

A BRIEF REVIEW IN SOME DISSERTATIONS ABOUT BUSINESS INCUBATOR PROCESS FRAMEWORK AND PERFORMANCE IN SOME COUNTRIES

Lina Gozali

Universiti Teknologi Malaysia, Jalan Sultan Yahya Petra,
Kuala Lumpur, Malaysia

ABSTRACT

Framework and performance review that is for the investigation of the under-researched phenomenon of business incubation performance in the world. This contributes to knowledge by offering a fresh perspective on how the entrepreneurial process might be studied within a business incubator environment. This paper will figure the business incubation process framework and performance in Malaysia, Australia, South Africa, Developing Countries.

Key words: Business Incubator, Performance, Framework, Some Countries

1. INTRODUCTION

The literature review provided the necessary background which allowed the researcher to develop a conceptual framework for the study acting as the foundation of the thesis. The research involves qualitative and quantitative methodology. In the first instance, a series of interviews of incubator board members, managers and tenants was completed and documented. Material derived from the interviews, along with internet sourced information, provided a qualitative data base of incubation practice supporting the development of an e-mail survey that was distributed throughout the incubator industry. A series of propositions were tested using survey response material, interpretation including a descriptive investigation followed by bivariate and multivariate analysis (Trewartha, 2012).

The history of business incubators began in 1956, Massey-Ferguson, the largest industry in Batavia, N.Y., closed down, leaving vacant an 850,000 square foot complex of multistory buildings and driving unemployment to more than 20 percent. (NBIA, 2016). Frank Mancuso, who is known as the —father of business incubatorsll was quoted as telling the story of how the first incubator originated (Kmetz, 2000).

According to Kmetz, a small town in New York had experienced significant job losses

due to the relocation of many manufacturing industries to the south and west coast of the country. A chicken incubator that once hosted several poultry growers was left vacant and Mr. Mancuso, who was then the mayor, decided to turn the vacant building into a place where entrepreneurs could start up their businesses. Entrepreneurs were charged a minimal rental and were provided with shared phone services. This was the basic idea that formed the foundation of business incubation which still holds in many modern incubator models.

The concept of incubator performance is based on theoretical frameworks proposed by Mian (1997) which centres around the performance and effectiveness of university-based technology incubators (UBTIs). Mian (1997) puts forward an integrated performance assessment framework derived from extant literature on business incubation, the involvement of universities in technology and business advancement, and the conventional approaches to organizational evaluation. The proposed framework adopts the overall systems perspective combining four programme effectiveness approaches from organizational assessment literature, namely the goal approach; the system resource approach; the stakeholder approach; and the internal process approach (Mian, 1997). A second theoretical approach explored in this research originates from the work of Hackett and Dilts (2008) who advance a

'black box' theory of business incubation which involves presenting sorely needed validated scales for assessing the process of business incubation, as well as an empirically-based theoretical model of the incubation process (Kavhumbura, 2014).

2. LITERATURE REVIEW

2.1. *An Empirical Analysis into the Underlying Components Impacting Upon Business Incubation Performance of Malaysian ICT Incubators (Fararishah Abdul Khalid, 2012)*

This study extends current research (Hackett & Dilts, 2008) by investigating an additional construct which examines targeted areas of professional management services including marketing and promotion (Rice, 1993; Lalkaka, 1997; Scaramuzzi, 2002), strategic management (Agarwal, 2002; Wiggins & Gibson, 2003; O'Neal, 2005), financial management (Lalkaka & Abetti, 1999; Beng Hui, Fernandez & Sio, 2011), and staff and personnel management (Read & Rowe, 2003; Studdard, 2006; Hallam & DeVora, 2009).

The questionnaire incorporates 251 items and comprises six sections consisting of:

- Profile of Incubatees
- Selection Performance
- Monitoring and Business Assistance Intensity
- Resource Allocation
- Professional Management Services
- Business incubation performance

The original survey instrument developed by Hackett & Dilts (2008) intended to establish the elements within the business incubation black box. Here their work is extended in the process of identifying the relationships between underlying factors in the incubation process and business incubation performance.

