

DRIVERS OF INNOVATION IN SMALL MEDIUM
SIZED FIRMS: A CASE STUDY IN FOOD AND
BEVERAGES INDUSTRY IN MALACCA

MUHAMAD WAZIR AZIZI BIN ZULKIFLE

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

DRIVERS OF INNOVATION IN SMALL MEDIUM SIZED FIRMS:
A CASE STUDY IN FOOD AND BEVERAGES INDUSTRY IN MALACCA

MUHAMAD WAZIR AZIZI BIN ZULKIFLE

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

APPROVAL

I/ We hereby declared that i/ we had read through this thesis and in my/ our opinion that this thesis is acceptable in terms of scope and quality which fulfill the requirements for the award of Bachelor Degree in Technology Management (Technology Innovation) with Honours

SIGNATURE : _____
NAME OF SUPERVISOR: DATIN SURAYA BINTI AHMAD
DATE : _____

SIGNATURE : _____
NAME OF PANEL : DR. MOHD FAZLI BIN MOHD SAM
DATE : _____

DRIVERS OF INNOVATION IN SMALL MEDIUM SIZED FIRMS:
A CASE STUDY IN FOOD AND BEVERAGES INDUSTRY IN MALACCA

MUHAMAD WAZIR AZIZI BIN ZULKIFLE

This report is submitted in partial fulfillment of the requirement for the
Bachelor Degree in Technology Management (Technology Innovation)
with Honours

Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka

JUNE 2018

DECLARATION/CONFESSION

I declare this project is the resulted of my own research except the citation in the references.

Signature : _____

Name : MUHAMAD WAZIR AZIZI BIN ZULKIFLE

Date : _____

DEDICATION

I dedicate this to my beloved family who always support me in my education and life. They always motivate me to study until this level. Besides, I also dedicate this research to the lecturers and friends who become my backbone throughout the research. Without their blessing and support, this research is impossible to be completed within limited period of time.

ACKNOWLEDGEMENT

First, I would like to express my gratitude and appreciation towards my supervisor, Datin Suraya Binti Ahmad for her guidance and support given throughout the research. Thank you for spending your precious time to guide and advise me. It is such an honor to be supervised under such a high caliber, helpful and knowledgeable people.

Besides, I would also like to thanks my panel, Dr. Mohd Fazli Bin Mohd Sam for his deep thought of my research and has given relevant and useful comment for me to improve my research quality. These suggestion and recommendations have added value and improvement for my research.

Finally, the appreciation will be given to those who have participated in the research either directly or indirectly.

ABSTRACT

Nowadays, innovation has become crucial in all sectors and industry all over the world. Therefore, the small medium sized firms need to be competent in their business to have a good business competition with major companies and organizations. This is where the innovation has become so important to improve the business quality. The aim of this study is to investigate the financial, technological capability and consumer preferences as drivers of innovation in small medium sized firms in food and beverages industry. In this study, the independent variables are financial, technological capability and consumer preferences while the dependent variable is innovation. This study will be conducted by using descriptive studies and use quantitative research to collect the data. Next, the researcher will collect the primary data from small medium sized firms in Malacca. Meanwhile, secondary data also will be collected from reading materials such as journals, articles and some relevant academic books. Furthermore, this study is selected cross sectional studies to gather the data at period of time. The research consists of reliability and validity to make the research become more accurate and valuable. The researcher design is to apply self-administered questionnaires as the research instruments and the sample size of this research was designed to 127 respondents. The data is analyzed by using IBM Statistical Package for Social Sciences (SPSS) 23. The result from this research shown that, there were two positive relation between innovation which is financial and technological capability.

