

**KEY SUCCESS FACTORS IN BUSINESS INCUBATION AMONG  
INCUBATORS IN MALAYSIA.**

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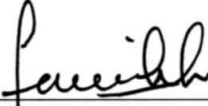
**This report submitted in partial fulfillment of the requirements for Bachelor of  
Technopreneurship**

**Faculty of Technology Management and Technopreneurship  
Universiti Teknikal Malaysia Melaka**

**JUNE 2013**

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## **DEDICATION**

This Final Year Project is dedicated to my parents for their love, constant support, and prayers. They have taught me a lot and I owe all of my achievements to them. Their encouragements have kept me motivated to finish up my final year project. It has been a memorable and exciting study years in this university.

## ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim,

Alhamdulillah for all His blessings and giving me the opportunity to complete this Final Year Project. Completing this final year project is one of biggest achievement in my life and there are many who should be thank for their support.

First of all, I would like to express my deepest appreciation to my supervisor, Dr Fararishah Binti Abdul Khalid for her patience in guiding me throughout the whole 2 semester (2012/2013) duration of this final year project; for her kind attention and motivation that has helped me in completing this research. I am truly honored to have such a dedicated supervisor.

I express my sincere thanks to the Faculty of Technology Management and Technopreneurship (FPTT), deans, head of departments, lecturers, and all FPTT's staff. Their presence directly or indirectly to help and assist me is comforting enough.

I thank the participation of all incubator managers and incubatees in this study.

Lastly, I would like to express my deep thank to all my friends for their cooperation, constructive suggestion and full of support for the research completion.

## ABSTRACT

Business Incubation Program has been established in Malaysia to help new businesses for almost two decades. Many developing countries including Malaysia advocates that business incubation will contribute to the economic growth of the country particularly in technology-based industry. However, factors that lead to the success of business incubation remain unclear especially in Malaysia. Business incubators are organizations that offer protected environments for new entrepreneur by providing them with a comprehensive and integrated range of services. This study is confined to incubators in Malaysia by applying surveys, observation and quantitative approaches. Seven main factors have been tested and the results were analyzed using SPSS. In conclusion, the success factors will give an impact to the business performance and as a guide to help new incubators assist incubatees. Therefore, the main purpose of this study is to identify the success factors that contribute to a successful incubation program in Malaysia.

*Keywords: Incubators, Success Factor, Supportive Government Policies, Entrepreneur, Malaysia*

## ABSTRAK

Program Inkubasi Perniagaan telah ditubuhkan di Malaysia selama hampir dua dekad bertujuan untuk membantu usahawan baru. Banyak negara membangun termasuk Malaysia berpendapat bahawa inkubasi perniagaan akan menyumbang kepada pertumbuhan ekonomi negara terutamanya dalam industri berasaskan teknologi. Walau bagaimanapun, faktor-faktor yang membawa kepada kejayaan program inkubasi perniagaan kekal tidak jelas terutamanya di Malaysia. Inkubator perniagaan adalah organisasi yang menawarkan persekitaran yang dilindungi untuk usahawan baru dengan menyediakan pelbagai perkhidmatan yang komprehensif. Kajian ini adalah terhad kepada inkubator di Malaysia dengan menggunakan pendekatan kajian, pemerhatian dan kuantitatif. Tujuh faktor utama telah diuji dan keputusan telah dianalisis menggunakan SPSS. Kesimpulannya, faktor-faktor kejayaan ini yang akan memberi kesan kepada prestasi perniagaan dan ianya boleh dijadikan sebagai panduan untuk membantu usahawan baru. Oleh itu, tujuan utama kajian ini adalah untuk mengenal pasti faktor-faktor kejayaan yang menyumbang kepada program inkubasi berjaya di Malaysia.

