.
- Hassan, A., & Mollah, S. (2018). Bigger Than the Bottom Line: Islamic Principles of Accounting. In *Islamic Finance* (pp. 285-293). Palgrave Macmillan, Cham.
- Ibrahim, O. A., Devesh, S., & Ubaidullah, V. (2017). Implication of attitude of graduate students in Oman towards entrepreneurship: an empirical study. *Journal of Global Entrepreneurship Research*, 7(1), 8.
- Idowu, O. E. (2017). Positivism versus Interpretivism: Fire-war on the Methodological Approach in the Study of Organisational Culture. *International Journal of Human Resource Studies*, 6(4), 178-187.
- Isenberg, D. (2014). What an Entrepreneurship Ecosystem Actually Is. *Harvard Business Review*. May 12, 2014. Online. Viewed: 23 August, 2014. Accessed from: <https://hbr.org/2014/05/what-an-entrepreneurial-ecosystem-actually-is>
- Isenberg, D., & Onyemah, V. (2016). Fostering scaleup ecosystems for regional economic growth (innovations case narrative: Manizales-Mas and Scale Up Milwaukee). *Innovations: Technology, Governance, Globalization*, 11(1-2), 60-79.
- Jabeen, F., Faisal, M. N., & I. Katsioloudes, M. (2017). Entrepreneurial mindset and the role of universities as strategic drivers of entrepreneurship: Evidence from the United Arab Emirates. *Journal of Small Business and Enterprise Development*, 24(1), 136-157.
- Jaz, F. J., AlSabah, F. H., & Sarfraz, M. (2018, March). Mobile Commerce Applications and Adoption for Kuwait. In *Computing Sciences and Engineering (ICCSE), 2018 International Conference on* (pp. 1-6). IEEE.

- Johnsen, S. (2017). Social enterprise in the United Arab Emirates. *Social Enterprise Journal*, 13(4), 392-409.
- Johnston, A., Lassalle, P., & Yamamura, S. (2018). Re-conceptualising entrepreneurial ecosystems: a theoretical exploration of evolution over space and time. *Geography, Open Innovation and Entrepreneurship*, 221.
- Johnston, T., & Humphries, V. (2016). Analysis of the Interrelatedness of the Mena Region. *Journal of Economics and Economic Education Research*, 17(3), 185.
- Kamri, N. A., Ramlan, S., & Ibrahim, A. (2014). Qur'anic Work Ethics.
- Kawamorita Kesim, H., Salamzadeh, A., & Demiryürek, K. (2016). Academic Entrepreneurship: Some Evidence from a Turkish University.
- Keohane, R. O., & Martin, L. L. (2014). Institutional theory as a research program. *The Realism Reader*, 320.
- Laplaza, A., & Tanaya, I. G. L. (2017). Adaptive co-management in developing world contexts: A systematic review of adaptive co-management in Nusa Tenggara Barat, Indonesia. *Climate Risk Management*, 17, 64-77.
- Lee, M. (2015). Fostering connectivity: a social network analysis of entrepreneurs in creative industries. *International Journal of Cultural Policy*, 21(2), 139-152.
- Logie-MacIver, L., Piacentini, M., & Eadie, D. (2012). Using qualitative methodologies to understand behaviour change. *Qualitative Market Research: An International Journal*, 15(1), 70-86.
- Lynch, L. J., & Haskins, M. E. (2018). Amazon. Com, Inc. Buys Whole Foods Market.
- Magd, H.A. and McCoy, M.P., 2014. Entrepreneurship in Oman: Paving the way for a Sustainable Future. *Procedia Economics and Finance*, 15, pp.1632-1640.
- Mathews, J., 2009. China, India and Brazil: Tiger technologies, dragon multinationals and the building of national systems of economic learning. *Asian Business & Management*, 8(1), pp.5-32.
- Marković, J., Prodanović, R. and Mutibarić, J., 2012. Creativity and innovation in entrepreneurship. *Ekonomija: teorija i praksa*, 5(3), pp.47-59.
- Mehtap, S., Pellegrini, M. M., Caputo, A., & Welsh, D. H. (2017). Entrepreneurial intentions of young women in the Arab world: Socio-cultural and educational barriers. *International Journal of Entrepreneurial Behavior & Research*, 23(6), 880-902.
- Miniaoui, H., & Schilirò, D. (2017). Innovation and entrepreneurship for the diversification and growth of the gulf cooperation council economies. *Business and Management Studies*, 3(3), 69-81.

