WJEMSD 9,1

28

# Mapping entrepreneurship ecosystem of Saudi Arabia

# Muhammad Rahatullah Khan

Entrepreneurship Scientific Chair, Effat University, Jeddah, Saudi Arabia

## Abstract

**Purpose** – The aim of this paper is to critically review the existing initiatives of Saudi Arabia for entrepreneurship growth. It also identifies potential for viable interventions to trigger entrepreneurship growth that reflects in Saudi Arabia's economic development process.

**Design/methodology/approach** – Cross sectional basic study using primary and secondary resources is adopted to explore the initiatives and understand entrepreneurship growth ecosystem.

**Findings** – Ecosystem is not complete and whatever available is in infancy stage. Challenges also remain for the effective intervention at strategic, institutional and enterprise levels in order to streamline and trigger the entrepreneurship development. However, there exist huge opportunities and the Government reforms are happening.

**Research limitations/implications** – Limited access to resources in Saudi Arabia including to the leadership in different governmental and private sector organizations made the task challenging. In some cases the websites are in Arabic and for some these do not exist.

**Practical implications** – Findings identify numerous challenges that lie ahead if the government were to vie for entrepreneurship as a tool of SME and economic growth. It identifies the areas of governmental interventions required with specific recommendations.

**Originality/value** – The paper is built upon the contemporary scenario of entrepreneurship growth in the Kingdom. It comprises derived research based on country analysis. It is original in the sense that the research is based on the facts of the ground and explores and implies the results.

**Keywords** Entrepreneurship, Small to medium-sized enterprises, Saudi Arabia, Ecosystem, Entrepreneurialism

Paper type Research paper

## Entrepreneurship and economic development

There is a general agreement among management practitioners and researchers that successful new ventures contribute to employment, political and social stability, innovation and competition (Thurik and Wennekers, 2004; Zedtwitz, 2003; Hoffman *et al.*, 1998; Dunkelberg, 1995). Similarly the success of small and medium enterprises (SMEs) is also largely attributed to entrepreneurs' abilities (Covin and Slevin, 1989; Dyer and Ha-Brookshire, 2008).

Malhi (2004) (The Parliamentary Secretary to the Minister of Industry) puts the emphasis on entrepreneurs positing that the Government of Canada highlights the important contributions made by entrepreneurs and recognized them as a dynamic group that is vital to the country's future. He further argues that entrepreneurs are the backbone of the Canadian economy and their collective efforts generate vital employment opportunities for thousands of Canadians and there is a need to harness this energy as a positive force and find ways to foster more of it. When they succeed, all of Canada succeeds. In the UK, Hutton (2007) Secretary for the Business, Enterprise and Regulatory Reform said that number of businesses in the UK has grown by more than 600,000. This helped the UK remain Europe's leading destination for inward investment. Its competition regime has been ranked third in world while welcoming the creation of a department to equip Britain to seize new opportunities in the changing global economy. Across the Atlantic Congressional documents report on



World Journal of Entrepreneurship, Management and Sustainable Development Vol. 9 No. 1, 2013 pp. 28-54 © Emerald Group Publishing Limited 2042-5961 DOI 10.1108/20425961311315700

ecosystem

entrepreneurship

entrepreneurship for 2012 provided by the Kauffman Foundation suggest that fast-growing nascent firms comprise less than 1 percent of all companies but generate roughly 10 percent of new jobs in any given year. Over the last three decades, young firms less than five years old have created 40 million new jobs.

America's booming entrepreneurial sector is responsible for much of today's economic prosperity and the largest economy of the world (Abid, 2007) provides the entrepreneurs' opportunities to take advantage of new wealth-creating prospects that regularly arise from constant change. This phenomenon of "creating opportunity from change" has been part of the American culture since the nineteenth century Industrial Revolution. Zimmerman (2007) argues that today, an entrepreneurial renaissance is transforming American business and society.

This shows that the governments of different countries lay emphasis on the entrepreneurship and SME development and recognize them as engine of growth. It also shows that the governments take strides and introduce business friendly laws and regulations. The discussion serves to introduce the importance of entrepreneurship in creating prosperity and advancing living conditions for everyone.

Zimmerman (2007) also suggests that "Entrepreneurship is the recognition or creation of an opportunity, coupled with action by an individual or group of individuals, to form a social, intrapreneurial, lifestyle, middle-market, or highly-liquid venture." On the other hand Szabó (1995) and United Nations Economic Commission for Europe (UNECE) (n.d.) on its web site argue that the effective development of the SME sector in the countries in transition is achieved when activities and assistance are integrated and aimed at three distinct levels, i.e. strategic level (policy making); institutional level (support institutions) and enterprise level (entrepreneurs and business entities). The following Figure 1 is adapted from the above literature and shows the support mechanisms by the institutional level.

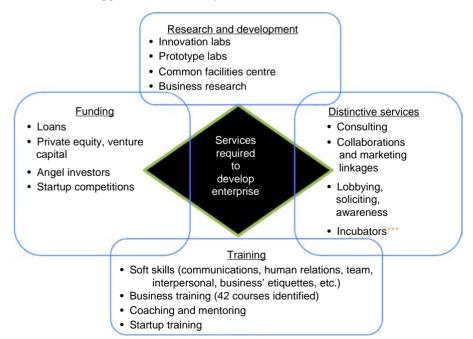


Figure 1. Institutional level support mechanisms

Szabó (2006) in his seminal report on "Business incubation as element of business service institution and SME development infrastructure for creation of new enterprises in CITs" provided detailed view of the aforementioned three levels. He showed that the government services are at the strategic level and private organizations (institutional support providers) are enablers of entrepreneurship.

This shows need of numerous actors to be involved in the entrepreneurship growth and enterprise development. There seems to be an ecosystem working for this development to take place.

## **Ecosystem**

The Oxford Dictionary (n.d.) describe ecosystem as a complex network or interconnected system.

## Entrepreneurship ecosystem

Wiklund *et al.* (2008, p. 5) suggest triggering entrepreneurship firm growth is a complex phenomenon and requires support of numerous actors in the economy to take a serious cohesive action for its growth and development. Therefore, the theoretical background is drawn from the emerging paradigm of complexity. Complexity has been under study consistently recently. Its contribution to natural sciences is advocated and acknowledged. The new wave of complexity research is trying to find applications in various fields, including social and economic systems (Peltoniemi and Vuori, 2009).

Professor Daniel Isenberg (2011) of Babson Global and Executive Director of the Babson Entrepreneurship Ecosystem Project suggest that the public leaders (representing governmental bodies) including the elected representatives, professional and private sector work cohesively and on several inter-related principles to form an ecosystem for entrepreneurship growth. He further suggests that the ecosystem strategy addresses some of the less stressed upon issues and policies essential for the entrepreneurship growth to trigger economic development. He identifies six domains of this ecosystem, i.e. policy, markets, human capital, supports, culture and finance. He also provides a list of components of each of these six domains and it is adapted in Table I.

Entrepreneurship initiatives are relatively new to the Kingdom of Saudi Arabia. However, realizing the importance of the SMEs sector the government is taking many steps in order to boost the entrepreneurial activity and trigger economic growth. Keeping the above studies in view it is pertinent here to understand the status quo and map the role of different stakeholders of entrepreneurship in the kingdom and plot them on the domains of entrepreneurship ecosystem as postulated by Isenberg and Szabó.