Keywords: Innovation, Financial, Technological Capability, Consumer Preferences, Drivers

ABSTRAK

Pada masa kini, inovasi telah menjadi penting dalam semua sektor dan industri di seluruh dunia. Oleh itu, firma bersaiz sederhana kecil perlu kompeten dalam perniagaan mereka untuk memberi persaingan perniagaan yang sihat terhadap syarikat dan organisasi yang besar. Di sinilah inovasi telah menjadi sangat penting untuk meningkatkan kualiti perniagaan. Tujuan kajian ini adalah untuk mengkaji keupayaan kewangan, keupayaan teknologi dan keutamaan pengguna sebagai pemacu inovasi dalam firma bersaiz sederhana kecil dalam industri makanan dan minuman. Dalam kajian ini, pembolehubah bebas adalah kewangan, keupayaan teknologi dan keutamaan pengguna manakala pemboleh ubah bergantung adalah inovasi. Kajian ini akan dijalankan dengan menggunakan kajian deskriptif dan menggunakan penyelidikan kuantitatif untuk mengumpulkan data. Selanjutnya, penyelidik akan mengumpulkan data utama dari firma bersaiz sederhana di Melaka. Sementara itu, data sekunder juga akan dikumpulkan dari bahan bacaan seperti jurnal, artikel dan beberapa buku akademik yang berkaitan. Tambahan pula, kajian ini dipilih sebagai kajian keratan rentas untuk mengumpulkan data pada tempoh masa. Penyelidikan ini terdiri daripada kebolehpercayaan dan kesahihan untuk menjadikan penyelidikan menjadi lebih tepat dan berharga. Reka bentuk penyelidik adalah untuk mengaplikasikan soal selidik yang dikendalikan sendiri sebagai instrumen kajian dan saiz sampel kajian ini direka untuk 127 responden. Data dianalisis dengan menggunakan IBM Statistical Package for Social Science (SPSS) 23. Hasil daripada kajian ini menunjukkan bahawa terdapat dua hubungan positif antara inovasi yang merupakan kewangan dan keupayaan teknologi.

Kata Kunci: Inovasi, Kewangan, Keupayaan Teknologi, Keutamaan Pengguna, Pemacu

TABLE OF CONTENTS

CHAPTER	CONTENT	PAGE
	DECLARATION/CONFESSION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xiii
	LIST OF APPENDICES	xiv
1	1.0 BACKGROUND OF STUDY	1-2
	1.1 PROBLEM STATEMENT	2-3
	1.2 RESEARCH QUESTION	3
	1.3 RESEARCH OBJECTIVE	3-4
	1.4 SCOPE, LIMITATION AND KEY ASSUMPTION	4
	1.4.1 SCOPE	4
	1.4.2 LIMITATION	4
	1.4.3 KEY ASSUMPTION	5
	1.5 IMPORTANCE OF STUDY	5
	1.6 SUMMARY	5
2	2.0 INTRODUCTION	6
	2.1 INNOVATION	6-8
	2.2 SMALL MEDIUM SIZED FIRMS	9-11
	2.3 FOOD AND BEVERAGES INDUSTRY	11-12
	2.4 EXAMPLE OF FOOD AND BEVERAGE INDUSTRY	12-13
	2.5 THE DRIVERS OF INNOVATION	13-15

	2.5.1 FINANCIAL ASPECT	15-16
	2.5.2 TECHNOLOGICAL CAPABILITY ASPECT	17
	2.5.3 CONSUMER PREFERENCES ASPECT	18
	2.6 THEORETICAL FRAMEWORK	19-20
	2.7 RESEARCH HYPOTHESIS	20-21
	2.8 SUMMARY	21
3	3.0 INTRODUCTION	22
	3.1 RESEARCH DESIGN	23
	3.2 METHODOLOGICAL CHOICE	24
	3.3 SOURCE DATA COLLECTION	24
	3.3.1 PRIMARY DATA SOURCE	24
	3.3.2 SECONDARY DATA SOURCE	25
	3.4 LOCATION OF RESEARCH	25
	3.5 TIME HORIZON	26-27
	3.6 RESEARCH INSTRUMENT	27-28
	3.7 SAMPLING DESIGN	28
	3.8 SCALE OF MEASUREMENTS	29
	3.9 STATISTICAL TOOL	30
	3.9.1 MULTIPLE REGRESSION	30
	3.9.2 STATISTICS ASSOCIATED WITH MULTIPLE REGRESSIONS	31
	3.10 PILOT TEST	31-32
	3.11 SCIENTIFIC CANON	32
	3.11.1 VALIDITY	32-33
	3.11.2 RELIABILITY	33
	3.12 SUMMARY	34
4	4.0 INTRODUCTION	35
	4.1 PILOT TEST	35-38
	4.2 RELIABILITY ANALYSIS	38-39
	4.3 DESCRIPTIVE ANALYSIS	39

