

Exploring Strategic Benefits of Innovation Worldwide

Hanadi Mubarak AL-Mubarak

College of Engineering
Kuwait University, Kuwait

Michael Busler

Richard Stockton College, USA

Abstract: This paper reviews and identifies the strategic benefits of innovation worldwide. Innovation is the process of making change, difference and novelty in the products, services, add values and business manner to create economic and social benefit. The research methodologies adopted in this research study are literature reviews and case studies. The paper concludes that innovation is a vital tool for economic development, technology transfer, and jobs creation.

Keywords: Innovation, economic development, technology transfer, job creation.

1 INTRODUCTION

OECD (2010) defines innovation as the implementation of a new or significantly improved product, service, process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations the importance of innovation within the economic cycles, considered entrepreneurship with a specific emphasis on innovation. Innovation deals with: 1) new products, 2) new production methods, 3) new markets, and 4) new forms of organization. Therefore, while the basic concepts of entrepreneurship, innovation and incubation and the associated terminology must be commonly accepted and shared, when putting into practice actions towards the creation of new IBIs (EC, 2010).

Incubators formally began in the US in the 1960s, and UK and Europe through difference forms (e.g. innovation centres, technopoles/science parks). It is recognized as the innovation is an important outcome for 21st century. In addition, the other incubators outcomes are: 1) Employment and wealth creation, 2) Support for small firms with high growth potential, 3) Transfer of technology, 4) Promoting innovation, 5) Enhancing links between universities, research institutions and the business community, 6) Industry cluster development, and 7) Assessment of a company risk profile.

The objective of this paper to reviews and identify the strategic benefits of innovation worldwide. The paper is structured as follows: Section 2 provides a thorough review of the literature on the details of incubator models. In Section 3, the research methodology includes the successful multi-case studies, which describe a number of aspects of business incubation in the United States and Brazil. In Section 4, the authors briefly discuss the finding of the study drawn from the analysis of comparison between models of U.S. incubators and models of Brazilian incubators. Section 5 concludes with implications of the incubators' models in both countries.

2 REVIEW OF THE INNOVATION LITERATURE

Innovation is the driver of 21st century. This requires improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies, and ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges. But, to succeed, this must be combined with entrepreneurship, finance, and a focus on user needs and market opportunities (White House, 2010; EURP, 2010; EBN, 2010; EC, 2010 and Joseph and Eshun, 2009).

Innovation based on Business Incubation lead to fostering technological innovation and industrial renewal (Allen and Rahman, 1985; Smilor and Gill, 1986; Allen and McCluskey, 1990; Mian, 1996). Incubators provide new high-tech venture creation, technological entrepreneurship, commercialization, and transfer of technology (Mian, 1994 and 1997; Phillips, 2002; McAdam and McAdam, 2008; Al-Mubarak, 2008). Finally, it is supporting regional development through job creation (Allen and Levine, 1986; Mian, 1997; Thierstein and Wilhelm, 2001; Roper, 1999).

In U.S the Strategy for American Innovation will shape the ideas and technologies suitable for building the 21st century. Innovation will create new jobs and catalyze broadly shared economic growth. The most important part is the investment in the building blocks of American innovation and to ensure that the economic tools for successful innovation from research and development to transfer of those innovations (White House, 2010).

The innovation is essential to the UK's for the future economic prosperity and quality of life (DIUS, 2008). Moreover, it defined as the successful exploitation of new ideas to a company, organisation, industry or sector. It applies to products, services, business processes and models, marketing and enabling technologies .finally, innovation supported arts and cultural institutions by increasing number of studies point to distinctive innovative behaviours in the creative industries (Handke, 2008; Miles and Green, 2008; Potts et al., 2008).

Today, many reports by European demonstrate (EBN, 2011) that innovation focuses on the three categories: 1) technological innovation 53,08, 2) non-technological innovation 34,97, and 3) others 11,95. Furthermore, there are two high percentage of innovation services based on incubators; 32% design and implementing innovative projects, 22% innovation diagnostic and 17% internationalization, commercialization and access to finance.

