

**A STUDY ON THE IMPLEMENTATION OF E-COMMERCE IN MALAYSIAN
SMALL AND MEDIUM ELECTRICAL AND ELECTRONICS INDUSTRIES**

By

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**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
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Faculty: Engineering

The importance of E-commerce cannot be ignored and Malaysia like other countries has also embarked on this new way of doing business. E-commerce is relatively new in Malaysia, and the government has initiated the Multimedia Super Corridor (MSC) in the process of bringing the country to the frontier of global E-commerce. Several agencies in Malaysia have been established to help implementing E-commerce. The strategic importance of small and medium enterprises (SMI) in economic development is widely recognized in both developed and developing countries. In Malaysia, there have been numerous supporting programmes provided by the government agencies and institutions aimed at fostering the development of (SMI).

This study investigates the status and barriers for E-commerce implementation in Malaysian small and medium electrical and electronics industries (SMI). Five hundred companies (from SIMDEC Directory) located entirely in the Klang Valley region were chosen as respondents for this current study. Survey questionnaires were sent out to these companies to gather relevant information regarding their E-commerce background. The questionnaires were aimed towards decision-makers of the companies. Fifty-one companies (10.2 %) responded to the

questionnaire. From the survey conducted, it was observed that 51 % of the companies studied have not implement E-commerce technology. The study revealed that the major reasons for not implementing E-commerce were: the lack of funding, the lack of knowledge on E-commerce, infrastructure, security issues, lack skillful human resources, and attitude towards E-commerce. These were the major reasons why SMIs did not implement E-commerce.

This study also highlights the main reasons for implementation E-commerce by some Malaysian small and medium electrical and electronics industries. This study identify the following factors for the implementation; enhance company's image, expand to international market, build competitive advantage, gain competitiveness in marketplace, increase customer sophistication, and increase productivity. From the data gathered, it has been found that 52 percent of small and medium electrical and electronics industries aim to expand their businesses locally as well as globally.

The results also suggest that the accessibility of support programmed for the development of E-commerce within the (SME) is still limited despite the fact that a high policy agenda has been introduced to promote the development of (SME) in Malaysia. The results of this study will serve as feedback to Malaysian authorities to step up their efforts in promoting E-commerce awareness, and adopting new and enabling technologies in Malaysian (SME) companies. It is also hoped that this study can provide a guideline for Malaysian companies in evaluating and formulating effective strategies and policies into E-commerce.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

PERLAKSANAAN E- DAGANG DALAM INDUSTRI KECIL DAN SEDERHANA DI MALAYSIA

Oleh

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Kepentingan E-Dagang tidak boleh diabaikan lagi dan seperti negara-negara lain, Malaysia telah memulakan suatu kaedah perniagaan yang baru. Walaupun E-Dagang dari segi relatifnya adalah baru di Malaysia, kerajaan telah memulakan Super Koridor Multimedia (MSC) didalam proses membawa negara ke hadapan kearah E-Dagang. Beberapa agensi – agensi telah ditubuhkan didalam mengimplimentasikan E-Dagang. Impak terbesar E-Dagang adalah pada Industri Kecil dan Sederhana (SMIs) disebabkan adanya banyak perniagaan yang telahpun mempunyai sistem Data Elektronik Penukaran (EDI). Penyelidikan ini bermatlamat untuk mengenalpasti isu-isu disebalik implementasi E-Dagang bagi Enterprise Kecil dan Sederhana Malaysia terutamanya didalam sector pembuatan elektronik dan elektrik.

Lima ratus syarikat yang terletak diseluruh Lembah Kelang telah dipilih sebagai responden untuk kajian ini. Borang soal selidik telah dihantar kepada syarikat-syarikat ini untuk mengumpul maklumat yang relevan berkaitan dengan latar belakang E-Dagang. Borang soal selidik ini disediakan untuk oleh yang bertanggungjawab membuat keputusan didalam syarikat. Ini adalah supaya segala maklumat balas adalah betul dan tepat. Daripada jumlah lima ratus SMIs, Cuma lima puluh satu syarikat yang mengemukakan maklumbalas terhadap boring soal selidik itu. Daripada lima puluh maklumbalas ini, hanya separuh sahaja yang

mengimplimentasi teknologi E-Dagang. Alamat syarikat-syarikat ini telah diambil daripada Internet dan juga direktori Federasi Pengkilang Malaysia (FFM).