	4.3.1 RESPONDENTS DEMOGRAPHIC ANALYSIS	40
	4.3.1.1 GENDER	40-41
	4.3.1.2 AGE	41-42
	4.3.1.3 ACADEMIC LEVEL	42-43
	4.3.1.4 WORKING EXPERIENCE	44-45
	4.3.1.5 POSITION	45-46
	4.3.1.6 COMPANY INVOLVED IN INNOVATION	47
	4.4 INFERENTIAL ANALYSIS	48
	4.4.1 PEARSON CORRELATION ANALYSIS	49-50
	4.4.1.1 RELATIONSHIP BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLE	50
	4.4.1.1.1 RELATIONSHIP BETWEEN FINANCIAL AND INNOVATION	50-51
	4.4.1.1.2 RELATIONSHIP BETWEEN TECHNOLOGICAL CAPABILITY AND INNOVATION	51
	4.4.1.1.3 RELATIONSHIP BETWEEN CONSUMER PREFERENCES AND INNOVATION	52
	4.4.2 MULTIPLE REGRESSION ANALYSIS	52-56
	4.4.3 HYPOTHESIS TESTING	56-57
	4.5 DISCUSSION	57-58
	4.6 SUMMARY	59
5	5.0 INTRODUCTION	60
	5.1 IMPLICATION OF STUDY	60-61

5.2 LIMITATION OF STUDY	61
5.3 RECOMMENDATION OF STUDY	61-62
REFERENCE	63-70
APPENDICES	71-78

LIST OF TABLE

TABLE	ITEM	PAGE NUMBER
2.1	The elements of independent variables which explain variable in the dependent variable	14-15
3.1	Grant Chart of the research	27
4.1	Pilot Test Reliability Statistics	36
4.2	Reliability Statistics	36
4.3	Reliability Statistics	37
4.4	Reliability Statistics	37
4.5	Reliability Statistics	38
4.6	Reliability Statistics	38
4.7	Case Processing Summary	39
4.8	Gender	40
4.9	Age	41
4.10	Academic Level	42
4.11	Working Experience	44
4.12	Position	45
4.13	Company involved in Innovation	47
4.14	Correlation analysis between independent variables and dependent variable	49
4.15	Correlation analysis between Financial and Innovation	50
4.16	Correlation analysis between Technological Capability and Innovation	51

4.17	Correlation analysis between Consumer Preferences and Innovation	52
4.18	Multiple Regression of Analysis	53
4.19	ANOVA	54
4.20	Coefficients	50

LIST OF FIGURES

FIGURE	ITEM	PAGE NUMBER
2.1	Activities of food manufacturing that being run by Muruku Salhas factory	13
2.2	Theoretical Framework of Drivers of Innovation in SME	20
4.1	Gender	40
4.2	Age	41
4.3	Academic Level	43
4.4	Working Experience	44
4.5	Position	46
4.6	Company involved in Innovation	47

LIST OF APPENDICES

APPENDIX	TITLE	PAGE NUMBER
REFERENCES		63
QUESTIONNAIRE		71

CHAPTER 1

TITLE

Drivers of Innovation in Small Medium Size Firms: A Case Study in Food and Beverages Industry in Melaka

