

Middle East towards Incubator Benefits: Case Studies

Hanadi Mubarak AL-Mubarak and Michael Busler

Abstract—In the context of business incubation (BI) as strategic enablers, this paper critically reviews the literature relating to the strategic benefits of BI in the Middle East. The taxonomy of BI benefits in the strategic elements on 1) type, 2) financial model, 3) services, 4) objectives, 5) number of clients, 6) number of graduates, and 7) jobs creation. Understanding the importance of BI benefits can be significant in the economic development although most incubators lead to diversify the economy. Thus, taxonomies of the benefits of BI are produced from both the academic literature and published case studies. In this way, a classification of strategic benefits elements as they relate to incubators has been developed to provide a greater understanding of the benefits needed to obtain a specific element. The result of this paper is Business incubators is aimed entrepreneurship, jobs creation, research commercialization and profitable enterprises in Middle Eastern countries.

Keywords—Economic Development, Incubators, Middle East, Strategic.

I. INTRODUCTION

INFODEV—an arm of the World Bank Group—currently supports the work of 40 incubators with a success rate of 75-81 percent for companies, and the United Nations Industrial Development (UNDIO) oversees more than 500 incubator projects in developing and transitioning economies. Therefore, incubators play a critical role in promoting knowledge transfer, innovation, entrepreneurialism, employment, wealth creation, and economic development. The objective of this paper is to review the literature relating to the strategic benefits of BI in the Middle East. It will focus on seven benefits, such as 1) type, 2) financial model, 3) services, 4) objectives, 5) number of clients, 6) number of graduates, and 7) jobs creation. The paper is structured as follows: Section 2 provides a thorough review of the literature on the strategic benefits of BI. In Section 3 the research methodology includes the evidence from literature review and 40 case studies to illustrate the benefits of business incubation. In Section 4, the authors briefly discuss the findings of both the academic literature and published case studies. Section 5 concludes the results of the taxonomies of the benefits of BI in the Middle East.

II. RELATED LITERATURE REVIEW OF BI IN MIDDLE EAST

Business incubators have originated in the United States in the late 1950s. However, the industry did not begin to grow rapidly until approximately 1980. Since that time, business incubation has gained popularity around the world, and was briefly popular in the media around 1999 (NBIA 2009) [10].

H. M. AL-Mubarak, Civil Engineering Department, College of Engineering, Kuwait University, Kuwait (phone: 965-99750790; fax: 965-22525554; email: pro5383526@yahoo.com).

M. Busler, Richard Stockton College, New Jersey, USA (email: michael.busler@stockton.edu).

According to the National Business Incubator Association (NBIA), headquartered in Ohio, United States, a business incubator is defined as follows: “Business incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator’s main goal is to produce successful firms that will leave the program financially viable and freestanding. Critical to the definition of an incubator is the provision of management guidance, technical assistance and consulting tailored to young growing companies” (NBIA, 2009) [10].

The first business incubator, a privately owned for-profit centre, was started in Batavia, New York, in 1959 (Brown et al., 2000) [4]. The concept of business incubators took off slowly with universities becoming the breeding ground for such development for the next twenty years (Smilor and Gill, 1986) [13]. Beginning in 1973, The United States National Science Foundation supported a series of experiments with innovation centres through its Experimental Research and Development Program (Scheirer et al., 1985) [12]. By 1981, the program had expanded to include eleven centres which served as the basis for continuing university effort to turn research into innovative new businesses (Allen and Weinberg, 1988) [1].

The United States has the largest number of business incubator programs in the world. In many ways the U.S. has been a pioneer in this industry and the growth has been rapid from less than a 100 in the 1980s to about 1,800 in the 2010, (NBIA, 2010 [11]; Monkman 2010) [9]. The United States government has played a dominant role in supporting incubators with legislative allocations for economic development and job creation. The government has also provided support at both the local and state level by providing sponsorship (Chandra and Fealey, 2009) [6]. The current literature, including research studies and books, are related to the topic of business incubation as an economic development tool (Campbell 1989 [5]; Al-Mubarak 2008 [2]; Al-Mubarak, Al-Karaghoul and Busler, 2010) [3] in the Middle East.