## Mapping the entrepreneurship ecosystem of Saudi Arabia

This section will examine the entrepreneurship and SME growth initiatives and activities in the Kingdom of Saudi Arabia on the basis of Szabó (2006) – UNECE – and Isenberg (2011) studies (A "SME" Authority for Saudi Arabia, 2011) provides crucial data regarding the SMEs in Saudi Arabia. It shows that though Saudi Arabia is the largest economy in the Gulf Cooperation Council (GCC) and over the last eight years, the country's budget has risen from \$69 billion to \$170 billion. Despite this growth, SMEs contribute to only 25 percent of total employment and only 33 percent to the country's GDP, though the SMEs makeup 92 percent of the businesses in the country

	Policy	Markets	Domains Human capital	s Supports	Culture	Finance
Components	Government institutions Investment, support Financial support Regulatory framework Research institutes Venture friendly legislation Contract enforcement, property and labor rights	Expertise S.	Labor Skilled and unskilled Serial entrepreneurs Later generation family Educational institutions General degrees Specific entrepreneurship training	Infrastructure Telecommunications Transportation and logistics Energy Zones Incubation centers Clusters	Success stories Visible success Wealth generation for founders International reputation	Micro loans
	Leadership Unequivocal support Social legitimacy	Networks Entrepreneurs' networks Diaspora networks	)	Support professions Legal Accounting	Societal norms Tolerance of risks, failures and mistakes Innovation, creativity and experimentation Social status of	Angel investors
		Mulmatonal corporations		Technical advisors  Non-government institutions Business planning contests  Conferences	Social status of entrepreneur Wealth creation Ambition, drive, hunger	Venture capital
Source: Adap	Source: Adapted from Isenberg (2011)			Entrepreneur friendly associations		Private equity Public capital markets

Table I.
Isenberg's domains of entrepreneurship ecosystem

(www.nusacc.org/assets/library/8\_trdln0610saudi.pdf). This is in stark contrast to most-developed economies. For example, in Spain SMEs contribute to 64.3 percent of GDP, or even Austria where SMEs contribute 44 percent. Similarly, the Figure 2 shows selected indicators for economic growth of Saudi Arabia and its ranking in different initiatives. The results are encouraging and the country is well placed.

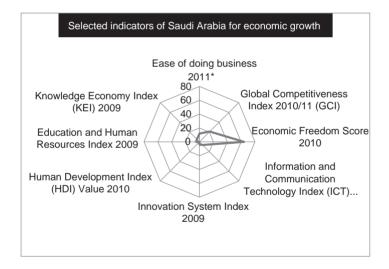
However, there is a lack of information about Saudi Arabia in terms of entrepreneurship growth and development and following questions are raised:

- (1) What is the existing ecosystem of Entrepreneurship Growth in Saudi Arabia?
- (2) Who are the stakeholders and what is their role?
- (3) What initiatives the Government of Saudi Arabia has taken that match with the Isenberg and Szabó studies showing existence of an entrepreneurship enabling ecosystem.

The following methodology is adopted in order to answer these questions.

# Methodology

Keeping the above information in view it is evident that Saudi Arabia has huge potential for the growth of SME sector and entrepreneurship can play massive role.



- \*Ranked among 183 Economies (Economy Rankings, n.d.)
- GCI Index ranked among 139 Economies
- Economic Freedom Score 0-100, where 100 represents the maximum freedom
- The ICT value falls on a scale of 0-10 and is calculated from three key indicators: number of telephone lines per thousand of the population, number of computers per
  thousand of the population and number of internet users per thousand of the population. The top 10 percent of states score in the range 9-10, the next highest
  10 percent of states score in the range 8-9 and so on
- Innovation System Index the index value falls on a scale of 0-10 and is calculated from three key indicators: Total royalty payments and receipts in US\$ per person, number of patent applications granted by the US Patent and Trademark Office per million people, and the number of scientific and technical journal articles published per million people
- HDI calculated based on data from UNDESA (2009d), Barro and Lee (2010), UNESCO Institute for Statistics (2010a), World Bank (2010g) and IMF (2010a)
- Education and Human Resources Score the index value falls on a scale of 0-10 and is calculated from three key indicators: adult literacy rate, secondary enrollment and tertiary enrolment

Note: Entrepreneurship policies in Saudi Arabia (n.d.)

Figure 2. Selected indicators of economic attraction and stability for entrepreneurship growth

ecosystem

entrepreneurship

A cross-sectional basic study for a cluster investigation using primary and secondary resources is adopted to explore the Kingdom's initiatives to understand Saudi Entrepreneurship Growth ecosystem.

The web sites of the different organizations were searched and informal interviews with the managers, general managers or other senior executives of numerous stakeholders of Entrepreneurship and SME development (as spelled in the Szabó and Isenberg's studies) in Saudi Arabia were carried out. The information from news sources and web sites was also collated to realize the role of the government at strategic level in the economy. Analysis of the information available was also conducted. The secondary sources used were public sources such as web sites of the organizations. On the other hand the commercial sources included the use of ABI/INFORM Global web sites.

For the work of the stakeholders at the strategic level a discussion would be carried out based on findings from the secondary sources. It can be concluded from the discussion here that it is the strategic level that strengthens the institutions that in turn develop enterprise.

In order to further our understanding about the institutional and enterprise levels of the support available in the Kingdom and shown in Tables IV and VII and identifies the objective of the different stakeholders of the entrepreneurship growth in the kingdom and as advocated by LaBonia *et al.* (1998), Grazier and Metzler (2006), Robinson (2000), Berggren and Silver (2010) identifies the financing models of these institutions if provided along with the terms for financing the entrepreneurial projects. The study includes the terms of the financing for the better understanding. It also highlights the nature and existence of national and international collaborations among different stakeholders as their importance is laid by Kim *et al.* (2010) as well.

The studies of Bubou and Okrigwe (2011), and the web site http://tec.illinois.edu/ of Illinois University's Technology Entrepreneurship Centre underline the importance of a common facilities center which provides specialist technology services to SME's and micro enterprises. Therefore, the Common Facilities Centre/Prototyping and Labs was also put under investigation.

Praag and Versloot (2007), Koga (2005), Acs and Audretsch (2005), Acs and Varga (2005) posit the importance of the research and development (R&D) facilities to foster innovation in entrepreneurial firms; hence it formed an element of measurement in the study. Numerous studies including Mohamed *et al.* (2010), Moensted (2010), Martiz (2010) and Klyver and Grant (2010) narrate the need for the networking as important tool for SME and entrepreneurship growth. These works also highlight the innovativeness the networking and networking opportunities bring about. Rahatullah (2010) also posited that the networking of the potential partners is important for success. Therefore, it was decided that the networking opportunities availability by stakeholders of entrepreneurship growth would be examined.

Various studies in the USA, Australia and elsewhere involving both female and male business start-ups put the mentoring and coaching programs by the governmental and private stakeholders of entrepreneurship growth under perspective. These studies include but are not limited to Chautin (2011) and King (2010). They identify the importance of mentoring programs by professionals and existing successful entrepreneurs and suggest that such programs play vital role in the success of the start-ups. Therefore, this study aims to understand the coaching and mentoring programs available in Saudi Arabia and realize if these form part of the ecosystem of entrepreneurial growth.

Otto (2005) identifies numerous planning activities as essential in building an effective strategic plan. These include components such as business drivers – why is this being undertaken? objectives and scope of business, underlying assumptions, quality assurance plan, issue resolution plan, change management plan, risk management plan, project milestones and dates, project cost estimates, risk/benefit analysis, resource requirements. Whereas, Nickols and Ledgerwood (2006) puts forward a goals grid to effective planning and providing direction to the business. These are consulting services providing expert services (Isenberg, 2011) by professional firms. Szabó (2006) also laid emphasis on this institutional support. This study will identify role of such firms if any.

Mazanai and Fatoki (2011) argue that the business development services including the business start-up are essential for entrepreneurship growth and survival of such forms for longer term. Similarly, Drnovsek *et al.* (2010) suggest that entrepreneurial self-efficacy is related to business start-up assistance. Szabó (2006) and Isenberg (2011) also identified business start-up assistance and role of such organizations providing the service as critical and important.

Green and Ouellette (2007) showed that intellectual capital is positively linked to start-up company success, market value, innovativeness, marketplace agility and adaptability. They also concluded that the value creation potential is enhanced by incubators. According to him the incubators play vital role to assist start-up companies they diffuse knowledge, ideas, technologies, etc.

There exist groups like Small Business and Entrepreneurship Council (Covel and Kelly, 2009). Ahl (2011) opens our eyes to importance and success of lobbying in the western world. The USA has boasts a long tradition of supporting small businesses where the US Small Business Administration (SBA) was created in 1953. The National Association of Women Business Owners (NAWBO) was formed in 1975 by a number of women entrepreneurs in the USA. As a result of the association's successful lobbying, in 1979 President Carter created the Office of Women's Business Ownership in the SBA (Weeks, 2002; Ahl, 2006).

The National Women's Business Council (NWBC) was established in 1998. Its 15 members are appointed by the Small Business Association (SBA), and its chairman is appointed by the US president. Special assistance for women in business was initiated in 1994. Today there are 160 local and regional resource centers for women (Ahl, 2011). This shows the importance of lobbying and creating awareness for the welfare of members of the lobbies. Hence the study will examine the existence of the lobbies in the country related to entrepreneurship.

