

**The Key Factors that Influence the Purchasing Cost: The Case of  
MNCs' Subsidiaries in East-China**

**HAN Jiulin**

Thesis submitted as partial requirement for the conferral of

**Doctor of Management**

Supervisor:

Prof. Maria Gabriela Silva, Assistant Professor, ISCTE University Institute of  
Lisbon

Co-supervisor:

Prof. MU Yinping, Professor, University of Electronic Science and Technology  
of China, School of Management and Economics

August, 2018



**Instituto Universitário de Lisboa**

The Key Factors that Influence the Purchasing Cost: The Case of MNCs' Subsidiaries in East-China  
HAN Jiulin

**The Key Factors that Influence the Purchasing Cost: The Case of  
MNCs' Subsidiaries in East-China**

**HAN Jiulin**

Thesis submitted as partial requirement for the conferral of

**Doctor of Management**

Jury:

President: Professor Nelson António, Full Professor, ISCTE-IUL  
Professor Xiao Wen, Associate Professor, UESTC, China  
Professor Li Ping, Professor, UESTC, China  
Professor Fernando Teixeira, Professor, Instituto Politécnico de Beja  
Professor Gabriela Silva, Assistant Professor, ISCTE-IUL

August, 2018





## Abstract

With fiercer competition, advanced technology, dynamic business environment, and the intensification of China's reforms and opening-up markets, Chinese companies and MNCs' subsidiaries in China are facing greater and greater challenges in keeping their business. Based on this knowledge, the main objective of this research is to understand what domestic companies and MNCs' subsidiaries are doing in the field of procurement in China; and, with this comprehensive understanding, to assist MNCs' subsidiaries in improving their ability to dynamize the purchasing practices in China.

First this study investigates the key factors that influence the purchasing cost of domestic companies and MNCs' subsidiaries in China. In a second phase, it gets a deeper understanding about this topic in the MNCs' subsidiaries in East-China. The combined quantitative and qualitative research methods were adopted. 336 respondents participated in a survey and three constructs were extracted: *power of supplier*, *procurement policy*, and *managerial capabilities*. 21 procurement people from the MNCs' subsidiaries in East-China were interviewed and four key themes associated with a purchasing cost leadership strategy were identified and analyzed: *drivers for purchasing cost reduction*, *facilitators of purchasing cost reduction*, *barriers to purchasing cost reduction*, and *procurement policy*.

To successfully accomplish a cost leadership strategy, the procurement policy is centered on cost saving, in part through the ability to substitute, with a particular emphasis on import substitution. The very important feature of the Chinese culture, the Guanxi network, plays an ambiguous role since it influences either positively or negatively such accomplishment.

Finally, the combination of all forces that MNCs' subsidiaries in East-China produce, reproduce and transform reveals that, at present days, they are not the catalyst that may enhance the desirable transition from traditional to modern purchasing management, in China.

**Keywords:** MNC; purchasing cost; purchasing strategy; procurement policy; China

**JEL:** M10; L10



## Resumo

Com uma concorrência feroz, tecnologias avançadas, um ambiente de negócio dinâmico, e a intensificação das reformas e abertura dos mercados na China, as empresas chinesas e as subsidiárias de empresas multinacionais (MNCs) na China enfrentam crescentes desafios para manter os seus negócios. Com base neste conhecimento, o principal objetivo desta investigação consiste em compreender o que as empresas domésticas e as subsidiárias de MNCs estão a fazer no campo das aquisições na China; e, com este entendimento, assistir as empresas subsidiárias a melhorar as suas aptidões para dinamizarem as práticas de compras na China.

Inicialmente este estudo investiga os principais fatores que influenciam o custo de compras de empresas domésticas e subsidiárias de MNCs na China. Numa segunda fase, adquire um conhecimento aprofundado sobre esta temática dentro das subsidiárias de MNCs na China Oriental. A combinação de métodos de pesquisa quantitativo e qualitativo foi adotada. 336 respondentes participaram no inquérito e três construtos foram extraídos: *poder dos fornecedores, política de aquisições, e competências de gestão*. 21 pessoas da área das compras em subsidiárias de MNCs na China Oriental foram entrevistadas e quatro temas associados a uma estratégia de liderança de custos nas compras foram identificados e analisados: *condutores da redução do custo de compras, facilitadores da redução do custo de compras, barreiras à redução do custo de compras, e política de aquisições*.

Para alcançar com êxito uma estratégia de liderança de custos, a política de aquisições está centrada na redução de custos, em parte através da capacidade para substituir, com particular ênfase na substituição das importações. O traço muito importante na cultura chinesa, a rede de contatos Guanxi, exerce um papel ambíguo na medida em que influencia tanto positivamente como negativamente a concretização desse objetivo.

Por fim, a combinação de todas as forças que as subsidiárias de MNCs na China Oriental produzem, reproduzem e transformam, revelam que, atualmente, elas não são o catalisador que possa facilitar a desejada transição da tradicional para a moderna gestão das compras na China.

**Palavras-Chave:** MNC; custo de compras; estratégia de compras; política de aquisições; China

**JEL:** M10; L10





## 摘要

随着激烈的竞争、先进的技术、动态的经营环境和中国改革开放的深入，跨国公司在华东地区的子公司在保持和开拓业务方面面临着越来越大的挑战。基于这种认识，本研究的主要目的是了解国内公司和跨国公司子公司在中国采购领域所做的工作，并藉此全面了解，协助跨国公司子公司提高其动态采购实践的能力。

本文首先研究了影响中国公司及跨国公司的子公司的采购成本的关键因素。然后，对跨国公司在华东地区的子公司对这一问题进行了更深入研究。本文研究采用了定量与定性相结合的研究方法，其中 336 名受访者参加了调查，根据研究数据分析提取了三个因素，即：供应商谈判实力、采购政策和管理能力。本文接着访谈了 21 名中国华东地区跨国公司子公司的采购人员并对访谈数据进行汇总分析后得出了与采购成本领先战略相关的四个关键主题：采购成本降低的驱动因素、采购成本降低的促进因素、采购成本降低的阻碍因素及采购政策。

为了成功地实施采购成本领先战略，以采购成本节省为中心的采购政策主要通过进口材料的替代战略来实现。“关系网”作为中国文化的一个重要特征，无论是对采购成本的正面影响还是负面影响都发挥着绝对重要的作用。

最后，结合影响中国华东地区跨国公司子公司采购成本的关键因素的产生、再提炼和转化过程，揭示了目前在中国华东地区跨国公司子公司并不是促进我国从传统采购管理向现代采购管理转型的催化剂。

**关键词：**跨国公司；采购成本；采购战略；采购政策；中国

**JEL:** M10; L10



## **Acknowledgements**

First of all, I would like to show my sincere thanks to my Portuguese supervisor, Professor Gabriela Silva who gave me a lot of help and nice guidance in terms of topic selection, research ideas and thesis writing when I was preparing my thesis and contributed her arduous efforts for the prompt completion of the final draft of thesis. Her rigorous scholarship, profound knowledge, lofty professional ethics, selfless work enthusiasm, elevated professional dedication and scientific working method influence me in a profound way and will benefit me for a whole life. On this occasion, I would like to express my profound gratitude to Professor Gabriela and her family members.

Secondly, I would like to show my sincere thanks to Professor Sun Ping and Ma Shaozhuang who gave me a lot of help and guidance in terms of research ideas and thesis writing when I was preparing my thesis.

Thirdly, I would like to express my appreciation to my Chinese supervisor, Professor Mu Yiping.

Fourthly, I would like to express my appreciation to my Hongkongese friend, Joffee Kwan. He helped me a lot of work on this thesis.

Fifthly, as one candidate of the first joint Doctoral program between ISCTE and UESTC, I would like to express my warm thanks to our program director, Professor Virginia Trigo, Professor Xiao Wen and all of the staff for your six years hard work.

At the same time, many thanks to my wife, professor Ma Li, and my son, HAN Zichong. Owing to their sharing and supporting, case studies in my study could be finished.

At the last, thanks also go to my mother and my father, my old brother, my sisters, and my friends, who provides many conveniences and support for me in pursuing the doctorate.



## 致 谢

首先，我衷心感谢我的葡萄牙导师 **Gabriela** 教授，她在我写作论文时给了我很多很多帮助，并在选题、研究思路、论文写作方面和论文末稿的讨论提供了很好的指导，为快速完成本论文提供了巨大的贡献。她严谨的学识、渊博的知识、崇高的职业道德、无私的工作热情、崇高的敬业精神和科学的工作方法，对我影响深远，终身受益。在此，我谨向 **Gabriela** 教授及其家人表示深切的感谢。

其次，我要对孙平教授和马绍壮教授表示衷心的感谢，他们在准备论文时给了我很多研究思路和论文写作方面的帮助和指导。

第三，我要向我的中国导师慕银平教授表示感谢。

第四，我要向我的香港朋友 **Joffe Kwan**（关永源）表示感谢。他在这篇论文上给了我很多帮助。

第五，作为 **ISCTE** 与 **UESTC** 首个联合博士项目的候选人，我谨对项目主任 **Virginia Trigo** 教授、肖文教授和所有工作人员六年来的辛勤工作表示热烈感谢。

同时，还要感谢我的妻子马利教授和我的儿子韩子翀。由于他们的陪伴、分享和支持使我的论文可以顺利完成相关研究。

最后，我还要感谢我的父亲和母亲，我的哥哥，姐姐，还有我的朋友，他们为我攻读博士学位时提供了很多便利和支持。



# Contents

Chapter 1: Introduction.....	1
1.1 Background.....	1
1.1.1 The Characteristics of Purchasing.....	2
1.1.2 Purchasing Management in China.....	4
1.1.3 The Reality of MNCs' Subsidiaries in China.....	7
1.2 Research Gaps.....	8
1.3 Research Objectives and Research Questions.....	14
1.3.1 Research Objectives.....	14
1.3.2 Research Questions.....	15
1.4 Research Methods.....	16
1.5 Outline of the Thesis.....	17
Chapter 2: Literatures Review.....	19
2.1 Procurement Theory.....	19
2.2 Strategy and Purchasing.....	24
2.3 Purchasing Management.....	39
2.4 MNC Theory.....	51
2.4.1 The Development of MNC.....	51
2.4.2 Characters of MNC.....	53
2.4.3 Development of Micro-theories of Investment of MNC.....	54
2.4.4 The Development History of Macro-theories of Investment of MNC.....	56
2.5 Chapter Summary.....	59
Chapter 3: Research Methods.....	61
3.1 Research Strategy.....	61
3.2 Research Method.....	62
3.3 Data Generation.....	64
3.4 Quantitative Study.....	66
3.4.1 Sample .....	66
3.4.2 Questionnaire.....	67
3.4.3 Statistical Technique.....	68
3.5 Qualitative Study.....	69
3.5.1 Interview Participants.....	69