The conceptual design of the study (Figure 1) provided an appropriate exploratory framework for the investigation of the under-researched phenomenon of business incubation performance in

Malaysia. The conceptualisation of the research design was guided and adapted from a previously developed framework by Hackett and Dilts (2004, 2008). The literature provided various incubation models that described a typical incubation process but included limited research on how incubation outcomes occur. The present research makes a positive contribution to fill that gap and contributes to the development of theory in powerful ways. In particular, this Dissertation presents a composite model (Figure 2) of the business incubation process and the impacts on business incubation performance which is valuable to researchers, policymakers, and practitioners.

This study extends previous research by examining business incubation process constructs and their relationship with three metrics of business incubation performance. The framework promises valuable opportunities for research to be undertaken within the context of 192 business incubation. Researchers can utilize present findings from the thesis to examine further relationships between the components and extend performance measures of incubators to include for example producing sustainable ICT incubates.

Second, further research is necessary to assess the framework developed in this thesis across different types of incubators (i.e. biotechnology incubators, university incubators, and general type incubators). Development of the framework for specific incubator sectors could present opportunities for further understanding of the complex phenomenon providing mechanisms for uncovering processes related to business incubation performance. The newly developed frameworks could enrich and prompt formulation of new research questions.

Third, the examination of business incubation process and performance should be undertaken in a longitudinal study. Longitudinal studies will afford deeper understanding of the impacts of business incubation process over time.

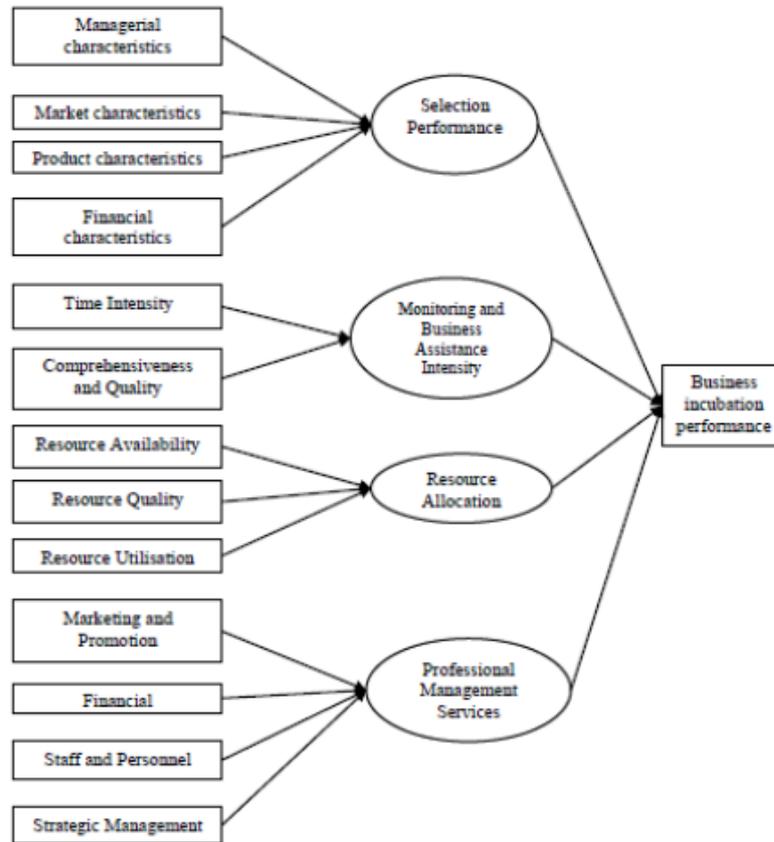


Figure 1. Hacket & Dilts Proposed Theoretical Framework of Business Incubation Process

