



OUTLOOK  
2016

23

HANADI MUBARAK  
AL-MUBARAKI\*

MICHAEL BUSLER

\*Corresponding author



## The success of Incubators, Accelerators and Innovations (IAI): A case study

Assistant Professor,  
Kuwait University, Kuwait  
E-mail: dralmubaraki@live.com

Professor of Finance,  
Stockton University, USA  
E-mail: michael.busler@stockton.edu

### ABSTRACT

**Purpose:** The objective of this paper is to identify the strengths and weaknesses of Incubators, Accelerators and Innovations (IAI). The identification used five indicators:

1. types of IAI;
2. services offered by IAI;
3. survival rate;
4. jobs creation and
5. startup companies.

**Design/methodology/approach:** To achieve the objective, the research uses qualitative approach consisting of a review of the literature, several organisational documents including annual internal reports, and two international interviews located in the United Kingdom (UK).





**H.M. Al-Mubarak  
and M. Busler**

**Findings:** The research findings indicated the strengths of selected IAI programs such as:

1. The high services offered by program manager can be lead to satiability of high number of start-ups companies.
2. The high number of start-ups which reflect positively on the economic growth through high number of jobs creation and high survival rate. Further, the research indicates the weaknesses of IAI programs includes lack of networking at the international level and lack of access to fund.

**Conclusion:** The authors conclude that the strengths and weaknesses of IAI programs will provide guidelines for academia and practitioners such as governments, policy makers, funded organisations, universities and strategic institutions for successful implementation.

**Keywords:** innovation; accelerators; incubators; economic growth.

## INTRODUCTION

Incubators, Accelerators and Innovations (IAI) program's main goals are to support the startups and secure significant success through high survival rate as well as accelerate their expansion. The international literature recognised that business incubation programs focus on economic development and growth, fostering innovation and the formation the new firms which provided start-ups several services (Bergek and Norman, 2008; Bøllingtoft, 2012; Liargovas, 2013; Lai and Lin, 2015; Mian, 1996, 1997, 2011; Peters et al., 2004; Rice, 2002; Vanderstraeten and Matthyssens, 2012). In addition, Barbero et al. (2014) and Pauwels et al. (2015) divided the incubation models into four categories: firstly, economic development through a business innovation center; secondly, technology commercialisation through university incubators; thirdly, research institutes through research incubators and fourthly, supporting high-potential ventures through stand-alone incubators.

The accelerator model is a new incubation model (Wise and Valliere, 2014) which can be defined as an organisation that provides a set of intangible services included mentoring networking and others incubation services (Isabelle, 2013). The objective of accelerator is to speed up the creation of successful new ventures by providing specific incubation services, for example, education services, training and mentoring during limited period (Cohen and Hochberg, 2014; Miller and Bound, 2011).

The IAI programs are active engine for job creation and economic growth through offering start-ups a wide range of services over time to secure a high rate of survival in the local market. The research on the incubator and innovation model has been done in depth from different perspectives and practices worldwide. In addition, there is a lack of lit-





erature about IAI programs and evidence of real case studies. The objectives of this paper are to investigate and identify the strengths and weaknesses of IAI. The identification used five indicators includes:

1. types of IAI;
2. services offered by IAI;
3. survival rate;
4. jobs creation and
5. startup companies.

The structure of this paper is as follows: Section 2 provides a literature review of the IAI program. Section 3 provides the research methodology consisting of two United Kingdom (UK) interviews and evidence from the literature review and several organisational documents. In Section 4, the authors briefly discuss the findings of the study drawn from qualitative analysis of IAI program. Section 5 concludes with implications of IAI program in European countries.

## LITERATURE REVIEW

In their recent study Al-Mubarak et al. (2014) indicated the several strengths of the incubation model. Firstly, incubators in most of the developed and developing countries which depend on government (43.0%) presented as non-profit model to meet self-sustainability; secondly, most incubation models focus on economic development, venture creation, technology transfer, innovation commercialisation, creation of new and sustainable jobs, acceleration of business growth and high survival rate by reduction in the failure rate of new enterprises; thirdly, incubation model in developed and developing countries providing a set of services, focusing on both the intangible and intangible.