3.5.2 The Nature of the Interviews.....	70
3.5.3 Interpretation of the Empirical Material.....	71
3.6 Chapter Summary.....	72
Chapter 4: Quantitative Data Analysis.....	73
4.1 Principal Component Analysis.....	73
4.2 Cluster Analysis.....	75
4.3 Characterization of the Three Clusters.....	77
4.4 Chapter Summary.....	83
Chapter 5: Qualitative Data Analysis.....	85
5.1 The Purchasing Cost Strategy.....	85
5.2 Preliminary Findings.....	86
5.3 Thematic Analysis.....	89
5.4 Chapter Summary.....	117
Chapter 6: Discussion.....	119
6.1 The Key Factors Highlighted by Purchasing Staff to Characterize the Purchasing Practices in the Chinese Context.....	119
6.2 Do Different Ownership Structures Have Different Profiles Regarding the Purchasing Practices, in China? .....	122
6.3 What Forces Determine the Implementation of the Purchasing Cost Strategy in MNCs' Subsidiaries, in China?.....	124
6.4 To What Extent Can MNCs' Subsidiaries Be a Catalyst to Enhance the Desirable Transition from Traditional to Modern Purchasing Management, in China?.....	128
6.5 Chapter Summary.....	130
Chapter 7: Conclusions.....	131
7.1 Conclusion.....	131
7.2 Limitations.....	132
7.3 Contributions.....	133
7.4 Future Developments.....	133
Bibliography.....	135
Appendix.....	145
Appendix 1: Interview Guidance and Agreement.....	145
Appendix 2: Questionnaire.....	147
Appendix 3: Semi-structured Interview Worksheet.....	157

## **List of Tables**

Table 2-1 The Difference between Traditional Purchasing and Modern Purchasing.....	22
Table 2-2 The Main Strategy Theories.....	27
Table 3-1 The Difference between Qualitative and Quantitative Research Method.....	64
Table 3-2 Distribution of Respondents by Region.....	67
Table 3-3 Socio-demographic Characteristics of the Formal Participants.....	70
Table 4-1 Principal-Component Factor Analysis of 17 Items with Varimax Rotation.....	74
Table 4-2 Number of Cases in Each Cluster.....	76
Table 4-3 Distance between Final Cluster Centres.....	76



## List of Figures

Figure 2-1 The Supply Chain Model.....	41
Figure 4-1 Dendrogram Using Ward Method.....	76
Figure 4-2 Eta <sup>2</sup> Coefficient for the Constructs Identified in the Factor Analysis.....	77
Figure 4-3 Cramer's V Coefficients for the Association between the Cluster Variable and Each Socio, Professional or Organizational Variables.....	78
Figure 4-4 Characterization of Groups Based on the Ownership Structure.....	78
Figure 4-5 Characterization of Groups Based on the Nationality of the Informant.....	79
Figure 4-6 Characterization of Groups Based on the Supplier Origin.....	79
Figure 4-7 Characterization of Groups Based on the Number of Suppliers.....	80
Figure 4-8 Characterization of Groups Based on the Criterion to Select Suppliers.....	80
Figure 4-9 Characterization of Groups Based on the Quality/price Tradeoff for Supplier Selection.....	81
Figure 4-10 Characterization of Groups Based on the Negotiation Strategy to Find the Best Purchasing Price.....	81
Figure 5-1 Drivers for Purchasing Cost Reduction Identified by the Participants.....	88
Figure 5-2 Facilitators of Purchasing Cost Reduction Identified by the Participants.....	88
Figure 5-3 Barriers to Purchasing Cost Reduction Identified by the Participants.....	89
Figure 5-4 Procurement Policy Identified by the Participants.....	89
Figure 5-5 Drivers for Purchasing Cost Reduction, Subthemes and Issues.....	90
Figure 5-6 Facilitators of Purchasing Cost Reduction, Subthemes and Issues.....	97
Figure 5-7 Barriers to Purchasing Cost Reduction, Subthemes and Issues.....	103
Figure 5-8 Procurement Policy, Subthemes and Issues.....	110



## List of Abbreviations

APAC	the Asia Pacific Region
BOM	bill of material
BP	British petrol
CEO	chief executive officer
CET	college English test
COD	chemical oxygen demand
CPO	chief procurement officer
ERP	enterprise resource planning
GDP	gross domestic product
GM	general manager
GSP	global sourcing and procurement
HR	human resource
HRM	human resource management
IBM	international business machines corporation
IPO	international procurement office
IT	information technology
JIT	just in time
JV	joint venture
KMO	Kaiser-Meyer-Olkin
MNC	multinational corporation
OLI	ownership, location, and internalization
PC	personal computer
PDCA	plan, do, check, and action
PO	purchase order
POE	private owned enterprise
PPV	purchasing price variance
QA	quality assurance
QCC	quality control circle
QCD	quality, cost, and delivery
R&D	research and development
RMB	the official currency of China
SAP	system applications and products
SCM	supply chain management
SME	small and median enterprise
SOE	state owned enterprise
SPSS	statistical package for social science
SRM	supplier relationship management
SWOT	strength, weakness, opportunity, and threat
TMT	top management team
VMI	vendor management inventory
VP	vice president
WTO	world trade organization



## **Chapter 1: Introduction**

### **1.1 Background**

The sustainable development requirement is there is only one earth for human survival, so maintain the ecological balance and environmental protection become more and more important. Therefore, the ozone layer, tropical rain forest, global warming, acid rain, nuclear waste, energy conservation, and arable land protection appeared in front of people one by one (Zhang, 2016). Nowadays, with the obvious global manufacturing and international business trend, each government puts the environmental issues into development strategy, and has promulgated various policies and regulations for enterprises. The huge waste and low efficiency in many resources consumption industries caused it would be rapidly approaching the earth upper limits (Liao, 2011). With the industrialization in developing countries, the reduction of global natural resource consumption has become a big problem that mankind has to consider the survival and sustainable development by themselves. Raw material, energy, freshwater resource, capital, and other resource have become less and less, which would restrict the great development of the enterprises, and the future influence on enterprises will be more serious. It is the time to strategically consider the long-term reasonable development plan regarding the changing market and the resource shortage.

With the integration of the global economy, especially after China joined the WTO (World trade organization), enterprises are facing the fierce challenge of domestic and international market competition. The management of enterprises is focusing from merely internal resources management to integrated both internal and external management, and the procurement as the window with external resource plays more and more important roles on obtaining competitive purchasing cost, achieving high purchasing efficiency and excellent purchasing quality, minimizing the legal risk. Fairly and openly dealing with purchasing activities and contributing maximum economic benefits for enterprises has become the core procurement strategic target of corporations in China.



### **1.1.1 The characteristics of purchasing**

The contemporary economic activities mainly include free trade, the internationalized investment, and the integrated production, which have greatly promoted the economic globalization, changed the distribution and operation of global economies, and promoted a closer interaction among different regions and countries. With the rapid development of new knowledge and technology, the economic factors of each region and country are optimally and globally reallocated step by step, which is greatly promoting the economic performance.

The purchasing cost is affected by procurement organization structure. Heinritz (1959) argued that procurement refers to not only the behaviors and activities to get the materials needed but also the plans, arrangements, and tracking that ensure the correct quantity delivery and quality inspection. The independent procurement department is in charge of the purchasing tasks in the process of business operations. The core responsibility of purchasing is to buy material, equipment, and service at the best possible minimum cost, and to ensure the on-time delivery as to avoid production line down or high inventory potential. However, the purchasing department of some companies has not a direct connection with R&D, production, and sales departments, which caused the procurement staff not to be so familiar with the new product design. Consequently, the procurement people were unable to improve the new material quality and cost. Thus, there is a possibility for modern enterprises to innovate to setup matrix organization and to involve procurement department in new product development. It means that the purchasing staff could closely communicate with both internal R&D and external suppliers so that suppliers are also invited to join new product design in the early stage, and fully understand technically-related requirements as the further material quality control points. This approach can reduce not only the time spent but also the total purchasing cost.

Gasser (2000) pointed out the purchaser should be responsible for half of the total production cost, and the purchasing department, which is in charge of the purchasing function, is critical for the organization. The buyer or purchaser of the purchasing department is far critical for the enterprise, because it is directly responsible for the purchasing cost. Meanwhile, Gasser also indicated that the expense in ordinary enterprises does not exceed the 3% of total final product cost and the labor cost does not exceed 6%, while the material cost is accounting for large portion in final product. So, companies in the manufacturing industry have to turn to outer channel, either reducing the purchasing cost or improving the sales price, to squeeze more profits. Comparing to purchasing cost reduction and sales price increment, for example

most multinational corporations (MNCs) prefer to focus on purchasing cost reduction because 1% purchasing cost reduction will bring MNCs more than 2.33% net profit increment (Han, 2008).

The procurement cost is crucial to the manufacturing company as it accounts for more than 50% of the total cost, and the ratio is higher in the trading company (Weele, 2010). The procurement and supply chain management theory can ensure the upstream and downstream enterprises on the chain to closely cooperate and share the information between business partners to minimize the misunderstanding and maximize the efficiency. It means that the overall purchasing competitiveness and market adaptability of enterprises can be improved through the information sharing on the chain.

However, the ability to share information on the supply chain depends, to great extent, on the kind of relationship between the supplier and the buyer. According to Chen (2010), there are four kinds of relationships between the supplier and buyer in enterprise' actual development process. The first one is the buyer-seller relationship, which is the decentralized procurement activities and actual competition relationship; the second one is stable demand-supply relationship. Both sides trust each other, cooperate with each other, and help each other to reduce overall purchasing cost and minimize the risk; the third one is the strategic cooperation relationship. Buyers can effectively improve their purchasing cost competitiveness based on suppliers' capabilities; the fourth one is the strategic partner alliance, which is a solid long-term effective demand-supply relationship based on the supply chain. The company's purchasing cost would be greatly influenced by the type of supplier relationship on the supply chain. So, the first type relationship, i.e., buyer-seller relationship, could not provide long-term, stable, and competitive purchasing cost but the last type relationship, i.e., strategic partner alliance, could provide better competitive purchasing cost for MNCs' subsidiaries in East-China.

People always expect "high quality and low price" in common procurement activities. The overall cost reduction on the chain includes the purchasing cost reduction, raw material inventory reduction, production cost reduction, and quality cost improvement. Moreover, the improvement of logistic flow, information flow, and cash flow on the supply chain can also improve the overall purchasing cost competitiveness of enterprises. However, in 1985, Colton and Rohs (1985) firstly presented the theory of "appropriate procurement principles", which emphasized an economic process at appropriate time, appropriate number, appropriate quality, appropriate price to obtain the resources such as goods or service in appropriate place through

a proper process. According with the Colton and Rohs', it is almost impossible for enterprise to expect the most competitive cost and at the same time expect the best quality. In fact, the most common situation is to achieve one or two best terms, such as best price, and the appropriate performance for other terms, such as quality, delivery, and service. And, the best total performance is often a mix of best and appropriate terms for key resources.

### **1.1.2 Purchasing management in China**

Chinese central government had carried out a highly centralized planned economic management system of the Soviet model for nearly 30 years (from 1949 to 1979) before the reform and opening-up. The state-owned enterprises (SOEs) and collective enterprises operated an absolute important position, and there were almost no private owned enterprises (POEs) and multinational corporations (MNCs). In this stage, the material distribution system, commodity circulation system, and transportation system were all carrying out under the "planed" direction and system without exception, thus the independence of procurement was very weak.

After 1979, China central government implemented a policy of reform and opening-up, therefore the macroeconomic environment began to undergo fundamental changes. The economic development policy of China official acknowledged that POE, joint ventures (JVs), and MNCs were also an important part of the Chinese economy. The government had gradually liberalized the control of the production, material, and the price for enterprises. Enterprises were gradually out of the constraints of the traditional planned economy and could independently decide on the purchase and production of their raw materials, the production and sale of the products, and the business operation. Therefore, the function of procurement had gradually become stronger along with the rapid development of the national economy.