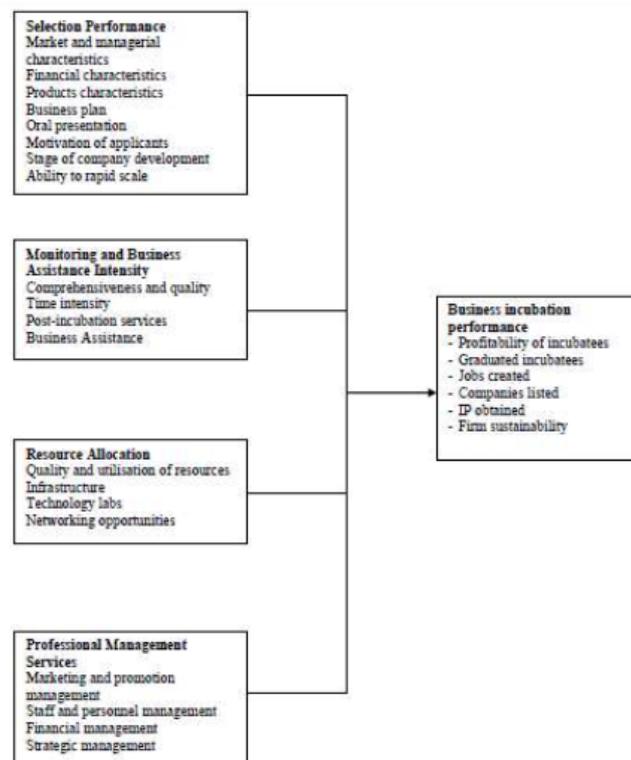


Figure 2. Khalid Composite Model Integrating Elements from both methodologies that impacts on business incubation performance

Finally, further research is required to address the inefficiencies in existing business incubation process in order to ensure that incubators are all operating in the *third-generation* model. Significant consideration has been focused to establishing incubators in the country, yet less attention has been paid in designing an incubation program that not only accelerate the growth of incubates, but also ensures the sustainability of the incubates.

2.2. Stakeholder Goal Achievement in Australian Business Incubators (Graeme Edward Trewartha, 2012)

The findings of this study have lent support to a steadily expanding body of analysis which contends that business plans represent an over-emphasized area of business preparation. The results show that a statistically significant proportion of managers expressed the opinion that business plans receive very little attention once they have served their purpose at the selection stage of incubator tenancy. Provision of a business plan is an accepted element of new business preparation in many areas of business development. Findings from this study suggest that confidence in this business development activity may be misplaced. Any business planning role in support of start-up and ongoing business development is an area requiring further analysis. The issue, and its implications, extend beyond the scope of this study.

Results of the survey would suggest that the incubation 'not-for-profit' issue is of topical interest among contemporary incubator management groups. All of the initial interview respondents were part of 'notfor- profit' incubator organizations. Responses to the survey question (should an incubator be a 'for profit' organization?) indicated that many board members and managers in Australian incubators who would prefer a 'for-profit' model.

The literature has identified areas of research, including institutional and stakeholder theory, as representing previously unidentified components in contributing to a theoretical rationale for

development of incubation. Many of the findings support prior research in these two areas of study. However, results suggest that the aforementioned areas of research require further empirical scrutiny to investigate the role of normative institutional pressures on incubator stakeholder goal achievement outcomes.

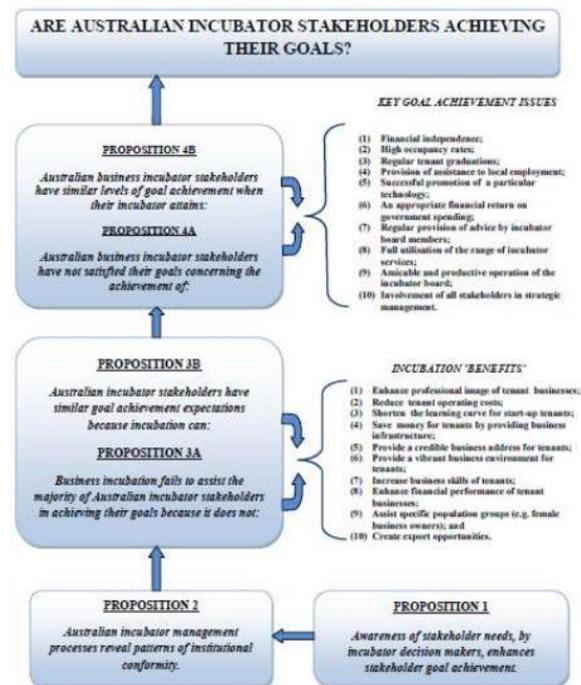


Figure 3. Trewartha's Conceptual Framework

The conceptual framework highlights the premise that the business incubator 'field' has many participating stakeholders including board members, incubator managers and incubator business tenants. Each stakeholder group, according to Lalkala (2001, p. 5), exhibits specific predilections in explaining their participation in business incubation, to the extent that these differences may significantly influence the goals of each stakeholder. One of the purposes of this study was to establish whether significant differences exist among survey respondents (Sekaran 2000, p. 127). Or, do all stakeholders exhibit similar attitudes toward goal achievement?

