



UNIVERSITI PUTRA MALAYSIA

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

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OF BUSINESSES IN MALAYSIA**

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, Airlane 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

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

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NOR SIAH JAHARUDDIN

June 2012

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.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi sebahagian keperluan untuk ijazah Doktor Falsafah

**KAJIAN KEPINTARAN RANTAIAN BEKALAN DAN KESANNYA KE ATAS
STRATEGI PERSAINGAN DAN PRESTASI
ORGANISASI PERNIAGAAN DI MALAYSIA**

Oleh

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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

nilai 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.

Borang kaji selidik digunakan sebagai kaedah pengumpulan data untuk kajian kuantitatif ini. Senarai sampel telah diambil dari direktori Persatuan Pekilang-Pekilang Malaysia (FMM) dengan jumlah penglibatan dari 174 organisasi. Semua soalan dan objektif kajian telah dijawab dengan menjalankan analisis statistik diskriptif dan inferens yang sesuai seperti kaedah regresi hirarki dan berbilang. Hasil kajian juga di sokong dengan kaedah wawancara-akhir dengan lapan organisasi berdasarkan saiz organisasi, hak pemilikan, dan sektor pembuatan.

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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