Further, Pauwels et al. (2015) identified the seven key components of the incubation model which includes place, time, sources, resources, control and governance, activities or services and outcomes. The first component of the incubation model is place which shares space and environment (Bruneel et al., 2012; Hackett and Dilts, 2004). Second component – the time which shortens the duration of the entrepreneurial spin-off process (Clarysse et al., 2005) and follows the rules of graduation policies between 3 and 5 years (Bergek and Norrman, 2008; Mian, 1997). The third component, sources, which incubation presents as a part of the many processes of the entrepreneurial spin-off (Berbegal-Mirabent et al., 2015; Clarysse et al., 2005). Fourth, component resources where incubators provide office space, finance and support for the start-ups through connecting universities (Aaboen, 2009; Rothaermel and Thursby, 2005; Rubin et al., 2015). The fifth component is control and governance which presents the relationship of incubators objectives including profit or non-profit programs (Grimaldi

### The IAI: A case study





and Grandi, 2005; Peters et al., 2004). The sixth component is services which reflect the set of activities offered to incubatees (Aaboen, 2009; Bergek and Norrman, 2008). The seventh component is outcomes which concern the incubator's economic status including revenues, funds and financial outcomes (Mian, 1997).

Moreover, Al-Mubarak et al. (2015c) concluded their study stating that the incubators act as:

1. a dynamic model of self-sustainable;
2. a powerful tool to jobs creation;
3. fostering and supporting innovation to accelerate the smart growth and
4. high contributors to businesses development for the region.

Although, Al-Mubarak and Busler (2014) used the quantitative and qualitative approaches which indicated that business incubators can promote smart sustainable growth such as:

1. clear incubator goals that can significantly increase the rate of graduation companies from incubation programs;
2. high survival rate of companies ranged from 81 to 90% which leads to the sustainability of companies in the market;
3. high rate of employment creation which leads to economic development and
4. the active role of cooperation of R&D which contributes positively to technology transfer and the incremental rate of patents.

The study concludes that incubators are attractive strategic tools for economic development which are able to achieve their goals of economic development, innovation, technology transfer, fostering entrepreneurship and jobs creation.

Several literatures (Al-Mubarak, 2008; Al-Mubarak and Busler, 2010a,b; Al-Mubarak et al., 2010) presented that incubators provide a safe place for start-ups in the early stages of growth and development through a sets of tangible and intangible services from the perspective of local economic development.

The accelerator model is a new generation of incubation models (Wise and Valliere, 2014). The accelerator can provide a set of incubation services to support the start-ups through a specific duration (Cohen and Hochberg, 2014), although they are offering many services including office space, mentorship, networking, access to fund and knowledge to secure the succusses of new venture. Furthermore, there are many successful accelerators at the international level. For example, Techstars, Y-Combinator, Y-Europe and the Accelerator Corporation (Fishback et al., 2007). In UK the accelerators and incubators ecosystem presented in previous five years show very high growth rates and more than half of accelerator models establishment in last three years with a range of investments of 10,000–20,000 UK pound per team.





(See Table 1 which shows the difference between incubators model and accelerators model.)

## The IAI: A case study

**Table 1** The difference between incubators model and accelerators mode

	<i>Accelerators</i>	<i>Incubators</i>
Duration	The Accelerators will offer support over a limited timescale with specific number of activities per year	The Incubators offer an intensive long periods of support included admissions without formal break-off points
Investment	There are many accelerators offering pre-seed investment to startups with Return For Equity (RFE)	Most incubators help startups by offering access to investment capital based on their networking however they do not invest directly
Fees	Most of the accelerators invest for equity rather than a paid fee upfront, however some incubators charge start-ups and increase the investment to recover the amount	Most incubators charge the start-ups membership fees or rent depend on the company financial ability to pay
Workspace	Many Accelerators provide intensive training and mentoring also, as well as office space for limited time	Incubators offered Long-term office/lab space

Source: Telefónica UK (2014).

Today, the innovations model has become the driver in the 21st century and for future growth (EBN, 2010; EC, 2010; Eshun, 2009; EURP, 2010; White House, 2010). Innovation-based incubators are local economic development tools (Al-Mubarak et al., 2009, 2014; Al-Mubarak and Busler, 2010a; EURP, 2010), which favour the conditions for creation and growth of novel business activities as well as contributing actively to the development of the regions where they operate (Al-Mubarak et al., 2015a,b). For example, the US Economic Development Administration (EDA, 2014), invested about \$242 million in 657 nationwide the economic development projects while the investments included approximately \$170 million in construction projects which will create 28,680 jobs and generate \$8 billion in private investment.