2.3. Beyond Godisa: Critical Success Factors for Business Incubators in South Africa (Vimbainashe O Kavhumbura, 2014)

According to existing literature in several fields including economics, entrepreneurship and sociology, entrepreneurship is a key factor of economic growth in today's increasingly competitive global economy. In South Africa, SMMEs (Small Medium Micro Enterprises) and entrepreneurship have the potential to accelerate economic development and promote job creation. As such, significant resources have been allocated to their growth and development by the South African government. Despite this input, SMMEs face many challenges that impede their growth and development.

Given that the new B-BBEE (Broad-Based Black Economic Empowerment)

codes place a strong emphasis on enterprise development, it is important to examine how initiatives to support the growth of SMMEs can be made more effective. Business incubators and other BDS (Business Development Services) firms provide a way to assist small, young firms to develop into successful businesses quickly and with relatively less risk. In order for this to happen, the incubators themselves must perform well and be sustainable. In light of this, it is crucial to identify the factors that lead to successful incubation within the South African context.

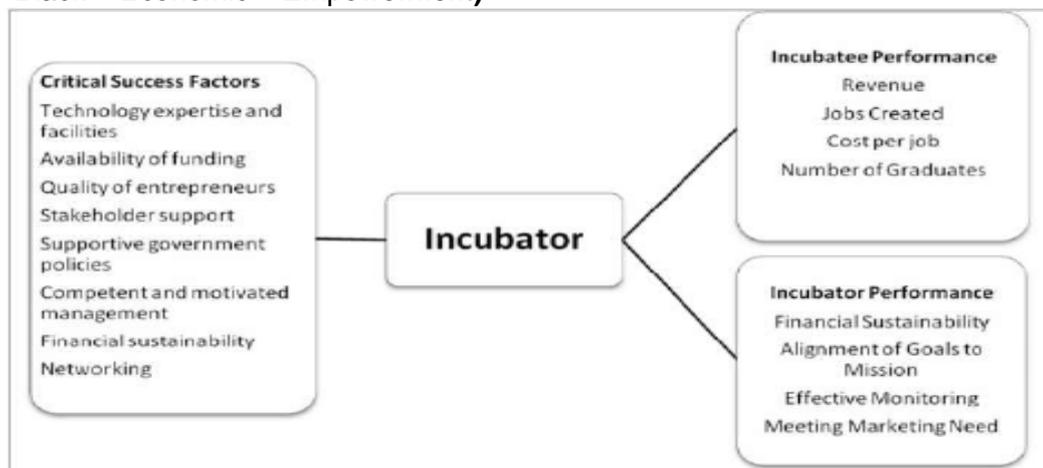


Figure 4. Kavhumbura's Conceptual Model of Critical Success Factors for Business Incubation in South Africa

SUB PROBLEM	RESEARCH QUESTION/PROPOSITION/HYPOTHESIS
Establish the antecedents of successful incubation in the South African context	<p>Research Question 1: Are the critical success factors of the GODISA case study still significant?</p> <p>H1: There is a positive relationship between access to technical expertise and incubator success.</p> <p>H2: There is a positive relation between the availability of funding, and incubator success</p> <p>H3: There is a positive relationship between stakeholder support and incubator success</p> <p>H4: There is a positive relationship between supportive government policy and incubator success</p> <p>H5: There is a positive relationship between management competencies and compensation and incubator success</p> <p>H6: There is a positive relationship between financial sustainability and incubator success</p> <p>H7: There is a positive relationship between networking and incubator success</p> <p>H8: There is a positive relationship between stringent selection criteria and incubator success</p>
Evaluate the relationship between type of incubation model used and the performance of incubators in South Africa.	<p>H9: There is a relationship between the performance of incubators and the incubation model used</p>

