

EVALUATION OF APPLICABILITY OF
LOW COST COUNTRY SOURCING
FOR COMPETITIVE ADVANTAGE
IN THE SHIP SUPPLY
INDUSTRY IN
SINGAPORE

R.VENKATARAMAN

ASIA e UNIVERSITY

2015

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SINGAPORE**

**By
R.VENKATARAMAN**

**A Thesis Submitted to Asia e University in
Fulfillment of the Requirement for the
Degree of Doctor of Philosophy**

JUNE 2015

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Abstract

This research evaluated the applicability of low cost country sourcing strategy for SME Ship Supply companies in Singapore. A literature review on low cost country sourcing and supplier management was done. The risk factors were also identified. Primary research by way of interviews with selected purchase executives was followed by a sample order from China identified as the low cost country through a small Singapore based company. The research questions, findings and conclusions are as below:

Research question 1

What are the Supply management processes adopted by companies in the marine supplies industry that apply to local settings?

The supplier management practices in the ship supply industry in Singapore are as below:

- Contracts and long term agreements
- Consolidated Purchasing
- Lowest Total Cost Selection
- Vendor Managed Inventory

Research question 2

How to improve the purchase prices for local ship supply companies by way of global sourcing strategy for competitive advantage.

1. The research validated that small companies can also do sourcing from low cost country like China with appropriate risk management.

2. The bigger and medium companies are already practicing LCCS.
3. The low cost sourcing country at the present moment is China.
4. Long term contracts and better supplier relationship can improve sourcing costs.
5. The company should have in place the required skill sets and the support and involvement of senior management is a critical requirement.

Research question 3

What are the risks involved in this global sourcing process and how these issues can be managed by a local ship supplies company? Is creating portfolios of products a good process for risk mitigation?

Risks identified are as below:

1. Quality, Supply delays, Wrong cost estimations, Geographic, Economic and Cultural distance.
2. Regulatory and political difficulties, tariff barriers and ethical standards.
3. Fluctuations in currency exchange, Infrastructure risks in power supply, Telecommunications and logistics.

The following risk mitigation measures were adopted in the observational study:

- By doing a country analysis and understanding the cultural factors.
- By having a dedicated staff familiar with China and who is held accountable for this activity.
- By selecting a supplier referred by the company's principals in Hong Kong.

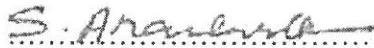
The product portfolio purchase strategy towards risk management needs further research.

APPROVAL PAGE

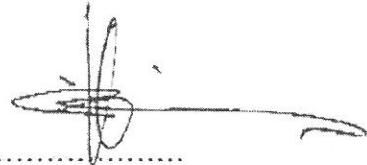
I certify that I have supervised /read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, as a thesis for the fulfilment of the requirements for the degree of Doctor of Philosophy.



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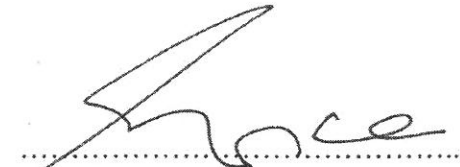
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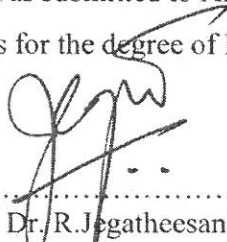


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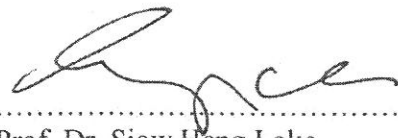


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This thesis was submitted to Asia e University and is accepted as fulfilment of the requirements for the degree of Doctor of Philosophy.



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Declaration

I hereby declare that the thesis submitted in fulfillment of the PhD degree is my own work and all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the programme and / or exclusion from the award of the degree.

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A handwritten signature in black ink, appearing to read 'R. Venkataraman', written in a cursive style.