## RESEARCH METHODOLOGY

The research design used two innovation programs as the case studies. The selection of the case study approach allowed the researchers to examine closely the current situation within a real-life interaction (Yin, 1992, 2002, 2008). For the aim of the study, the research used qualitative methods. We observed the program, interviewed the manager and analysed relevant documents. The literature review was used



to overlap with the analysis of the interviews, to measure the performance of the program through the in-depth knowledge of the research landscape and a rich insight into the research purposes (Eisenhardt, 1989; Yin, 1994, 2002, 2008).

The two UK interviews were chosen based on the successful outcomes. The research used five indicators which were

1. IAI type;
2. IAI services;
3. Survival rate;
4. Jobs creation and
5. Start-up companies.

In addition, each indicator is rank-ordered as an independent variable [e.g. low (L), moderate (M) and high (H)]. Furthermore, each interview is measured on a scale of 100% and each indicator is measured on a scale of 20%. The outcomes are divided to the three groups: the first group indicated high outcomes where the percentage ranged between 80% and 100%, the second group indicated medium outcomes the percentage ranged between 60% and 79% and the third group indicated the low outcomes the percentage ranged below than 60%. See Figure 1.

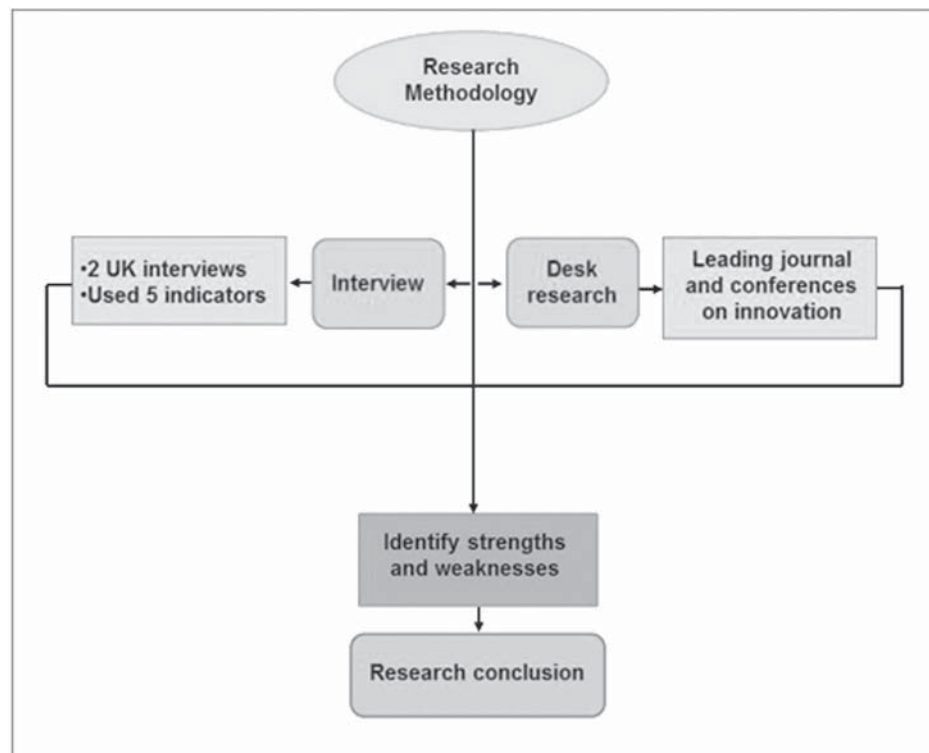


Figure 1 Research Methodology



## FINDINGS AND DISCUSSIONS

Successful implementation of the IAI programs can be expected to result in:

1. enhanced economic development through job creation;
2. a stronger entrepreneurship climate;
3. technology commercialisation and transfer for graduated companies;
4. sustainability of graduated companies in the market with high rate of survival;
5. innovation acceleration with smart product and services and
6. diversification of the economy from companies' outcomes such as innovation and technology (Al-Mubarak et al., 2015a).

The IAI:  
A case  
study

Table 2 Interview 1 – University of South Wales, Centre of Enterprise

Indicators	% 100	Scale			Indicators %	Total categories %
		High (20%)	Medium (15%)	Low (10%)		
1. IAI type	20		M		15	
2. IAI services	20	H			20	
3. Survival rate	20		M		15	85
4. Jobs creation	20		M		15	
5. Startup companies	20	H			20	
Average	100%					85

### *Interview 1: University of South Wales, Centre of Enterprise*

Table 2 presents the high start-up and high services offered by incubators companies. However, the other indicators presented medium scale. The indicators outcome indicated a high percentage of 85% which reflect the strength of the program through high jobs creation and high survival rate, also, the clear goals for innovation program.