Figure 5. Kavhumbura's summary of research Sub-Problems

Collectively, the following propositions, as listed in Table 4 below, encapsulate how certain aspects of both the external and internal environments as well as the model of incubation in use may relate to the performance of business incubators. Literature commonly cites small and medium enterprises as the protagonists of economic and social development in emerging economies (Agupusi, 2007; Rogerson, 2001). Subsequently, the promotion and growth of small business has taken on an increasingly prominent role in development planning and policy in emerging African economies (Aggarwal, 2012). In South Africa, entrepreneurship is seen as a solution to bridging the widening wealth gap and reducing the effects of poverty and historic inequality (Herrington et al., 2010). Many African countries see business incubation as a way to instill an entrepreneurial culture. Business incubation and BDS in its broader form are considered as a solution for the poor survival rates among small and new firms (Aggarwal, 2012). This may be one reason that business incubation continues to grow in emerging market economies. A primary motivation for this research was that due to the relative infancy of the BDS and incubation environment in South Africa, there is limited literature that can offer insight into the current state of business incubators in the country. This research set out to examine previously identified critical success factors of business incubators in South Africa and assess their relation to the performance of BDS firms. The aim was to ascertain which factors play a significant role in the performance of business incubators, making them an effective vehicle for enterprise development and national economic growth. To this end, this research dealt with two sub-problems, namely: a. To establish the antecedents of successful incubation in the South African context; b. To evaluate the relationship between type of incubation model used and the performance of incubators in South Africa. The findings of this research indicate that the business incubation and small business development landscape of South Africa has evolved and perhaps grown more sophisticated as more firms have emerged in response to

situational and contextual factors. Certain critical success factors remain applicable, while others have undergone change. The types of services offered and business models for BDS firms have evolved but there is still no clear differentiation between different service providers. As such, questions still exist around a definitive list of success factors specifically for South African BDS as well as a suitable model of business incubation.

2.4. *The role of business incubators in developing entrepreneurship* (PINGPING MECKEL, 2014)

2.4.1. Pre-BIC

All twenty participants shared one thing in common before coming to BIC. In order to qualify as a tenant, all of them had a business idea that they had presented to a selection panel during an entry interview. Some ideas or businesses were more developed than others.

2.4.2. During BIC

During their time in BIC, four experiences were common to all twenty participants:

1. Having social interactions with other tenants in BIC;
2. Developing businesses or ideas while in BIC;
3. Having interactions with BIC management;
4. Viewing social interactions and/or the entrepreneurial atmosphere as an important element of being in BIC.

2.4.3. Post-BIC

The fact that the majority of participants stayed in BIC for another year perhaps reflects their positive feelings towards the incubation experience. Six pathways through the BIC process emerged from the data. Participants are selected to represent these pathways. Their experience was so well articulated by them, it can be used to exemplify others and bring their stories to life. To provide a better contextual understanding of each pathway, a short summary is first presented for each case.

Vignettes are then employed to bring their stories to life.