Kajian ini menunjukkan alasan utama bagi kelembapan ini; banyak SMIs tidak mempunyai pengetahuan asas dan kemahiran teknikal dalam mengimplimentasi E-Dagang. Alasan yang lain adalah kekurangan sumber kewangan untuk memulakan suatu pelan perniagaan hingga berjaya dan mengagihkan sumber kewangan didalam mengimplimentasikan strategi E-Dagang yang baru tanpa benar-benar memahami keuntungan dan risiko, dimana kebanyakan SMIs tahu akan adanya institusi kewangan yang menyediakan sokongan kewangan untuk syarikat yang telah mengimplimentasikan teknologi E-Dagang. Walaupun ada dikalangan SMIs yang mengetahui potensi yang ditawarkan oleh E-Dagang, kebanyakannya tersekat disebabkan oleh ketidakpastian terhadap persekitaran sekuriti, mereka masih mempercayai kaedah tradisional menjalankan perniagaan dan mereka mempunyai kepercayaan yang kuat para pelanggan masih mahu merasa dan memegang produk yang fizikal dan bukan digital. Pelaburan pembangunan teknolog ini daripada permulaan melibatkan kos yang tinggi termasuk membeli perisian dan peralatan.

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I certify that an Examination Committee met on to conduct the final examination of Adel Ibrahim M. Bakkar on his Master of Science thesis entitled “A Study on the Implementation of E-commerce in Malaysian small and medium electrical and electronic industry (SMI)” in accordance with Unversiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

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TABLE OF CONTENTS

| | |
|------------------|-------|
| ABSTRACT | Page |
| ABSTRAK | ii |
| ACKNOWLEDGEMENTS | iv |
| APPROVAL | vi |
| DECLARATION | vii |
| LIST OF TABLES | ix |
| LIST OF FIGURES | xv |
| NOMENCLATURE | xvi |
| | xviii |

CHAPTER

1. INTRODUCTION

| | |
|-------------------------|---|
| 1.1 Introduction | 1 |
| 1.2 Problem statement | 2 |
| 1.3 Scope of study | 3 |
| 1.4 Limitation of study | 3 |
| 1.5 Objectives | 4 |
| 1.6 Hypotheses | 4 |
| 1.7 Thesis layout | 5 |

2. LITERATURE REVIEW

| | |
|--|----|
| 2.1 Introduction | 6 |
| 2.2 Web site classifications | 6 |
| 2.3 The impact of the internet on business | 7 |
| 2.3.1 Type of internet retailers | 8 |
| 2.4 Definitions of E-commerce | 9 |
| 2.4.1 E-commerce scope | 13 |
| 2.4.2 The benefits of E-commerce | 14 |
| 2.4.3 Managerial Perspective | 16 |
| 2.4.4 E-commerce in Malaysia | 18 |
| 2.4.5 The growth of E-commerce market in Malaysian | 20 |
| 2.5 The Implementation Issues of E-commerce | 22 |

| | |
|--|----|
| 2.5.1 Organization Issues | 23 |
| 2.5.2 Implementation Issues | 23 |
| 2.5.3 Marketing Issues | 24 |
| 2.5.4 Legal Issues | 25 |
| 2.6 Steps for Successful E-commerce Implementation | 25 |
| 2.7 Challenges Facing Global E-commerce (Four Dimension) | 28 |
| 2.7.1 The Economic Dimension | 29 |
| 2.7.2 The Technical Dimension | 30 |
| 2.7.3 The Social Dimension | 30 |
| 2.7.4 The Legal Dimension | 32 |
| 2.8 The Small and Medium Industries (SMI) | 34 |
| 2.8.1 The importance of SMI to Malaysia economic growth | 35 |
| 2.8.2 Problem Faced by SMI | 37 |
| 2.8.3 E-commerce in SMI | 38 |
| 2.8.4 Adoption of E-commerce in Malaysian SMI | 41 |
| 2.9 Concluding Remarks | 46 |
| | |
| 3. METHODOLOGY | |
| | |
| 3.1 Introduction | 48 |
| 3.2 Sources of Information | 48 |
| 3.3 Sample Considerations and Technique | 48 |
| 3.4 Research Design | 49 |
| 3.5 Pre-Test of Questionnaire | 49 |
| 3.6 Data Evaluation | 50 |
| 3.6.1 Organizational Profile | 50 |
| 3.6.2 Human Resources | 50 |
| 3.6.3 Company's Current Online Functionality | 51 |
| 3.6.4 About the Company's Current E-Commerce Solution | 51 |
| 3.6.5 Management | 52 |
| 3.6.6 Level of Participation in E-Commerce | 52 |
| 3.6.7 Attitude towards Electronic Commerce | 52 |
| 3.6.8 Reason for Not Implementing Electronic Commerce | 53 |
| 3.7 Procedure | 53 |
| 3.8 Data Analyses | 53 |
| 3.9 Limitation of Study | 54 |