### *Interview 2: Anglia Ruskin University*

Table 3 presents the medium scale for all indicators. The indicators outcome indicated medium percentage of 75%, which are value added to economic growth through several jobs creation and medium companies survival rate.





Table 3 Interview 2 – Anglia Ruskin University

Indicators	% 100	Scale			Indicators %	Total categories %
		High (20%)	Medium (15%)	Low (10%)		
1. IAI type	20		M		15	75
2. IAI services	20		M		15	
3. Survival rate	20		M		15	
4. Jobs creation	20		M		15	
5. Startup companies	20		M		15	75
Average	100%					

This research contributes to general knowledge about best practices of IAI programs to learn the strengths and weaknesses in successful implementation. The study identifies the strengths as:

1. The high services offered by program manager can lead to satiabil-ity of a high number of start-ups companies.
2. The high number of start-ups which reflect positively on the eco-nomic growth through the high number of jobs creation and high survival rate.

Further, the research indicates the weaknesses of IAI programs con-cerning about the following:

1. Lack of networking at the international level.
2. Lack of access to fund.

## CONCLUSIONS AND REFLECTION

In this article the authors conducted two case studies of IAI programs in the UK, including interviews with top management who participated in a semi-structured interview protocol resulting in performance ratings of five indicators with a rating scale of low, medium and high and most of the indicators received ratings between high and medium. In addi-tion, the study's findings, such as strengths and weaknesses, support a conclusion of successful implementation of IAI programs in the UK, also supporting the similar studies in the USA, European countries and Middle East countries. Finally, IAI model are engine for economic devel-opment and growth through a high number of start-ups, high number of jobs creation and high survival rate. Future works can be continued through comparative study between USA best practices verses Euro-pean countries best practices to draw the strengths and weakness.





## ACKNOWLEDGEMENTS

The project team would like to express their genuine appreciation to the Kuwait Foundation for Advancement of Sciences (KFAS) for the financial support provided for the project (2012-1103-01). Special acknowledgment and appreciation is due to Prof. Rashed Al-Ajmei, Dean of College of Business Administration at Kuwait University and Chairman of Center for Excellences, for the managerial advice and support required for the project. The team also provides deep thanks to the National Business Incubation Association (NBIA) and the United Kingdom Business Incubation (UKBI) for providing successful international case studies to be interviewed.

## REFERENCES

- Aaboen, L. (2009) 'Explaining incubators using firm analogy', *Technovation*, Vol. 29, No. 10, pp.657–670.
- Al-Mubarak, H. (2008) *Procurement of International Business Incubation—Quantitative and Qualitative Approaches*, Melrose Books.
- Al-Mubarak, H. and Busler, M. (2009) 'Business incubators: findings from worldwide survey and guidance for the G.C.C States', in A. Ahmed (Ed.). *World Sustainable Development Outlook 2009*, pp.83–91, London: WASD.
- Al-Mubarak, H. and Busler, M. (2010a) 'Business incubators models of the USA and UK: A SWOT analysis', *World Association for Sustainable Development, WJEMSD*, Vol. 6, No. 4, pp.335–354.
- Al-Mubarak, H. and Busler, M. (2010b) 'Business incubators: findings from worldwide survey, and guidance for the G.C.C states', *Global Business Review*, Vol. 11, No. 1, pp.1–20.
- Al-Mubarak, H. and Busler, M. (2014) 'Incubator successes: lessons learned from successful incubators towards the twenty-first century', *World Journal of Science, Technology and Sustainable Development*, Vol. 11, No. 1, pp.44–52.
- Al-Mubarak, H., Ahmed, A. and Al-Ajmei, R. (2014) *Best Practices of Business Incubators in Developed and Developing Countries: The Roadmap for the Gulf Cooperation Council (GCC) Countries*, Brighton, UK: World Association for Sustainable Development.
- Al-Mubarak, H., Al-Karaghoul, W. and Busler, M. (2010) 'The creation of business incubators in supporting economic developments', *European, Mediterranean and Middle Eastern Conference on Information Systems 2010 (EMCIS2010)*, 12–13 April 2010, Abu Dhabi.
- Al-Mubarak, H., Muhammad, A.H. and Busler, M. (2015a) *Innovation and Entrepreneurship: Powerful Tools for a Modern Knowledge-Based Economy*, Springer Publishers.
- Al-Mubarak, H., Muhammad, A.H. and Busler, M. (2015b) 'Measuring innovation: the use of indicators in developed countries', *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 11, No. 3, pp.220–230.
- Al-Mubarak, H., Muhammad, A.H. and Busler, M. (2015c) 'Categories of incubator success: a case study of three New York incubator programs', *World Journal of Science, Technology and Sustainable Development*, Vol. 12, No. 1, pp.2–12.
- Barbero, J.L., Casillas, J.C., Wright, M. and Garcia, A.R. (2014) 'Do different types of incubators produce different types of innovations?' *Journal of Technology Transfer*, Vol. 39, No. 2, pp.151–168.





