SUPPLY CHAIN INTELLIGENCE AND ITS IMPACT ON COMPETITIVE STRATEGY AND PERFORMANCE OF BUSINESSES IN MALAYSIA

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By

NOR SIAH JAHARUDDIN

Thesis Submitted to the Graduate School of Management, University Putra Malaysia, in Fulfillment of the Requirement for the Degree of Doctor of Philosophy

June 2012
Dedicate to:

My parents: Jaharuddin Duami and Fatimah Abdullah
brothers: Roslan, Rosli, Jafry, Zaidi
sisters: Noor Faridah, Asmah, Jamaliah, Halinda

&

to my beloved husband Azmi, my daughter Nur Adreanna and sons
Adam Daniel, Airiel Daneesh, Afeef Darwesh

for their endless love, support and encouragement.
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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Chair: Zainal Abidin Mohamed, Ph.D.
Faculty: Graduate School of Management

The business environment has become more competitive due to advancement in technology and globalization. Since, competition nowadays involves the activities amongst supply chains (Christopher, 1992; Cox, 1999), these influenced greatly how business organizations strive for business success. The emergence of competitive intelligence (CI) and supply chain management (SCM) in dealing with such circumstances has brought the need to study further on the acquisition and usage of intelligence in supply chain integration. Building on the relevant literature, this study discusses the concept of SCI and its components in creating a sustained competitive advantage. Since, there is little empirical work on the impact of SCI on competitive strategy and the subsequent effects on the performance; this study fills that gap by studying the role of SCI on its networks and competitors. Ultimately, the framework provides possible relationships that can be evaluated to assess the value of the SCI function to future firm performance. Apart from extensive empirical literature review, a
focus group was employed as a preliminary study to construct the SCI components and subsequently the development of the questionnaire.

A questionnaire survey was used to gather data for this quantitative study. Sample list was drawn from a directory of Federation of Malaysian Manufacturers (FMM) with 174 participating organizations. All research questions and objectives were answered by performing appropriate descriptive and inferential statistical analyses such as hierarchical and multiple linear regressions (MLR). The findings were further supported from post-interviews with eight selected organizations based on size, ownership, and manufacturing sector.

SCI components are consisting of external environment intelligence, supply chain integration, research and development, sales and marketing, and human resources and capabilities. The findings revealed that regardless of size and ownership, all organizations do gather SCI data and the processes are not necessarily confined to a specific department. The findings also indicate that there are significant positive relationships between SCI and competitive strategy. This implies that most of the easily accessible SCI (resources and capability, research and development, and external environment) are significantly used in formulating strategies of the organization. In addition, competitive environment and intelligence culture (from organizational characteristics) are found to have moderating effects in the relationship between SCI and competitive strategy, while organizational efforts, managerial perceptions, and size are insignificant. The mediating role played by competitive strategy help to explain the contribution and underlying process that are responsible for the relationship between SCI and performance. The findings of this study have significantly contributed to both
theory and practices by bring in the strategic role of SCI as a vital ingredient to facilitate the formulation of competitive strategy, thus strengthen the supply chain integration and its performance.
Globalisasi dan kemajuan teknologi telah menyebabkan persaingan persekitaran perniagaan menjadi semakin sengit. Persaingan pada masa kini adalah lebih menjurus kepada persaingan diantara rantaian-rantaian bekalan (Christopher, 1992; Cox, 1999), justeru fenomena ini memberi tekanan kepada organisasi perniagaan untuk mencapai kejayaan di dalam perniagaan mereka. Kemunculan intelligen saingan (CI) dan pengurusan rantaian bekalan (SCM) dalam menghadapi keadaan ini telah membawa kepada keperluan untuk mengkaji tentang perolehan dan penggunaan intelligen ini terhadap integrasi rantaian bekalan (SCI). Dibina dari literatur yang berkaitan, kajian ini membincangkan konsep SCI dan konstruk komponen-komponennya dalam menghasilkan kebaikan persaingan yang bertahan. Disebabkan terdapatnya sedikit hasil kerja yang terdahulu ke atas kesan SCI terhadap strategi persaingan dan juga kesan berterusan ke atas prestasi organisasi, kajian ini mengisi ruang tersebut dengan meneliti kegunaan SCI ke atas rantaian bekalan dan pesaing-pesaing organisasi. Akhirnya, bidang kerja ini menyediakan kemungkinan perkaitan yang boleh dikaji untuk membuat
nilaian sumbangan SCI kepada prestasi syarikat pada masa hadapan. Selain dari mengkaji literatur yang terdahulu, satu kumpulan fokus telah diadakan sebagai kajian awal untuk membina matriks komponen SCI dan seterusnya pembinaan borang kaji selidik.