- Mishrif, A., & Al Balushi, Y. (Eds.). (2017). *Economic Diversification in the Gulf Region, Volume I: The Private Sector as an Engine of Growth*. Springer.
- Morris, M. H., Neumeier, X., & Kuratko, D. F. (2015). A portfolio perspective on entrepreneurship and economic development. *Small Business Economics*, 45(4), 713-728.
- Naudé, W., 2014. Entrepreneurship and economic development. *International Development. Ideas, Experiences and Prospects*.
- Nazeer, T. (2017). MENA's entrepreneurial ecosystem has the potential to flourish. Forbes Entrepreneurs. Available at <https://www.forbesmiddleeast.com/en/egypts-first-mini-car-to-counter-need-for-tuk-tuk/>
- Neneh, N.B., 2012. An exploratory study on entrepreneurial mindset in the small and medium enterprise (SME) sector: A South African perspective on fostering small and medium enterprise (SME) success. *African Journal of Business Management*, 6(9), pp.3364-3372.
- Plummer, R., Armitage, D.R. and De Loë, R.C., 2013. Adaptive co-management and its relationship to environmental governance. *Ecology and Society*, 18(1).
- Plummer, R., & Fennell, D. A. (2009). Managing protected areas for sustainable tourism: prospects for adaptive co-management. *Journal of Sustainable Tourism*, 17(2), 149-168.
- Ramadani, V., Dana, L.P., Gërguri-Rashiti, S. and Ratten, V. eds., 2017. *Entrepreneurship and Management in an Islamic Context*. Springer International Publishing.
- Rezaei, S., Hill, V., & Liu, Y. (2018). In Search of the Ideal Entrepreneurial Ecosystem. In *Entrepreneurship Ecosystem in the Middle East and North Africa (MENA)* (pp. 11-51). Springer, Cham.
- Roundy, 2017: " Small Town " Entrepreneurial Ecosystems: Implications for Developed and Emerging Economies. *Journal of Entrepreneurship in Emerging Economies* 9(3).
- Roundy, P. T. (2017). Social entrepreneurship and entrepreneurial ecosystems: Complementary or disjoint phenomena? *International Journal of Social Economics*, 44(9), 1252-1267.
- Roundy, P., Bradshaw, M., & Brockman, B. (2016). Venturing towards the edge of chaos: A complex adaptive systems approach to entrepreneurial ecosystems. In *United States Association for Small Business and Entrepreneurship. Conference Proceedings* (p. F1). United States Association for Small Business and Entrepreneurship.
- Shah, S., 2006. Educational leadership: an Islamic perspective. *British educational research journal*, 32(3), pp.363-385.

- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49-72.
- Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 151-168.
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. *European Planning Studies*, 23(9), 1759-1769.
- Stam, F. C., & Spigel, B. (2016). Entrepreneurial ecosystems. *USE Discussion paper series*, 16(13).
- Straub, D.W., Loch, K.D. and Hill, C.E., 2002. Transfer of information technology to the Arab world: A test of cultural influence modelling. In *Information technology management in developing countries* (pp. 92-134). IGI Global.
- Su, P., Hu, T., Liu, Y., Tong, Y., Guan, H., Zhang, Y., ... & Gao, W. (2017). Functional characterization of NES and GES responsible for the biosynthesis of (E)-nerolidol and (E, E)-geranylinalool in *Tripterygium wilfordii*. *Scientific reports*, 7, 40851.
- Swanson, K. K., & DeVereaux, C. (2017). A theoretical framework for sustaining culture: Culturally sustainable entrepreneurship. *Annals of Tourism Research*, 62, 78-88.
- Tétreault, M. A. (2016). Gulf Arab states' investment of oil revenues. In *Shifting Geo-Economic Power of the Gulf* (pp. 25-38). Routledge.
- Thistoll, A. M. (2011). A grounded theory of preneurial agency in information technology creation.
- Tlaiss, H. A. (2015). How Islamic business ethics impact women entrepreneurs: Insights from four Arab Middle Eastern countries. *Journal of Business Ethics*, 129(4), 859-877.
- Vaismoradi, M., Jones, J., Turunen, H., & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6(5), 100.
- Van Teijlingen, E., 2014. Semi-structured interviews. *Retrieved from*.
- van Wijk, J., Zietsma, C., Dorado, S., de Bakker, F. G., & Martí, I. (2018). Social Innovation: Integrating Micro, Meso, and Macro Level Insights from Institutional Theory. *Business & Society*, 0007650318789104.
- Welter, F. and Smallbone, D., 2011. Institutional perspectives on entrepreneurial behaviour in challenging environments. *Journal of Small Business Management*, 49(1), pp.107-125.