Since the 1990s, with the further deepening of the reform and opening-up, the economic system of China had been gradually transformed from planned economic system to market economic system. The overall economy has been greatly improved, the pace of infrastructure construction has been accelerated, the investment and development of MNCs in China have also made great progress and success, the supply of goods has been also abundant. The relationship of the demand-supply in China market turned from "seller market" to "buyer market", because of the intensification of competition. There was no doubt that the competition in market brought high quality and low cost, and the function and status of purchasing were being paid more and more attention (Lei, 2015).

Due to the influence of planned economy and national culture, the ideas of foreign advanced procurement management were not much favored by domestic POEs and large SOEs in China. The advanced procurement management methods were only introduced in some big scale MNCs, but difficult to spread rapidly nationwide. Later, due to the accelerated economic development supported by many new technologies such as the advanced information technology (IT), the market competition becomes fiercer and fiercer. With the development of technology and the diversification of demand, the life cycle of final product is being shorter and shorter. Enterprises are facing the pressure of shortening delivery time, improving the quality and service of final products, and reducing the cost such that these require enterprises to quickly react the changing market, and at the same time enterprises should continuously develop new products to meet the needs of new customers (Chen, 2013).

The dynamic Chinese economy has become the engine of the world economy growth, the global manufacturing and sourcing center, and now the most potential and rapidly growing market in the world. This trend is being intensified since China joined WTO, thus more reform and opening-up policies were published. The opening of the Chinese market is never like today, and there are business opportunities everywhere for domestic and foreigner companies (Lu, Yang, & Yang, 2016).

The market competition will be defined by those who could fully catch the opportunity of the reform and opening-up of China, and the huge market prospects of China. It will be a big challenge for MNCs to fully integrate their own information, technological and management systems with the opportunity to use the local resources at lower cost, such as raw material, testing legacy, and labor, and in turn win more market share and more return on investment. It will be a big challenge for domestic enterprises to succeed since they must adjust and upgrade the obsolete industrial structures, and to introduce formal information and management systems (Xiao, 2004).

With the global economic integration, competition, shortened product life cycle, the success of companies in China is no longer due to new products development or good business opportunities, but due to the purchasing strategy and the constant core competitiveness on purchasing cost (Han, 2008). The core competence on purchasing can enhance the development of enterprises. It can also facilitate enterprises to make advanced products or service which could create a new market and keep the competitive advantages of enterprises. And the common characteristics for many successful companies in China are to create the core competitive competence of purchasing cost in their main business field, thus

they can meet the market challenges through the product diversification strategy (Wang, 2016).

However, the traditional procurement management methods still dominate the daily work of many SOEs and POEs in China (Yu, 2014). This will affect not only the quality and efficiency of procurement activities but also impede the continuous promotion of modern procurement management methods with adverse effects on the development of the enterprises. The traditional purchasing and modern purchasing are significantly different. The traditional purchasing is concerned with the raw material price, quantity, quality, and lead-time in each purchasing process, while the modern purchasing emphasized on new technologies based on the supply chain integration which could reduce the total purchasing cost. Therefore, the modern purchasing could cover both pre-purchasing and post-purchased cost (Gasser, 2000). Now, the model of the procurement management is in the transition period from traditional purchasing to modern purchasing. The traditional purchasing model focuses on how to gain more business advantages in the business transaction with the supplier, so it focuses on the comparison of the price, delivery time, and payment term among the suppliers in the process of trading, that is to say qualifying one best performance supplier among, for example, three candidates. The main weakness of the traditional procurement mode adopted by SOEs and POEs is the information asymmetry on the purchasing process. In the process of purchasing, to choose one best supplier from candidate suppliers that competed each other, the purchaser often keeps some information and the candidate suppliers will also hide some information competing with other suppliers (Yu, 2004).

On the other side, many MNCs launched the advanced modern purchasing mode, namely, enterprise resource planning (ERP) information system, centralized international procurement office (IPO), total quality management, procurement management specialization, win-win procurement strategy, E-procurement, just in time (JIT) of the core ideas of zero defects and zero inventory, localization, non-core business outsourcing. The equipment purchased in the modern purchasing model seems to be a little expensive, but the operational cost will be very low which can greatly reduce the total cost. Furthermore, there is no worry about the use of the equipment and about a possible disaster and, consequently, a huge economic loss. In other words, buying one equipment with very cheap price by traditional procurement mode often demands “more irregular” maintenance and often does not well work, thus it greatly increases the total operational cost. Moreover, the use of fake and shoddy equipment often results into disasters and huge economic losses.

### **1.1.3 The reality of MNCs' subsidiaries in China**

Nowadays organizations are facing a complex and dynamic environment. The internet is the main carrier of the information explosion, and IT provides convenience for information collection, transmission, and sharing. The big data is forcing companies to move their focus from how to quickly get information to how to accurately filter and effectively use information. On the one hand, enterprises are facing unprecedented pressure with the emergence of new technologies and new products. On the other hand, the employees are also facing big challenges to constantly learn new technology; otherwise, they will face more and more pressure due to the obsoleted skills. The competition is being globalized because of the economic globalization and integration, which requires that most of the goods and services must be competitive in the global market. More MNCs than domestic small and median enterprises (SME) can fully take advantages of the advanced supply chain and the international trade rules, such as WTO, to globally allocate and optimize their resources, to strengthen their own competitiveness, and to expand their living space (Zhou, Wu, & Adel Ben, 2017).

In the same vein, more MNCs than domestic SMEs have realized that procurement management is an important and indispensable part of the company's overall competitive ability (Zhang, 2005). Procurement management has become a new profit growth point in the enterprise. When it is effective, procurement management can not only reduce the cost but also realize the development of various resources and market development, thus enhance the market competitiveness of enterprises. Therefore, more and more MNCs put procurement management in a prominent strategic position to strengthen the core competitive advantages of enterprises (Chen, Paulraja, & Lado, 2004).

In other words, more and more big enterprises consider the purchasing management as one of the important competitive soft powers. For example, a good purchasing management can reduce not only the capital investment, production cost, business efficiency but also effectively respond the customers' demand in the fierce competition market.

Using procurement and supply chain management theory, some Western giant MNCs successfully synergized several layers upstream and downstream enterprises on the chain, which could greatly improve their overall competitiveness. Most MNCs' subsidiaries in China would copy the supply chain and procurement management system from their head-quarters when they enter in China (Ma, 2016). However, sometimes the supply chain and procurement

management system copied from head-office without any change would meet many troubles such as the culture difference and tax regulation difference, with subsequent negative effects to the performance of MNCs such as low efficiency, high operation cost, and the ununified value. To minimize these troubles, MNCs' subsidiaries have done some localization activities (Zhang, 2015). MNCs' subsidiaries in China have changed and adjusted the tax rate and accounting standards to conform with the regulations and laws of China; they have also adjusted the supplier management rules based on the local reality in China, so as to maximize the cash-flow and purchasing efficiency (Ma, 2016).

With the reform and opening-up in China, the average wage of employed person increased 11.6 times from 1995 to 2015 (Liu & Kou, 2017). Similarly, the average selling price of commercialized buildings increased 3.3 times from 1995 to 2015 (Li, 2017). Most MNCs are sensing that those old good days are no longer available when, for example, the once best-selling car branded "Santana" (Hong, 1995), which was made by VW-Shanghai company, could sell 180 thousand RMB (The official currency of China) in 1990 but the sales price of the similar configuration is only about 84.9 thousand RMB in current car market. Consequently, the enterprises' operation profits declined again and again. The MNCs realized they could not solely rely on their production and marketing to compete in the global market; instead they are exploring other functional areas, including the procurement function, to understand how to obtain a competitive position in the market and maintain their sustained profits (Lu *et al.*, 2016). Regarding the purchasing function, the traditional purchasing practice can not meet the new requirements of modern enterprises and can not also significantly reduce the purchasing cost (Yu, 2014). Therefore, MNCs are facing new challenges in this area in China and it seems necessary to explore new, modern purchasing methods and models in order to maintain the competitiveness, improvement, and development of the company (Yu, 2014).

## **1.2 Research gaps**

Procurement has gone through the process from the traditional purchasing management to modern purchasing management. The traditional purchasing management is carried out under a certain market environment. Under this environment, the purchasing management shows the following characters: temporary or short-term cooperation between supply and demand sides, and their relationship is more competitive rather than cooperation; in the whole

purchasing process, the purchasers often have to choose one good performance supplier among many candidate suppliers and each supplier also hopes that they could win in the competition (Gasser, 2000). Therefore, both buyer and seller will retain some useful information which resulted the entire asymmetric information in procurement process and both sides lack the market response ability and the market responsiveness because of the not smoothly communicating. Under the traditional concept of purchase, the relationship between buyers and suppliers is a zero-sum game, and both sides are concerned about the transaction price and the allocation on profits achieved. Buyers usually establish multiple supply sources to maintain the competition among suppliers and reduce switching costs, thereby reduce suppliers' bargaining power. The suppliers are trying to increase buyers' switch cost by establishing enough forward integration threat. The cost reduction and the supplier resource are the driving forces for the close relationship between buyer and supplier (Xu, Xie, & Lin, 2006).

Modern purchasing refers to using modern purchasing technologies, ideas, and scientific methods through the computer network to realize the information collection, supplier selection, purchasing, transportation, and inventory process. The whole process is using information and network to maximize the production needs and reduce the purchasing cost so as to realize the purchasing goals (Nie, 2006). Modern purchasing focuses on strategic cooperation and information sharing in order to achieve win-win game and subsequent competitive purchasing cost. The scientific technologies and methods of modern purchasing mainly include: (1) economic order batch purchasing. It is one of the purchasing business models based on demand and lead-time of each commodity, the minimal order quantity, and the maximum material inventory. This purchasing model satisfy not only the certain demand but also control the total inventory cost at one acceptable level. However, the model will also be affected by many market factors; (2) Material request planning (MRP) purchasing model mainly used in manufacturing industry. Based on modern IT, the production planning and the bill of material (BOM) of main final product, the core ideas of MRP purchasing are, through analysis and calculation to proceed the purchasing activities, to satisfy both production demand and inventory cost control. This model is better than the model of economic order batch purchasing; (3) JIT purchasing. The basic idea of JIT is to provide the right commodities, at the right time and right place with the right quality to completely meet the needs of enterprises. JIT purchasing model basically reached good production planning of zero inventory, which forward a big step for modern purchasing; (4) Supply chain purchasing.



In the supply chain purchasing model, buyers only need to continuously and timely share their demand information to suppliers on supply chain. Based on the information, suppliers develop and complete their own production planning and delivery plan to achieve small batch and multi-frequency delivery to users, which can guarantee not only users' needs but also the minimum inventory amount and wastes. This is the ideal modern purchasing model which integrated many technologies; (5) e-commercial purchasing (Gao, 2009). In recent years, e-commercial purchasing supported by new IT can enable buyers to finish in real-time most purchasing activities and processes while the physical material delivery and incoming material inspection are being proceeded off-line. This purchasing model can greatly reduce new supplier qualification cost and lead-time of new material in early stage of the purchasing process, but this mode is also affected by the development of modern logistics and asymmetric information between on-line and off-line.