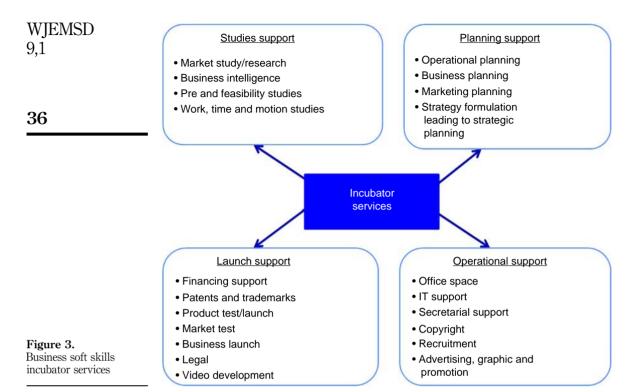
A study of business services incubators on the internet led to web sites of numerous incubators operating across the world. In order to identify the services these incubators provide and to enable me to explore whether the stakeholders in Saudi Arabia offer the similar services or not four incubator services were identified in different parts of the world. Their services are shown in Table II.

The services mix of incubators is diverse and may include mentoring to forklift trucks. The incubators seem to decide the services they provide. Therefore, I identify the following services that would be explored in the context of this research: soft services including market research/business intelligence, financial numeracy and assistance for grants/loans, secretarial, office space, product launch, product/DEV testing, market testing, advertising/graphics, legal (including patents, copyrighting and trademark registration), IT, photography and video.

It also shows that the business services incubators provide four distinct support services as shown in Figure 3.

Platteville business incubator	College of Southern Idaho Business Incubator	Business Centre of Newcastle Region	Business Accelerator of Sustainable Entrepreneurship (BASE) Kenan Flagler Business School
Fully equipped conference room Copier and fax machine Break room with vending services Restroom and shower facilities Recessed and at-grade truck docks Recessed and at-grade truck docks Forklift and material handling equipment Trash and snow removal services Business identification signage Parking spaces Business planning resources Professional and technical services Business planning resources Professional and technical services Business assistance and referrals Network of tenant businesses with similar goals (research) Small Business Development Center (SBDC) Revolving loan funds Budgeting assistance Assistance with loan applications Network with other incubators	Confidential, no cost consulting by experienced business professionals. Low-cost training in marketing, sales, financials and management Access to business resources at Idaho's colleges and universities. Networking through local, state, and national business organizations Guidance about environmental regulations and energy efficiency (research)	Smart business environment A professional reception Broadband and wireless Business support 24h secure access Free Business Advice Fully equipped training and board room Color photocopying Color laser printing Scanner Digital projector Digital camera Business management assistance Shared resources Full IT capabilities	Information resources Training Networking Funding opportunities Pro bono business development services through BASE advisory board, university and college program with student and investors inputs Mentorship

**Table II.** Incubator services commonly provided



Finally, map structure shown in Table III is developed that identifies range of activities needed at the strategic and institutional levels to develop the enterprise. This chart is divided into two parts, first part identifies the organization and its objective to clarify what it wants to achieve. This part also shows whether the stakeholder provides financing and if it does then at what terms. The second part attempts to adapt to Szabó's (2006) idea of the strategic and institutional support necessary for the entrepreneurship growth. It deals with the services provided by strategic level organizations to strengthen the institutional level that will in turn develop enterprise.

## Findings and discussions

The following paragraphs discuss the findings and try to answer the three questions posed above.

## Strategic level support

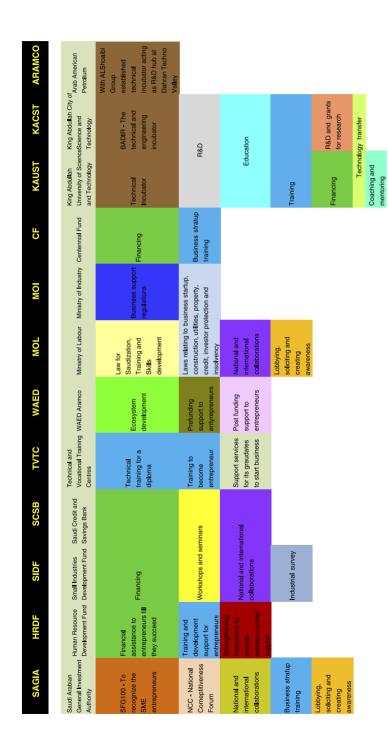
Table IV draws the map based on Table III and shows the status quo of the Saudi Arabia's entrepreneurship ecosystem.

The discussion in the sections to follow is based on the Szabó (2006) SME development infrastructure for creation of new enterprises that included strategic, institutional and SME support organizations.

In order to create a political climate conducive to entrepreneurship growth and SME development the governments have to bring in SME/entrepreneurship-friendly policies and procedures and promulgate laws, policies and procedures to provide guidelines to concerned stakeholders to initiate, implement and manage the entrepreneurship

	Lobbying soliciting and creating awareness		IT Photography/
Entrepreneurship support services	Business startup Lobbying training soliciting and business and and production creating planning) awareness		
	bn		Market Advertising/ Legal testing graphics (including patents, copy righting and trademark reg:)
			vertising phics
	Coaching/ Business mentoring and technical consulting		et Adv
	rking	services	
	nd SMI t netx	support	s incubation Product/ dev testing
Entrepre	Research and SME development netwo (technical engineering:)	Entrepreneurship support services	Business incubation duct Product/ nch dev testing
Financing	s gu	Entrepa	Business incubation office Product Product/ space launch dev testing
	Terms National and Common international facilities collaborations centre/lab and prototypii		Secretarial
	Terms N		Financial numeracy and assistance for grants/loans
			Fina num and assis
	Institution Objective Range (SR)		Market research/ business intelligence
	Institutior		Soft National So

**Table III.** The map structure



**Table IV.**The map 1 – strategic level support

entrepreneurship

**Mapping** 

growth in the country. They allocate the financial resources and provide commitments necessary to the business sector to stimulate investments.

Based on secondary sources of the documents of the government organizations available on the internet and personal inquiries the following has been realized.

According to Industrial Strategy (n.d.) Saudi Council of Ministers agreed and adopted National Industrial Strategy (NIS), until 2020 by Resolution No. 35 dated February 2, 2009. The policy axis 3 lays emphasis on the development of SME's and underlined pointed out the programs in areas of industrial SME support; industrial SMEs incubation; a business resources center; a competitiveness development, industrial modernization center and an industrial financing mechanisms program.

A number of government organizations have taken steps toward providing the institutional support to entrepreneurs.

## Ministry of Labor

In Saudi Arabia a number of governmental organizations are working toward achieving the entrepreneurship growth and helping the young Saudis to enter into self-employment and increase job opportunities hence achieving Saudization. A phenomenon tables by the ministry to augment the job opportunities for Saudis and reduce reliance on foreign labor.

The Kingdom of Saudi Arabia – Ministry of Labor (n.d.) web site providing the ministry's strategy direction shows that to increase the percentage of the self-employed Saudis and jobs created in the SME sector (leading to Saudization) the ministry will take concrete steps. The ministry in its Labor Law (2005) Article 26 says that "(1) All firms in all fields, and regardless of number of workers, shall work to attract and employ Saudis, provide conditions to keep them on the job and avail them of an adequate opportunity to prove their suitability for the job by guiding, training and qualifying them for their assigned jobs." At the same web site Article 43 enumerates that "Without prejudice to the conditions set forth in concession and other agreements relative to training, qualification, education, and scholarships, every employer employing fifty or more workers shall annually train, in his business, a number of his Saudi workers not less than 6% of the total number of his workers. The Minister may raise this percentage in certain firms pursuant to a decision by him."

The web site http://portal.mol.gov.sa/en/Document%20Library/Summaryof SaudiEmploymentStrategy.pdf provides details on Ministry of Labor's policy and its goals, mechanisms of implementation and performance indicators. These documents reveal that these laws have triggered the growth of numerous SME's in education and training sector as the policy of the ministry is to provide the support to such SMEs through finance via Human Resource Development Fund (HRDF) and training to SMEs and Saudis to adjust in workplace. These are discussed in subsequent paragraphs. The ministry is also responsible to develop institutions related to human resource development of Saudis in the economy.