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TABLE OF CONTENTS

	Page
Abstract	ii
Approval page	iii
Declaration page	iv
Acknowledgement	vi
List of exhibits	ix
List of charts	xi
List of abbreviations	xii
 Chapter 1: Introduction	 1
1.1. Background	1
1.2. Context	3
1.3. Research questions	4
1.4. Structure of this thesis	4
 Chapter 2: Literature review	 5
2.1. Resource transformation to create competencies	6
2.2. The five forces model	8
2.3. Value chain analysis	12
2.4. Global sourcing as a competitive strategy	18
2.5. Low cost country sourcing	25
2.6. PEST analysis	35
2.7. SWOT analysis	37
2.8. Supplier selection	37
2.9. Buyer supplier relationship	39
2.10. Managing risks in Global sourcing	41
2.11. Product related portfolio approach to risk management in global sourcing	46
2.12. Supplier management in the ship supplies industry	53
2.13. Contracts and long term agreements and floating of tenders	55
2.14. Consolidated Purchasing	60
2.15. Lowest Total Cost Selection and transaction cost	61
2.16. Supplier/ Vendor Managed Inventory	64
2.17. Summary of secondary data analysis	66

Chapter 3: Research Methodology	71
3.1 Introduction	71
3.2 Plan and design of research	72
3.3 Research process implementation	85
3.4 Limitations of this study	88
3.5 Issue of ethics, sensitivity or confidentiality	90
3.6 Chapter summary of inferences	90
Chapter 4: Statistical findings	91
4.1. Telephone interview responses	91
4.2. Classification of products into portfolios for risk management	99
4.3. Country analysis for China	100
4.4. Supplier selection process	107
4.5. Summary of findings of the direct observation exercise of sourcing from China	112
Chapter 5: Analysis and Discussion	114
5.1 Supplier Management processes in the ship supplies industry	115
5.2 Organization, skill sets and management support	117
5.3 Low Cost Country Sourcing for pricing advantages	118
5.4 Selection of the Low Cost Country for sourcing	121
5.5 Supplier Relationship and risk management	122
5.6 Portfolio purchasing can contribute to managing supply risks	127
Chapter 6: Summary, Conclusion and Recommendations	131
6.1 Research Summary	131
6.2 Learning from this study and areas for further research	134
6.3. Accessing supplier intelligence services	136
6.4. Automating sourcing and procurement processes	136
6.5. Accessing intelligence on tariffs, trade rules and landed costs	137
6.6. Learning's from the sourcing exercise on effective risk mitigation	137
6.7. E-Procurement and Total Value Management strategy	139
References	145
Appendices	153

LIST OF EXHIBITS

Exhibit	Page
Exhibit I – Studies on reasons to implement global strategic sourcing	7
Exhibit II - Resource and competency mapping process	9
Exhibit III – Porter’s five forces model	10
Exhibit IV – Value Chain in low cost strategy	16
Exhibit V - The purchasing function model	17
Exhibit VI- Du Pont model –application to purchase management	20
Exhibit VII- Countries for low cost sourcing	28
Exhibit VIII-Low Cost Country Sourcing—an Executive Overview- ARIBA	33
Exhibit IX- Multinationals with Headquarters in China	36
Exhibit X-Export growth in China	38
Exhibit XI-Low cost country sourcing country preferences	39
Exhibit XII– Trends in global sourcing 1991 – 2007	45
Exhibit XIII-Chinese cultural framework in doing business with China (Hofstede 1984)	50
Exhibit XIV-Risk factors in purchasing-	55
Exhibit XV - (John Deeri Supplier Categorization - Deeri & Co)	59
Exhibit XVI - Supply chain management process	62
Exhibit XVII-Total cost concept in purchasing	71
Exhibit XVIII - Research papers in Purchase Management	88
Exhibit XIX-The low cost country sourcing process	99
Exhibit XX-Product portfolio analysis-Straits Ship Chandlers	111
Exhibit XXI-China GDP growth	113

Exhibit	Page
Exhibit XXII- SWOT analysis	116
Exhibit XXIII-Risk factors in China sourcing	118
Exhibit XXIV-Mapping the Chinese cultural network	123
Exhibit XXV-Cost benefit analysis of the pilot sourcing project from China	125
Exhibit XXVI-Ship supplies industry supplier management process	125
Exhibit XXVII- Business relationship building process in China	136
Exhibit XXVIII-Managing purchase processes in organizations	155

LIST OF CHARTS

Chart	Page
Chart I-Analysis of question 1	103
Chart II-Analysis of question 2	104
Chart III-Analysis of question 4	105
Chart IV-Analysis of question 5	106
Chart V-Analysis of question 6	107
Chart VI-Analysis of question 7	107
Chart VII-Analysis of question 8	108
Chart VIII-Analysis of question 9	108
Chart IX-Analysis of question 10	109
Chart X-Analysis of question 11	110