Domestic enterprises have been using the traditional procurement management practices which focus on internal management. The traditional procurement in China is limited to the enterprises' internal resource management, internal order and contract management, payment, and involves little technical aspects. MNCs are quite familiar with the modern procurement management practice, which allow them to extend the focus on external resource, technology integration, the long-term, stable, and win-win strategic partnership (Huang, 2017).

However, there is a lack of research when talking about the purchasing practices adopted and used by companies in these transition days to the global open-market, in China. Just recently, Cui and An (2015) started to analyze the importance of selecting suppliers for replacing import goods and put forward the viewpoint that MNCs should make the strategic partner alliance with suppliers related to localization. Duan (2017) analyzed the international trajectory of a Chinese SOE. He suggests the Chinese MNC will face more risks in host country than at homeland and identified the localization strategy as a serious issue to have a competitive cost advantage. Yu (2014) also searched a single organization (Wal-Mart) in China and argued that although Wal-Mart had achieved certain success in China, there are many factors limiting its further development and expansion. He pointed out the large number of manufacturers, the small scale of suppliers, and the dispersion of suppliers in China as impediments to transfer the MNCs head office rules to China.

Considering that information is growing but still scarce in this field, it seems there is a lack of research on purchasing strategy and purchasing practices, especially when it comes to have a comprehensive understanding about what is going on in the main China and how

companies are able to move to the modern and desirable procurement practices that allow them to be competitive worldwide.

**Research gap 1: There is a significant shortage of empirical research about the efforts that MNCs' subsidiaries and Chinese domestic companies are doing to develop, implement and consolidate modern purchasing strategies, in China.**

By believing that soon or later companies will make the transition to modern procurement practices, where all involved actors would win, even in different proportions, expand and consolidate their business, it is relevant to understand to what extent they have the internal resources to initiate such trajectory. However, here, two issues have been scarcely investigated: the human capital available in the company and the social capital in which social networks are central to do things for each other.

Almost every HR (human resource) manager is aware that the contribution to total performance of companies by high-end skilled managers are becoming more and more important. Managers play an essential role in identifying and capturing new strategic opportunities, and in inventing business models and new organizational forms. The managers can bargain, buy, sell or swap investments or assets, organize and transact internal and external resource, and design and implement new business models. Managers can sense and seize external challenges to transform and reconfigure them as opportunities and competitive forces. The manager can help to set goals, evaluate opportunities, set culture, build trust, and play a key role in strategic decisions making (Augier & Teece, 2009).

For example, Lamach (2017) argued that relying on employees is the best human resource talent strategy to achieve sustainability goals because they are the frontline staff and easy to find defects in operation process. Hence, when it happens, companies could have higher expectation on the successful and sustainable development. With bold talent strategy, high quality people can be quickly employed to help company to achieve the success. Thus, the talent strategy may completely support enterprises' success on financial statement such as achieving high profits.

Hayton (2003) argued that strengthening human resource management activities can promote employees to more actively work, more knowledge sharing, and organizational learning, thus significantly improve the corporate performance. Shrader and Siegel (2007) identified that team experience was really correlated with the realization of enterprises' strategic objectives, especially for the differentiated strategy. Crook, Combs, Todd, Woehr, and Ketchen (2011) carried out an empirical analysis on the relationship between human

capital and enterprise performance by 66 SMEs; the findings revealed that the human capital is strongly related to the enterprise performance, especially the relationship between un-tradable human capital and uncontrolled operational performance. Suo and Li (2015) made an empirical research and concluded that the investment on education has a significant impact on corporate performance, especially on the improvement of enterprise operation performance and growth performance.

Therefore, based on the above examples, there are several empirical studies that analyze the role of manager on overall enterprises' performance. However, it is hard to find research that relates the role of manager with the purchasing practices of enterprises. Therefore, the second research gap is identified.

**Research gap 2: There is a significant lack of in-depth research on the role of manager and its impact on the purchasing practices of MNCs' subsidiaries and domestic companies, in China.**

China is often being described as a relational society, and the relationship network often has a major influence on both social and business aspects. An effective relationship network plays an important role in helping the company to gain commercial foothold. Moreover, the relationship network is commonly acknowledged as a critical factor to business success, especially in emerging economies such as China (Shou & Li, 2015). Thus, the Chinese suppliers have been widely considered as one of the effective relationship sources for domestic and foreign investors in China (Leung, Chan, Lai, & Ngai, 2011).

Frederick and Webster (1992) argued that a key strategic resource of the business is to focus on managing strategic partnerships between vendors and customers on the value chain with the aim of delivering superior value to customers. Their research proposed that buyer-seller relationships should be involved in relatively long-term contractual commitments.

However, Wu, Chen, and Chen (2015) argued that one trusted and committed favorable relationship between buyer and supplier can not ensure the subsequent business and can not stabilize the partnerships. Each party in a relationship network is required to conduct specific investments on behalf of others to prevent the discontinued trading or transaction relationship. Of course, the cooperative relationship may not only increase the communication quality but also can create sustainable competitive cost advantages. But, sometimes the relationship will also play the negative roles for new product development and bring the hold-up risk.

In the above literatures and studies, there are different perspectives on the role of social

capital in the supplier-buyer relationships. New studies are needed to improve the state of the art, especially in the Chinese context. Therefore, the third research gap is identified as follows.

**Research gap 3: There is a significant lack of in-depth research on the role of social capital (relationship network) and its impact on the purchasing practices of MNCs' subsidiaries and domestic companies, in China.**

Since the reform and opening up, China's economic development has made tremendous achievements with the contributions of MNCs. Since 2008, the MNCs and their direct investment in China has been ranked the top three investments in the world (Lu *et al.*, 2016). Therefore, MNCs have played an important role in the process of China's economic and social development. MNCs have brought a great hard-to-quantify impact on China's economy, which promoted the modernization of Chinese industry, helped to nurture Chinese suppliers and distributors, brought advanced technology to China, modernized management, training and education, introduced regional and global management to China, and raised the understanding of the value of social capital, intellectual property and the importance of innovation (Enright, 2017).

The formulation of the national strategy of "One Belt, One Road" and "Made in China 2025" illustrates the idea that the economic development of China has entered a new development stage, from the rapid economic growth to the high quality (innovation, coordination, green, open, sharing) development stage. In this process, MNCs can also play an important role. In other words, MNCs can not only change the scale of capital and labor input but also can promote technological progress and economic structure upgrade, promote economic reform and economic institutional change, and enhance economic efficiency (Sang & Zhang, 2018).

As Ren (2016) pointed out, at present, the macro-economy of China ushers in a new round strategic change from "Made in China" to "Invented in China" together with the industrial structure adjustment and upgrade, which provided good opportunities and big challenges for MNCs' development in China. It means that MNCs are not only an important player in the development of the Chinese economy, but also may experience challenges and difficulties, with great impact on their own businesses. On one hand, in China, MNCs can closely and fully use the information resources and the cost advantages of China to improve their own competitiveness. MNCs always make the plan to transfer their advantaged management, technology, and talents to subsidiaries when MNCs invested abroad. The

purpose is not only to speed up the growth of their subsidiaries but also to save much more cost, i.e., internal market transaction and low intelligence cost (Lu *et al.*, 2016). However, on the other hand, MNCs will also face cultural and social obstacles that do not exist in their native countries, which often weaken their smooth operation performance and cause non-competitive cost if they can not manage it well.

Regarding the overall trajectory of MNCs in China, it is possible to find some interesting studies. However, it seems there is a lack of research on purchasing strategy and purchasing practices of MNCs' subsidiaries in China. Furthermore, knowing that the economic motor of China is placed in East-China, it seems to be even more relevant to highlight the lack of studies about purchasing activities/practices of MNCs' subsidiaries in East-China. Therefore, the fourth gap is presented as follows:

**Research gap 4: There is few studies (or no studies) done on purchasing activities or practices of MNCs' subsidiaries in China, in general, and in East-China, in particular.**

## **1.3 Research objectives and research questions**

### **1.3.1 Research objectives**

It is well-known that MNCs play a far critical role on both tax payment to government and economic development in China. For example, from 1995 to 2003, MNCs contributed about 16-34% of China's GDP (gross domestic product) and 11-29% of China's employment (Enright, 2017). Over the past 40 years of reform and opening up, China has absorbed a great deal of foreign direct investment and ranking first among developing countries for 26 years. Moreover, since 2015, the actual investment of MNCs in East-China has accounted for about 80% of the total investment of MNCs in China; 45% of China's import and export businesses have been carried out by MNCs; MNCs have provided about 10% of the labor force employment opportunities while gaining about 25% of profits of the total industrial profits of China; and the tax MNCs paid have accounted for 20% of the total tax revenue in China (Sang & Zhang, 2018).

However, nowadays, the enterprises' operation profits decline again and again because of the high operation cost. For example, from 1995 to 2015, the average wage of employed person increased 11.6 times (Liu & Kou, 2017) and the average selling price of commercialized buildings increased 3.3 times (Li, 2017), which caused most companies, in general, and MNCs, in particular, to sense that those old good days where they could easily

make good profits are no longer available. In addition, competition is becoming more and more fierce with additional purchasing cost pressure. Thus, most companies have realized they should not solely rely on their production and marketing to compete in the local or in the global market but should switch to other functions (Wang, 2008), such as procurement.

Therefore, the main objective of this research is to understand what domestic companies and MNCs' subsidiaries are doing in the field of procurement in China; and, with this comprehensive understanding, to assist MNCs' subsidiaries in improving their ability to dynamize the purchasing practices in China. The specific research objectives can be formulated as follows:

1. To identify the key factors that characterize the purchasing practices in China;
2. To understand whether different ownership structures (SOEs, POEs and MNCs' subsidiaries) have different profiles regarding the purchasing practices;
3. To identify the main forces that determine the implementation of a purchasing cost strategy in MNCs' subsidiaries, in China;
4. To understand whether MNCs' subsidiaries can be a catalyst to enhance the desirable transition from traditional to modern procurement management, in China; And, if so, to advance insights about a possible trajectory of development and sophistication of purchasing practices, in China.

### **1.3.2 Research questions**

In response, to contribute to the understanding of the current purchasing practices in China and to advance insights about the role of MNCs' subsidiaries in dynamizing the purchasing practices, this thesis will answer the following questions:

1. What key factors are highlighted by purchasing staff to characterize the purchasing practices, in China?
2. Do different ownership structures have different profiles regarding the purchasing practices, in China?
3. What forces do determine the implementation of the purchasing cost strategy in MNCs' subsidiaries, in China?
4. To what extent can MNCs' subsidiaries be a catalyst to enhance the desirable transition from traditional to modern procurement management, in China?

## 1.4 Research methods

To answer the research questions, mixed methods will be used in this research. By mixed methods, it is to understand a combination of quantitative and qualitative approaches.

Jiang (2009) considers that the study of mixed methods is regarded as the third methodological revolution. Wu (2013) argues the mixed methods have proved to be a better approach to understand and solve research problems than a single method. Therefore, the study of mixed methods has become a new research orientation and development trend in the research of Social Science.

The advantages of combining both quantitative and qualitative research method are as follows: (1) each research method has its own application scope (Yin, 2017); (2) the mixed research method could achieve the triangulation (Saunders, Lewis, & Thornhill, 2007); (3) the mixed research method could jointly explain the research data, such that the quantitative research could guide the qualitative research so that the qualitative research could further explain the findings gathered in the quantitative phase (Wu, 2013).