Kata kunci: *Inkubasi, Faktor Kejayaan, Usahawan, Malaysia, Ekonomi*



## TABLE OF CONTENTS

	PAGE NO.
DEDICATION	i
ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
<i>ABSTRAK</i>	iv
TABLE OF CONTENTS	v
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ACRONYMS	xi
<b>CHAPTER 1 INTRODUCTION</b>	
1.1 Background of study	1
1.1.1 Historical development	1
1.2 Problem statement	2
1.3 Research questions	3
1.4 Research objectives	4
1.5 Scope of study	4
1.6 Importance of the project	4
1.7 Organization of the thesis	4
1.8 Summary	6
<b>CHAPTER 2 LITERATURE REVIEW</b>	
2.1 Definition of an incubator	7
2.2 Theory and research review	9
2.3 Current theories	10
2.3.1 Availability of funding for entrepreneurs	10
2.3.2 Quality of entrepreneur	10
2.3.3 Incubator services and facilities	12

v

2.3.4	Supportive government policies	13
2.3.5	Competent and motivated management	14
2.3.6	Financial sustainability	15
2.3.7	Networking	16
2.4	Theoretical framework	16
2.4.1	Research model	17
2.5	Hypothesis of the study	17
2.6	Summary of the success factors	19
<b>CHAPTER 3</b>	<b>RESEARCH METHODOLOGY</b>	
3.1	Introduction	20
3.2	Research design	20
3.3	Population	21
3.4	Sampling	22
3.5	Research methodologies	23
3.6	Data collection instrument	23
3.7	Data analysis	25
3.8	Research framework	26
3.9	Type of Variable	27
3.10	Reliability	28
3.11	Validity	29
3.12	Generalizability	29
3.13	Summary	29
<b>CHAPTER 4</b>	<b>DATA GATHERING AND ANALYSIS</b>	30
4.1	Introduction	30
4.2	Reliability testing	30
4.3	Participants characteristics	31
4.3.1	Characteristics of participating incubatees	32
4.4	Critical factor that affect success of incubation	33

4.4.1	Descriptive statistic	34
4.4.2	Factor analysis	36
4.5	Hypotheses testing	38
4.5.1	Availability of funding for entrepreneurs	39
4.5.2	Quality of entrepreneur	40
4.5.3	Incubator services and facilities	41
4.5.4	Supportive government policies	42
4.5.5	Competent and motivated management	43
4.5.6	Financial sustainability	44
4.5.7	Networking	45
4.6	Data analysis	45
4.7	Result Discussion	49
4.8	Summary	53
<b>CHAPTER 5</b>	<b>CONCLUSION AND FUTURE RESEARCH</b>	<b>54</b>
5.1	Introduction	54
5.2	Key findings	54
5.3	Answering the research questions	56
5.4	Implementation	57
5.5	Future research	58
5.6	Summary	59
<b>REFERENCES</b>		<b>60</b>
<b>APPENDIXES</b>		<b>64</b>

## LIST OF TABLES

	<b>Page No.</b>
Table 2.5 Hypothesis of the study	18
Table 2.6 Summary of success factors.	19
Table 3.3 List of Incubator in Malaysia.	22
Table 4.2 Cronbach's alpha values for all components	31
Table 4.3 Percentage of respondent rate	31
Table 4.3.1 Characteristics of participating incubatees	32
Table 4.4.1 Sample Size, Mean Score and Standard Deviation for the Critical Factor	34
Table 4.4.2 Grouping of Critical Factor	37
Table 4.5.1 Relationship between availability of funding and success	39
Table 4.5.2 Relationship between quality of entrepreneur and success	40
Table 4.5.3 Relationship between incubator services & facilities and success	41
Table 4.5.4 Relationship between supportive government policies & success	42
Table 4.5.5 Relationship between competent management & success	43
Table 4.5.6 Relationship between financial sustainability and success	44
Table 4.5.7 Relationship between networking and success	45
Table 4.6 (a) Summary statistics, correlations & results from the regression analysis	46
Table 4.6 (b) Regression Analysis (Model Summary)	47
Table 4.6 (c) Regression Analysis (Anova)	47
Table 4.6 (d) Regression Analysis (Coefficients)	48

## LIST OF FIGURES

	<b>Page No.</b>
Figure 2.4.1 Theoretical framework	17
Figure 3.8 List of Independent and Dependent Variables.	27