- Berbegal-Mirabent, J., Rebeiro-Soriano, D. and García, J.L.S. (2015) 'Can a magic recipe foster university spin-off creation?' *Journal of Business Research*, Vol. 68, No. 11, pp.2272–2278.
- Bergek, A. and Norrman, C. (2008) 'Incubator best practice: a framework', *Technovation*, Vol. 28, Nos. 1–2, pp.20–28.
- Bøllingtoft, A. (2012) 'The bottom-up business incubator: leverage to networking and cooperation practices in a self-generated, entrepreneurial-enabled environment', *Technovation*, Vol. 32, No. 5, pp.304–315.
- Bruneel, J., Ratinho, T., Clarysse, B. and Groen, A. (2012) 'The evolution of business incubators: Comparing demand and supply of business incubation services across different incubator generations', *Technovation*, Vol. 32, pp.110–121.
- Clarysse, B., Wright, M., Lockett, A., VandeVelde, E. and Vohora, A. (2005) 'Spinning out new ventures: typology of incubation strategies from European research institutions', *Journal of Business Venturing*, Vol. 20, No. 2, pp.183–216.
- Cohen, S. and Hochberg, Y.V. (2014) 'Accelerating startups: the seed accelerator phenomenon', Available at: <http://dx.doi.org/10.2139/ssrn.2418000>.
- EBN (European Business and Innovation Center Network) (2010) *Case Studies*, Available at: <http://www.ebn.eu/DisplayPage.aspx?pid=31>.
- EC (European Commission) (2010) *EUROPE 2020: A Strategy for Smart, Sustainable and Inclusive Growth*, Available at: <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%202007%20%20Europe%202020%20-%20EN%20version.pdf>.
- EDA (Economic Development Administration) (2014) *Annual Report*, Available at: <http://www.eda.gov/annual-reports/files/fy2014/EDA-FY2014-Annual-Report-full.pdf>.
- Eisenhardt, K. (1989) 'Building theories from case study research', *Academy of Management Review*, Vol. 14, No. 4, pp.532–550.
- Eshun, J.P. Jr. (2009) 'Business incubation as strategy', *Business Strategy Series*, Vol. 10, No. 3, pp.156–166.
- EURP (European Union Regional Policy) (2010) *The Smart Guide to Innovation Based Incubators*, Available at: [http://www.ebn.eu/assets/assets/pdf/news/final\\_case-studies-nma-07042010.pdf](http://www.ebn.eu/assets/assets/pdf/news/final_case-studies-nma-07042010.pdf).
- Fishback, B., Gulbranson, C.A., Litan, R.E., Mitchell, L. and Porzig, M. (2007) 'Finding business idols: a new model to accelerate start-ups', *Ewing Marion Kauffman Foundation*, pp.2–8, Available at: <http://www.kaffman.org/uploadedFiles/Finding Business Idols.pdf>.
- Grimaldi, R. and Grandi, A. (2005) 'Business incubators and new venture creation: an assessment of incubating models', *Technovation*, Vol. 25, No. 2, pp.111–121.
- Hackett, S. and Dilts, D.M. (2004) 'The real options-driven theory of business incubation', *Journal of Technology Transfer*, Vol. 29, No. 1, pp.41–54.
- Isabelle, D.A. (2013) 'Key factors affecting a technology entrepreneur's choice of incubator or accelerator', *Technology Innovation Management Review*, Vol. 3, No. 2, pp.16–22.
- Lai, W.H. and Lin, C.C. (2015) 'Constructing business incubation service capabilities for tenants at post-entrepreneurial phase', *Journal of Business Research*, Vol. 68, No. 11, pp.2285–2289.
- Liargovas, P. (2013) *Do Business Incubators and Technoparks affect Regional Innovation?: A comparative study in the EU27 and the NC1 countries*, Working Paper, Available at: <http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-4.5.pdf>.
- Mian, S.A. (1996) 'Assessing value-added contributions of university technology business incubators to tenant firms', *Research Policy*, Vol. 25, No. 3, pp.325–335.
- Mian, S.A. (1997) 'Assessing and managing the university technology business incubator: an integrative framework', *Journal of Business Venturing*, Vol. 12, pp.251–285.
- Mian, S.A. (2011) *Science and Technology Based Regional Entrepreneurship: Global Experience in Policy and Program Development*, Cheltenham: Edward Elgar Publishers.