The empirical study will begin with the application of a structured questionnaire to: (1) characterize the purchasing practices in china and (2) to group companies based on their profiles of purchasing prototypicality. Following Hinkin's (1995) suggestions, the items in the questionnaire will be obtained from two ways. One is the related literature, i.e., the understanding that former scholars have about the subject area; the other is my personal understanding about procurement activities since I have been a practitioner in this field for 23 years.

The analysis of the quantitative data will be done using multivariate data analysis—exploratory factor analysis and cluster analysis - with SPSS 23.0 software package (statistical package for social science). Findings from the quantitative study will allow to identify the factors that practitioners highlight as relevant to describe the purchasing practices in China and to understand whether the purchasing prototypes in this region segregate companies in a clear pattern.

Based on the rich insights provided by the quantitative study, semi-structured interviews will be conducted to gain an in-depth understanding of: (1) the rationales behind implementing a purchasing cost strategy in MNCs' subsidiaries, in East-China, and (2) how successfully the MNCs' subsidiaries are in dynamizing the purchasing practices in China. First, the literature suggests that MNCs are able to use more modern purchasing practices than

domestic enterprises (see above). Believing that the profiles of purchasing practices can classify a sample of companies into a small number of mutually exclusive groups based on the similarities among the companies (Hair, Black, Babin, & Anderson, 2009), an exploratory study to find out what is going on in MNCs' subsidiaries is pertinent. Thematic analysis will be used to identify themes, subthemes and issues related to procurement management implemented in MNCs' subsidiaries in East-China. Finally, the results of the analysis of informants' narratives will be exploited to understand the extent to which MNCs' subsidiaries in East-China are contributing to transform the procurement management in China.

## **1.5 Outline of the thesis**

This chapter gives an idea of the research background and the gaps in the literature. Research objectives and research questions are also identified. An outline of the research process is provided to guide the reader throughout this study.

The next chapter will review the state of the art regarding the procurement management, which includes a summary of the main theories, model and concepts available in the literature.

Chapter 3 will describe in detail the research strategy applied in this study, how the data will be gathered and analyzed, providing information about the samples.

Chapter 4 will present the results of the semi-structured questionnaire. Exploratory factor analysis and cluster analysis will be utilized as the techniques to extract information from the data.

Chapter 5 will focus on the qualitative data gathered through semi-structured interviews. It will present an extensive description of the main findings disclosed in the thematic data analysis, organized by themes, subthemes and issues.

After the interpretation of the quantitative and qualitative data gathered, in chapter 6, the findings will be discussed in depth to respond to the research questions initially raised.

Finally, chapter 7 will summarize the main conclusions, present the limitations of the study, recommendations for future research and contributions of the study.





## Chapter 2: Literatures Review

This chapter reviews some theories, concepts and models relevant to understand the state of the art about the procurement management.

### 2.1 Procurement theory

The goods exchange appeared in primitive society since the production surplus appeared, this is to meet their own needs. With the society evolution, commodity exchange happened with the currency in the type of shell, coins, and precious metals such as gold and silver.

The purchasing is defined as the process that one party use the currency to buy the commodity or service. Generally, purchasing refers to these transactions activities that the organization or individual buy material or service based on the production demand, sale, and consumption. Purchasing can be defined from narrow and broad aspects depending on the way how people obtain the goods. The narrow explanation of purchasing only refers to the buyer paid money to seller to obtain the items of equal price, which is the most common way for purchasing while the broad purchasing refers to the tangible or intangible resources required from external market.

The procurement is a series of processes to acquire the resources from market. In order to obtain the resources from the market, one party must pass through the way of purchasing, that is to say, the basic function of procurement is to help people to get all kinds of resources needed from the resource market. Procurement is a business process flow, and the basic function of procurement is to transfer the resources from the place of its production or the market to users. In this process, one party is to realize to transfer resources from the material suppliers to users. The procurement flow is mainly through trade, exchange of equal value to realize the ownership of the goods transfer (Gasser, 2000).

Procurement is also a series of economic activities that the enterprises obtain external resources to ensure their normal production. However, the procurement process itself also incurs various costs especially in the purchasing management. In order to maximize the economic benefits, enterprises have to continually drive the cost reduction on purchasing management. The purchasing experts have developed and pursued several scientific

purchasing methods such as JIT, vendor management inventory (VMI), MRP, bidding and e-procurement, which can drive the purchasing cost reduction and underpin enterprises' profitability.

The simple exchange of resources has been unable to meet the rapid development in modern society. The enterprises gradually outsource their non-core business such as production, logistics, human resource, and even accounting, which allow enterprises to focus on their core business such as procurement, design, sales, and marketing. As the procurement becomes more and more complex and important, many enterprises especially MNCs have promoted the procurement functions to strategic corporate level as well as sales and finance. Some MNCs even designed CPO position (Chief Procurement Officer) to look after this function (Gao, 2009). The purchasing is a functional group, a formal entity of the organizational chart, as well as functional activities, buying goods or service, which means the purchasing group implements many activities to ensure the maximum value delivery to organization.

Colton and Rohrs (1985) firstly presented the theory of "appropriate procurement principles" which emphasized the economic process at appropriate time, appropriate quantity, appropriate quality, appropriate price to obtain the resources in appropriate place through the appropriate process. This theory indicated it is almost impossible for enterprises to get the material with best performance of each term such as best price and best quality, best delivery, and best service but they could achieve one or two best terms such as best price, and just get the appropriate performance for other terms such as quality, delivery, and service, thus they could achieve the best total performance.

The supply management is a strategic approach to planning for and acquiring the organization's current and future needs through effectively managing the supply base, utilizing a process orientation in conjunction with cross-functional team to achieve the organizational mission. Supply management requires pursuing the strategic responsibilities, which are those activities that have a major impact on long-term performance of the organization, and excludes the routine, simple, and day-to-day decision that is part of the traditional purchasing activities. Supply management is a broader concept than purchasing. Supply management is a progressive and supercharged version of basic purchasing, and it often takes a process approach to obtain required goods or service (Handfield, Monczka, & Patterson, 2010). Actually, the daily purchasing activities are running within the 5000 years splendid civilization of Chinese, and nowadays many Chinese people still think purchasing is

just to spend money to buy goods, which is even not worthy of studying. They do not understand the essence of the procurement that can create great value for enterprises. The simple purchasing activities are to buy commodities, however the professional procurement is to obtain material or service needed as much as possible with as little amount money as possible.

Comparing to traditional procurement theory, the modern procurement theory mostly comes from Western countries. With the industrial development progress, more and more companies were established, and later the owners of enterprises found that the modern procurement plays an important role on the cost and profits of enterprises, as table 2-1 in details. The professional purchasing book, namely “The Handling of Railway Suppliers-Their Purchase and Disposition”, is the earliest academic book published by Chicago and North-Western Railway Company of U.S. in 1887, which made great attention in industry at that time. Then, people began to realize that the procurement played important and strategic role for the operation of enterprises. Nowadays, some theories and practices in this book still guide the daily economic activities of modern enterprises (Gao, 2009).

Heinritz (1959), who engaged in purchasing theory, published one book named “The Principles of Purchasing and Its Application”, in which the “procurement” is simply defined as procurement refers not only the behavior to obtain the materials needed but also the plans and arrangements tracking to ensure the correct delivery and inspection on both material quantity and quality.

Duan, Geng, and Gao (2007) considered the procurement and supply chain model of Nokia corporation as the sample of the traditional mode and Apple company as the sample of new modern mode, and did a lot of analysis based on the key aspects of procurement, and proved that the enterprises should focus on their expertise areas so as to remain invincible competence in the fierce competitive market, which is in line of the idea that Humphreys, Li, and Chan (2004) proposed that the manufacturer should be stripped from enterprise strategy while procurement supply chain should only be concentrated.

Table 2-1 The Difference between Traditional Purchasing and Modern Purchasing

Terms	Traditional Purchasing	Modern Purchasing
Key difference	Decentralization and manual management.	Integration and collaborative management based on IT and supply chain.
Decision-making	Objective, experience-based, ethic risk.	Management system.
Core purchasing activities	Lowest purchasing price.	Lowest total purchasing cost.
Purchasing function	Individual	Involved other functions.
Purchasing position	Low	Strategic level
Contribution	Low	High
Buyer-seller relationship	Opposite	Partner
Supply base	The bigger, the better.	The more concentrated, the better
Lead-time	Delivery on order or contract, often delay.	On time delivery.
Purchasing price	Design prior to quotation	Joint design by customer and supplier
Information sharing	Information sharing regularly, incomplete information practice.	On-line information sharing, complete information practice.
Information processing	Rely on manual process such as quotation, report, warehouse; high error rate.	Integrated all kinds of modern technology such as IT and ERP.
Negotiation	Win to lose	Win to win
Quality control	Not involving supplier quality control; irregular material quality; post check.	pre-control or in process control.
Market information	Poor	Rich
Working capital	More	Less
Supply risk	Production line down, high inventory.	Just in time
Contribution to operation cost	Low	High
Supplier qualification	Information asymmetry.	Complete information.
Cooperation	Short-term.	Long-term, strategic partners.
Purchasing efficiency	Low	High
Management	Much rely on people and physical resource.	Much rely modern technology.

Weele (2010) argued that the enterprises and society are more caring the procurement and supply chain than before. A good procurement and supplier relationship is very important to enterprises' development, competitiveness and performance improvement, and production control because the material cost purchased is accounting for more than 50% total finished product cost while the proportion is higher in trading industry. Moreover, good relationship with suppliers can make more contributions to the purchasing cost performance than the pure

cost saving. The researcher also argued that the enterprises, society and academics have not paid enough attention to purchasing function and position where the corresponding theories and research methods are relative less than other areas, obviously, it is lagging the development of enterprises and society.

Jiang, Yu, Peng, and Zhao (2003) proposed that the function and resource integration of purchasing based on supply chain is a very effective way to improve the financial performance of enterprises. Deming (2000), who proposed QCC model (Quality Control Circles) and PDCA model (plan, do, check and action), pointed out that the procurement is to develop and maintain a long-term stable cooperation relationship among strategic suppliers to reduce the supply cost and risk.

Toyota automobile has skillfully applied JIT, QCC, and PDCA in their production planning and supplier management, and quickly ranked top 3 biggest automobile manufacturers in the world with their very competitive cost and quality. JIT theory involves the purchasing order management, purchasing plan management, production management, logistics management, inventory management and cash flow management, which pushed the procurement function and theory to the peak time. Thus, many large modern enterprise groups have set up the CPO as per this theory to improve purchasing performance. Nie (2006) also argued and emphasized procurement plays importance role on company's cost.

Zhang (2011) defined the purchasing performance as the ability to purchase raw materials at low cost, and ensure timely, high quality, and correct quantity. At the same time both supplier and buyer play a key role in ensuring the quality and efficiency. From the perspective of enterprise relationship, the relationship between buyer and supplier can be considered as the source of competitive advantages. The relationship between buyer and supplier is experiencing a fundamental shift from the past transaction orientated to the current relationship orientated.