LIST OF ABBREVIATIONS

ISO:	International Standards Organization
WTO:	World Trade Organization
LCCS:	Low Cost Country Sourcing
ISSA:	International Ship Suppliers Association
VMI:	Vendor Managed Inventory
IT:	Information Technology
SWOT Analysis:	Strengths, Weaknesses, Opportunities and Threats Analysis
PEST Analysis:	Political, Economical, Social and Technological Analysis
SME:	Small and Medium Enterprise
ROI	Return on investment
RONA:	Return on net assets

Chapter 1

Introduction

1.1. Background

Supply Chain Management has become an enabler of the overall mission and vision of a business thus:

- Satisfying the end-consumers with their requirements.
- To fulfill the social obligation towards society and stake holders.
- Optimum allocation of limited resources.

In the next five years is expected be very important in purchasin(Aberdeen Group, June 2005).

This research study is to find out the applicability of “LCCS” as a competitive tool for a local small and medium ship supply company to employ in order to succeed in the existing ship supply industry in Singapore. This research attempts to understand the purchase methods adopted in world wide ship supply industry especially due to the lack of sufficient data on the local industry. An exploratory survey by way telephonic interview will be conducted for primary data collection.

This paper will also deal with the general issues in the applicability of global sourcing within the Singaporean context as well as identify specific practical challenges faced while implementing this concept. Practical issues may or may not emerge from literature review and industry research but a direct observation is bound to bring out the application related aspects.

It may not be possible to involve many local ship supply company in this study due to the various competitive and confidentiality issues. It is therefore proposed to use one sample company that the researcher has access to for this purpose. The ship supplies division of Straits Group will be used for this sourcing exercise so that the researcher can directly observe and experience the applicability of this concept of sourcing from a low cost country. Thus in this study Straits Ship Chandlers will be used as a tool for "hands on" research to understand the practical issues/problems that will emerge while applying this sourcing concept.

The Straits Group of companies in Singapore is in the shipping industry for over half a century. Their core strength is in shipping agency, as owner's "protecting agents" and also in ship supply. The ship supply function of the group is conducted by "Straits Ship Chandlers". This company belongs to the Small and Medium Enterprise grouping in the local industry and is at present trying to reinvent itself by shedding off some of its processes which do not form a part of its core competency.

During the past five decades of its operations it has developed long term relationships with major shipping companies from India and some companies worldwide. However, in the recent times it has come under serious pressure for improving its purchase efficiency as its quotations quite often are not successful. With competitors actively targeting its existing customers with winning quotes, it is currently encountering the cost-price squeeze and needs to have a serious introspection into its procurement processes as well as costs. The competition faced by Straits Ship Chandlers is typical of other local small companies in the industry. As price forms a key deciding factor all

these companies day in and day out are striving to improve on their sourcing price to beat competition.

The essential factor to create a more effective supplier management program is to understand how a company stacks up against its peers. It needs to establish an effective sourcing strategy for efficient supplier management. Once it is able to achieve this, the company could achieve significant improvement in its sourcing costs and reliability. In the long run companies lagging behind in this quiet revolution will find themselves struggling to maintain their market position since competitors gain cost and responsiveness advantages. The need for this is the competitive environment created by entry of international companies

1.2. Context

Ross (1998) procurement is one of the important factors in channel strategy. The value of purchase efficiency in an organization adds to supply chain efficiency. The efficiency of a supply chain can be vastly improved by minimizing the procurement costs.

According to Fisher (1997) one of the supply chain strategy should be to recognize that the different types of products handled by the company require different product oriented sourcing strategies leading to a portfolio style in purchase management. This paper will try to examine the process of lowering sourcing costs by way of global sourcing. How to handle the risks in such a low cost sourcing activity will also be studied. An attempt will also be made on executing portfolio style of purchasing as a risk mitigation strategy.

1.3. Research questions

The research questions posed are as below:

1. *What are the supplier management practices in the world wide supply industry that can apply to a Singapore Ship Supply Company?*
2. *How to improve the purchase prices for local ship supply companies by way of global sourcing strategy for competitive advantage.*
3. *What are the risks involved in this global sourcing process and how these issues can be managed by a local ship supply company? Is creating portfolios of products a good process for risk mitigation?*

1.4. Structure of this thesis

This thesis has the following chapter:

Chapter 1: Introduction

Chapter 2: Literature review

Chapter 3: Research Methodology

Chapter 4: Statistical findings

Chapter 5: Analysis and discussion

Chapter 6: Summary, Conclusion and Recommendations

1.5. Chapter summary

Study of supply management practices in the world wide ship supply industry that can apply to a Singapore Ship Supply Companies and in what manner companies can strategize their sourcing for competitive advantage will be purpose of this research. It will also attempt to identify the risks involved and solutions.