# Saudi Arabian General Investment Authority (SAGIA)

In order to show its commitment to entrepreneurship growth in the Kingdom the SAGIA has taken a number of steps as to support the program and create a climate conducive to emancipation of entrepreneurship development. According to Saudi Fast Growth (SFG) (n.d.) the details of a project i.e. Saudi Fast Growth100 (SFG100) is outlined. This program launched in 2008, to highlight fast-growing entrepreneurial

companies. The SFG was jointly launched by SAGIA, "Bank Al Ahli" and national *Al-Watan* newspaper. The multinational "Abraaj Capital" is the strategic sponsor of the program. "PricewaterhouseCoopers" is the knowledge partner and Born Interactive a new media agency is the media partner to the program. This underlined the importance the government attaches to the fact that business start-ups play a critical role in stimulating innovation in local economies and yet generate jobs. The SFG ranks the fastest-growing companies in the Kingdom according to their revenues. More than 70 percent of the SFG CEOs are serial entrepreneurs owning more than one business.

Another initiative by SAGIA is the establishment of National Competitiveness Center (NCC) (n.d.) and on its web site the center's activities and scope of work is detailed. The NCC supports the Kingdom's competitiveness agenda through objective, data-driven advice on regulatory reform and sector improvement opportunities that contribute to increasing and sustainable prosperity for the people. The monitors, assesses and supports competitiveness enhancement in the Kingdom. It serves as a think tank and facilitator for change. It conducts and develops competitive assessments and monitors the implementation and results of change programs. Programs focus on two main areas: improving the ease of doing business in the Kingdom. The results of its work can be seen from Table III shows that the country is now rank 12th in ease of doing business from among 183 countries. These programs focus on two areas, i.e. stimulate modernization of the general business environment and improve the microeconomic fundamentals of competitiveness.

The NCC endeavors to facilitate change by creating forums for discussion between the public and private sectors. It acts as a communicator for change by sharing the results of the country's competitiveness efforts.

The government initiatives in respect of entrepreneurship growth by providing investment and financial support, regulatory framework, support and social legitimacy as advocated by Isenberg (2011) are quite evident in Saudi Arabia. This is also shown in the discussion above.

## Arab American Company (ARAMCO)

ARAMCO (the leading oil company of the world) has developed links with Kaufman foundation and are also establishing an incubator with help of Shoaibi group. The Incubator Project is a R&D hub located in Dhahran Techno Valley(DTV), Al-Khobar. The goal is to bring new upstream technologies to Saudi ARAMCO through sponsorship with universities and other R&D centers. The purpose of this project is to either promote ideas in-house or to take existing technology and modify it for an oilfield application.

Waed is perhaps one of the most important initiatives of for the entrepreneurship growth in Kingdom by the private sector. It is working toward the development of the ecosystem and provides pre- and post-start-up funding. Hence all the services are extended to the entrepreneurs.

## **Governmental regulations**

Table VII shows the Saudi Arabia's ranking among 183 countries of the world in terms of the business support regulations.

According to Entrepreneurship Policies in Saudi Arabia (n.d.) the country exhibits a remarkable potential for economic and growth that can trigger the SME development.

It can be seen from above table that the government of Saudi Arabia has placed a great deal of importance on new business creation. It has provided incentives and implemented policies and procedures that help the entrepreneurs start their business. This table identifies the position of Saudi Arabia *vis-à-vis* some selected economies or the world in terms of the attraction developed by the government through its regulations. Table V is adapted from the International Finance Corporation (A World Bank body) from Economy rankings (n.d.). The corporation has ranked 183 countries of the world after a detailed study of the governmental policies, laws and procedures related to doing business in the countries.

This table shows that the Kingdom has best policies and ease toward registering properties securing the construction permits for businesses. Similarly, country offers huge support for the electricity connections and stands atop of the selected economies including the GCC. Saudi Arabia also has stringent policies, laws and procedures to protect the investors. Saudi Arabia lags behind all selected economies in terms of enforcing the contracts between businesses and government agencies. Similarly it also does not rank high in relation to resolving insolvencies.

## Strengthening institutional level

A number of organizations are active in Saudi Arabia for entrepreneurship growth. Majority of the private stakeholders are the CSR departments of large companies. The institutional level of the ecosystem looks as shown in Table VI.

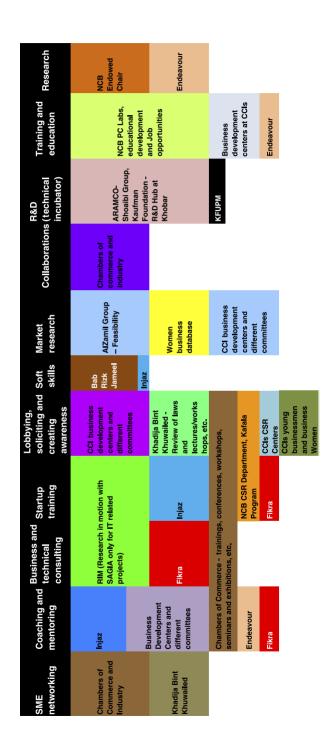
## Financing, financing limits and terms of financing

Both the Szabó (2006) and Isenberg (2011) studies postulated and underlined the importance of easily accessible finance and friendly repayment policies.

Table VII reveals that there are 15 organizations and banks – government (four) and private (11) – providing medium- to long-term financing to SME entrepreneurial projects. It also discloses that the financing available for such projects is amply covered. It ranges from SR 1,000 to SR 3 million.

However, it is pertinent to mention that King Abdullah University of Science and Technology's (KAUST) financing is available only to the engineering ventures working with the university's incubation services. Similarly, Prince Sultan Fund is women specific. The financing facilities mentioned at numbers 8 and 14 fall under "Kafala" program. These Kafala programs are a tool of Islamic financing. The programs work in collaboration between the Ministry of Finance, represented by the Saudi Industrial

Country	Starting business	Dealing with construction permits	U	Registering property	, .	0	U	Resolving insolvency
Saudi Arabia Malaysia UAE Qatar Bahrain Oman Turkey Jordan	12 3 50 42 116 82 68 61 95	4 113 12 24 7 64 155 93	18 59 10 18 49 61 72 36	1 59 6 37 30 21 44 101	48 1 78 98 126 98 78 150	17 4 122 97 79 97 65 122	138 31 134 95 114 107 51 130	73 47 151 37 25 76 120 104



**Table VI.** Map 2 – institutional level support

		Mapping		
Sl. No.	Organization	Minimum	Maximum	entrepreneurship
				ecosystem
1	Saudi Industrial Development Fund (SIDF)	Up to 75% of the total pro	oject cost	2223 22211
2	Centennial Fund	50,000	200,000	
3	Saudi Credit and Savings Bank	50,000	400,000	
4	King Abdullah University of Science and	Equivalent to 75,000		43
5	Technology (KAUST) <sup>b</sup> Bab Rizk Jameel (Small Projects)	10,000	150,000	
6	Bab Rizk Jameel (Mumayez program) <sup>c</sup>	Limit extends to 300,000	,	
7	Al Rajhi Bank	100,000	2,000,000	
8	National Commercial Bank (NCB) Kafala <sup>d</sup>	Up to 3,000,000		
10	Al Zamil Holding Group SME	1,000	In kind	
			100,000	
11	Al Zamil Holding Group Small and Mini	1,000	5,000	
12	Riyad Bank	100,000	2,000,000	
13	Al Jazira (SME)	100,000	2,000,000	
14	Al Jazira Kafala	80,000	1,600,000	
15	Prince Sultan Fund		Up to 3,000,000	
		_		Table VII.
Notes:	<sup>a</sup> All amounts in SAR (Saudi Riyal – equal to 3.7	73-3.75 per US\$; <sup>b</sup> KAUST; <sup>c</sup> M	lumayez Program;	Scenario of financing for

Manning

SMEs and entrepreneurs

Development Fund (SIDF) and Saudi banks. The programs aim to promote financing to SMEs. Under the programs, the banks offer finance of up to SR 2 million, and simultaneously, the SIDF-Kafala program issues a guarantee to the bank, covering up to 80 percent of the financing amount. The NCB (n.d.) web site also reveals that launch of these programs by the government shows its support to the SMEs and entrepreneurs to produce innovative high-quality products and services and develop the sector. It has been strategized to increasing job opportunities by training and hiring Saudi citizens and expand business activities in remote areas.