1.0 BACKGROUND STUDY

Nowadays, innovation is one of the essential elements in companies for expanding and sustaining their growth in their discipline of business. According to Bashar Bhuiyan, A., Said, J., Daud Ismail, M., Fauzi Mohd Jani, M., and Yong Gun Fie, D. (2016), to sustain the nation's economic towards a developed nation by 2020 Malaysian SMEs need to play an important role. According to Bashar Bhuiyan, A. et al. (2016), in 1970s the national economy had been contributed outstandingly by Malaysian SMEs. 99.2% overall business organizations in Malaysia have been contributed by SMEs. 32% of GDP and 19% of exports had been accounted additionally. Further, the manufacturing sector are predicted to worth RM120 billion

by 2020 and 56% of Malaysia's workforce coming from SMEs. Innovation is one of the best approaches for SMEs to improve their competitive advantage because for their business survival they need to be competitive (Hussain NHBM; Idris A, 2010). Ramlan R and Malek MA (2011) stated that SME is a backbone to industrial development in the country by playing a decisive part towards country's economic. In order to bolster their competencies in the business, SMEs need to look into their proficiency. To constantly make sure that they are moving forward, it is significant for them to invest in Research and Development (R&D) and innovation affairs (Ramlan R and Malek MA, 2011).

The changes of Malaysians' lifestyle have leads to innovative new products in the food processing based SMEs in Malaysia because of the demand for healthy food has upsurge. In such issues, in a rising global competitive environment has made the innovation to be the factor of success (Ussman A, Almeida A, Ferreira J, Mendes L, Franco M, 2001). It is tough activity to SMEs in Malaysia however it is still one of the most compelling. It is the process of new products (goods or service) being proposed or undoubtedly upsurge product to the market. The company obtained mix of current technologies, latest development of technology or the different knowledge usage (Lee C and Lee CG, 2007). The main aim of this study is to identify what are the drivers of innovation in small medium size firms of food and beverages industry in Malacca.

1.1 Problem Statement

According to Ghani Md. Nor, N., Bashar Bhuiyan, A., Said, J., Shah Alam S., (2016), a very small amount of SMEs in Malaysia are aware of the advantages of innovation based on the prior study and reports. As such, upsurge the awareness among SMEs on the advantages of innovation is crucial. In order to give a lift up to the performance of SMEs, the Malaysian government has done many programs. In 2003, the value added by their contribution is at RM405 billion and RM154 billion. Services sector had gain 51% of output and RM405 billion value added. Innovation

is the solution to gain better cost control, quality, improved products, or new products while the global competition is stiff for SMEs to deal. For SMEs to sustain their growth especially in current market scenario, they need to have innovation as one of their strategies for business. To survive in the competitive market they are highly encourage to go for innovation (Ghani Md. Nor, N. et al., 2016). Financial assistance from government and financial institutions is a problem that SMEs need to deal with. Rate interest is high, profit charged is also high, procedure for loan very complicated and financial institutions ignored them for promotional packages. There is not enough of professional and capable workers, managerial level is low and low productivity of workforce and there is no enough creativity or innovation for them to deal with international trades (Ghani Md. Nor, N. et al., 2016). In this study, the researcher will accomplish the driver of innovation for SME in food and beverages industry in Malacca. Besides, describes more detailed regarding drivers of innovation.

1.2 Research Questions

This research is aims to answer the following research questions:

1.2.1 What are the financial aspects that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka?

1.2.2 What is the level of technological capability that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka?

1.2.3 What are the consumer preferences that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka?

1.3 Research Objectives

Objectives are aims by the statement of research that are need to be answered for the research questions mentioned. The following are some of the research objective for this study:

1.3.1 To identify the financial aspects that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka.

1.3.2 To determine the level of technological capability that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka.

1.3.3 To examine the consumer preferences that can drive innovation in Small Medium Size Firms for food and beverages industry in Melaka.

1.4 Scope, limitation and key assumption

1.4.1 Scope

In this research, the scope of the research is focused on the drivers of innovation such as financial, technological capability and consumer preferences. The researcher was targeting the respondents which are small medium sized firms in food and beverages industry. This research is conducted in Malacca, Malaysia.