4. RESULT AND DISCUSSION

| | |
|---|----|
| 4.1 Overview of Company “Background about Company | 57 |
| 4.1.1 Date of Incorporation and Ownership | 57 |
| 4.1.2 Companies Turnover | 59 |
| 4.1.3 Product Range and Services Offered | 60 |
| 4.2 Human Resources | 61 |
| 4.2.1 Breakdown of Employees | 61 |
| 4.2.2 Employees Training | 62 |
| 4.2.3 Number of Personal Computers Owned by the Organization | 64 |
| 4.2.4 Tools Used by SMI In Order to Conduct Road-Shows/Presentation | 65 |
| 4.3 Company Current Online Functionality | 66 |
| 4.3.1 Company’s Current E-Commerce Solution | 66 |
| 4.3.2 IT department | 67 |
| 4.3.3 The Companies Internet Access | 68 |
| 4.3.4 Type of Connection | 69 |
| 4.3.5 People connected to Internet | 70 |
| 4.3.6 Department have Internet access | 71 |
| 4.3.7 Companies Ways of Marketing their Products/Services | 72 |
| 4.3.8 Number of Customers and Total Transactions Made Each Month | 73 |
| 4.3.9 Number of Customer | 74 |
| 4.4 The Company’s Current E-Commerce Solution | 75 |
| 4.4.1 Company’s Payment for Its Current E-Commerce Solution | 75 |
| 4.4.2 Company’s Interaction with its Suppliers Through the Interne | 76 |
| 4.4.3 Company’s Current Involvement in E-Commerce Activates | 77 |
| 4.4.4 Company’s Effort For The Future In E-Commerce Activities | 78 |
| 4.4.5 Company’s Satisfaction In its Current E-Commerce Solution | 79 |
| 4.5 Management | 80 |
| 4.5.1 Management’s View on Significance Of E-Commerce | 80 |
| 4.5.2 Allocation of Resources for E-Commerce by the Management | 81 |
| 4.6 Level of Participation In E-Commerce | 82 |
| 4.6.1 Usability of E-commerce in the companies | 82 |
| 4.6.2 Companies Current Facilities/Activities | 83 |
| 4.6.3 Companies Reasons to Adopt E-Commerce | 84 |
| 4.7 Attitude towards Electronic Commerce | 85 |
| 4.7.1 Company’s attitude towards E-Commerce | 85 |
| 4.7.2 Problem Faced by SMI in Implementing E-Commerce | 86 |
| 4.7.3 Financial problems Faced by SMI in Implementing E-Commerce | 87 |
| 4.7.4 Problems Faced by SMI in Training in E-Commerce Technology | 88 |
| 4.7.5 Company’s Initial Preparations before Implementing E-Commerce | 89 |

| | |
|--|-----|
| 4.7.6 Company's Response on the Benefits of E-Commerce | 90 |
| 4.7.7 Benefits of E-Commerce to the Companies | 91 |
| 4.8 Reasons for Not Implementing Electronic Commerce by SMI | 92 |
| 4.8.1 Companies Reasons for Not Adopting E-Commerce Technology | 92 |
| 4.8.2 Plans to Implement E-Commerce in the Future by SMI | 94 |
| 4.9 Mougayar's Model Implementation | 95 |
| 4.10 Overall Discussion | 97 |
| | |
| 5. CONCLUSION AND RECOMMENDATIONS | |
| | |
| 5.1 Problem Statement | 102 |
| 5.2 Conclusion | 102 |
| 5.3 Theses Contribution | 104 |
| 5.4 Recommendations for future work | 105 |
| | |
| REFERENCES | 106 |
| APPENDIX | 111 |
| BIO-DATA OF THE AUTHOR AND PUBLICATIONS | 124 |

