EFFECT OF MARKET ORIENTATION TOWARDS BUSINESS PERFORMANCE IN MANUFACTURING INDUSTRY: MODERATING ROLE OF INNOVATION

TAY LI YING

This report is presented as fulfilling some of the terms for the award of Bachelor of Technology Management (High Technology Marketing)

Faculty of Technology Management and Technopreneurship

Universiti Teknikal Malaysia Melaka

JUNE 2018

C Universiti Teknikal Malaysia Melaka

DECLARATION OF ORIGINAL WORK

I hereby declare that this thesis is my own work towards the award Bachelor of Technology Management (High Technology Marketing) and that, to the best of my knowledge, it contains no material previously published by another person or material which has been accepted for the award of any other degree in any university except where due acknowledgement has been made in the text.

Signatur	e:
Name	: Tay Li Ying
Date	:

ii

DEDICATION

I dedicate this thesis for

My beloved parent

Siblings

Friends

My supervisor: Ms. Sitinor Wardatulaina Bt. Mohd Yusof,

My panel: Assoc. Prof. Dr. Norfaridatul Akmaliah

For all the spirituals and moral support that had been given to me all the time.

iii

ACKNOWLEDGEMENT

Firstly, I would like to express my sincere gratitude to my supervisor, Ms. Sitinor Wardatulaina Bt. Mohd Yusof for the continuous support of my bachelor study and related research, for her patience, motivation and immense knowledge. Her guidance helped me all the time in research and writing of this thesis. I could not have imagined having a better supervisor and mentor for my bachelor study.

Besides my supervisor, I would like to thank to my panel Assoc. Prof. Dr. Norfaridatul Akmaliah Othman for her insightful comments and encouragement, but also for the hard question which incented me to widen my research from various perspectives.

My sincere thanks also goes to all of the lecturers of Faculty of Technology Management and Technopreneurship (FPTT) in Universiti Teknikal Malaysia Melaka (UTeM) for knowledge imparted on me during the period of my course at UTeM.

I thank my fellow friends for in stimulating discussions for the sleepless nights we were working together before deadlines and for all the fun we have had in the last four years.

Last but not least, I would like to thank my family members include my mother and my brothers for their spiritually support throughout writing this thesis and my life in general.

ABSTRACT

This research was a study about effect of market orientation and moderating role of innovation towards business performance in manufacturing industry of Malaysia. This research was focused on the manufacturing industry in Johor, Melaka and Selangor due to the industrial revolution that involved digitalization and transformation of manufacturing process that lead to competitive market environment. The definition of manufacturing industry, market orientation, innovation and business performance were discussed in this research. This research was conducted using quantitative research method to evaluate the moderating role of innovation towards relationship between market orientation and business performance in manufacturing industry. The questionnaire survey was used to collect data from 150 upper management, middle management and trained professional of manufacturing industry in Johor, Melaka and Selangor. The data collected were then analysed by using SPSS to test the relationship between market orientation, innovation and business performance. The findings of this research showed the characteristic profile of market orientation in manufacturing industry, the Pearson Correlation Coefficient result and multiple regression result. The result showed that the market orientation element which included competitor orientation and inter-functional coordination and innovation had significant relationship with business performance. This research also provided the theoretical and managerial implications as well as the limitation of this research and recommendation for future research.