Al-Mubarak, 2008 and Info DEV, 2009 [7] demonstrate about GCC member states, the efforts to support entrepreneurship through business incubators and similar facilities are on the increase. For example, in 2003, Manama in the Kingdom of Bahrain, through the Bahrain Development Bank and United Nation Industrial Development Organisation (UNIDO) has established a business incubation centre as the first GCC member state who implemented this program. The reason behind this centre is to support new business formation

in the Kingdom of Bahrain and in cooperation with Commercial and the Ministry of Industrial Affairs. In the Kingdom of Saudi Arabia, BADIR-ICT was the first ICT technology incubator to be established in Saudi Arabia. The BADIR initiative was launched in January 2008, and it is the first operational incubator program in the Kingdom. It accepted its first tenants and affiliates in November 2008. This centre is part of the National Badir technology incubator initiative of Saudi Arabia's National Research Institute of King Abdul-Aziz City for Science and Technology (KACST). The BADIR-ICT facility is based in Riyadh and comprises of 30 suites with over 100 rooms and up to 30 incubator business tenants. The Total number of client firms on the site is 10, and the number of employees in client firms is 20 (Al-Mubarak, 2008 [2]; Info DEV, 2009) [7].

In Qatar, the Science and Technology Park was established in 2008. The main objectives being to commercialise research, create companies that deal in export, and create jobs. It manages to develop profitable enterprises and raise the awareness of potential entrepreneurs to promote applied research technology development and commercialisation in Qatar. In addition, the Park supports to diversify the economy of Qatar through applications of technology which accelerates the formation and growth of start-up technology companies by creating high-value employment opportunities, in particular for the graduates of Qatar University. The program is a governmental not-for-profit model focusing on the Information and Communication Technologies sectors. The space of business incubator is 12,301 square meters and 3,043 square-meters rented by client firms (Al-Mubarak, 2008 [2]; Info DEV, 2009) [7].

Recently, the United Arab Emirates (UAE) has established the Dubai Enterprise Centre (DEC) to foster the development of technology ventures involving the internet, information technology and other related technology sectors. DEC is a full service business incubation centre providing a supportive, physical and intellectual environment for new business ventures. The advantages of using DEC's services include one point of contact for set up, operations and consultation, physical infrastructure and business set up, access to qualified mentoring, setting goals, milestones, business plan, evaluations, marketing, funding, and support in understanding legal jargon, and on-going networking and training. DEC is open to all industries and to both Emiratis and expatriates. DEC is located at Dubai Airport Free Zone. Furthermore, the Kaliafa Fund in Abu Dhabi, established in 2009, participates in the incubation by supporting 228 client companies inside the incubators with the amount 398 million Durham (Al-Mubarak, 2008 [2]; Info DEV, 2009) [7]. Oman, through the "Knowledge Oasis Muscat" (KOM) establishes business incubation programs as a joint venture with the U.K. Technology Park Programs. The main services are business information finance and incubation development with technology transfer. The program is also a non-profit governmental model. For start-up companies that require a

total support package, KOM created The Knowledge Mine (TKM), a business incubator program that offers tenants a combination of subsidized offices and utilities in addition to a variety of business support program services. TKM provides a working environment that makes it possible for companies and entrepreneurs to devote more of their capital to R&D, testing, and the production of future goods and services. Moreover, with access to a multi-disciplined Business Mentor Program, TKM provides start-up residents with experienced advice and support. Facilities such as meeting and conference rooms, photocopier, audio-visual equipment and reception are also being available to residents (Al-Mubarak, 2008 [2]; Info DEV, 2009) [7].

III. RESEARCH METHODOLOGY

The research methodology that has been used in this research study is comprised of desk-research and published case studies of 40 incubator organisations in the Middle East including Bahrain, Saudi Arabia, United Arab Emirates, Qatar, Jordan, Morocco, Palestinian Territories, Egypt, Libya, Syrian, and Iran.

Table I shows the analysis of the case studies included country name with the main objective of incubator programs, the services provided by the incubators, and the number of incubators in each country.

TABLE I
THE ANALYSIS OF THE CASE STUDIES (INFODEV., 2011)

Country	No. of BI in each country	Goals	Services
1. Bahrain	1	1. Job Creation	1. Management that develops and orchestrates business, marketing and management resources and relationships tailored to the needs of the business clients.
2. Saudi Arabia	2	2. Profitable Enterprises	2. Shared office services, training, technology support and equipment.
3. United Arab Emirates	3	3. Research Commercialization	3. Selection of clients and an acceleration process by which businesses become more independent and progress to graduation.
4. Qatar	1	4. Entrepreneurship	4. Assistance in obtaining the financing necessary for business growth.
5. Jordan	3	Awareness	5. Providing access to appropriate rental space and flexible leases in the incubator.
6. Morocco	4	5. Export Revenues	
7. Palestinian territories	1	6. Policy Impact	
8. Egypt	2	7. Income Generation	
9. Libya	1		
10. Syria	1		
11. Iran	5		
12. Gaza	12		

Fig. 1 shows the distribution of incubators in the Middle East where the highest number of incubators are in Gaza-12 incubators, Iran-5 incubators, Morocco-4 incubators, United Arab Emirates and Jordan-3 incubators, Saudi Arabia and Egypt-2 incubator, respectively, and the remaining countries each own 1 incubator.