The Al Rajhi Bank (n.d.) provides loans for working capital as well. These terms will help increase Saudization as financing does require engaging local businesses like construction and consulting. It also requires full-time commitment by the Saudi owner and encouraging Saudization in the projects by subsidizing the wages of Saudi labor force. The projects in the field of education, technical and vocational sector, women, transport including Taxis and Buses (n.d.) are encouraged. According to International Tourism (n.d.) more than 11 million people visit Saudi Arabia from all over the world for pilgrimage of Makkah and Madina. This offers great potential for projects in transport, taxis, buses and other modes of transport. It also provides a great source of business in the area of food, beverages, hospitality, handicrafts, Islamic products, publications and audio visual items, clothing, gifts and souvenirs, etc. The strategy of the government also shows that it caters to the requirement of those potential or existing entrepreneurs who need Islamic financing; hence Islamic financing instruments like, "Murabaha," "Musharaka" and others are also available.

#### National and international collaborations

<sup>d</sup>Kafala

The findings show that various stakeholders in Saudi Arabia collaborate both nationally and internationally to further the entrepreneurial activities in the Kingdom.

All the governmental bodies and Chambers of Commerce are collaborating in one way or the other. However, the web sites of the private organizations do not divulge any information or data that can provide evidence of their collaborations. SAGIA has recently entered into collaboration with USA-based company research in motion (RIM) to open first IT entrepreneurs academy in the country. Blackberry will provide training services to aspiring entrepreneurs.

Ministry of Labor has collaborated with the HRDF to provide financial assistance to entrepreneurs and subsidizes wages for Saudis employed at the businesses. SIDF has agreements and partnerships with all participating banks to provide financial guarantees for the entrepreneurial projects.

The King Abdul Aziz City for Science and Technology (KACST) collaborates with various public and private institutions to support in development of technology entrepreneurship. Whereas, the Saudi Arabian general Investment Authority (SAGIA) assists the SME's to collaborate nationally and internationally through holding National Competitiveness Forums. It also is sponsor of SFG100 an initiative launched by it in collaboration with Bank Al Ahli and local newspaper *Al-Watan*. KACST's research cluster nurtures globally significant partnerships and collaborations between KAUST and thought leaders of industry throughout the world.

## Common Facilities Centre/Labs and Prototyping

The results of the research as shown in Table IV show that Innovation Cluster at KAUST has 140,000 square feet facility built to provide laboratory and office space for light, medium and large technology companies. Incubator also provides prototyping facilities

#### **R&D** (Technical Engineering) innovation

KACST and KAUST are active in R&D to trigger innovation in the Kingdom. At KACST the strategic technologies committee supervises research, education, training and knowledge transfer in variety of technical fields to private and public sector. On the other hand the KAUST Technology Transfer and Innovation Program work in partnership with RTI International. It performs KAUST's technology evaluations as well. KAUST seems to have a complete sub ecosystem with national eco for technology and engineering entrepreneurs as shown in Table IV.

# SME networking

Various organizations provide SME networking opportunities through conferences, seminars, symposia and exhibitions. These include holding of Jeddah Economic Forum, Global Competitiveness Forum, SFG100 events, international exhibitions and numerous other conferences that take place throughout the year in Saudi Arabia.

Khadija Bin Khuwailed Centre at Jeddah Chamber of Commerce (JCCI) and Industry (n.d.) holds workshops in cooperation with international and local authorities to increase awareness and provide networking opportunities. Most of the events have sessions dedicated for networking.

Small Business Development Centre at JCCI holds exhibitions annually which also provides a forum for networking.

#### Coaching and mentoring

The venture lab at KAUST coaches and mentors the scientists turn entrepreneurs in their quest to start, run and manage a business. The corporate Social Responsibility

Unit of JCCI has developed a coaching and mentoring program for the aspiring and budding social entrepreneurs who are coached and mentored by a number of volunteers. Similarly, Injaz Saudi Arabia delivers a Leadership Program to present the importance of leadership and the impact of developing skills on professional and social lives. It is also managed by volunteers and aims at school and college students who are then coached and mentored. "Fikra" a privately sponsored organization is also active in providing such services.

Mapping entrepreneurship ecosystem

# Business and technical consulting

Jeddah Chamber of Commerce's small business unit provides financial and technical consultation to the businesses. However, the internet search shows that almost all the international names in business, management, financial and accounting consulting have strong presence in the Kingdom. The companies include, Price Waterhouse Coopers, Deloitte, Alvarez & Marsal, Arthur D. Little, Charles River Associates (CRA), Ernst & Young, Gartner, Grant Thornton, SAP Consulting.

# **Business start-up training**

According to the http://arabnews.com/economy/article566846.ece SAGIA and RIM (USA) have collaborated to establish IT entrepreneurs training academy in the Kingdom. The training at the academy will be imparted by the Blackberry phone manufacturing company's team. It will solely be for the IT professionals. The Centennial Fund also has a program through which it trains the entrepreneurs who have benefitted from it loan facility. However, it is based on the needs and capacity of the entrepreneur which is evaluated during the loan processing.

CSR initiative of the Bank Al-Ahli (NCB) delivers short courses aimed at young people. These courses are on planning and selecting enterprises, preparing feasibility studies and evaluate prospects of success or failure in the business of choice. The business and SME development centers at the chambers of commerce are active in providing the start-up trainings to the technology and other aspiring business entrepreneurs.

BADIR a technology incubator also provides the start training. Fikra and KAUST provides a detailed set of programs to the technology incubates at its facilities. It boasts state of the facilities for the trainees and the trainers come from world renowned universities.

# Lobbying, soliciting and creating awareness

Ministry of Labor holds conferences, seminars and workshops to inform participants on latest policies of government and incentives available. It also utilizes the internet, print and electronic media. SAGIA holds events to share success stories and generate momentum for the Kingdom's ongoing competitiveness efforts. In collaboration with private like Bank Al-Ahli and public sector it also awards and recognizes fast-growing SMEs.

The Khadija Bint Khuwailed Centre at the Jeddah Chamber of Commerce reviews laws and regulations and obstacles facing women. It then works on eliminating them. It also recommends and introduces alternative solutions. The center receives requests and complaints of the businesswomen to finish their transactions at the Chamber of Commerce and government departments. The center is also mandated to help formulate laws and regulations and guide the and support businesswomen by providing them with the relevant information.

There are a number of groups established on the social media sites like LinkedIn. These groups enter into discussions on the current problems being faced by the community and propose solutions. Such groups include, entrepreneurship at KAUST, Saudi Arabia Business and Professional Network, Saudi Startup Community, Saudi Talents, Startup Arabia and Entrepreneurs. Numerous existing and potential entrepreneurs have been noted in these groups.

## **Business incubation services**

The research shows that SIDF, KAUST, Bab Rizq Jameel, Khadija Bin Khuwailed Centre, BADIR and Injaz provide some selected services of incubation.

SIDF conducts Kingdom-wide industrial survey and disseminates the information. It also provides consulting services in the fields of marketing, IT, operations, finance and technical management. Whereas, Bab Rizq Jameel provides sales, technical and spare parts assistants and automobile mechanic training to its loanees. On the other hand Khadija Bint Khuwailed Centre at the JCCI conducts the research, develops and provides a database of the businesswoman and businessmen interested in developing women and enhancing their participation in the national development. Similarly, the chambers of commerce carry out the research and develop databases for each industrial sector under their purview. Injaz runs a program titled "Company Program" spread over 12 weeks.

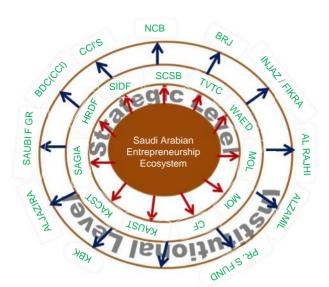
#### **Conclusions**

The above findings reveal the number of steps the government and private sector has initiated in order to further the entrepreneurship to trigger the SME growth in the Kingdom. At the same time, these findings and discussion present a huge potential for the further development of institutions and planned interventions needed at strategic, institutional and enterprise levels. This will help develop a movement that will further generate the entrepreneurship growth with snowball effects by gaining more mass. It will also assist in institutionalizing the policy, human capital development, support services including support professions, culture, markets and networks, financing, venture capital, micro loans, angel investors and public capital markets. The existing ecosystem looks as shown in Figure 4.

The abbreviations are used in the diagram. The full names have already been discussed and shown in above discussions.