Chapter 2

Literature review

Countries such as India and China have vast labour resources and , are dominating the export trade of most products. Organisations are observing this and have realized that the purchasing function is very important for improving Return on_Investment and Profitability.

This is primarily due to the following benefits accrued from focussing on purchasing:

- (1) Savings in cost.
- (2) Improvement in quality.
- (3) Technology development

This is amply supported by the following authors in their studies and their reasons for any organization to go for Global sourcing are summarized as below:

Study	Reasons to implement global sourcing strategies				
Monckza and Giunipero, (1984)	Price	Availability	Quality	International orientation	
Min and Galle, (1991)	Price	Availability	Quality	Solve problems	Reliability
Rexha and Miyamoto, (2000)	Price	Availability	Quality	Product technology	
Lye and Hamilton, (2000)	Price	Availability	Quality	Reliability	Mutual trust and knowledge
Trautmann, Bals and Hartmann, (2009)	Price	Availability	Quality	Sharing knowledge and information	

Exhibit I – Studies on reasons to implement Global Strategic Sourcing

The enablement of world wide web in 1980 international companies could enter any country and source their purchases. Any company to survive such intense competition needs to have a "strategic intent" Prahalad and Hamel (1990). Strategy can be defined as envisioning the future of the organization and then create it. The top management needs to recognize this new development in the business eco system as well as the industry. Strategy should be look at today's development and also the future.

2.1. Resource transformation to create competencies

Competition brings in new entrants, and consequent price war etc. The concept of "*strategic intent*" (Hammel and Prahalad, 1989), was towards creating this vision of what is the organization's position currently and how to steer it to a future point. "*Strategic intent*" also has the implication of a strategic stretch in terms of the organization's resources and competencies. With this kind of a vision the firm can probably achieve more than what it thought it can and, leverage itself to a higher level in competition.

The real utility of this theory in the strategy of a firm is to drive it to develop a core competency to enable a positive look at possibilities rather than limitations. In this situation an ambitious organization will always feel that their resources are not adequate. They need to stretch themselves by means of concentrating on their resources development and device new innovative ideas for shielding them from unnecessary risks.

Hence the organization needs to have a serious look at its resources and capabilities and stretch these to create new competencies. Competitive advantage by leveraging on resources and competencies is shown below (Hamel and Prahalad, 1993).

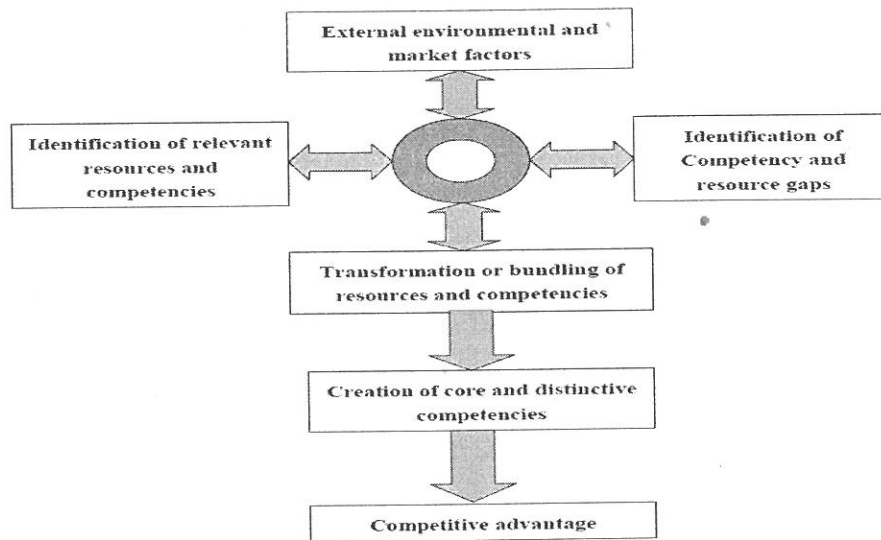


Exhibit II – Resource and competency mapping process

The strategy formulation begins with a thorough analysis of the industry. One of the effective tools used to analyze the competitive scenario that exists in the industry is the model involving analysis of five forces by Porter. It brings out the attractiveness of an industry for firms to enter. Within the industry there can be differences between small, medium and large companies. The relative standing of these companies in the industry will be reflected in the application of the five forces model.

