

MALAYSIAN AUTOMOTIVE INDUSTRY'S TECHNOLOGICAL CAPABILITIES
IN MEETING THE DEFENCE REQUIREMENTS

AHMAD MARZUKI BIN AHMAD NAWAWI

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A511195370

DECLARATION

I hereby declare that this research report submitted to University of Malaya as a partial fulfillment of the requirements for Masters of Science in Science and Technology Policy Studies has not been submitted as an exercise for a degree at any other universities. I also certify that the work described here is entirely my own except for excerpts and summaries whose sources are appropriately cited in the references.

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Ahmad Marzuki bin Ahmad Nawawi
SGEX 01005

PREFACE

The end of cold war in late 1980s had totally changed the strategic outlook in the management of military crisis. The revolution in military affairs (RMA) that took place thereafter, had witnessed the importance of technology in determining the national resilience and military power. In modern warfare, technology is considered the main determinant in victory or defeat in the battlefield.

The Malaysian Army, realising the need to prepare a lean and mean force to fight a conventional warfare, requires state-of-the-art equipment in order to provide the mobility, firepower and intelligence, which are vital in waging war. All these elements can be obtained through the possession of land vehicles of various functions, be they soft- skinned or armoured platforms. The military capability is further enhanced with the support of local automotive industry, which enables the force to be self reliant on military hardware.

This paper intends to look at the development of local automotive industry's technological capabilities that help enhance the nation's defence posture. The automotive sector provides the basis for the

development of defence land transportation requirement for logistics support and combat tasks. The research is conducted on three companies that are actively involved in supplying and manufacturing various types of vehicles required by the army. The companies are Malaysian Mining Corporation-Defence (MMC-Defence) which specialises in armoured vehicle modernisation and upgrading, Diversified Resource Berhad-Defence Technology (DEFTECH), which supplies and assembles trucks and armoured vehicles, and Pesaka Astana (M) Sdn Bhd (PA), which manufactures customised and special purpose vehicles.

The study shows that the companies have obtained a considerable level of technological capabilities, mainly due to government's incentive and favourable policies. However, they need to further increase their R&D efforts and the diffusion of technology provided by their strategic alliances, the foreign military hardware manufacturers. It is also felt that the local defence industry does not fully benefit from the transfer of technology arrangement from the purchases of equipment. This is where more comprehensive policies and monitoring systems should be formulated so that the taxpayer's money is worth spent.

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Having to divide the time between works and studies seems quite a daunting task to me initially. But, through sheer determination and a sense of self-fulfillment, I thank Allah the Almighty that I have managed to go through the rigours, especially in completing this research paper.

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My case study visits to the companies' complexes, especially in Pekan, have greatly enhanced my perspectives on local defence industry. The management team has facilitated me in the interviews and visits.

My supervisor, Associated Professor Dr. Thiruchelvam, never tires of providing me the advises and making sure I am on the right track.

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TABLE OF CONTENTS

| | |
|------------------------------|------------|
| PREFACE | i |
| ACKNOWLEDGEMENT | iii |
| TABLE OF CONTENT | iv |
| LIST OF ILLUSTRATIONS | x |
| LIST OF ABBREVIATIONS | xi |

CHAPTER 1

BACKGROUND OF THE STUDY

| | | |
|------------|--|----------|
| 1.1 | INTRODUCTION | 1 |
| 1.2 | MILITARY AND TECHNOLOGY AS ELEMENTS OF NATIONAL POWER | 2 |
| 1.2.1 | The Pillars of Military Power | 3 |
| 1.3 | DEFENCE INDUSTRY SUPPORT | 5 |

| | | |
|-------------|--|----|
| 1.4 | THE IMPORTANCE OF VEHICLES IN LAND OPERATIONS | 8 |
| 1.4.1 | Logistics Vehicles | 9 |
| 1.4.2 | Combat Vehicles | 11 |
| 1.5 | DEFENCE POLICY – TOWARDS SELF-RELIANCE | 16 |
| 1.5.1 | Malaysian Automotive Industry | 18 |
| 1.6 | CONVERSION AND INTERGRATION OF COMMERCIAL AND MILITARY TECHNOLOGY | 20 |
| 1.6.1 | The Migration of Defence Technology into Commercial Sector | 23 |
| 1.7 | PROBLEM STATEMENT | 25 |
| 1.8 | THE AIM | 26 |
| 1.9 | OBJECTIVES OF THE STUDY | 27 |
| 1.10 | METHODOLOGY | 28 |
| 1.11 | SUMMARY | 29 |

CHAPTER 2

AUTOMOTIVE INDUSTRY'S TECHNOLOGICAL CAPABILITY DEVELOPMENT

| | | |
|------------|--|----|
| 2.1 | INTRODUCTION | 31 |
| 2.2 | TECHNOLOGICAL CAPABILITY | 32 |
| 2.2.1 | Definition | 32 |
| 2.2.2 | Dimension of Technological Capability | 35 |
| 2.3 | AUTOMOTIVE INDUSTRY'S TECHNOLOGICAL DEVELOPMENT IN MALAYSIA | 38 |
| 2.4 | DEFENCE INDUSTRY - TECHNOLOGICAL CAPABILITY DEVELOPMENT THROUGH EQUIPMENT PURCHASES | 43 |
| 2.4.1 | Pattern of Purchase | 43 |
| 2.4.2 | The Impact on Technological Capabilities | 47 |
| 2.5 | SUMMARY | 51 |