In Chinese business context, Guanxi or relationship often plays an important role in procurement and supply. Although this variable has been widely studied in the field of enterprise strategy research, it has not yet been fully measured in the field of procurement and supply. Through the regression analysis on a sample of 120 firms, Song (2008) argued the "Guanxi or relationship" is a very important factor in procurement activities and has an inverted relationship with the degree of supplier involvement.

In recent years, the green procurement and closed-loop feedback procurement theory has been presented in academic circle, which has to a certain extent to promote the healthful

development of enterprises.

## **2.2 Strategy and purchasing**

The strategy is defined as “Plans and directions to guide the overall situation of the war” by Modern Dictionary of Chinese-5th edition. In West, the word “strategy” derives from the Greek word “Strategos”, which means the military general and the local chief executive, and later it refers to the tactics of military generals to command the military operations.

Developing strategy for enterprises is to achieve the long-term and overall business objectives. The company has to effectively organize and utilize all kinds of resources and capabilities within the enterprise to adapt to the external environment conditions and guide the overall strategy and general policy of the whole business activities. Enterprise management has experienced three development stages from production management, business management, and strategic management. Production management is corresponding to the early simple seller market, and there is no objective condition for strategic management. With more and more manufacturers, the products in market become more in abundance and in variety. The market shifted from seller market to buyer market, which forced enterprises to focus on business management rather than production management. The business management of enterprises is centering on the market, considering consumers demand as the core activities, and marketing and production are developing in parallel. Business management is the prophase to strategic management, but business management does not emphasize competition. With the fierce competition among enterprises, the deficiencies of the independent operation and the poor coordination of various functional departments are becoming more prominent. Under such situations, the ideas of strategic management generated. The root-cause of the strategic problem is the change of the business environment which leads to the profitability reduction of enterprises.

Strategy itself is a way for enterprises to design the course of plans and actions in light of uncertainty under the dynamic business environment. Hill and Jones (2004) defined the strategy as “an action that managers take to attain one or more of the organization’s goal”. At the same time, the risk of strategy itself is also increasing. For most, if not all organizations, an overriding goal is to achieve superior performance relative to rivals. If a company’s strategy results in super performance, it is said to have competitive advantages. For example,

in early 1990s, “Michael Dell” recruited a number of highly experienced managers from some famous IT companies such as Gateway and IBM. Dell and these managers developed and pursued strategies that enabled the company to satisfy customers much better than its competitors did, and the given cost structure was also the lowest in the industry. In 2001, Dell took advantages of its low-cost structure, which was supported by the most competitive purchasing cost, to launch their PC such as laptop, desktop and server to the personal computer market and start the price war. Through their cost advantages and the superior lead-time, Dell was able to take significant market share from its competitors while remaining profitable. In contrast, both market share and profitability of Dell’s competitors significantly declined. Dell’s strategies produced superior performance from 1996 to 2001, thus Dell has had a competitive advantage over its rivals (Yang, 2003).

Strategic management has always been closely linked with market competition, which is centered about how to develop and implement competitive strategy to win the competition advantages. The evolution of strategic management is that the change of the regulation of market competition generated the thought and the formulated the basic framework of strategic management, which brought a lot of discussion on this framework by multi-schools till current grand integration. The revolution is from weak competition to fierce competition and the thought emphasizes on the cooperation and competition (Li, 2008).

The study of strategic management in Western sprouted in 1930s. In 1938, Chester Bamard (Yun, 2013), an American scholar, put forward the concept of “strategy” for the first time. In 1962, Chandler (1977) published the book “Strategy and Structure”, which started the research of enterprise strategy. In 1965, Ansoff (1965) made a big step forward for the research of enterprise strategy with his book “The Corporation Strategy”, and argued that the strategic structure was a controlled, conscious and formal planning process, and the task of the enterprise’s senior management was to make and implement the strategy plan. In 1971, Andrews (1984) clearly put forward the company’s strategy idea for the first time and combined the SWOT (strength, weakness, opportunity, and threat) analysis to formulate corporate strategy, meanwhile emphasized the senior executives should design corporate strategy and implement it by themselves. In 1972, Ansoff formally proposed the concept of “strategic management” which is the core stone for the study of strategic management theory. In 1976, Ansoff systematically discussed how to change the strategic plan to strategic management. In 1980s, Porter (1979) presented the “Five Forces Model” of the competitive strategy, three basic competitive strategies, and the value chain analysis tools in his studies



“competitive strategy” and “competitive advantage”, which formed the competition strategy theory of position school based on sectors and industry environment. Hereby, the analysis of the strategy will focus from enterprises to industry, and emphasizes the importance of the external environment, which effectively guides the enterprises' actual operating activities. In 1990, Prahalad and Hamel (1990) published their research thesis named “The Core Competence of the Corporation” as to try to break the internal “black box”, which started the strategic analysis and thinking combined the internal and external environments of enterprises. The modern industry cluster competition strategy, the cooperation and competition strategy, and the blue sea strategy have provided important theoretical guidance for the development of contemporary MNCs.

For enterprise strategy, different scholars have different views, the design school represented by Andrews (1984) emphasized the match between the internal and external resource and environment of enterprise. The planning school, represented by Ansoff, Declerck, and Hayes (1990), emphasized the formal and logical. The position school, represented by Porter (1979), emphasized the location and position of the firms in the industry and laid the foundation for the formation and development of the theory of strategic management. In the late of 1980s, a series of new schools emerged and summarized the main points of above three schools and 20 years' practical experience in West. These schools included entrepreneur school, cognitive school, learning school, power school, cultural school, environment school, resource school, core competence school, and integrated school. Designing school, planning school, and the position school are the mainstream schools, which has the maximum influence on the development process of the strategic management theory, however, the entrepreneur school, cognitive school, learning school, power school, cultural school, and environment school became the non-mainstream school because they were impacted by the Western non-rational thought since 1980s, the summary as table 2-2 in details.

#### 1. The design school strategy

The ideas of the design school are centered around the strategic concept, organization and strategy, environment and strategy, and the coordination and matching among these three items. Meanwhile, it is proposed that the basic process of strategic management is to formulate and implement strategy. Strategic formation should be a conscious, thoughtful process of thinking, and there must be a good reason to take actions (Li, 2008).

Andrews (1984) argued that only when managers are as thoughtful as possible to develop and formulate the strategies, they can really understand what they are doing. Strategy is to

match the strength and opportunity of a company, and correctly position in its environment to formulate the most important strategic factors that is to match the internal and external factors of the organization. The design school is recognized as one of pioneer strategic management school, it divided the strategy as the formulation and implementation phases. It also argued that strategy is developing the enterprises' core competence, and balancing between the internal and external of organization, which is called as matching process. Therefore, the famous SWOT analysis model is proposed, which is to analyze the environment of the enterprise through four aspects, i.e., strength, weakness, opportunities, and threats. The design school has divided the factors that affected the enterprises into two parts, one is internal factor and the other is external factors. The strengths and weakness are the internal analysis of an enterprise on itself. The opportunities and threats are external analyses of the external environment of enterprises. Through the analysis of internal strengths and weaknesses, external opportunities and threats, enterprises can find an optimal combination between inside and outside as enterprises' strategy.

Table 2-2 The Main Strategy Theories

Time	Representative theory school	Founder of theory	Representative thesis	Focus	School	Key ideas of theory
1950s	Theory of the Cognitive School Strategy	Clarkson and Simon	Administrative behavior	External	Non-main stream school	<ol style="list-style-type: none"> <li>1. The cognitive school regards strategic formation as a psychological process.</li> <li>2. The cognitive school believes that the formation of strategy is based on information processing, knowledge acquisition and conceptual cognition process.</li> <li>3. Finite rationality and satisfaction criteria for decision making.</li> </ol>
1960s	Theory of the Learning School Strategy	Lindblom	Strain strategy: logical gradualism; The Failures of Economics: A Diagnostic	External	Non-main stream school	<ol style="list-style-type: none"> <li>1. The learning school regards strategy formation as an emergency process.</li> <li>2. Strategy is</li> </ol>

			Study			
						formed through gradual learning and natural selection, and can emerge on the organization, and the formation and implementation of strategy are intertwined.
1970s	Theory of the designing school	Andrews	Business Policy: Text and Cases; Corporate strategy: the essential intangibles	External	Mainstream school	<ol style="list-style-type: none"> <li>1. The strategy should be determined and consciously decided and adapted to the management.</li> <li>2. SWOT model</li> </ol>
1970s	Theory of the planning school	Ansoff	Corporate strategy	External	Mainstream school	<ol style="list-style-type: none"> <li>1. The formation of strategy is a controlled, conscious and standardized formal process.</li> <li>2. Product market matrix (Ansoff Matrix).</li> </ol>
1970s	Theory of the Entrepreneur School Strategy	Drucker	Innovation and Entrepreneurship	External	Non-mainstream school	<ol style="list-style-type: none"> <li>1. Strategic formation is a process of prediction.</li> <li>2. The process of strategic formation is a process of intuitional thinking and inspiration.</li> <li>3. The most important concept of this school is the vision, which comes from the head of the leader and is a manifestation of the thought of the strategy.</li> </ol>

1970s	Theory of the Configuration on School Strategy	Chandler	Strategy and structure; The visible hand: The managerial revolution in American	Internal & external	Non-main stream school	<ol style="list-style-type: none"> <li>1. The structural school regards strategy formation as a process of transformation.</li> <li>2. The structural school regards organizational structure as a structure consisting of a series of behaviors and characteristics: taking strategy formulation as an integration - a system integrated by various schools' viewpoints.</li> </ol>
1980s	Theory of the position school	Porter	The competitive Advantage of Nations.	External	Mainstream school	<ol style="list-style-type: none"> <li>1. Regards strategic formation as an analytical process.</li> <li>2. Five force model.</li> <li>3. Boston matrix.</li> <li>4. Value chain.</li> <li>5. Three kinds of strategy.</li> </ol>
1980s	Theory of the Power School Strategy	Salancik and Pfeffer	The external control of organizations; Who gets power-and how they hold on to it: A strategic-contingency model of power	Internal	Non-main stream school	<ol style="list-style-type: none"> <li>1. The power school regards strategy formation as a negotiation process.</li> <li>2. Strategy formulation should not only pay attention to economic factors such as industry environment and competitive force, but also pay attention to political factors such as interest groups and power sharing.</li> <li>3. Although the organization is obviously restricted by the form and environment, it has the opportunity to</li> </ol>

						do its own business.
1980s	Theory of the Cultural School Strategy	Waterman, Peter, and Philips	In Search of Excellence; Structure is not organization	Internal	Non-main stream school	<ol style="list-style-type: none"> <li>1. The cultural school regards strategy formation as a process of collective thinking.</li> <li>2. Enterprise strategy is rooted in the organizational culture and its social values behind it.</li> <li>3. Its forming process is a process of integrating various beneficial factors in the enterprise organization to play its role.</li> </ol>
1980s	Theory of the Environmental School Strategy	Hannan and Freeman	The Population Ecology of Organizations	External	Non-main stream school	<ol style="list-style-type: none"> <li>1. Adapt to the outside environment.</li> <li>2. The view of iron cage.</li> </ol>

The design school has made great contributions to the development of strategic management theory, especially the “SWOT” model proposed, which fully reflects the importance of internal and external relations regarding the strategy formation. However, the design school divides the strategic management into two static stages, which separates the process of formation of the strategy.