2.2. The five forces model

Ship supply business primarily deals with supply of essential raw material or finished goods necessary for the ship during its voyage. It includes both engineering as well normal products. Being a derived demand this industry has grown with the growth in shipping activity propelled by increasing global trade as a result of free market economies. As per Michael Porter (2008) five forces analysis can help in understanding the industry completion and attractiveness.

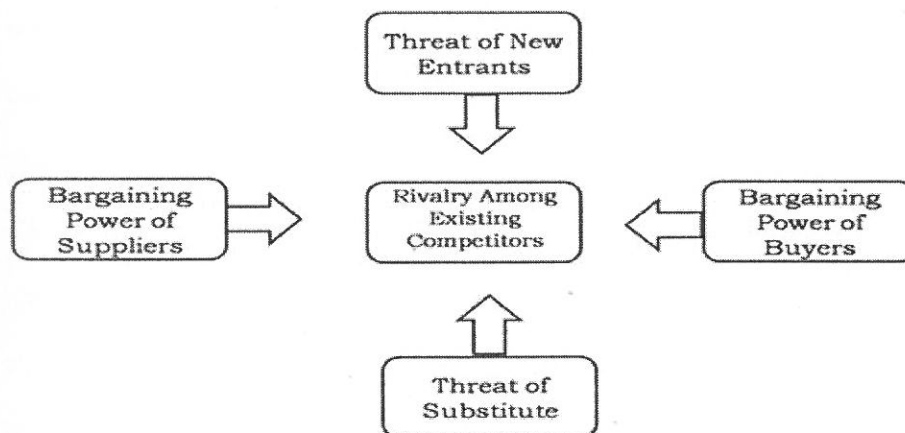


Exhibit III – Porter's five forces model

- *New entrants in ship supply industry:*

The thrust from Governments for free trade resulted in removal of restrictions in shipping industry. Ship supply business consequently has benefited from this activity and while business has grown the threat of new entrants is also high due to attractiveness of the industry.

This has reduced the profit margins especially with the bigger multinationals and national organizations garnering a major share of the business. The bigger firms are able to muscle the competition as they have resources available. Hence the industry attractiveness is high for the big companies but low in the case of smaller companies. Advancement, in technology, services and facilities increase the competitive advantages for these larger companies.

Every entrepreneur looks at the potential the shipping industry offers and wants to enter. It may seem easy, but practically very difficult for a new entrant to stabilize unless the company has the requisite size and resources to compete. There will be threats from existing companies to expand their market share consequently the profit can be severely eroded. The larger companies will makes it very difficult for small companies to survive. Hence for a small ship supply company in the current scenario, the profit margin is low with less scope for expansion. Thus the threat of new entrants to firms that are small will be high.

- *Threat of Substitutes:*

This also needs to be considered. Increase in quality of service results in increase in transaction costs or disruptive innovation. The buyers are not really worried about this but, the supplier to a certain extent will be affected as they have to start searching for new customers.

Establishing strong relationship may help the smaller companies to a certain extent to sustain the competition. With the sourcing cost increasing demand for substitute products also increases. Delay of service or low quality in the form of imitations / low price substitutes, can make the customers switch to the new suppliers. Availability of the substitutes is high in this industry especially in general and commodity group of products.

- *Supplier bargaining power:*

Competitive prices will affect the small players who will struggle to establish themselves within the industry. Further many suppliers are arranged by shipping lines on long term basis as they provide integrated “all under one roof” supplies and as such bargaining power of the supplier in this segment is low.

- *Buyer power:*

All the competitors in the industry would like to increase their market share and buyer is sure to get very competitive rates from the market. Hence the buyer is virtually like a king and as a result the smaller companies in this industry need to look towards purchasing at low costs and give competitive quotes.

The current technological advancements have improved processes with regard to quotations and other purchasing activities and all data processing is being done electronically by back office. Buyers also access all information on company website. This is one area where smaller companies find themselves at a great disadvantage. Due to resource constraints much of the work is done manually.