3 THE METHODOLOGY

The research methodology that has been used in this research study is comprised of desk-research, interviews and employs successful multi-case study methodology which describes a number of aspects of innovation worldwide (figure 1, appendix I). Furthermore, the case study method is recognised as the most effective research strategy to capture the "rich" experience of complex projects (Eisenhardt, K., 1989 and Yin, R.K., 1994).

4 THE FINDINGS

Innovation is not just about idea generation it is also about idea commercialization and application. In addition, entrepreneurship is a way of thinking, tied to creativity, idea generation and opportunity recognition (EDA, 2005). Innovation is the specific instrument of entrepreneurship. Innovation creates a resource and the resource creates positive impact in economic development. Innovation is the specific tool of entrepreneurs to exploit change as an opportunity for a different business or service. In addition, Innovation can be presented as a discipline to be learned, and practice" (Drucker, 1985). Like creativity and entrepreneurship, innovation is indispensable in an 'entrepreneurial economy', especially, in a technologically-driven economy where wealth creation is directly derived from innovation (Romer, 1990).

As can be seen in table 1 (appendix II), the analysis of case studies for both countries are presented with for key elements of innovation strategic benefits: 1) Entrepreneurship, 2) Job creation, 3) Commercializing technology, and 4) Technology transfer (see figure 2, appendix III). The most of case studies incubators are mixed technology such as UK, France, Germany, Spain, Italy, Netherland, Luxemburg, Belgium and case studies academic incubators such as Portugal and Sweden.

5 SUMMARY AND CONCLUSIONS

The following general conclusions can be drawn from the previous overview of the findings of strategic benefits of innovation worldwide:

- 1- **Incubators services:** both countries provide tangible and intangible services
- 2- **Incubators Type:** both countries are mixed technology type
- 3- **Incubators objectives:** very active in the innovation

Based on the above, conclusions that can be drawn overall clearly indicate that innovations are a vital tool for technology transfer, jobs creation, entrepreneurship and commercializing technology.