- Miller, P. and Bound, K. (2011) *The Startup Factories: The Rise of Accelerator Programmes to Support New Technology Ventures*, London: NESTA (SF/72).
- Pauwels, C., Clarysse, B., Wright, M. and VanHove, J. (2015) 'Understanding a new generation incubation model: the accelerator', *Technovation*, In Press, Corrected Proof.
- Peters, L., Rice, M.P. and Sundararajan, M. (2004) 'The role of incubators in the entrepreneurial process', *Journal of Technology Transfer*, Vol. 29, No. 1, pp.83–91.
- Rice, M.P. (2002) 'Co-production of business assistance in business incubators: an exploratory study', *Journal of Business Venturing*, Vol. 17, pp.163–187.
- Rothaermel, F.T. and Thursby, M. (2005) 'Incubator firm failure or graduation? The role of university linkages', *Research Policy*, Vol. 34, No. 7, pp.1076–1090.
- Rubin, T.H., Aas, T.H. and Stead, A. (2015) 'Knowledge flow in technological business incubators: evidence from Australia and Israel', *Technovation*, Vols. 41–42, pp.11–24.
- Telefónica, UK (2014) *The Rise of the UK Accelerator and Incubator Ecosystem*, Available at: [http://cdn.news.o2.co.uk.s3.amazonaws.com/wp-content/uploads/2014/12/O2\\_WAYRA\\_Report\\_121214.pdf](http://cdn.news.o2.co.uk.s3.amazonaws.com/wp-content/uploads/2014/12/O2_WAYRA_Report_121214.pdf).
- Vanderstraeten, J. and Matthyssens, P. (2012) 'Service-based differentiation strategies for business incubators: exploring external and internal alignment', *Technovation*, Vol. 32, No.12, pp.656–670.
- White House (2010) *A Strategy for American Innovation: Driving Towards Sustainable Growth and Quality Jobs*, Available at: [http://www.whitehouse.gov/assets/documents/SEPT\\_20\\_Innovation\\_Whitepaper\\_FINAL.pdf](http://www.whitehouse.gov/assets/documents/SEPT_20_Innovation_Whitepaper_FINAL.pdf).
- Wise, S. and Valliere, D. (2014) 'The impact on management experience on the performance of start-ups within accelerators', *The Journal of Private Equity*, Vol. 18, No. 1, pp.9–19.
- Yin, R.K. (1992) 'The case study method as a tool for doing evaluation', *Current Sociology*, Vol. 40, pp.121–137.
- Yin, R.K. (1994) *Case Study Research: Design and Methods*, 2nd edition, Newbury Park, CA: Sage Publications.
- Yin, R.K. (2002) *Case Study Research: Design and Methods*, 3rd edition, Newbury Park, CA: Sage Publications.
- Yin, R.K. (2008) *Case Study Research: Design and Methods*, 5th edition, Newbury Park, CA: Sage Publications.

## The IAI: A case study

### BIOGRAPHICAL NOTES

Dr. Hanadi Mubarak AL-Mubarak is an Assistant Professor at Kuwait University. She teaches management courses for undergraduates and graduates. She has published scientific articles in many academic journals, and one book, and has presented her research papers in many countries. She is the recipient of several international awards and medals for her contribution to International Scientific Research International Peace Prize – UN for Achievement and Masters Degree Honour Medal 1996 – Kuwait University from HH Sheikh Jaber Al-Ahmed Al-Sabah, the Amir of Kuwait. She serves on the Editorial Board of international journals. She has substantial experience in research entrepreneurship in D.C., Economic Development, Incubators, innovation and S.D.





**H.M. Al-Mubarak  
and M. Busler**

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.