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**INNOVATION PRACTICES AND PERFORMANCE OF MANUFACTURING  
SMEs IN KEDAH**



By  
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Thesis submitted to  
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in Partial Fulfilment of the Requirement for the Master of Science (Management)



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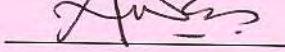
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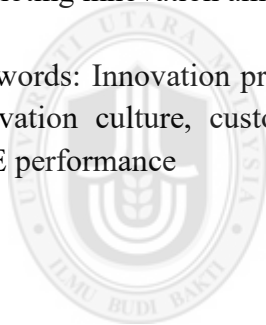


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## ABSTRACT

The purpose of this research is to assess the innovation practices and performance in small and medium-sized enterprises (SMEs) from the resource-based view (RBV) perspective in the Malaysian manufacturing sector. The research focused on SMEs because of the importance of SMEs in the economy and the high percentage of them in the Malaysian business population. Furthermore, manufacturing SMEs are mostly involved in innovation activities. The present research assessed the relationship between innovation practices, namely innovation strategy, organizational formal structure, innovation culture, customer and supplier relationship; and technological capabilities on SME performance. This research used survey methodology by questionnaire, then analysed by descriptive analysis, correlation and regression analysis. Findings showed that dimension of innovation strategy and technological capabilities has a positive significant relationship and influence on SME performance. This study has contributed to the flow of RBV and innovation research and provided important contributions for practitioners in developing policies and strategies for promoting innovation among SMEs in Malaysia.

Keywords: Innovation practices, innovation strategy, organizational formal structure, innovation culture, customer and supplier relationship, technological capabilities, SME performance

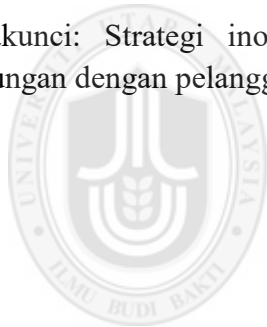


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## ABSTRAK

Tujuan kajian ini adalah untuk menilai praktis inovasi dan prestasi dari perspektif *resource-based view* (RBV) yang melibatkan perusahaan kecil dan sederhana (PKS) dalam sektor pembuatan. Kajian ini memberi fokus kepada PKS atas dasar kepentingan PKS dalam sistem ekonomi dan populasi PKS yang tinggi di Malaysia. Tambahan lagi, PKS dalam pembuatan sering terlibat dengan aktiviti-aktiviti inovasi. Kajian ini telah menilai praktis inovasi dari dimensi strategi inovasi, struktur formal organisasi, budaya kerja inovasi, hubungan dengan pelanggan dan pembekal; dan keupayaan teknologi dengan prestasi PKS. Kajian ini menggunakan kaedah tinjauan menggunakan soalan soal selidik dan melibatkan analisis deskriptif, korelasi dan regresi. Dapatan kajian menunjukkan bahawa dimensi strategi inovasi dan keupayaan teknologi mempunyai hubungan positif yang signifikan dan mempengaruhi prestasi PKS. Kajian ini telah menyumbang kepada aliran penyelidikan RBV, kepada bidang penyelidikan berkaitan inovasi dan juga menyumbang buah fikiran kepada pengamal dalam PKS dalam membangunkan polisi dan strategi.

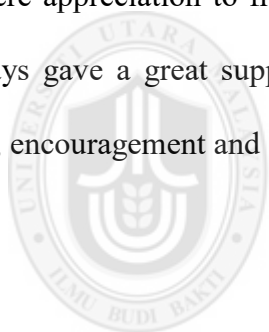
Katakunci: Strategi inovasi, struktur formal organisasi, budaya kerja inovasi, hubungan dengan pelanggan dan pembekal, keupayaan teknologi, prestasi PKS



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Thank you

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## ABBREVIATIONS

CEO	- Chief Executive Officer
GDP	- Gross Domestic Product
ICT	- Information Communication Technology
MITI	- Ministry of International Trade and Industry
MOSTI	- Ministry of Science, Technology and Innovation
RBV	- Resources Based View
R&D	- Research and Development
SME	- Small and Medium Enterprise



# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

SME or small and medium enterprise is a term used for segmenting businesses or firms which are somewhere between micro and large firms. By referring to SME Corporation Malaysia (2016) in SME Annual Report 2015/16, the new definition of SME in Malaysia has been revised in the year 2014. The definition has increased the threshold of manufacturing firm turnover not exceeds RM50 million. The new definition also emphasized that all Small and Medium Enterprises (SME) must be registered with *Suruhanjaya Syarikat Malaysia* but excludes public-listed companies, subsidiaries of public-listed companies, multinational corporations, government-linked companies, *Syarikat Menteri Kewangan Diperbadankan* and state-owned enterprises. The details of the new SME definition of manufacturing were firms with a sales turnover of RM300, 000 but not exceed RM50 million. In terms of employees, SME counted from 5 but not exceed 200 of permanent employees. The definition for services and other sectors were different from manufacturing sector where sales turnover not exceed RM20 million or not exceed a total of 75 permanent employees (SME Corporation Malaysia, 2016).

In economy, SMEs are the essential elements playing a major role in driving innovation. Establishment of SMEs has increased competition and economic growth in many countries including Malaysia. Instead, Bozkurt and Kalkan (2014) mentioned that SMEs cover in most of the society, and generate an economic impact

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## APPENDICES



**Dear Sir/Madam**

**Ref: Innovation Practices and SME's Performance in Manufacturing Sector**

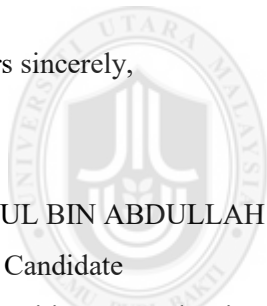
I am pleased to inform you of the aforementioned study aim to assess the innovation practices in SME. The study covers SME's innovation strategy, organizational formal structure, customer and supplier relationships, innovation culture as well as technological capabilities. For this purpose, we are approaching a number of organizations to participate in a survey relating to their experiences in implementing innovation practices.

We would very much appreciate your participation, since the success of the research is dependent upon receiving the maximum number of responses. Your answer will of course be treated confidentially and the information will only be used for the purpose of this study.

We look forward to receive your completed questionnaire as soon as possible and many thanks for your kind support and co-operation.

Yours sincerely,

AZRUL BIN ABDULLAH  
MSc Candidate  
Universiti Utara Malaysia





**Section A: Demographic**

Demographic	
Please tick (√) in appreciate box	
a.	Your position: <input type="checkbox"/> Owner <input type="checkbox"/> CEO <input type="checkbox"/> Senior manager <input type="checkbox"/> Manager <input type="checkbox"/> Other (please specify):
b.	Gender <input type="checkbox"/> Male <input type="checkbox"/> Female
c.	Your Age <input type="checkbox"/> 21 - 25 <input type="checkbox"/> 26 - 30 <input type="checkbox"/> 31 - 35 <input type="checkbox"/> 36 - 40 <input type="checkbox"/> 41 - 45 <input type="checkbox"/> 46 - 50 <input type="checkbox"/> More than 50
d.	How long has your company been established? <input type="checkbox"/> Less than 5 years <input type="checkbox"/> 5 - 10 years <input type="checkbox"/> 11 – 15 years <input type="checkbox"/> 16 – 20 years <input type="checkbox"/> More than 20 years
e.	How many permanent employees does your company hire? <input type="checkbox"/> 5 - 49 employees <input type="checkbox"/> 50 - 100 employees <input type="checkbox"/> 101 - 150 employees <input type="checkbox"/> 151 - 200 employees

f.	<p>Please select the type of industry which most closely represents your company</p> <p><input type="checkbox"/> Automotive &amp; Component Parts</p> <p><input type="checkbox"/> Building Materials &amp; Related Products</p> <p><input type="checkbox"/> Chemicals, Chemical &amp; Plastic Products</p> <p><input type="checkbox"/> Electrical &amp; Electronics Products</p> <p><input type="checkbox"/> Food, Beverages and Tobacco</p> <p><input type="checkbox"/> Furniture &amp; Wood Related Products</p> <p><input type="checkbox"/> Household Appliances</p> <p><input type="checkbox"/> Industrial &amp; Engineering Products</p> <p><input type="checkbox"/> Iron &amp; Steel Products</p> <p><input type="checkbox"/> Packaging, Labeling &amp; Printing</p> <p><input type="checkbox"/> Pharmaceutical, Medical Equipment, Cosmetics, Toiletries &amp; Household</p> <p><input type="checkbox"/> Rubber Products</p> <p><input type="checkbox"/> Textiles &amp; Wearing Apparel</p> <p><input type="checkbox"/> Others: _____</p>
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**Section B: Innovation Practices**