## LIST OF ACRONYMS

FDI	:	Foreign Direct Investment
ICT	:	Information and communication technologies
infoDev	:	Information for Development Program
KHTP	:	Kulim Hi-Tech Park
MARA	:	Majlis Amanah Rakyat
MARDI	:	Malaysian Agricultural Research and Development Institute
MDeC	:	Multimedia Development Corporation
MECD	:	Ministry of Entrepreneur and Cooperative Development
MTDC	:	Malaysian Technology Development Corporation
NBIA	:	National Business Incubation Association
NINA	:	National Incubation Network Association
SIRIM	:	Standards and Industrial Research Institute of Malaysia
SPSS	:	Statistical Package for the Social Sciences

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of study

In this globalized 21<sup>st</sup> century, incubation program is a vital element in economic development in both developed and developing countries. Hänninen, et al. (2012) stated that, incubators have been used as a part of strategies to achieve rapid economic growth in Malaysia. Other than that, it is also to achieve its long-term vision of Vision 2020. Allen and Rahman (1985) state that a small business incubator is a facility that aids the early-stage growth of companies by providing rental space, shared office services, and business consulting assistance.

A business incubator can be defined as an organization that systematizes the process of creating new enterprises by providing them with a comprehensive and integrated range of services which including office space, administration at an affordable and temporary basis, common services including secretarial support, use of office equipment, hands-on business counseling and access to specialized assistance such as R&D and venture capital, and networking activities operating as a reference point inside the premises among entrepreneurs and outside of it to the local community (Lalkaka, 2002). From the business perspective, an incubator's main purpose is to make money for its investors. Thus, its profitability and business sustainability become the central concern for operating an incubator (Lalkaka, 2002).

##### 1.1.1 Historical Development

Based on a source from the National Incubation Network Association (NINA), there are 106 incubators in Malaysia. These incubators consists of

NINA Members (Tech-based Incubators), Banks, Handicraft Incubators, Universities, MARDI (Agro-based), MECD and MARA (Indigenous/Bumiputera).

Based on research done by Information for Development Program (infoDev), Malaysia undergoes three phases to establish business in incubation. In the late 80s and early 90s (Phase 1) active incubators were departments within government organizations such as at SIRIM, University Sains Malaysia, MARA, etc. In the mid-90s (Phase 2), newcomers to the business incubation scene in Malaysia included the Malaysian Technology Development Corporation (MTDC) and several university-linked incubators (University Technology Malaysia as the key point for Advanced Engineering and Life Sciences; University Putra Malaysia for ICT, Multimedia and Agri-Bio; University Kebangsaan Malaysia for Biotechnology). The third phase (Phase 3) of incubation development was in the early 2000s with the establishment of incubators at the Kulim Hi-Tech Park (KHTP), Multimedia Development Corporation (MDeC), Melaka K-incubator.

## **1.2 Problem statement**

Nowadays, incubation program is an important element in economic development in both developed and developing countries. This increased level of activity has stimulated an important academic debate concerning whether such property-based initiatives enhance the performance of corporations and economic regions. More practically, it has also led to an interest among policymakers and industry leaders in identifying best practices and success factors of incubators (Link and Scott, 2003).

Successful incubation program is essential a good element to increase the economic growth of Malaysia because Malaysia do not have to depend on the Foreign Direct Investment (FDI). However, not all incubators are successful, and achieve their goals. There are some who faced a failure and fail to fulfill the requirement of the



program. The issue of “success” or “failure” also depends on why the specific business incubator was set up originally. “What is the cause of their failure?” are some examples of the question that we need to answered.

Entrepreneurship is a hard and lonely road. If an incubator is not providing structure for tenant interaction, it is flawed. The following are some factors that been identify that can contribute to the failed of the incubation such as lack of networking, lack of funding sources, insufficient entrepreneurial skills, unsupportive government policies and lack of pipeline of great talent. Sometimes, they fail for the same reasons that other enterprises fail which is they often open their doors with a fundamentally flawed concept. All business incubators have to justify themselves for their funding source and conduct feasibility study from which they develop an operational plan.

Link and Scott (2003) states that if the power of innovation that still exists within University faculty and students is not leveraged incubator growth won't reach full potential. If new technologies are not brought to market in a meaningful way to solve the energy/climate challenge, we will have missed a historic opportunity to create new jobs, industries, and exports for workers.