ABSTRAK

Kajian ini adalah kajian tentang kesan orientasi pasaran dan peranan inovasi yang sederhana terhadap prestasi perniagaan dalam industri pembuatan Malaysia. Kajian ini menumpukan kepada industri pembuatan di Johor, Melaka dan Selangor kerana revolusi perindustrian yang melibatkan digitalisasi dan transformasi proses pembuatan yang membawa kepada persekitaran pasaran yang kompetitif. Takrif industri pembuatan, orientasi pasaran, inovasi dan prestasi perniagaan telah dibincangkan dalam kajian ini. Kajian ini dijalankan dengan menggunakan kaedah penyelidikan kuantitatif untuk menilai peranan inovasi yang sederhana terhadap hubungan antara orientasi pasaran dan prestasi perniagaan dalam industri pembuatan. Kajian kuesioner ini digunakan untuk mengumpul data dari 150 pengurusan atasan, pengurusan pertengahan dan profesional industri pembuatan terlatih di Johor, Melaka dan Selangor. Data yang dikumpul kemudiannya dianalisis dengan menggunakan SPSS untuk menguji hubungan antara orientasi pasaran, inovasi dan prestasi perniagaan. Penemuan kajian ini menunjukkan profil ciri orientasi pasaran dalam industri pembuatan, hasil Pearson korelasi koefisien dan hasil regresi berganda. Hasilnya menunjukkan bahawa unsur orientasi pasaran yang termasuk orientasi pesaing dan koordinasi dan inovasi antara fungsi mempunyai hubungan yang signifikan dengan prestasi perniagaan. Kajian ini juga menyediakan implikasi teoretikal dan pengurusan serta batasan penyelidikan dan cadangan kajian penyelidikan masa depan.

TABLE OF CONTENT

CHAPTER	CONTENT	PAGES
	DECLARATION OF ORIGINAL	ii
	WORK	
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	V
	ABSTRAK	vi
	TABLE OF CONTENT	vii-xi
	LIST OF TABLES	xii-xiii
	LIST OF FIGURES	xiv
	LIST OF ABBREVATIONS	XV
	LIST OF APPENDIX	xvi
CHAPTER ONE	INTRODUCTION	1
	1.1 Introduction	1
	1.2 Background of the Study	1-2
	1.3 Problem Statement	3
	1.4 Research Questions	4
	1.5 Research Objectives	4
	1.6 Scope of the Study	5
	1.7 Significance of the Study	5
	1.8 Structure of the Study	6
	1.9 Summary	6

CHAPTER TWO LITERATURE REVIEW 7

2.1 Introduction	7
2.2 Manufacturing Industry in	7-8
Malaysia	
2.3 Business Performance	8-11
2.4 Innovation	11-12
2.5 Theories of Market Orientation	12-13
2.5.1 Customer Orientation	13
2.5.2 Competitor Orientation	13-14
2.5.3 Inter-functional Coordination	14
2.5.4 Intelligence Generation	14-15
2.5.5 Intelligence Dissemination	15
2.5.6 Response Implementation	16
2.6 Market Orientation	16-20
2.7 Market Orientation and Business	21
Performance	
2.8 Market Orientation and Innovation	21-22
2.9 Innovation and Business	22
Performance	
2.10 Conceptual Framework and	23-24
Hypothesis Formulation	
2.11 Summary	24
RESEARCH METHODOLOGY	25
3.1 Introduction	25
3.2 Purpose of the Study	25
3.3 Research Paradigm	26
3.4 Methodological Choices	26-27
3.5 Research Design	27
3.6 Research Strategy	27-28
3.7 Sampling Procedures	28
3.7.1 Population and Sample Size	28-29
3.7.2 Sampling Techniques	29

CHAPTER

THREE

	3.8 Measurement of Research	30
	Constructs	
	3.9 Sources of Data	31
	3.9.1 Primary Data Collection	31
	3.9.2 Secondary Data Collection	31-32
	3.10 Data Analysis	32
	3.11 Ethical Issues	33
	3.12 Summary	33
CHAPTER FOUR	ANALYSIS RESULT AND	34
CHAI IER FOUR	DISCUSSION OF FINDINGS	54
	4.1 Introduction	34
	4.2 Response Rate	34-35
	4.3 Pilot Test	35-36
	4.3.1 Business Performance	36-37
	4.3.2 Innovation	37-38
	4.3.3 Customer Orientation	38-39
	4.3.4 Competitor Orientation	39-40
	4.3.5 Inter-functional Coordination	40-41
	4.4 Reliability and Validity Test for	41-42
	Real Respondents	
	4.5 Demographic Characteristics	42
	4.5.1 Respondent's Gender	43
	4.5.2 Working Department	44-45
	4.5.3 Role in Industry	45-46
	4.5.4 Minimum Experience in Industry	47-48
	4.5.5 Organization's Region	48-49
	4.5.6 Year when the Organization was	49-50
	created	
	4.5.7 Number of Employees	50-51
	4.5.8 Active Years in Business	52-53
	4.5.9 Categories of Industry	53-55
	4.5.10 Type of Business	55-56