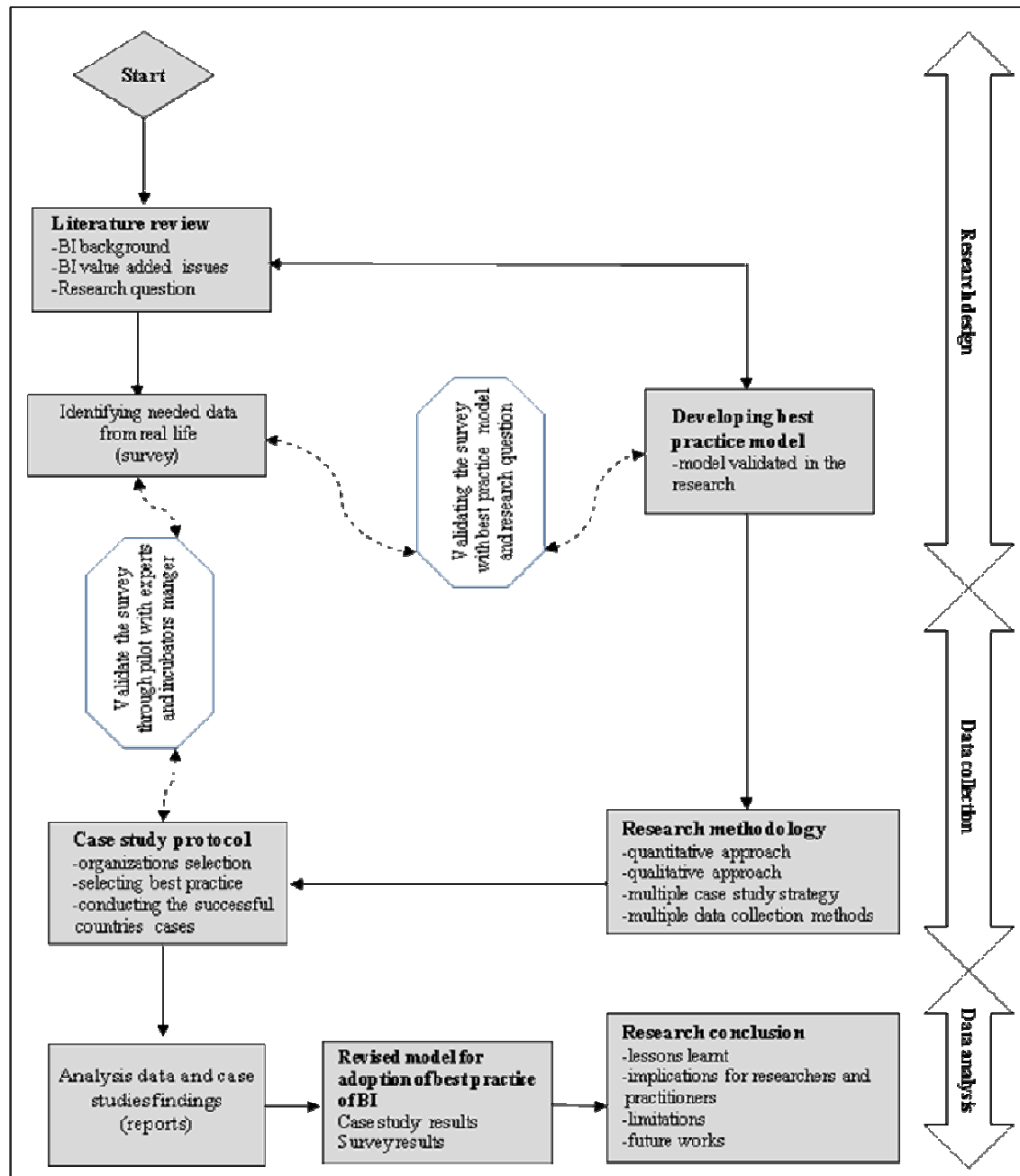
REFERENCES

- Allen, D., and Levine, V. (1986) *Nurturing Advanced Technology Enterprises: Emerging Issues in State and Local Economic Development Policy*. New York: Prager.
- Allen, D., and Rahman, S. (1985) *Small Business Incubators: A Positive Environment for Entrepreneurship*. Journal of Small Business Management, 23 (July): 12–22.
- Allen, D.N. and McCluskey, R. (1990) *Structure, Policy, Services, and Performance in the Business Incubator Industry*. Entrepreneurship Theory and Practice. 15(2):61–77.
- Al-Mubarak, H. (2008) *Procurement of international business incubation – Quantitative and Qualitative approaches*. Melrose Books, U.K., [online] available: www.melrosebooks.com.
- Department for Innovation, Universities and Skills (DIUS), (2008) *Innovation Nation*. London: HMSO.
- Drucker, P. (1985) *Innovation and Entrepreneurship: Practice and Principles*, Harper & Row, New York, NY 2001.
- Eisenhardt, K. (1989) *Building theories from case study research*, Academy of Management Review, Vol. 14 No. 4, p. 532–50.
- European Business and Innovation Center Network (EBN). (2010) *Case studies*, [online] available: <http://www.ebn.eu/DisplayPage.aspx?pid=31> [5 January 2012].
- European Business and Innovation Center Network (EBN). (2011). *Case studies*, [online] available: <http://www.ebn.eu/assets/assets/pdf/quality/2011/bicobservatory2011%20sept%202011.pdf> [16 January 2012].
- European Commission (EC), (2010) *Europe 2020 A strategy for smart, sustainable and inclusive growth*, [online] available: <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20%20Europe%202020%20-%20EN%20version.pdf>.
- European Union Regional Policy (EURP), (2010) *The smart guide to innovation based incubators*, [online] available: http://www.ebn.eu/assets/assets/pdf/news/final_case-studies-nma-07042010.pdf [5 January 2012].
- Handke, C. (2008) *On peculiarities of innovation in cultural industries*, Paper presented at the 15th International Conference on Cultural Economics, Northeastern University, Boston, 13–15 June.
- Joseph, P. and Eshun, Jr. (2009) *Business Incubation as strategy*, Business Strategy Series, 10(3), p.156–166. ABI/INFORM Global. (Document ID: 1882777971).
- McAdam, M. and McAdam, R. (2008). *Incubators: The Relationship between the Start-Up's Lifecycle Progression and use of the Incubator's Resources*, High Tech Start-ups in University Science Park, Technovation, 28 (5): p. 277–90.
- Mian, S.A. (1996) *The University Business Incubator: a Strategy For Developing New Research/Technology-Based Firm*. The Journal of High Technology Management Research, 7: 191–208.
- Mian, S.A. (1994) *Are University Technology Incubators Providing a Milieu for Technology-Based Entrepreneurship?* Technology Management, 1: 86–93.
- Mian, S.A. (1996) *Assessing the Value-Added Contributions of University Technology Business Incubators to Tenant Firms*. Research Policy, 25: 325–35.
- Mian, S.A. (1997) *Assessing and Managing the University Technology Business Incubator: An Integrative Framework*. Journal of Business Venturing, 12: 251–85.
- Miles, I. and Green, L. (2008) *Hidden Innovation in the Creative Industries*, London: NESTA.