In this research, the problem that has to be investigated is the underlying cause of the failure and success of these incubations. Other than that, we should provide guidelines for the newcomers so that they can plan their business well and learn from the mistakes. The reasons for failure or success of Malaysia's incubation are unknown. By the end of this study, it is expected that these will have been proved.

### **1.3 Research questions**

The research questions will be:

- 1) What are the critical success factors for incubation program in Malaysia?
- 2) Are the factors listed applicable to Malaysia conditions?

#### **1.4 Research objectives**

The research objectives will be:

- 1) To identify the success factors that contributes to the successful incubation program in Malaysia.
- 2) To evaluate the importance of the factor listed in achieving the performance level of the incubators in Malaysia.

#### **1.5 Scope of study**

The study will only discuss on the factors that contribute to the success of the incubation program and how the factors can influence the performance of the incubator. However, this study will only covers regarding incubator and did not touch on the impact of this factor toward the incubator activities. The research for the project took place in Malaysia.

#### **1.6 Importance of the project**

The importance for the study is to determine the best solution in terms of incubation, specifically for the Malaysia conditions. At the end of this study, the success factors will give an impact to the business performance and as a guide to help new incubators assist incubatees. The Departments of Trade and Industry and Science and Technology will gain a lot, while academician will also get benefit from this study and increased of documented paper work regarding Malaysia incubation.

#### **1.7 Organization of the thesis**

In **Chapter 1**, the researcher has explained on the problem that faced by the incubation industry. From the problem statement, the researcher generates the

research questions and research objectives that should be answered at the end of this study. The researcher also stress on the scope and the limitation of the study so that the study keep on the right path.

In **Chapter 2**, the researcher discuss on the definition of an incubator and the current theories or factors that contribute to the success of the incubators. The theories were obtained as early as the 1980's and the authors have different views and definition. The researcher selects seven (7) main factors that will be analyzed in this study which are more relevant in Malaysia conditions. Those factors listed are : 1) Availability of funding for entrepreneurs, 2) Quality of entrepreneur, 3) Access to Science and Technology Expertise and Facilities, 4) Supportive Government Policies, 5) Competent and Motivated Management, 6) Financial Sustainability, 7) Networking. The research framework is broken into manageable hypotheses and the hypotheses should be answered at the end of this study.

In **Chapter 3**, the researcher will used exploratory and deductive research design. The researcher used stratified sampling in this study and the data collection will be obtained thru primary and secondary sources. In data analysis, the researcher used SPSS to analyzed data and correlation, factor analysis and multiple regressions techniques was used to generate the result. Overall, this chapter has explained on the framework taken by the researcher to carry out the field work.

In **Chapter 4**, to examine the relationship between dependent variable and seven (7) independent variables the researcher used correlation, exploratory factor analysis and multiple regression analyses to generate the result. Based on the three methods, availability of funding proved to be the most critical importance factor for incubators in the Malaysia set-up followed by networking, competent and motivated management, incubator services and facilities and supportive government policies respectively. Financial sustainability and quality of entrepreneur did not seem to be much importance at the present moment for incubators in the Malaysia. All the results are supported with the literature review.

In **Chapter 5**, the researcher concludes the research and discusses the contributions that the study makes, and state the recommendation for the future research.

## **1.8 Summary**

Business incubation considered as the vital element for economy and in economy downturn business incubation plays an important role to sustain its momentum. Therefore, it is important for business incubation to identify the success factors that contribute to a successful incubation program in Malaysia.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Definition of an incubator

The type of literature that was used in this research is a combination of journals and books. Based on the recent studies which were held as early as the 1980's, the authors have different own views and definition.

Fry (1987) define business incubator as a new concept in entrepreneurship and economic development which utilizes large, often old, building to house new small businesses. The unique aspect of incubators is that the businesses share administrative services in addition to renting space in the building. Typically, the incubator provides clerical and receptionist staff, computer and copying equipment, accounting/bookkeeping help, and conference rooms. Management assistance is generally provided by either the incubator staff or outside consultants, and financing is often available.