## 2. The planning school strategy

The planning school is proposed by Ansoff (1965) in his book “Corporation Strategy”. Based on the study of diversified enterprises, Ansoff put forward the “four strategic factors”: (1) product and market scope, which determined the enterprises in the product and market position in the industry; (2) the growth vector, the direction and trend of enterprise management; (3) synergistic effect, the effect of the resource on return is greater than the combined result of the company’s resources created by the individual resource, i.e.,  $2+2>4$ ; (4) competitive advantage is a special factor that enterprises and their products and markets have a strong competitive position, which are different from their competitors. The planning school

argues that: (1) strategic formulation process should be a controlled, conscious, and formal process. This process can be divided into several major steps, each of which takes into account a large number of factors and various techniques; (2) the main executives are responsible for the whole process; (3) it is necessary to clearly clarify the strategy formed by this process in order to implement the objectives, the budgetary procedures, and the various operational plans.

The requirements for formal analysis by planning school makes it more suitable for a more stable environment and simpler organization. Planning school pursues the maximum regular and systematic strategic decision, and later the further combination of the theory and practice has concluded such as experience curve, growth share matrix, market share and profitability related concepts, and research methods, which greatly enriched the strategic management theory. The strategy is planned or not is the question. It is possible to “plan” strategy through the formal process and various complex technologies but both external environment and internal capabilities are difficult to plan. The plan developed and budgeted has been highly focused, and the actual activities created by strategy have not been taken seriously. Therefore, the strategic planning usually comes down to the digital game controlled by behaviors, which is almost completely not related to strategy.

### 3. The position school strategy

The positioning school is mainly proposed by Porter (1990) in his studies “How competitive forces shape strategy” and “The competitive Advantage of Nations”. Porter made use of the study method of economic into the strategic management and put forward that the strategic objective of enterprise is to obtain above average profits. However, the profit made by enterprise is fundamentally depending on the industry’s profitability as well as the position of the enterprise in the industry. Porter presented “Five forces model” and the analysis method of value chain for competition analysis in the industry. At the same time, Porter also put forward the method that enterprises choose the best position in every industry. The positional school presents that two aspects must be done in the process of making strategic decisions: (1) the structural analysis of the industry where the enterprises are; (2) the competition analysis of relative position the enterprises in the industry. The position of a company determines whether its profitability is higher or lower than the average level of the industry. The enterprise of right strategy can still obtain a higher profit though the industry is not ideal and the average profitability is low.

Enterprises can combine the specific situation to choose appropriate strategies to enhance

or weaken their competitive position in the industry. This school is more focused on the research of strategic content, differentiation, integration, and low cost. When making strategies, a priority order of analysis is given so that enterprises can systematically investigate opportunities and threats they faced in the industry, and rationally choose the applicable strategies. The position school has firstly shifted the focus of strategic analysis to external industry that emphasizes the importance of external environment. However, its deficiency lies in the fact that enterprises ignore the importance of internal resources, competence and core competitiveness, and put a lot of energy into the choice of industries.

#### 4. The entrepreneur school strategy

Drucker (1969) presented the entrepreneur strategy and considered the strategic formation as a process of prediction. The most important feature of the entrepreneur school is to emphasize the importance of the enthusiasm of the leaders and the intuition of strategy. The core concept of this school is the vision, which is generated by leaders' minds, and the view of entrepreneurs for the future development of enterprise rather than a detailed plan of words and figures. A strategically discerning entrepreneur is the key to an enterprise's success. It can make a company success in a certain environment, and it does not necessarily achieve the same success in another enterprise or another environment. Therefore, if an enterprise has a business difficulty, the best way is to change a new intuitional leader.

The entrepreneur school overemphasizes the individual competence and vision of the entrepreneur, which makes the gamble on the instincts and health of the entrepreneur. The formation of the strategy is completely in the mind of entrepreneur, and also has not the strategy of formal, written, easy to learn and express. It stressed the strategic direction but ignored the specific implementation details, which often cause confusion and inconstant in policy if the incumbents perceive differently. The entrepreneur strategy well explained the development of some POEs of Chinese such as Wahaha food group company and Chint engineering group company. They started in the relatively simple environment in early stage of the reform and opening-up in China and the companies made rapid growth with their leader by unwritten strategy. However, it is difficult to explain the development of modern enterprises without formal written strategy, especially the development of MNCs in East-China.

#### 5. The cognitive school strategy

Clarkson and Simon (1960), the representative of the cognitive school strategy, argued that the formulation of enterprise strategy is not only a process of rational thinking but also

including more irrational thinking factors. The cognitive school believes that the formation of strategy is based on information processing, knowledge acquisition, and conceptual cognition process, in which the latter is the most direct and important factor of strategy generation, and at that stage, it is not important to make significant progress in any stage.

Facing the constraint by a large number of genuine and sham information, data and time, the non-rational thinking can play an important role in the strategic decision. In the view of the cognitive school, the environment of the strategists is complex and this complexity restricts their cognitive ability. The information that the strategist can obtain is very limited and the information has the possibility of being distorted, thus the strategic process may also be distorted. As strategist is often not in the first line of the basic business activities, the change of strategy will often be delayed. Because the strategy has the dependence on individual awareness, the strategic styles among the different strategies will be various.

The main deficiencies of the cognitive school strategy limited the understanding of the strategy to the scope of a small number of people, and the other members of the organization excluded can often result the insufficient information, information lag, time delay, the resistance to reform, and other issues.

#### 6. The learning school strategy

The learning school, represented by Lindblom (1956), argues the environment is complex and unpredictable. The learning school thinks the differences between the learning school and other schools is it is impossible to adopt rationalism methods to develop effective strategies but the effective strategies are formed through progressive learning and natural selection, which can appear in whole organization, and the formation and implementation of strategy are intertwined with each other. Thus, a new strategic model would be developed through the learning by enterprises. If this strategic model is suitable for these enterprises, it will promote the enterprises' development while the enterprises will be eliminated by the market if the developed strategy through learning is not suitable for the enterprise itself. The learning school believes that the complexity of the environment is far beyond the imagination of people. It is impossible to predict at all. If it is impossible to predict, then it is impossible to analyze the environment. If an enterprise wants to survive, it can only learn in the environment.

The key points of the learning school are: (1) the natural selection view. The environment where the organization is located is strong and unpredictable, and any comprehensive strategy is difficult to cope with. It is difficult to adapt only by plan, and the



organizations has to react; (2) logically progressive view. The organization and environment are very complex, strategists can not develop a comprehensive strategic plan for enterprises but should adopt a “logic gradualism”, that is to say the senior executive person should first determine the future development goals of their organizations and then increase the new business scope to achieve the goal through the continuous core business adjustment; (3) cultural and political views. Organizational culture, as a shared belief or organizational character formed by many individuals, will dominate the strategic decisions of managers, and it is difficult to change quickly. The political factors in the organization will lead to the different decision makers of different political groups to make strategic decisions based on their respective interests; (4) the idea of imagination. Some rational analytical methods and skills are difficult to take effect when dealing with changes in the internal and external environment, especially when the external environment changes intermittently.

#### 7. The power school strategy

The power school, represented by Salancik and Pfeffer (1977), argues that the formation of strategy is a process of negotiation and conflict, which reflects the intention of the strong groups in the organization. And, this school also presented that strategy formulation should pay attention to not only economic factors such as industry environment and competitive force but also political factors such as interest groups and power sharing.

It is undeniable fact that there are many interest groups in an enterprise. The power structure of the organization is formed because of the different influence on enterprises power by these groups with different interest. Which interest group will dominate when the strategic decisions of these interest groups conflict each other? Besides rational opinions, it is more related to the influence of the different interest groups on the leadership in the organization. And the greater the influence on the organization's leadership, the greater the probability that the group's interest will be adopted. However, it is impossible to fully consider one group's interest and completely ignore others' interest when enterprises formulate the strategies. Instead the enterprises must reconcile and balance the interest of each power group. The power influence may be either from the inner enterprise or from the political power of the external environment. The power activity is more active when the environment is changeable and the enterprise is unable to formulate a strategy with clear direction. The organization will lose the cohesiveness if the interest group has insufficient influence for strategy alignment.

#### 8. The cultural school strategy

The cultural school, represented by Waterman, Peter, and Philips (1980), argues the

strategy formation is a process of collective and group thinking, and cultural school encourages to maintain the existing strategies and oppose the change of strategy. The cultural school argues that the corporate strategy is rooted in the organizational culture and its social values. Its formation is a process of integrating various beneficial factors in enterprises. Organizational culture is the spiritual world of an organization or a common belief that has become a tradition and habit, as well as a variety of more explicit forms such as stories, symbols, even buildings, and products. In a sense, culture represents the vitality of the organization and also represents the soul of the organism.

Culture is very important for organizations. Organization is the collection of individuals, but in the market, it should be organized as a whole to run. How to integrate the individuals with different backgrounds and goals is always a difficult problem for managers. Generally speaking, there are two methods, one is the rules and regulations of the enterprise, and the other is the enterprise culture. Rules and regulations are preventive measure to stop members from being harmful to organizational behavior while corporate culture enables members to contribute their strength to organizations' development. Therefore, the power of culture is stronger than the strength of rules and regulations. The relationship between culture and strategy is a bit similar to the structure and strategy, just like two legs of human being. The cohesion among the organization's members can promote the implementation of the strategy, and the consistency of the strategic target can enhance the cohesion among the members of the organization. Therefore, from the strategic management views, the culture is an important internal factor in strategic management.

Although the corporate culture is undoubtedly playing a crucial role in enhancing the cohesion of the enterprise and improving the motivation for employees, but how to transform this kind of invisible cohesion among the members of the organization into the specific strategy in the process of organization development was not answered and described by the cultural school.

#### 9. The environmental school strategy

The environmental school, represented by Hannan and Freeman (1977), argues the strategy formation is a process of reaction. The environmental school completely puts the factors that affect the enterprise strategy from the inside of the enterprise to the outside of the enterprise. The environmental school emphasizes how enterprises can survive and develop in the environment, and the role it plays to make people pay attention to the environmental factors. Environment, displaying itself as an integrated force to the organization, is the central

role in the process of strategic formation. Enterprises can only passively adapt to the environment and can not formulate the strategies at all. Organizations must adapt to these environmental forces otherwise they will be “eliminated” by market. Therefore, the leadership has become a passive factor, which is responsible for observing and understanding the environment and ensuring that the organization is fully adapted.

The environmental school argues that the environment is unpredictable, and completely pass the initiative of the strategy development to environment. Whether the enterprise can survive or not is entirely depending on the environment. Thus, the question is the enterprises adjust the strategies according to the environment change or not? If it is, then it is contrary to the conclusion of the environmental school that the enterprises can not formulate a strategy; if it is not, then where is the motivation to adapt to the environment through their own adjustment? The environmental school does not give a good explanation for this question. The view of the environmental school is too one-sided. The environment is not un-predictable though the environment is much complex. Moreover, the small enterprises have not the power to change the environment since the monopolies can completely influence their industries and markets through their own competence. Although enterprises may be influenced by environment in their early development stage, they can completely affect the environment and even change the environment once they attained to a certain scale.