1.4.2 Limitation

Throughout these studies, researcher had highlighted several limitations. Firstly, the researcher is lack of experience and knowledge to do the research. The researcher faced a problem at the early of the research process which is choosing the suitable and quality title.

Second problem appears when collecting information, journals and articles due to the innovation is still new in small medium sized firms.

Lastly, the researcher finds difficulty to collect data from respondents especially for the outside respondents due to the financial and time restrictions.

1.4.3 Key assumption

The researcher intended to find out the actual of drivers of innovation within the financial, technological capability and consumer preferences will affect innovation in small medium sized firms.

1.5 Importance of study

Throughout this study, the research intended to show the financial, technological capability and consumer preferences as drivers of innovation in small medium sized firms. Therefore, this research is able to know how these factors affect the innovation in small medium sized firms which is able to explore the relationship of financial, technological capability and consumer preferences towards small medium sized firms in the food and beverages industry to increase the success of innovation in small medium sized firms.

1.6 Summary

Overall, this chapter 1 was briefly described about the framework of this research. The introduction is clarified the overview of the research and the definition of small medium sized firms and innovation. The problem statement for this research was small medium sized firms lack of innovation.

Research objectives also covered in this research as well as research questions. The importance of study this research will show the financial, technological capability and consumer preferences as drivers of innovation in small medium sized firms. Therefore, this research was able to know how the financial, technological capability and consumer preferences will affect the innovation in small medium sized firms in food and beverages industry.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

According to Bashar Bhuiyan, A. et al. (2016), within three-year period there is 51.4% of the SMEs had introduce a new product but the rest were not able to deliver. To promote their products, 53.8% of SMEs had developed new operational techniques. On the other hand, 52.2% developed new managerial process; and about 51.0% of them had pursued it. During the stated period, about 56.3% had found new alternatives supply sources. It has been proven that Malaysian SMEs' main stream is the food processing SME (Bashar Bhuiyan, A. et al., 2016). In this chapter, the theories and theoretical framework will be described by the researcher. According to Hart, C. (1998), a literature review is a goal, material accessible research and non-research literature regarding the matter being considered through summary and critical evaluation.

2.1 Innovation

According to O’Sullivan, D., and Dooley, L. (2008), innovation is on assisting growth of organizations. Turnover and profit, but can also occur in knowledge, in human experience, and in efficiency and quality is measured for growth. Innovation is the way toward rolling out improvements to something entrenched by presenting something new. Accordingly, it can be radical or incremental, and it can be used to products, processes, or services and in any organizations. It can occur at all degrees in any organizations, from administration groups to divisions and even to the level of the individual (O’Sullivan, D., and Dooley, L., 2008).

Essential issues in study for innovation come from such as economics, business, science, engineering and sociology. Although innovation has been studied in a many disciplines, the term is often understood poorly and sometimes be confused with related terms such as change, invention, design, and creativity. Many people can provide examples for innovative products. However just a small number of people can provide the innovative elements of these products. The term of innovation have differences among the academics. According to Freeman, C. (1982), “an invention is an idea, a diagram or model for a new or improved device, product, process, or system” whereas “an innovation in the economic sense is accomplished only with the first commercial transaction involving the new product, process, system or device...” Hence innovation is the use of new thoughts which come from the bedrock of thoughts and is basically described by change (Neely, A., and Hii, J., 1998). The European Commission (1995) defined innovation as ‘the restoration and extension of the scope of products and administrations and the related markets; the foundation of new techniques for products, supply, and distribution; the presentation of changes in administration, work association, and the working states of the workforce’.

According to Baregheh, A., Rowley, J., Sambrook, S., and Davies, D. (2012), developments differ extensively in their tendency. To supply a more prominent establishment for both research and practice in development, there has been extensive discourse concerning the classification of advancement. Two of the major ways to deal with the classification of developments are based on the nature or level of advancement, and on premise of the sort of development, separately. The nature or