	4.5.11 Place of Market Products	57-58
	4.6 Cross Tabulations	58
	4.6.1 Cross Tabulations for	58-59
	Respondent's Gender and Working	
	Department	
	4.6.2 Cross Tabulations for	59-60
	Respondent's Gender and Role in	
	Industry	
	4.6.3 Cross Tabulations for Year when	60-62
	the Organization was created and	
	Number of Employees	
	4.7 Descriptive Statistics Summary	62
	4.7.1 Descriptive Statistics Summary	63-64
	for All Variables	
	4.7.2 Descriptive Statistics Summary	64-65
	for Dependent Variable	
	4.8 Pearson Correlation Coefficient	65-68
	4.9 Multiple Regressions	68-72
	4.10 Hypothesis Testing	72-75
	4.11 Discussion of Findings	76
	4.11.1 Discussion for Descriptive	76-77
	Analysis of Dependent Variable	
	4.11.2 Discussion for Pearson	77-78
	Correlation Coefficient	
	4.11.3 Discussion for Hypothesis	78-80
	Testing	
	4.12 Summary	81
CHAPTER FIVE	CONCLUSION AND	82
	RECOMMENDATIONS	
	5.1 Introduction	82
	5.2 Discussion for Research Objectives	82

5.2.1	Discussion	for	Research	83
Objective 1				
5.2.2	Discussion	for	Research	83
Objec	ctive 2			
5.2.3	Discussion	for	Research	83-84
Objec	ctive 3			
5.2.4	Discussion	for	Research	84
Objec	ctive 4			
5.3	Theoretical	and	Managerial	84-85
Impli	cations			
5.4 Limitations and Recommendations			85-86	
5.5 Summary			0.6	
5.5 0	ummary			86
5.5 6	ummary			86
	RALL CONC	LUSI	ON	86 87
OVE	-	LUSI	ON	
OVE REF	RALL CONC	LUSI	ON	87
OVE REF APPI	RALL CONC		ON	87 88-95
OVE REFI APPI GAN	RALL CONC ERENCES ENDIX	PSM I		87 88-95 96
OVE REFI APPI GAN GAN	RALL CONC ERENCES ENDIX TT CHART H	PSM I PSM II	- ·	87 88-95 96 96
OVE REFI APPI GAN GAN LITE	RALL CONC ERENCES ENDIX TT CHART H TT CHART H	PSM I PSM II EVIEW	TABLE	87 88-95 96 96 97
OVE REFI APPI GAN GAN LITE SOU	RALL CONC ERENCES ENDIX TT CHART H TT CHART H ERATURE RE	PSM I PSM II EVIEW ESTI(TABLE	87 88-95 96 96 97 98-106

xi

LIST OF TABLES

TABLE	TITLE	PAGES
2.1	Summary of Previous Studies	9-11
3.1	Research Constructs Measurement	30
4.1	Response rate	35
4.2	Reliability Statistics of Overall Items for Pilot	36
	Test	
4.3	Reliability Statistics of Business Performance	37
4.4	Reliability Statistics of Innovation	38
4.5	Reliability Statistics of Customer Orientation	39
4.6	Reliability Statistics of Competitor Orientation	40
4.7	Reliability Statistics of Inter-functional	41
	Coordination	
4.8	Reliability Statistics for Real Respondents	42
4.9	Respondent's Gender	43
4.10	Working Department	44
4.11	Role in Industry	45
4.12	Minimum Experience in Industry	47
4.13	Organization's Region	48
4.14	Year when Organization was created	49
4.15	Number of Employees	50
4.16	Active Years in Business	52
4.17	Categories of Industry	53-54
4.18	Type of Business	55
4.19	Place of Market Products	57