Please circle 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree

<b>1. Innovation strategy</b>		
The following statements describe the innovation strategy takes place in your organization		
a.	Our organization’s vision or mission includes a reference to innovation	1   2   3   4   5
b.	Innovation strategy has helped our organization to achieve its goal	1   2   3   4   5
c.	Increasing our production volume is an important measure of our process innovation	1   2   3   4   5
d.	Improving administration routine is part of our innovation strategy	1   2   3   4   5
e.	Internal cooperation is an important part of innovation strategy implementation	1   2   3   4   5
f.	Customer satisfaction is part of our innovation strategy	1   2   3   4   5
g.	Formulating innovation strategy increases employee skills	1   2   3   4   5
h.	Improving employee commitment or morale is part of our innovation strategy monitoring	1   2   3   4   5

<b>2. Formal structure</b>						
The following statements describe the formal structure takes place in your organization						
a.	Our organization formally allocates resources to the use of cross-functional team	1	2	3	4	5
b.	Managers provide systems to facilitate formal communication	1	2	3	4	5
c.	Action plans or timetables and procedures are used to monitor progress in our organization	1	2	3	4	5
d.	Managers encourage all employees to challenge the status quo	1	2	3	4	5
e.	Our flat structure facilitates searching and incorporating diverse point of view	1	2	3	4	5
f.	Our employees formally document and use failures as an opportunity to learn	1	2	3	4	5

<b>3. Customer and supplier relationships</b>						
The following statements describe the customer and supplier relationship takes place in your organization						
a.	Our firm's reputation is important to its competitive advantage	1	2	3	4	5
b.	Our customers have the similar technologies to the organization's	1	2	3	4	5
c.	Customer satisfaction is important for competitive advantage	1	2	3	4	5
d.	Product supply is important for competitive advantage	1	2	3	4	5
e.	Suppliers have similar technologies to our organization's	1	2	3	4	5

<b>4. Innovation culture</b>						
The following statements describe the innovation culture takes place in your organization						
a.	Our culture rewards behaviours that relate to creativity and innovation	1	2	3	4	5
b.	Our organization's culture encourages informal meetings and interactions	1	2	3	4	5
c.	Employees continuously experimenting with new ways of doing things	1	2	3	4	5
d.	Our culture encourages employees to share knowledge	1	2	3	4	5
e.	Our culture focuses on teamwork long term performance	1	2	3	4	5

<b>5. Technological capabilities</b>						
The following statements describe the technological capabilities takes place in your organization						
a.	Our organization allocates resources to share technology	1	2	3	4	5
b.	Top management considers the use of technology as a driver of business growth	1	2	3	4	5
c.	Technological objectives guide the evaluation of new ideas	1	2	3	4	5
d.	Employees search for information and new technologies	1	2	3	4	5
e.	Employees are working towards specific technological goals	1	2	3	4	5

### Section C: Performance measures

Please score the following performance measures in term of your satisfaction with your business performance, 1 = least satisfied to 5 = most satisfied.

Performance		Satisfaction				
a.	Numbers of product	1	2	3	4	5
b.	Success of new product launch	1	2	3	4	5
c.	Reduction in waste	1	2	3	4	5
d.	Improved product innovations	1	2	3	4	5
e.	Improved work methods and processes	1	2	3	4	5
f.	Increased overall quality	1	2	3	4	5
g.	Sales growth	1	2	3	4	5
h.	Net profit	1	2	3	4	5



**Thank you for your co-operation**

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Name :

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Organization :

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Address :

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Phone :

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E-mail :

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