- Organization for economic co-operation and development (OECD), (2010) [online] available: <http://www.oecdilibrary.org/oecd/content/workingpaperseries/1815195> [1 May 2012].
- Phillips, R.G. (2002) *Technology Business Incubators: How Effective as Technology Transfer Mechanism?* *Technology in Society*, 24: 299–316.
- Potts, J., Cunningham, S., Hartley, J. and Ormerod, P. (2008) *Social network markets: a new definition of the creative industries*. *Journal of Cultural Economics*. pp.167-185.
- Romer, P. (1986). *Increasing Returns and Long-run Growth*. *Journal of Political Economy*. V.94, (5): 1002-1037.
- Roper, S. (1999) *Israel's Technology Incubators: Repeatable Success or Costly Failures*. *Regional Studies*, 33 (2): 175–80.
- Smilor, R.W. and Gill, M.D. (1986) *The New Business Incubator: Linking Talent, Technology, Capital, and Know-How*, Massachusetts: Lexington Books.
- Thierstein, A., and Wilhelm, B. (2001) *Incubator, Technology and Innovation Centres in Switzerland: Features and Policy Implications*. *Entrepreneurship and Regional Development*, 13 (4): 315–31.
- United States Department of Commerce's Economic Development Administration (EDA), (2005) *A Report on a Symposium for 21st Century Economic Development*. Arlington, Virginia By Penn State University in Partnership with the United States Department of Commerce's Economic Development Administration, [online] available: http://www.eda.gov/xp/EDAPublic/PDF/Economic_Report_rev2-6.pdf [5 January 2012].
- White House. (2010) *A Strategy for American Innovation: Driving Towards Sustainable Growth and Quality Jobs*, [online] available: http://www.whitehouse.gov/assets/documents/SEPT_20_Innovation_Whitepaper_FINAL [10 January 2012].
- Yin, R.K. (1994) *Case Study Research—Design and Methods*. 2nd ed., Sage Publications, Newbury Park, CA.

Appendix I

Figure 1: The process of developing a research methodology



Appendix II
Table 1: Strategic benefits of innovation

Innovation strategic benefits				
		Entrepre- neurship	Job creation	Commercializing technology
Services	Facilities	No.	Case	Types
	Finance	1	UK	Mixed technology
	Advisory services	2	France	Mixed technology
	Mentoring/ Coaching	3	Germany	Mixed technology
	Incubation services	4	Spain	Mixed technology
	International Business Services	5	Portugal	Academic
	Networks and Synergy	6	Italy	Mixed technology
	Technology Transfer	7	Netherland	
	Commercializing technology	8	Luxemburg	Mixed technology
		9	Belgium	Mixed technology
		10	Sweden	Academic
		11	Poland	Private sector
		12	Austria	Technology

Appendix III
Figure 2. The key elements of innovation strategic benefits