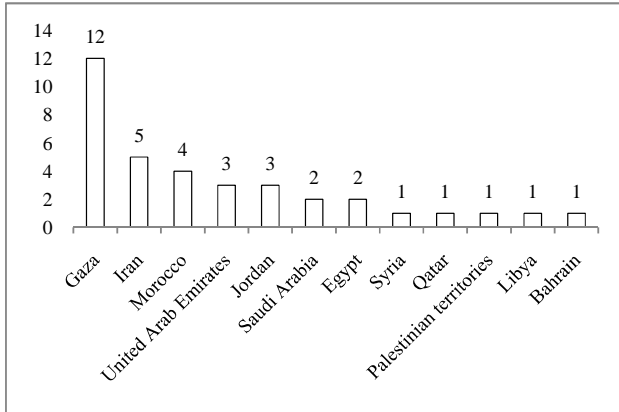


Fig. 1 Distribution of incubators in the Middle East

IV. FINDINGS AND DISCUSSION

According to (Monkman, 2010 [9]; NBIA, 2010) [11] for 50 years, the incubators have been helping entrepreneurs, promoting innovation, and creating jobs. Business incubators have been helping entrepreneurial companies to survive and grow during the start-up period. The most common goals of incubation programs are creating jobs in a community, enhancing a community's entrepreneurial climate, retaining businesses in a community, building or accelerating growth in a local industry, and diversifying local economies.

Table II summarizes 40 incubators in the Middle East presenting the seven benefits of BI: 1) type, 2) financial model, 3) services, 4) objectives, 5) number of clients 6) number of graduates, and 7) jobs creation with a description of each incubators and total % of each benefit. In addition, chain incubators program created greater than 61 (20%) jobs with a total number of graduated companies greater than 14 (40%). Furthermore, the number of the client companies inside the incubators greater than 21 (45%), the percentage of financial model of not-for profit incubators 80% and the 98% percentage of the main objectives of all incubators in Middle East are the entrepreneurship and profitable enterprises.

Table III presents the highest percentage of the incubators benefits in which 35% of the incubators' type is government, with 80% non-profit financial model. In addition, the number of client and graduate companies 45% and 40% respectively those companies created 40% jobs.

TABLE II
SUMMARY OF 40 INCUBATORS IN THE MIDDLE EAST PRESENTING THE 7 BENEFITS OF BI (INFO DEV, 2011)

Benefits of BI	Description	%
-Type	1-Academic	15%
	2-Private sector	18%
	3-Others	33%
	4-Government	35%
-Financial model	1-For profit	20%
	2-Not-for profit	80%
-Services	1-Incubation business development and facilities	96%
	2-Networks and finance	87%
	3-Technology transfer and international business services	71%
- Objectives	1-Entrepreneurship and profitable enterprises	98%
	2-Jobs creation and research commercialization	77%
	3-Income generation, policy impact and export revenues	50%
-Number of Clients	1-Clients (>21)	
	2-Clients (11-15)	45%
	3-Clients (6-10)	6%
	4-Clients (1-5)	39%
-Number of Graduates	1- Graduates (>14)	10%
	2- Graduates (10-13)	40%
	3- Graduates (4-6)	10%
	4- Graduates (1-3)	20%
-Jobs Creation	1- Jobs (>61)	30%
	2- Jobs (1-30)	20%
		40%

TABLE III
HIGHEST PERCENTAGE OF THE INCUBATORS

Benefits of BI	Description	Highest %
1-Type	Government	35
2-Financial model	Not-for profit	80
3-Services	Incubation business development and facilities	96
4-Objectives	Entrepreneurship and profitable enterprises	98
5-Number of Clients	Clients (>21)	45
6-Number of Graduates	Graduates (>14)	40
7-Jobs Creation	Jobs (1-30)	40

V. CONCLUSION AND REFLECTION

In this study, the following general conclusions can be drawn from the overview of the findings of the seven benefits of business incubators, conducted in 40 case studies throughout the Middle East. First, government type of incubation presents the highest percentage of the benefits, 35%. Second, financial model of Middle East incubators are 80% non-profit incubators. Third, the highest percentage of the number of client and graduate companies are 45 and 40%, respectively. Those companies created 40% of the jobs. Fourth, the services offered by the incubators were mainly incubation business development and facilities, 96%. Finally, 98% of Middle East incubators objectives are entrepreneurship

and profitable enterprises. In conclusion, this study clearly demonstrates that the goal of business incubators is entrepreneurship, jobs creation, research commercialization, and profitable enterprises. This is evident in the Middle East and the United States of America.