Some of the services are being provided by the organizations that they may not. These include the works such as Centennial fund providing coaching and mentoring and trainings by the banks and financial institutions. There is a need to develop specialist institutions for each of the ten services including incubation which in-turn offers 12 services.

At the strategic level the government has established financial institutions that work for the entrepreneurs, SMEs, and offer financing at cheap rates. These institutions also provide numerous services ranging from business consulting to conducting the research and providing the feedbacks. However, it is evident that some of banks offer similar loan facilities at similar terms and conditions. This implies that the effort was on entering the market with little background research on the market size and its identification of its needs. Some institutions also do not specify the loan limits and leave it to percentages of its own equity. This could jeopardize the liquidity situation of the bank in case of large-scale projects.



Mapping entrepreneurship ecosystem

47

Figure 4. Saudi Arabian ecosystem model

However, one important finding has been that the governmental institutions are also working to develop and grow the support organizations in the private sector. They provide funding to such organizations to consolidate their businesses and serve this particular niche.

It needs to be noted that the mandate of HRDF is extraordinary and literature does not cite many examples of such an elaborate, unique and comprehensive program for potential entrepreneurs in a developing economy.

Saudi Arabia has registered 147 patents in 2011 and tops the Arab countries as shown at www.emiratesfactories.com/industry-news/middle-east/56617/saudi-arabia-tops-2011-arab-patent-list. However, there seems dearth of innovation houses. If a country can produce such number of patents without state of the art facilities spread across country it may perform better with a number of high tech labs available throughout the Kingdom.

According to Isenberg (2011) the research institutions are important and fall under the policy domain and governmental initiatives. Similarly, Szabó (2006) also underlines the importance of research institutions at enterprise level. It mentions the establishment of information centers, promoting access to technology, promoting awareness, consumer protection and intellectual property rights. The findings show that only KACST and KAUST provide such facilities in the Kingdom. There seems no other organization involved.

As regards the SME networking both Isenberg (2011) and Szabó (2006) establish the need for networking. Isenberg lays importance on entrepreneurs' diaspora and multinational networks. On the other hand Szabó lays importance of networking at enterprise level. The findings reveal that the chambers of commerce and SAGIA provide such opportunities at national level. The number of events may be limited though. Khadija Bint Khuwailed Center at the JCCI provides opportunities for Saudi women. However, these initiatives may be enough in short term but will require more concerted effort to realize the goals of the government.

Isenberg, Szabó and other notable literature showed the importance of coaching and mentoring, business and direct consulting and business start-up training. The findings reveal that these services are provided by some of organizations in Saudi Arabia. These include Centennial Fund which provides business start-up training through its partner organizations. Research in Motion (USA) and SAGIA will provide this training to potential IT entrepreneurs. KAUST offers the services to potential technology and engineering industry entrepreneurs. In the private sector chambers of commerce, BADIR, Al Zamil group and Bank Al Ahli's CSR department have programs for start-up training. However, business consulting is provided by the chambers of commerce, private sector consulting firms and RIM. KAUST and Chambers of Commerce have coaching and mentoring programs.

Lobbying, soliciting and creating awareness are considered important tools and mechanisms to solicit to the governmental bodies for grant of rights, privileges and ease of laws, etc. to boost a particular sector. The Kingdom has taken initiatives in this regard. However, there are not enough number of associations and representative bodies who can effectively put up their stand point to the relevant authorities and help create networks and raise exposure of its members.

The research shows that SIDF, KAUST, Bab Rizq Jameel, Khadija Bin Khuwailed Centre, BADIR and Injaz provide some selected services of business incubation. However, none of the organizations provide complete and full services as envisaged by the academic, applied and practice literature and discussed in methodology above. These efforts along with other endeavors seem fragmented and there seems a clear need to help the potential entrepreneur.

European Commission Enterprise Directorate General's Final Report on benchmarking of Business Incubators published in 2002 and available at web site www.bii.ge/eng/studies\_&\_Papers/[1]benchmarking\_bi\_part\_one\_2002.pdf shows that there are 911 Business Incubators in Europe. Whereas, according to www.nbia.org/resource\_library/faq/ there are 1,115 incubators in the USA, 120 in Canada and 191 in Mexico. The following reveals interesting comparison as related to population of 2010 (List of Countries by Population, n.d.).

Business Incubators help the businesses grow nationwide and snowball effect can be achieved. This shows that among the developing, emerging and industrialized world each incubator in Saudi Arabia serves almost five times more population. This reveals a huge potential for business incubation services alongside the technology incubators. It has to be noticed that the Saudi Arabia is working toward development of manufacturing base and at the moment is largely consumer society and it is impending to have the incubation services for other than engineering and technology incubators. There are three notable incubators, i.e. BADIR and KAUST, ARAMCO incubator will start functioning in near future and a few small incubators reported but their existence could not be confirmed. There is an incubator for engineering professionals at DTV in operation.

#### Limitations

Like any other research this investigation also had limitations where limited access to resources in Saudi Arabia including to the leadership in different governmental and private sector organizations made the task challenging. In some cases the web sites are in Arabic and for some of the organizations web sites do not exist. Due to this some organizations might have been missed to be mentioned here.

The literature, findings and discussions and conclusions provide for following entrepreneurship recommendations:

**Mapping** ecosystem

- There needs to be an organization that can catalyze the entrepreneurship development. Its role would be following:
  - Help and involve educational institutions. New study programs for support professions are needed and be implemented throughout the kingdom.
  - · Help strategic level of ecosystem to develop and strengthen more entrepreneurship enabler institutions.
  - · Help develop awareness.
  - Help develop associations of different industrial sectors.
  - Help develop soft skills incubators.
  - Help launch Business research.
  - Help launch and market academic and applied journals and periodicals.
  - Help develop business format franchising in the Kingdom.
  - Develop consulting organizations in Financing and Feasibility studies.
  - Making recommendations to the governmental institutions.
  - Carry out regular SME census.
  - Develop recommendations for energy, business, engineering, medicine, business research. SME development cities and zones to the government.
  - Develop innovation enablers.
  - Help organize and launch academic and applied conferences.
  - Develop and implement programs for jailed inmates.
  - Organize and implement networking conferences.
  - Help patents and copyrighting institutions strengthening.
  - · Develop and implement awards for outstanding entrepreneurs in: social business: women-related businesses: and medicine.

#### References

- (2011), "A 'SME' Authority for Saudi Arabia", February 4, available at: www.saudibrit.com/2011/ 02/04/a-sme-authority-for-saudi-arabia/ (accessed January 23, 2012).
- Abid, A. (2007), "The world's largest economy is in worse shape than it cares to admit", Noticias Financiers, p. 1.
- Acs, Z.J. and Audretsch, D.B. (2005), "Entrepreneurship, innovation and technological change", Foundations and Trends in Entrepreneurship, Vol. 1 No. 4, pp. 1-65.
- Acs, Z.J. and Varga, A. (2005), "Entrepreneurship, agglomeration and technological change", Small Business Economics, Vol. 24 No. 3, pp. 323-34.
- Ahl, H. (2006), "Why research on women entrepreneurs needs new directions", Entrepreneurship Theory and Practice, Vol. 30, pp. 595-621.
- Ahl, H. (2011), "Women's enterprise a boost or a detriment to the Scandinavian welfare system?", International Council for Small Business (ICSB), World Conference Proceedings.