4.20	Cross Tabs for Respondent's Gender and	59
	Working Department	
4.21	Cross Tabs for Respondent's Gender and Role	60
	in Organization	
4.22	Cross Tabs for Year when the Organization was	62
	created and Number of Employees	
4.23	Descriptive Statistics	63
4.24	Descriptive Statistics of Business Performance	64
4.25	Values of the Correlation Coefficient	66
4.26	Pearson Correlation Coefficient Analysis	66-67
4.27	Model Summary	69
4.28	ANOVA	70
4.29	Model Summary	71
4.30	ANOVA	71
4.31	Coefficients	73
4.32	Coefficients	74
4.33	Summary Result of Descriptive Analysis	76
4.34	Summary Result of Pearson Correlation	77
	Coefficient	
4.35	Summary Result of Hypotheses Testing	78-79

LIST OF FIGURES

FIGURE	TITLE	PAGES
2.1	Conceptual framework for market orientation	23
	and its effect on performance with innovation	
	as a moderating variable	
4.1	Pie chart of respondent's gender	43
4.2	Pie chart of working department	44
4.3	Pie chart of role in industry	46
4.4	Pie chart of minimum experience in industry	47
4.5	Pie chart of organization's region	48
4.6	Pie chart of year when organization was	49
	created	
4.7	Pie chart of number of employees	51
4.8	Pie chart of active years in business	52
4.9	Pie chart of categories of industry	54
4.10	Pie chart of type of business	56
4.11	Pie chart of place of market products	57

LIST OF ABBREVIATIONS

IoT	Internet of Things
SMEs	Small and Medium-sized Enterprise
BPM	Business Performance Measurement
SBP	Strategic Business Performance
OBP	Operational Business Performance
MKTOR	Cultural Perspective Scale of Market Orientation
MARKOR	Behavioral Perspective Scale of Market Orientation
TQM	Total Quality Management
RMO	Responsive Market Orientation
РМО	Proactive Market Orientation
NPD	New Product Development
FYP	Final Year Project
PSM	Projek Sarjana Muda
FPTT	Fakulti Pengurusan Teknologi dan Teknousahawanan
UTeM	Universiti Teknikal Malaysia Melaka

LIST OF APPENDIX

NO	TITLE	PAGES
А	Gantt Chart PSM I	96
В	Gantt Chart PSM II	97
С	Literature Review Table	98-106
D	Sources of Questionnaire	107-110
Е	Permission Letter	111
F	Questionnaire	112-121

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Chapter one was the introduction of this study. The purpose of this chapter was to review content of this study. For this study, the main concern was about the relationship between market orientation, innovation and business performance. In this introduction chapter, it explored the background of the study, issue about this study, research questions and research objectives built by researcher, scope and significance of this study.

1.2 Background of the Study

Manufacturing process kept revolution from time to time which until today it leveraged third platform technologies to produce product (I-scoop, 2016). Due to the rapid change of technology, the innovation gave impact on the business performance of manufacturer that lead to strong competition in modern market environment. Market orientation also gave impact to business performance because it was important to meet the needs and wants of customer in order to attract them to buy and use the product. Hence, researcher chose to study about effect of market orientation toward business performance with moderating role of innovation. Next paragraph discussed about the business performance. Business performance was defined as the ability of the business to meet the expectations of the company's key stakeholders (Smith & Reece, 1999). Business performance can be divided into financial performance and non-financial performance. Next discussed about the innovation in manufacturing.