REFERENCES

- [1] Allen, D.N. and Weinberg, M.L. 'State investment in business incubators'. *Public Administration Quarterly*, 12(2), 196–215, 1988.
- [2] Al-Mubarak, H. "Procurement of International Business Incubation – Quantitative and Qualitative approaches". Melrose Books. United Kingdom, 2008. www.melrosebooks.com
- [3] Al-Mubarak, H., Al-Karaghoul, W. and Busler, M. "The Creation of Business Incubators in Supporting Economic Developments". *European, Mediterranean & Middle Eastern Conference on Information Systems 2010 (EMCIS2010)*, April 12-13, 2010, Abu Dhabi.
- [4] Brown M., Harrell M.P. and Regner W. *Internet Incubators: How to invest in the new economy without becoming an investment company*, *Business Lawyer*, 2000, 56(1): 273- 284.
- [5] Campbell, C. *Change Agents in the New Economy, Business Incubators and Economic Development*, *Economic development Review*, 1989, 7(2): 56-59.
- [6] Chandra, A. and Fealey, T. *Business Incubation in the United States, China and Brazil: A Comparison of Role of Government*. Incubator Funding and Financial, 2009.
- [7] InfoDEV., 2009. *Mixed-use Incubator Handbook: A Start-up Guide for Incubator Developers*. Retrieved on July 5, 2010, from <http://www.infodev.org/en/Publication.733.html>.
- [8] InfoDEV, 2011. *Middle East incubators*, <http://www.idisc.net/en/Region.5.html>.
- [9] Monkman, D. *Business Incubators and Their Role in Job Creation*. President and CEO National Business Incubation Association (NBIA), Athens, Ohio. Retrieved on June 30, 2010 from www.nbia.org.
- [10] National Business Incubation Association (NBIA). *What is Business Incubation?* Retrieved on June 11, 2009.
- [11] National Business Incubation Association (NBIA). Retrieved on May 26, 2010, from http://www.nbia.org/resource_library/faq/#13.
- [12] Scheirer M.A, Nieva V.F, Gaertner G.H, Newman P.D and Ramsey V. *Innovation and Enterprise: A Study of NSF's Innovation Centres Program*, Report prepared for the National Science Foundation, December, 1985.
- [13] Smilor R.W. and Gill M.D. *The New Business Incubator: Linking Talent, Technology, Capital, and Know-How*, Massachusetts: Lexington Books, 1986.

Dr. Hanadi Mubarak AL-Mubarak is an Assistant Professor in Kuwait University. She teaches project management in civil engineering for undergraduate and graduate courses as well as management course in business schools. She has published scientific articles in different academic journals, a book and has presented her research papers in many countries. She is the recipient of several international awards and medals for contribution to International Scientific Research in the WHO'S WHO IN THE WORLD 2009, 2010, 2011 & 2012 and Deputy Director General of Asia – IBC, Life Fellowship – IBA , International Peace Prize – United Cultural Conventions - UN, IBC Illuminated Diploma of honors of Professional Education 21st century award for Achievement, International Educators of the year 2004, Medal 2005, DDG Medal 2005, International Who's Who of Professional Educators 2003, 2004, 2005, 2006, 2007, 2012, Madison Who's Who professionals Life Fellowship, Marquis Who's Who, Master Degree Honor Medal 1996 – Kuwait University from HH Sheikh Jaber Al-Ahmed Al-Sabah, the Amir of Kuwait. She serves on the Editorial Board of three international journals: *Business, Economic Development, Management and International Business Entrepreneurship*. She has substantial experience in research entrepreneurial and small enterprise finance, entrepreneurship in developing countries, economic development, business incubators and impact of incubators on economic development, technology parks, government policies towards entrepreneurship, strategic benefits of business incubation and SMEs, in-depth case studies and lessons learnt with best practical business implications for strategy and competitiveness worldwide, innovation and Entrepreneurship, sustainable development approaches and methods.

Dr. Michael Busler is an Associate Professor of Finance, Finance Track Coordinator and a Fellow at the William J. Hughes Center for Public Policy at Richard Stockton College. He teaches undergraduate courses in Finance and Game Theory as well as Managerial Economics and Corporate Finance in the MBA Program. He has been published in eight different academic journals and has presented his research in ten countries. In addition he has worked as a Financial Analyst for Ford Motor Company and FMC Corporation and has been an entrepreneur having owned several businesses mostly in the Real Estate development field. He earned his Doctorate at Drexel University.