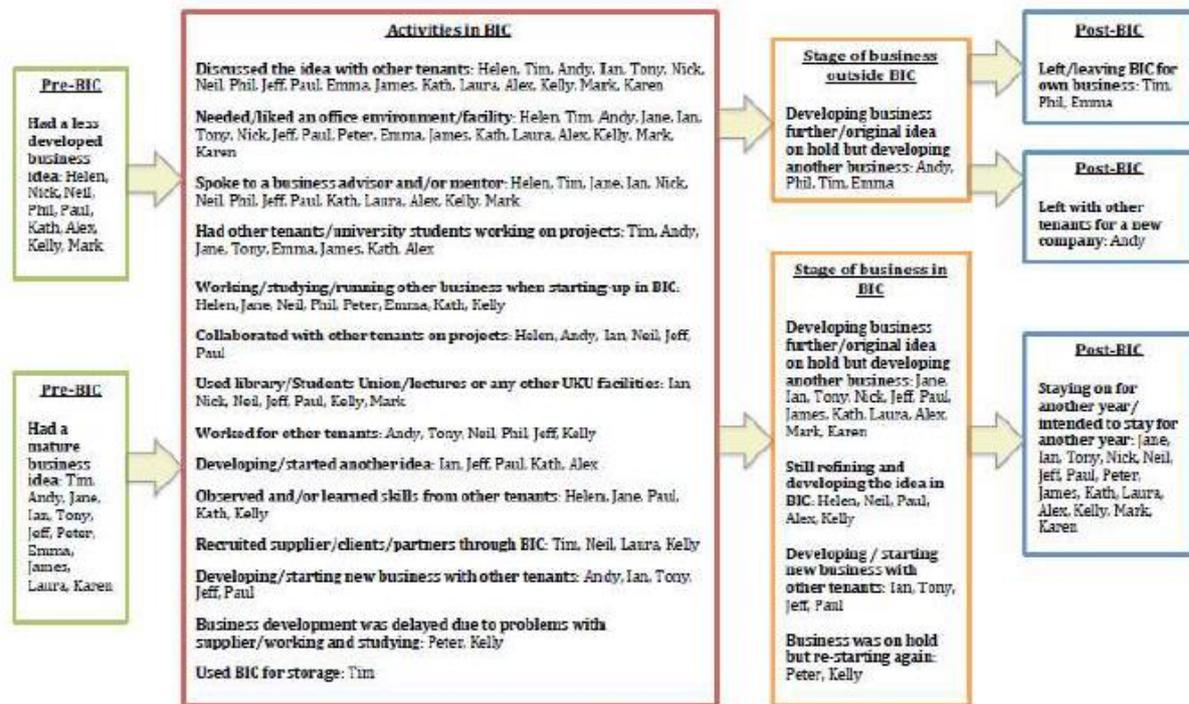


Figure 6. Meckel's the process of business incubation

Meckel's Summary :

One of the important findings of the research shows that it is the learning environment, which is important for idea generation and development of the incubates. Hence how to develop and maintain this supportive learning environment has crucial implications to incubator managers, users and policy makers.

The study suggests a number of factors that impact on opportunity identification, and which in turn can contribute to the effectiveness of business incubators in nurturing and developing nascent entrepreneurs. By identifying the important components and process of opportunity development, the research has the potential 185 to raise awareness among BI practitioners of the need to support and develop learning strategies.

The outcomes of the study suggest that by gaining a deeper understanding of the process of business incubation, policy makers may be able to better target funds in areas such as a more nuanced approach to recruitment in BIs, providing relevant information to individual incubates, building

knowledge and experience, developing a supportive community and importantly encouraging and supporting learning. This will help to set up and maintain a more effective BI and enhance entrepreneurial activities in the BI and local areas.

The outcomes of the study demonstrate how a BI with tenants with mixed backgrounds and a broad range of prior knowledge can encourage and facilitate learning, which leads to developing new business opportunities. This is an important finding for policy makers, who should consider shifting funding from high-tech incubators to mixed incubators.

3. RESULT AND CONCLUSION FOR FUTURE RESEARCH

In Khalid's dissertation (Malaysia case) stated about the factors in his model consist of Selection or Entry Criteria, Monitoring, Resource Allocation or Facilities, and Management Services in Marketing and Finance as dependent variable to Performance of Business Incubator as

independent variable. In Trewartha's Conceptual Framework stated how Australian incubator stakeholder achieving their goals and indicated that many board members and managers would prefer a 'for-profit' model. In Kavhumbura's dissertation enhance that there is a relationship between the performance of incubators and incubation model used. His model stated about the factors of technology, facilities, funding and financial, quality of entrepreneur, government support, manager competency, networking as a success factors for Business Incubator performance of success. Meckel's dissertation stated about the model of process of business incubation, he enhance the development and maintain the learning environment has a crucial implication to incubator managers, users and policy makers. Meckel suggest that by gaining a deeper understanding of the process of business incubation, policy maker may be able to better target funds. Business with mixed backgrounds tenants and a broad range of prior knowledge can encourage and facilitate learning, which leads to developing new business opportunity.

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