Innovation in manufacturing was defined as generation, evaluation and implementation of new ideas to meet organizations goals (Schroeder, Scudder, & Elm, 1989). Innovation played important role for an organization to improve their performance and customer satisfaction in order to compete and survive in the competitive environment. A lot of studies shown that the innovation correlated with performance (Lin, Peng, & Kao, 2008; Tajudin, Musa, & Musa, 2012). In conclusion, the market orientation and innovation helped manufacturers to gain customer insight, to generate information of competitor, employed inter-functional coordination and employ new idea or process in product to improve their performance level. Then, the concept of market orientation were defined in below paragraph.

Narver & Slater (1990) defined market orientation as the most effective and efficient organization cultural that create superior value for customer and create continuous superior performance for the business. Kohli & Jaworski (1990) defined market orientation as the organizational behaviour that developed capabilities to gain market intelligence, disseminate market intelligence within the company and response by developing products that fulfilled the market needs. Market orientation was critical for an organization to understand their customer in order to attract and retain customer which will impact on the firm's performance. A lot of research done for market orientation have established good achievement in performance (Narver & Slater, 1990; Mokhtar, Yusoff, & Ahmad, 2014; T. Ramayah, Nusrah Samat, 2011). Therefore, there was a need for manufacturers to adapt market orientation concept and applied in their operational lines in order to stay competitive.

1.3 Problem Statement

Due to some pitfalls and obstacles in applying market orientation in manufacturing industry, therefore the purpose of this research was to contribute the moderating role of innovation towards relationship between market orientation and business performance. Manufacturing was the process of transferring raw materials into finished goods that have added value. This added value made manufacturing a profitable attempt. However, manufacturing process has changed over time, until today the revolution was known as Industry 4.0. Industry 4.0 was digital transformation of manufacturing those leveraging third platform technologies such as Big Data and innovation accelerators like Internet of Things (IoT) (I-scoop, 2016).

The continuous transformation of industrial base into digital or 'smart' products and driven by innovation, automation and increased productivity was very crucial to Malaysia's economic development (Oxford Business Group, 2016). The sales of Malaysia's manufacturing industry in August 2017 continues to grow 16.5% which rising from RM 55.9 billion to RM 65.1 billion when comparing to last year report according to Department of Statistics Malaysia (2017). In order to achieve growth in sales, the concept of market orientation was very important for the manufacturer to understand their customer needs and wants and also to understand their competitor strength and strategy in order to compete and create excellent performance and competitive advantage in this modern competitive marketplace.

Based on my reading, most of the market orientation studies were done for SMEs in Malaysia. For example, studies that have been done were market orientation and leadership styles of managers in Malaysia SMEs (Kassim & Sulaiman, 2011); market orientation and small business performance in small town in Malaysia (Alam, 2010); organizational culture, market orientation and innovativeness towards new product performance in SMEs in Malaysia (Tajudin et al., 2012). Hence, researcher was interested to investigate the effect of market orientation and innovation towards business performance.

1.4 Research Questions

The research questions for this study were:

- I. What are the characteristic profiles of market orientation in manufacturing industry in Malaysia?
- II. How does market orientation is understood by manufacturing industry in Malaysia?
- III. How does market orientation elements effect on business performance?
- IV. What are the overall relationship among market orientation, innovation and business performance in manufacturing industry?

1.5 Research Objectives

The research objectives of this study were:

- I. To identify the characteristic profile of market orientation in manufacturing industry in Malaysia.
- II. To examine to which extent market orientation is understood by manufacturing industry in Malaysia.
- III. To determine the influence effect of market orientation towards business performance.
- IV. To analyze the overall relationship among market orientation, innovation and business performance in manufacturing industry.

1.6 Scope of the Study

This study focused on market orientation and its impact on business performance in manufacturing industry within Malaysia which moderated by role of innovation. The study was limited for manufacturer in Malaysia. Manufacturers were the company which transferred raw material into finished goods.