Komponen-komponen SCI terdiri dari inteligen mengenai persekitaran luaran, integrasi rantaian bekalan, penyelidikan dan pembangunan, jualan dan pemasaran, juga sumber dan keupayaan manusia. Hasil kajian menunjukkan bahawa semua organisasi (tanpa mengira saiz dan pemilikan) terlibat di dalam aktiviti pengumpulan data SCI dan proses-proses ini tidak terikat kepada jabatan yang spesifik sahaja. Hasil kajian juga menunjukkan bahawa terdapat perkaitan positif di antara SCI dan strategi persaingan. Ini menerangkan bahawa SCI yang mudah diperolehi (seperti sumber dan keupayaan, penyelidikan dan pembangunan, dan persekitaran luaran) sangat diperlu dan digunakan dalam merangka strategi-strategi organisasi. Sebagai tambahan, persekitaran persaingan dan budaya intelligen juga didapat memberi kesan moderasi ke atas perkaitan di antara SCI dan strategi persaingan, sebaliknya, usaha, tanggapan pihak pengurusan, dan saiz organisasi tidak menunjukkan kesan moderasi. Peranan mediasi yang dimainkan oleh
strategi persaingan adalah membantu dalam menerangkan proses yang menyumbang dan bertanggungjawab untuk perkaitan di antara SCI dan prestasi organisasi. Implikasi hasil kajian ini juga sangat menyumbang kepada teori dan praktis dengan membawa peranan strategik SCI sebagai intipati utama dalam merumus strategi persaingan, seterusnya mengukuhkan integrasi rantaian bekalan dan prestasi organisasi.
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I certify that a Thesis Examination Committee has met on 25th June 2012 to conduct the final examination of Nor Siah Jaharuddin on her thesis entitled “Supply Chain Intelligence (SCI) and its Impact on Competitive Strategy and Performance of Businesses in Malaysia” in accordance with the Universities and University Colleges Act 1971 and the constitution of the Universiti Putra Malaysia [P.U. (A)106] 15 March 1998. The Committee recommends that the candidate be awarded the Doctor of Philosophy 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 any other institutions.

______________________
NOR SIAH JAHARUDDIN

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>v</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>viii</td>
</tr>
<tr>
<td>APPROVAL</td>
<td>x</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>xii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>xiii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xviii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xxii</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xxiv</td>
</tr>
</tbody>
</table>

## CHAPTER

1 **INTRODUCTION AND RESEARCH BACKGROUND**
   1.0 Introduction 1
   1.1 Background of the Study 1
   1.2 Intelligence in Malaysia 5
   1.3 Motivations of the Study 7
   1.4 Problem Statement 8
   1.5 Research Objectives 11
   1.6 Research Questions 12
   1.7 Significance of the Study 12
   1.8 The Scope of the Study 16
   1.9 Thesis Organization 17
   1.10 Chapter Summary 19

2 **LITERATURE REVIEW**
   2.0 Introduction 20
   2.1 Theoretical Background of the Study
      2.1.1 Contingency Theory 21
      2.1.2 Resource-Based View 23
      2.1.3 Knowledge-Based View 24
   2.2 Theoretical Components of Framework 25
      2.2.1 Competitive Intelligence (CI)
         2.2.1.1 Evolution of CI 26
         2.2.1.2 Definitions and Concepts 31
         2.2.1.3 CI Process 32
         2.2.1.4 CI Components 34
         2.2.1.5 Nature of CI 36
      2.2.2 Supply Chain Management (SCM)
         2.2.2.1 Evolution of SCM 39
         2.2.2.2 Definitions and Concepts 41
5 FINDINGS AND DISCUSSION