CHAPTER 3

TECHNOLOGICAL CAPABILITY – A CASE STUDY

| | | |
|------------|---|----|
| 3.1 | INTRODUCTION | 53 |
| 3.2 | MALAYSIAN MINING CORPORATION – DEFENCE SDN – BHD | 54 |
| 3.2.1 | Company's Profile | 54 |
| 3.2.2 | Vision | 55 |
| 3.2.3 | Mission | 56 |
| 3.2.4 | Engineering Support | 56 |
| 3.2.5 | Research & Development Activities | 57 |
| 3.2.6 | Technical Collaboration | 58 |
| 3.2.7 | Transfer of Technology | 59 |
| 3.2.8 | Current Activities | 60 |
| 3.2.9 | Expansion Plan | 61 |
| 3.3 | DEVERSIFIED RESOURCE BERHAD – DEFENCE TECHNOLOGY | 63 |
| 3.3.1 | Company's Profile | 63 |

| | | |
|------------|------------------------------------|-----------|
| 3.3.2 | Company's Mission | 64 |
| 3.3.3 | Vision | 64 |
| 3.3.4 | Facilities | 66 |
| 3.3.5 | Organisation and Manning | 67 |
| 3.3.6 | Product Range | 68 |
| 3.3.7 | Major Contracts | 69 |
| 3.3.8 | Research and Development | 71 |
| 3.4 | PESAKA ASTANA (M) SDN. BHD. | 72 |
| 3.4.1 | Company's Profile | 72 |
| 3.4.2 | Company's Vision | 75 |
| 3.4.3 | Corporate Mission | 75 |
| 3.4.4 | Facilities | 76 |
| 3.4.5 | Core Business Activities | 76 |
| 3.4.6 | Research and Development | 78 |
| 3.4.7 | Human Resource Development | 80 |
| 3.4.9 | The Future Plan | 81 |
| 3.5 | SUMMARY | 81 |

CHAPTER 4

TECHNOLOGICAL CAPABILITY ASSESSMENT

| | | |
|------------|---|----|
| 4.1 | INTRODUCTION | 82 |
| 4.2 | SWOT ANALYSIS | 83 |
| 4.2.1 | Malaysian Mining Corporation – Defence | 83 |
| 4.2.2 | Diversified Resource Berhad – Defence Technology | 87 |
| 4.2.3 | Pesaka Astana | 90 |
| 4.3 | OVERALL ASSESSMENT | 93 |
| 4.3.1 | Technological Capability Rating | 93 |
| 4.3.2 | Technological Capability Matrix | 96 |
| 4.4 | SUMMARY | |

CHAPTER 5

RECOMMENDATION AND CONCLUSION

| | | |
|------------|---------------------------|-----|
| 5.1 | RECOMMENDATIONS | 100 |
| 5.2 | CONCLUSION | 104 |
| 5.3 | FUTURE UNDERTAKING | 105 |
| | BIBLIOGRAPHY | 107 |

LIST OF ILLUSTRATION

| FIGURE | TITLE | PAGE |
|----------------|---|-------------|
| 1.1 | The National Power Model | 2 |
| 1.2 | Pillars of Military Power | 4 |
| 1.3 | The Migration of Defence Technology into Commercial Sector | 24 |
| 2.1 | Firm Technological Capabilities | 33 |
| 2.2 | Technological Change Cycle | 34 |
| 2.3 | Structure of Automotive Industry | 43 |
| 4.1 | Technological Capability Rating | |
| TABLE | | |
| 4.1 | Technological Capability Rating | 94 |
| PICTURE | | |
| 1 | MMC-DefenceProducts | 62 |
| 2 | DRB-DEFTECH Products | 70 |
| 3 | Pesaka Astana Products | 79 |

LIST OF ABBREVIATIONS

| | |
|--------|---|
| APC | Armoured Personnel Carrier |
| AVR | Armoured Vehicle Repair |
| ABS | Anti-lock Breaking System |
| CKD | Complete Knock Down |
| CIW | Counter Insurgency Warfare |
| CBU | Complete Built-in Unit |
| CW | Conventional Warfare |
| GPS | Global Positioning System |
| HRD | Human Resource Development |
| KIFV | Korean Infantry Fighting Vehicle |
| MBT | Main Battle Tank |
| MINDEF | Ministry Of Defence |
| MAF | Malaysian Armed Forces |
| OEM | Original Equipment Manufacturer |
| REME | Royal Electrical and Mechanical Engineers |
| REM | Replacement Equipment Manufacturer |
| R & D | Research and Development |
| ToT | Transfer of Technology |
| WWI | First World War |
| WW2 | Second World War |