Swierczek (1992) defines business incubators as a strategy whose focus is understood in relation to science parks and innovation centers and as a function of emphasis on business development and research development. A business incubator's strategic focus is on business development with low involvement in research development. A science park's strategic focus is on research development with little concern for business development. An innovation center's strategic focus represents a happy medium of business and research development.

Business incubation programs are designed to accelerate the successful development of entrepreneurial companies through an array of business support resources and services, developed or orchestrated by incubator management, and offered both in

the incubator and through its network of contacts. A business incubation program'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. This view has been supported in the work of Lewis (2011).

More recently the National Business Incubation Association (NBIA) has defined incubator as an economic development tool designed to accelerate the growth and success of entrepreneurial companies through an array of business support resources and services. A business incubator's main goal is to produce successful firms that will leave the program financially viable and freestanding.

Further research (Aernoudt, 2004) showed that four components have received particular attention:

- 1) Shared office space, which is rented under more or less favorable conditions to incubatees,
- 2) A pool of shared support services to reduce overhead costs,
- 3) Professional business support or advice ("coaching") and
- 4) Network provision, internal and/or external.

Nolan (2003) stated that many incubation programs in the developed countries are effective in fostering new technological start-ups. In contrast, for those incubation programs in the developing countries, which lag behind in high-tech development, such as Greece and Nigeria, the effects of incubation programs is not so prominent (Adegbite, 2001).

However, Information for Development Program (infoDev) stated that in context of Malaysia, the public policy framework in Malaysia is supportive for incubators, particularly for technology development, and indeed the public sector is predominant in the setting-up and running of incubators, although there still appear to be many gaps in provision and delivery. The main instruments that have been used in

conducting incubator studies are a combination of questionnaires, observations, case study and surveys.

## **2.2 Theory and research review**

There are several key success factors that been tested in this study which are access to science and technology expertise and facilities, availability of funding, quality of entrepreneurs, supportive government policies, competent and motivated management, financial sustainability and networking. Based on recent studies, researcher has identified several factors that reinforce the fact listed which can contribute to the success of incubators.

Harwit (2003) and Pals (2006) identified availability of funding for entrepreneur as one of the key success factors for incubator. Gstraunthaler (2010) also concurred with the finding. Schumpeter (1934) identifies that quality of entrepreneur is a vital quality that the entrepreneur should have and as the key to transforming good ideas into successful business. Later studies by Gartner and Bhat (1999) and Finer and Holberton (2002) shared the same view. Mbewena (2005) and Nelton (1985) stated that the incubator phenomenon plays an important role in entrepreneurial success.

Smilor (1989) was supported by Lalkaka (1990) in viewing government supportive policies as one of the success factors. Hänninen, (2012) and Shalaby (2007) also agreed with the finding. Shalaby (2007) recognized that level to access to Science and Technology expertise and facilities also play an important role to contribute to the success of incubation program. National Business Incubator Association (NBIA) concur that financial sustainability of the incubator is an important measure of success. Smilor (1987) also reinforced the same finding.

Hackett and Dilts (2004) believe that networking plays a vital role in any incubation program. Pals (2006) shared the same finding. Shalaby (2007) and Pals (2006)

shared the same finding which is competent and motivated management will lead to a successful incubation.

### **2.3 Current theories**

Based on recent studies, authors have identified several factors that reinforce the fact listed which can contribute to the success of incubators:

#### **2.3.1 Availability of funding for entrepreneurs**

Harwit (2003) stated that the availability of venture capital for start-ups was also identified as one of the success factors. This fact is reinforced by Gstraunthaler (2010). He states that main issue for the business incubators is helping their tenants to apply for funding.

Pals, (2006) mentioned that without funding business incubators could not exist. The main problem related to funding is the lack of or limited access to it. In the majority of the cases, the process of business incubation is taken up by the respective nation's government. While a good idea in practice, its result is that business incubators become heavily reliant upon government funds.

#### **2.3.2 Quality of entrepreneur**

According to Schumpeter (1934), an entrepreneur is an individual who makes an effort to “. . . reform or revolutionize the pattern of production by exploiting an invention . . . or untried technical possibility for producing a new commodity or producing an old one in a new way . . .” In other words, entrepreneurs are those who are ready to bring about change by exploring