5.0 Introduction 171
5.1 Questionnaire Response Rate 171
5.2 Non-response Bias 173
5.3 Data Examination and Preparation 174
  5.3.1 Descriptive Statistics of Variables of Study 175
  5.3.2 Assessment of Normality 175
  5.3.3 Correlations and Multicollinearity Test 179
5.4 Demographics
  5.4.1 Respondents’ Profile 181
  5.4.2 Background of Companies 183
  5.4.3 Mean and Standard Deviation 184
5.5 Characteristics of the Business Organization
  5.5.1 SCI Usage between Manufacturing Sectors 189
  5.5.2 SCI Usage between Organizational Size 191
  5.5.3 SCI Usage between Companies Ownership 192
5.6 Testing of Hypotheses
  5.6.1 Relationship between SCI and Competitive Strategy 194
    5.6.1.1 Relationship between SCI and SCS 195
    5.6.1.2 Relationship between SCI and Organizational Strategy 196
    5.6.1.3 Relationship between SCI of supply chain elements and SCS 197
    5.6.1.4 Discussions of SCI relationship with Competitive Strategy 198
  5.6.2 Moderating Effect 200
    5.6.2.1 Moderation effects of Competitive Environment (CE) 202
    5.6.2.2 Moderation effects of Organizational Size 204
    5.6.2.3 Moderation effects of Organizational Efforts 207
    5.6.2.4 Moderation effects of Managerial Perceptions 209
    5.6.2.5 Moderation effects of Organizational Culture 211
    5.6.2.6 Discussion of Moderating Effect of CE and organizational characteristics 215
  5.6.3 Relationship between Competitive Strategy and Perceived Performance 218
    5.6.3.1 SCS and Perceived Supply Chain Performance 219
    5.6.3.2 Organizational Strategy and Perceived Organizational Performance 220
    5.6.3.3 Discussion of Competitive Strategy relationship with Performance 221
  5.6.4 Mediating Effect of Competitive Strategy on SCI and Performance 223

xvii
5.6.4.1 Mediating Effect of SCS on the relationship between SCI and Supply chain performance 224
5.6.4.2 Mediating Effect of Organizational Strategy on the relationship between SCI and Organizational Performance 227
5.6.4.3 Discussion of Mediation Effects 230
5.6.5 Relationship between SCI usage and Perceived Performance 230
5.6.5.1 SCI and Perceived Supply Chain Performance 231
5.6.5.2 SCI and Perceived Organizational Performance 232
5.6.5.3 SCI of Supply Chain Elements and Perceived Performance 234
5.6.5.4 Discussion of SCI relationship with performance 235
5.7 Interview Analysis and Discussion 237
5.8 Conclusion 240

6 CONCLUSION AND RECOMMENDATION
6.0 Introduction 241
6.1 Summary of Findings
6.1.1 Components and Level of SCI usage 241
6.1.1.1 Components of SCI 242
6.1.1.2 Level of SCI usage by Businesses 243
6.1.2 Relationship between SCI and Competitive Strategy 247
6.1.3 Effect of Moderating Variables
6.1.3.1 Moderating Effect of Competitive Environment 250
6.1.3.2 Moderating Effect of Organizational Characteristics 250
6.1.4 Mediating Effect of Competitive Strategy 253
6.1.5 The Relationship of Competitive Strategy and SCI on Perceived Performance
6.1.5.1 Relationship between Competitive Strategy and Perceived Performance 255
6.1.5.2 Relationship between SCI and Perceived Performance 258
6.2 Additional Findings 259
6.3 Contributions of the Study 264
6.3.1 Theoretical Contributions 265
6.3.2 Managerial Contributions 271
6.4 Limitations of the Study 276
6.5 Suggestions for Future Research 277
6.6 Conclusion 279