49

- Al Rajhi Bank (n.d.), "SME banking", available at: www.alrajhibank.com.sa/en/business/pages/sme-banking.aspx
- Berggren, B. and Silver, L. (2010), "Financing entrepreneurship in different regions: the failure to decentralize financing to regional centers in Sweden", *Journal of Small Business and Enterprise Development*, Vol. 17 No. 2, pp. 230-46.
- Bubou, G.M. and Okrigwe, F.N. (2011), "Fostering technological entrepreneurship for socioeconomic development: a case for technology incubation in Bayelsa State, Nigeria", *Journal of Sustainable Development*, Vol. 4 No. 6, p. 138.
- Chautin, J. (2011), "Biz voices: vets turn to entrepreneurship: mentoring program helps young veterans start small businesses. Jobless rate for military a factor in transition", *The Atlanta Journal*, p. D2.
- Covel, S. and Kelly, K. (2009), "US proposal aims to aid smaller companies some owners are skeptical, say plan focused on SBA loans targets narrow segment of small-business community", *Wall Street Journal*, p. B5.
- Covin, J.G. and Slevin, D.P. (1989), "Strategic management of small firms in hostile and benign environments", *Strategic Management Journal*, Vol. 10, pp. 75-87.
- Drnovsek, M., Wincent, J. and Cardon, M.S. (2010), "Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition", *International Journal of Entrepreneurial Behavior & Research*, Vol. 16 No. 4, pp. 329-48.
- Dunkelberg, W. (1995), "Presidential address: small business and the US economy", *Business Economics*, Vol. 30 No. 1, pp. 13-18.
- Dyer, B. and Ha-Brookshire, J. (2008), "Apparel import intermediaries' secrets to success: redefining success in a hyper-dynamic environment", *Journal of Fashion Marketing and Management*, Vol. 12 No. 1, pp. 51-67.
- (n.d.), "Economy rankings", available at: www.doingbusiness.org/rankings
- (n.d.), "Entrepreneurship policies in Saudi Arabia", available at: http://en.wikipedia.org/wiki/ Entrepreneurship\_Policies\_in\_Saudi\_Arabia
- Grazier, K.L. and Metzler, B. (2006), "Health care entrepreneurship: financing innovation", *Journal of Health and Human Services Administration*, Vol. 28 Nos 3/4, pp. 485-503.
- Green, G. and Ouellette, R.P. (2007), Value Creation in Business Incubation Networks: The Impact of Innovation Diffusion on Intellectual Capital Development in Start-Up Companies, University of Maryland University College.
- Hoffman, K., Parejo, M., Bessant, J. and Perren, L. (1998), "Small firms, R&D, technology and innovation in the UK: a literature review", *Technovation*, Vol. 18 No. 1, pp. 39-55.
- Hutton, J. (2007), "UK government: department for business, enterprise and regulatory reform established", M2 Press Wire (Coventry), No. 1.
- (n.d.), "Industrial strategy", available at: www.sidf.gov.sa/en/industryinsaudiarabia/pages/industrialstrategy.aspx (accessed March 1, 2012).
- (n.d.), "International tourism; number of arrivals in Saudi Arabia", available at: www.tradingeconomics.com/saudi-arabia/international-tourism-number-of-arrivals-wb-data.html
- Isenberg, D. (2011), "The entrepreneurship ecosystem strategy as a new paradigm for economic policy: principles for cultivating entrepreneurship", available at: www.theicehouse.co.nz/LinkClick.aspx?fileticket=dILN71IdjFE=&tabid=328&language=en-NZ (accessed February 10, 2012)
- Jeddah Chamber of Commerce and Industry (n.d.), available at: www.jcci.org.sa/JCCI/ JCCICommitteesList.aspx?cnName=\{CF3B2444-18AB-4B9E-98CB-DC3D226FDC39\}

ecosystem

entrepreneurship

- Kim, S., Bollens, S.A., Feldman, M.S. and Gong, Y. (2010), "An emergence of a biotechnology cluster: knowledge, practice and culture of the San Diego biotechnology community".
- King, M. (2010), "Giving women economic freedom; loans circles like the aurora business project provide training, mentoring and microcredit for start-ups", *The Gazette*, June 14, p. A16.
- Kingdom of Saudi Arabia Ministry of Labor (n.d.), available at: http://portal.mol.gov.sa/en/ DocumentLibrary/SummaryofSaudiEmploymentStrategy.pdf
- Klyver, K. and Grant, S. (2010), "Gender differences in entrepreneurial networking and participation", International Journal of Gender and Entrepreneurship, Vol. 2 No. 3, pp. 213-27.
- Koga, T. (2005), "R&D subsidy and self-financed R&D: the case of Japanese high-technology start-ups", *Small Business Economics*, Vol. 24 No. 1, pp. 53-62.
- LaBonia, L., Philo, R. and Couto, G. (1998), "Making suppliers your allies: a supplier's perspective", *Nursing Homes*, Vol. 47 No. 7, pp. 13-16.
- (2005), "Labor law", September 27, available at: http://info.psu.edu.sa/psu/fnm/smehar/notes/labor\_lawSaudiArabiapdf.pdf (accessed February 10, 2012).
- (n.d.), "List of countries by population", available at: http://en.wikipedia.org/wiki/List\_of\_countries\_by\_population
- Malhi, G. (2004), "Entrepreneurs are the backbone of Canadian economy: my new job is to support and remote entrepreneurship in the Canadian economy", *The Hill Times*, p. 23.
- Martiz, A. (2010), "Networking, entrepreneurship and productivity in universities", *Innovation:* Management, Policy & Practice Vol. 12 No. 1, 18-25.
- Mazanai, M. and Fatoki, O. (2011), "The effectiveness of business development services providers (BDS) in improving access to debt finance by start-up SMEs in South Africa", *International Journal of Economics and Finance*, Vol. 3 No. 4, pp. 208-16.
- Moensted, M. (2010), "Networking and entrepreneurship in small high-tech European firms: an empirical study", *International Journal of Management*, Vol. 27 No. 1, pp. 16-30, 200.
- Mohamed, A., Alexandre, R. and Freitag, F. (2010), "Internationalization of small- and mediumsized enterprises: a multi case study", *European Business Review*, Vol. 22 No. 6, pp. 608-23.
- National Competitiveness Center (NCC) (n.d.), "Saudi NCC about NCC", available at: www.saudincc.org.sa/About-NCC/About-NCC.aspx
- NCB (n.d.), "Kafalah program", available at: www.alahli.com/EN-US/BUSINESSBANKING/SMALLBUSINESSBANKING/FINANCING/BUSINESSFINANCING/Pages/Kafalah Program.aspx
- Nickols, F. and Ledgerwood, R. (2006), "The goals grid as a tool for strategic planning", Consulting to Management, Vol. 17 No. 1, pp. 36-8.
- Otto, F. (2005), "Help your clients create a useful strategic plan", Consulting to Management, Vol. 16 No. 3, pp. 11-12.
- Oxford Dictionary (n.d.), "Ecosystem", available at: http://oxforddictionaries.com/definition/ecosystem?q=ecosystem (accessed January 16, 2012).
- Peltoniemi, M. and Vuori, E. (2009), "Business ecosystem as the new approach to complex adaptive business environments", International Workshop on Open Component Ecosystems.
- Praag, M.V. and Versloot, P.H. (2007), "What is the value of entrepreneurship? A review of recent research", *Small Bus Econ*, Vol. 29, pp. 351-82.
- Rahatullah, M.K.M. (2010), "Achieving success in hybrid relationship businesses".
- Robinson, J.C. (2000), "Capital finance and ownership conversions in health care", *Health Affairs*, Vol. 19 No. 1, pp. 56-71.
- Saudi Fast Growth (SFG) (n.d.), available at: www.saudifastgrowth.com/index.aspx?pageid=5

- Szabó, A. (1995), "The role of small and medium-sized enterprises in countries is transition and how to promote them", ECE Advisory Workshop on Industrial Restructuring.
- Szabó, A. (2006), "Business incubation as element of business service institution and SME development infrastructure for creation of new enterprises in CITs report on entrepreneurship and SMEs in Hungary", available at: www.erenet.org/papers/bsi.pdf
- (n.d.), "Taxis and buses", available at: www.scb.gov.sa/Loans/Cars.aspx
- Thurik, R. and Wennekers, S. (2004), "Entrepreneurship, small business and economic growth", *Journal of Small Business and Enterprise Development*, Vol. 11 No. 1, pp. 140-9.
- United Nations Economic Commission for Europe (UNECE) (n.d.), available at: www.unece.org/indust/sme/sme-role.htm (accessed January 13, 2012).
- Weeks, J.R. (2002), "Support for women's enterprise in the United States: lessons learned".
- Wiklund, J., Davidsson, P. and Delmar, F. (2008), *Entrepreneurship and Growth of Firm*, Edward Elgar Publishing.
- Zedtwitz, M. (2003), "Classification and management of incubators: aligning strategic objectives and competitive scope for new business facilitation", *International Journal of Entrepreneurship and Innovation Management*, Vol. 3 No. 1, pp. 176-96.
- Zimmerman, J. (2007), "Refining the definition of entrepreneurship", Doctor of Education Dissertation.