Hence, the scope of this study was limited to top management, middle management and trained professional of manufacturers in central and southern region in Malaysia. The study was limited to manufacturers within Selangor, Johor and Melaka because most of the business operated in these regions.

1.7 Significance of the Study

There were several scholars who have done their research about market orientation and its effect on SMEs performance. This study would be significant in contributing practical and theoretical implications for the manufacturing industry in Malaysia.

This study would helped managers of manufacturing industry to understand more about market orientation and adopt it in their operational lines. This study would also provide manufacturers' operators to gain insight about values and usefulness that can be gained from market orientation practices.

Further research can also emanate from this study and it would effectively propel other scholars to look at the market orientation in other industry of economy. This would contributed to knowledge and served as appropriate literature for marketing and strategic management scholars. Necessary to be innovative in business endeavor also have been highlighted in this study as it would helped manufacturers to achieve greater success in operational lines.

1.8 Structure of the study

There were five chapters in this study. The first chapter explained the background of study, issue statement, questions that this study seek to answer, significance of study, scope of the study covered and structure of the study. The second chapter reviewed critically literature on market orientation, innovation and business performance. The third chapter explained about the methodology used to accomplish this study. The fourth chapter discussed about the findings of data collected from manufacturers while the fifth chapter summarized the findings, concluded the study and provided some recommendations.

1.9 Summary

In conclusion, this chapter introduced about this study. In this study, the background of research contained market orientation, innovation and performance. Next chapter reviewed the literature of market orientation, innovation and business performance for previous studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two was the literature review that involved the critically reviewed of the studies. For this study reviewed the effect of market orientation toward business performance which moderated by innovation. In this literature review, it explored the theories of market orientation, definitions of market orientation, innovation and business performance.

2.2 Manufacturing Industry in Malaysia

Manufacturing can be defined as producing items or goods by using machinery, equipment and labour. Manufacturing activities vary from handicrafts to technological gadgets. However, the term applies to industrial processes that convert raw materials into finished products and prepare for sale (Azer, Hamzah, & Mohamad, 2016).

Manufacturing and service industry dominate Malaysia's economy and agricultural contribution to economic growth seems insignificant (Azer et al., 2016). According to Department of Statistics Malaysia (2017), the sub-sector of manufacturing industry which include electrical and electronic products, petroleum,

chemical, rubber and plastic products and non-metallic mineral products, basic metal and fabricated metal products in Malaysia contributes 80.3% of sales value.

2.3 Business Performance

Business performance is defined as the ability of the business to meet the expectations of the company's key stakeholders (Smith & Reece, 1999). Business performance is necessary to evaluate the accomplishments of a company (Nur, Zulkiffli, Perera, & Siti Nur 'Atikah Zulkifflia and Nelson Perera, 2011). Business performance is assessed by measuring the success or failure of an organization to achieve its goals and can therefore be defined in a number of ways. Performance appraisal may be based on turnover or number of customers, return on investment, profit (Wood, 2006). According to Lee, Kim, Seo, & Hight (2015), there were two type of business performance measures included achieving net profit and sales, increasing net profit and sales and achieving number of franchise contracts while the non-financial performance measure included increasing employee satisfaction, increasing customer satisfaction, increasing franchisees' satisfaction and improving new product and service capability.

However, other scholar recommend business performance need to be measured through business performance measurement (BPM) system (Mann Burton & Kehoe, 1994; Franco-Santos et al., 2007). Develop a classification system that classifies business performance into strategic business performance (SBP) and operational performance business (OBP). SBP measures refer to the measures normally taken by a company's governing board. They were concerned with measuring the performance of an organization in terms of its main business goals. OBP measures were measures that management and employees take within the organization as a whole. The OBP measure involves recording daily or weekly organizational performance (Mann Burton & Kehoe, 1994).