#### Further reading

- Abetti, P.A. (2004), "Government-supported incubators in the Helsinki region, Finland: infrastructure, results, and best practices", *Journal of Technology Transfer*, Vol. 29 No. 1, pp. 19-40, available at: http://ideas.repec.org/a/kap/jtecht/v29y2004i1p19-40.html
- Al Mashni, R.A. (2012), "RIM and SAGIA announce the Blackberry Entrepreneurship Academy at the 6th Global Competitiveness Forum", January 24, available at: www.ameinfo.com/287891.html
- Atherton, A. (2007), "Preparing for business start-up: 'pre-start' activities in the new venture creation dynamic", *Journal of Small Business and Enterprise Development*, Vol. 14 No. 3, pp. 404-17.
- Bab Rizq Jameel (n.d.), "Small business program", available at: www.babrizqjameel.com/programs/program\_details.aspx?program\_id=10
- Bank Al Jazeera (n.d.), available at: www.baj.com.sa/personal-banking.aspx?page=kafala-program&id=310&sub=306
- Borman, F.H. and Likens, G.E. (1970), "Nutrient cycles of an ecosystem", *Scientific American*, pp. 92-101.
- (The) Business Center (n.d.), "Developing business by developing people", available at: www.businesscentre.com.au/site/index.cfm?display=160827
- Central Intelligence Agency (n.d.), available at: www.cia.gov/library/publications/the-world-factbook/geos/sa.html
- Dai, Z. (2011), "Virtual business incubation: a case study", Competition Forum, Vol. 9 No. 1, pp. 38-41.
- (n.d.), "Funding request and the basic elements of the project", available at: www.scb.gov.sa/ Loans/SmallProjects/RequestFunbas.aspx
- Gait, A. and Worthington, A.C. (2007), "A primer on Islamic finance: definitions, sources, principles and methods", available at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1359&context=commpapers
- Gibbons, T. (2002), Incubators Give Big Hand to Small Businesses Facilities Growing and Expanding Their Focus to Neighborhoods, Too, Florida Times Union, November 11.

ecosystem

entrepreneurship

- (n.d.), "Global competitiveness report", available at: http://en.wikipedia.org/wiki/Global\_Competitiveness\_Report
- Hackett, S.M. and Dilts, D.M. (2004), "A real options-driven theory of business incubation", The Journal of Technology Transfer, Vol. 29 No. 1, pp. 41-54.
- Idaho (n.d.), "Small business development center", available at: www.csi.edu/support/ISBDC/sbdc.html
- (2012), "Industrial competitiveness", February 2, available at: http://ec.europa.eu/enterprise/enterprise\_policy/enlargement/cc-best\_directory/research/hungary.htm
- (n.d.), "Industrial programs", available at: www.scb.gov.sa/Loans/SmallProjects/induprojects.
- Injaz Saudi (n.d.), available at: www.injaz-saudi.org/index.php?option=com\_content&view=article&id=1&Itemid=2
- Iqbal, M. and Molyneux, P. (2005), *Thirty Years of Islamic Banking: History, Performance, and Prospects*, Palgrave Macmillan, Houndmills and New York, NY.
- Jamaluddin, H. (2009), "Lessons learnt from business mentoring practices", *The Business Review*, Vol. 14 No. 1, pp. 300-5.
- Kauffman, S. (1995), At Home in The Universe: The Search for the Laws of Self-Organization and Complexity, Oxford University Press, p. 321.
- KAUST (n.d.), "Economic development", available at: www.kaust.edu.sa/economic\_development/kicp/about.html
- KAUST (n.d.), "Entrepreneurship center", available at: http://newventures.kaust.edu.sa/entrepreneurship-center/
- KAUST (n.d.), "Innovation cluster", available at: www.kaust.edu.sa/economic\_development/ic/about.html
- KAUST (n.d.), "Research park", available at: www.kaust.edu.sa/economic\_development/park/intro.html
- KAUST (n.d.), "Seed fund", available at: www.kaust.edu.sa/economic\_development/seedfund/index.html
- (2012), "Landrieu: creating an ecosystem for entrepreneurship", February 1, available at: www.sbc.senate.gov/public/index.cfm?p=PressReleases&ContentRecord\_id=32549a47-5b0d-4307-8ee3-819a3baef266&ContentType\_id=4bfd610b-f7c6-4d07-9c74-7aab32dd9838 &Group id=0a5867cf-c34c-421f-969b-ea2a5b192a22
- (n.d.), "Loans of small and emerging", available at: www.scb.gov.sa/Loans/SmallProjects.aspx
- McClatchy, S.I. (2006), "Services abound for entrepreneurs", Tribune Business News, p. 1.
- (n.d.), "Medical programs", available at: www.scb.gov.sa/Loans/SmallProjects/midecalprojects.
- (2008), "Micro and small enterprise (MSE) development", January, available at: www.ifad.org/rural/learningnotes/fam/2.htm
- NCB (n.d.), "Small business banking", available at: www.alahli.com/en-US/BusinessBanking/SmallBusinessBanking/Pages/SmallMediumEnterprises.aspx
- OECD (1999), Business Incubation: International Case Studies, OECD, Paris, available at: http://cdnet.stic.gov.tw/ebooks/OECD/24.pdf
- OECD and Istanbul Stock Exchange (2005), "A framework for the development and financing of dynamic small and medium sized enterprises in Turkey", available at: www.oecd.org/dataoecd/32/52/35645635.pdf
- Platteville Business Incubator Inc (n.d.), available at: www.pbii.org/services.html
- (n.d.), "Professional", available at: www.scb.gov.sa/Loans/Professional.aspx

- (2004), "Promoting entrepreneurship and innovative SMEs in global economy: towards a more responsible and inclusive globalization", 2nd OECD Conference of Ministers Responsible for Small and Medium Sized Enterprises (SMEs), June 3-5, available at: www.oecd.org/dataoecd/6/7/31919278.pdf
- Riyadh Bank (n.d.), available at: http://riyadbank.smetoolkit.org/arabic/ar
- Riyadh Bank (n.d.), "Business guides and toolkits", available at: www.riyadbank.com/English/BusinessBanking/BusinessGuidesToolkit.html
- Riyadh Bank (n.d.), "Kafala", available at: www.riyadbank.com/English/BusinessBanking/Kafala.html
- Saudi Arabian General Investment Authority (SAGIA) (n.d.), available at: www.sagia.gov.sa/en/Why-Saudi-Arabia/A-Commitment-To-The-Best/National-Competitiveness-Center/
- (n.d.), "Service programs", available at: www.scb.gov.sa/Loans/SmallProjects/srvprojects.aspx
- (2002), "SMEs supporting system in Saudi Arabia", October 15, available at: http://uqu.edu. sa/files2/tiny\_mce/plugins/filemanager/files/4150111/fourm/SMEDevelopmentinSaudi Arabia.pdf
- Smilor, R.W., Kozmetsky, G. and Gibson, D.V. (1988), "Technology and economic development in the modern techno polis", *Technology in Society*, Vol. 10 No. 4, pp. 433-45.
- Sonobe, T. and Zhang, H. (2011), "Inquiries into the variables associated with incubate success", *Economics*, Vol. 5 No. 7, pp. 0-1, 1-26A.
- (n.d.), "Strategic goals", available at: www.badir.com.sa/en/StrategicGoals
- Tanimoto, K. (2010), "The process of social innovation: multi-stakeholder's perspective European conference on innovation and entrepreneurship", Academic Conferences International Limited, 594-XVIII
- Technology Enterprise Funding Unit (n.d.), available at: www.badir.com.sa/en/Programs/8
- Technology Incubator & Innovation Centers (n.d.), available at: www.kacst.edu.sa/en/innovation/ Pages/technologyincubators.aspx
- Texas Business Incubators (2010), "Texas Business Incubators directory", October, available at: www.governor.state.tx.us/files/ecodev/Business Incubators Directory.pdf
- (n.d.), "The list of service programs", available at: www.scb.gov.sa/Loans/SmallProjects/srvprojects/reg.aspx
- (n.d.), "Welcome to BRJ", available at: www.babrizqjameel.com/news/announcments.aspx
- Wikipedia (n.d.), "Business incubator", available at: http://en.wikipedia.org/wiki/Business\_incubator
- World Resources Institute (n.d.), available at: http://pubs.wri.org/pubs\_pdf.cfm?PubID=3027
- World Resources Institute (2000), "world resources 2000-2001: People and ecosystems", Report Series. 41.

#### Corresponding author

Muhammad Rahatullah Khan can be contacted at: mkhan@effatuniversity.edu.sa