#### 10. The configuration school strategy

The configuration school, represented by Chandler (1977), argues the formation of strategy is a process of change. The configuration school considers the enterprise strategy should be defined from two aspects to truly reflect the nature and characteristics of the enterprise strategy, and also considers the strategy formulation as an integrated system by the viewpoints of various schools. On one hand, strategy needs to be stable in a certain period to form a structure that needs to be understood from multiple perspectives. On the other hand, strategic transformation is interspersed with a series of relatively stable strategic states, thus the strategic framework also needs to be changed. The configuration school provides a way to reconcile different schools. It argues that different schools have their own time and location, which brings order to strategic management research.

Above are the key theories of Western strategic management in the past, and some of them are still playing the important roles in guiding the enterprises' development, especially the MNCs and their subsidiaries in East-China. However, with the rapid development of science and technology, especially the development of IT, the environment and survival

pressure of enterprises are bigger and bigger. The enterprises urgently need the support and guidance by new strategic management theories. Therefore, the contemporary strategic management academia has summarized and proposed a series of new strategic management theories such as the core competence school, the strategic resource school, the cluster school, the cooperation and competition school. These new strategic theories have a profound impact on the development of enterprises, especially for the MNCs.

#### 11. The core competence school strategy

The core competence school, represented by Prahalad and Hamel (1990), argues that the core competence of the enterprises is the source of sustained competitive advantages. And the ability of enterprises to maintain the competitive advantages comes from within the enterprises. The strategic management is to discover and utilize this competence so that enterprises can have competitive advantages in market. But in fact, the core competence school pointed out the main features of the core competence of the enterprises can not be imitated by competitors when they define the concept of the core competence. Obviously, the core competence of an enterprise benchmarks with the competitors within the same industry. That is to say the core competence theory considers the core competence of enterprises is from inside of enterprises but enterprise has to consider the competitors when they develop their core competence. Generally speaking, the external reference can be divided into three categories, one is the competitors in the same industry where the core competence of the enterprises can not be imitated by competitors; The second is the enterprises' consumers, the core competence of enterprises must help enterprises to maintain and expand their target consumer groups; The third one is the industry characteristics of enterprises, but it is also different for enterprises in different industries. Therefore, the view of core competence school can be only partly correct. That is to say enterprises should develop their core competence inside while in the training process enterprises need to consider some external factors.

The core competence of the enterprise is the organization's learning ability, especially the ability to coordinate various production skills and integrate a lot of technology flow. Integrated all enterprise business into a unity is the source of sustainable competitive advantages for enterprises. In the understanding of the root of enterprise competition, the core competence strategy considers the core business strategy of enterprises is not the product or market structure but its behavior in response ability, and the strategic goal is the ability to identify and develop which is difficult to imitate by competitors; the competence is from the learning, experience sharing, values transferring, and the communication each other; for the

enterprises' competitive strategy formulation and implementation, it emphasizes the internal environment analysis and the ability to understand its structure; the strategy implementation and the core competence formulation and maintenance can win the competitive advantages and obtain outstanding achievements (Rao, 2009).

Though the strategic management view was shifted from the position theory to the core competence view, that is to say it is from the outside to the inside of the enterprises. However, the deficiency of the core competence theory is also obvious that it ignored the external environment factors.

## 12. The strategic resource school strategy

The strategic resource strategy, represented by Colis and Montgomery (2011) and their book named "Corporate Strategy-A Resource-Based Approach", emphasizes the incompleteness of the market factors. And it presented that the enterprises can not be imitated, difficultly copied and the resource that can not be completely transferred are the resource to obtain the sustainable competitive advantages for enterprises. The core idea is the enterprises' competitive advantages is based on enterprises' unique resource and the resource allocation mode in a specific environment. If the enterprise has the unique and valuable resource, then the enterprise will have a certain monopoly position in market based on the resource holding view, which may result them sustainable competitive advantages so as to obtain the long-term super-profits. According to the views of Colis and Montgomery, the enterprises' resources include three types, i.e., tangible assets, intangible assets, and organizational capabilities. They argue that the assessment of the resources value should be placed in the same industry environment and benchmark them with the resources their competitors owned so as to address their advantages and disadvantages. Thus, the three standards of resource evaluation, the value, scarcity, and inimitability, are proposed (Wang & Wang, 2007).

The resource which is proposed by resource school is a broad definition of resources, which may be from the inside of enterprise or may also come from the outside of the enterprises; it may be the tangible resources or also the intangible resources of enterprises; it may be the unique human capital of the enterprise or the very special geographical location, or even the government's policy to protect domestic enterprises. The intangible resource proposed by the resource school is a kind of competence resource, and it is the ability for enterprises to use the tangible resources. In the view of the resource school, only the reasonable combination of the intangible and physical resources of the enterprise can make the enterprise formulate the best strategy.

The current theoretical research and development trend is to mix and include the views of the various schools of strategic management. The essence of strategic management is an arduous system engineering. With the increasingly complex environment and more fierce competition, the enterprises need to strengthen the long-term overall business activities management. The combination and study on external situation and internal characteristics will promote the development of strategic management theory to further break the limitation of various theories and gradually integrate various advanced concepts and ideas to form a unified and rigorous theoretical system. Undoubtedly, in twenty-first century the research trend of strategic management will be from single strategy to systematic strategic management research, from exogenous variables research to endogenous variable research, and from static strategy research to dynamic strategy research trend, which opened up a new field for strategic management research.

With the increasingly fierce international competition background, it is important how MNCs, especially their subsidiaries in East-China, develop and catch up the global strategic opportunity and integrate the resources has become an important factor to determine their competitive advantages. These changes continuously promote the capital, technology, and knowledge to flow globally, and at the same time it also greatly accelerated the process of globalization. Furthermore, it directly changes the location advantages and the elements of industrial form in developing countries. The connotation of global strategy also shifted from simple cross-country operation to how to build and manage the global flow of personnel, capital, and technology in the global value-added system. The competitive position of enterprises in a country is often affected by the competitive market in other countries. The focus of the global strategy of enterprises lies in how enterprises realize their global business through the competitive market in different countries and the cooperative effect through the cost and resources sharing to establish its competitive advantages.

### **2.3 Purchasing management**

Tullous and Munson (1992) defined the purchasing criteria as quality, price, technical service, delivery reliability, and lead-time. Tullous and Munson argued the importance of the quality, price, technical service, delivery reliability, and delivery lead-time in comparing suppliers is acknowledged in both practitioner and academic publications. The pretest for interviews also indicated the frequent use of these criteria and price is the most important one among these factors.

After studied the factors that impact the procurement performance improvement of suppliers, Han and Zhu (2007) proposed the purchasing criteria model as quality, cost, and delivery, i.e., “QCD” model, and argued enterprises must carefully consider and balance these three factors for purchasing activities as to maximize the smooth operation and total lowest cost of enterprises.

Benton (2010) studied the purchasing strategy and purchasing criteria, and suggested that purchasing is very important for MNC's cost and operation. In most industrial units, raw material account 60-80 percent of MNC's total sales revenue. Purchasing cost can strengthen MNC's competitive advantages over its competitors. The competitive priorities determinate the MNC's competitive advantages and strategy. The competitive advantages, i.e., delivery speed and reliability, are operational in term of cost, quality performance, quality conformity, product flexibility, volume flexibility, and customer service. The criteria in buying material reflects MNC's competitive priority and its competition on cost must give high priority to purchasing costs while the lead-time will be the high priority for flexibility. Purchasing price variance (PPV), is the key criteria to assess the performance of the purchasing decision makers, which may drive the purchasing decision makers to take more aggressive actions on PPV performance so as to make the material cost as low as possible. Thus, the purchasing criteria for competitive purchasing cost will be cost, quality, lead-time, and delivery.

Weele (2010) argued the high quality products or components can only be manufactured if the whole manufacturing process is in full control, i.e., the quality of good final product is coming from the full control on raw material quality and manufacturing process quality; the role and the importance of the purchasing influence the purchasing results, i.e., order backlog, lead-time, the number of order issued, the number of requests for quotation issued, the number of complaints, and total purchasing cost saving. However, putting too much pressure on merely purchasing price may seduce buyers to buy “penny wise and pound foolish”. It looks like that the demands on lower prices appear always to be met by suppliers to the detriment of material quality and delivery reliability. Therefore, the purchasing cost reduction management also extend the interesting in raw material quality improvement, raw material inventory reduction, payment term improvement, lead-time reduction, and delivery reliability improvement. The superior cost reduction, superior supplier delivery, superior quality, superior lead-time, superior payment term, and superior inventory are concluded as the purchasing performance evaluation, i.e., purchasing criteria.

Managerial resources are very important for purchasing cost as followings.

Each partner on supply chain has different competitive advantages such as resources, capabilities, and know-how, which caused one enterprise is unable to control and manage the whole chain. Most enterprises realized that establishing a good strategic alliance relationship between upstream and downstream is very important and the final objectives of such alliances are often able to solve urgent problems to meet the partners' requirements, as figure 2-1 in details.

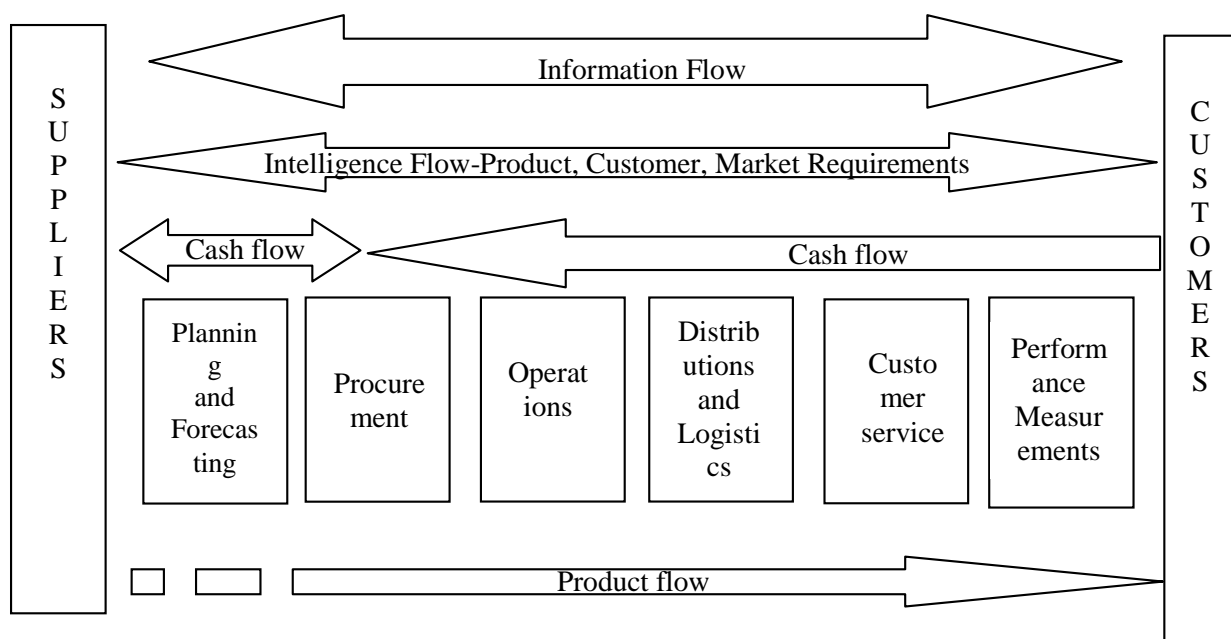


Figure 2-1 The Supply Chain Model  
Source: Hutt and Speh (2004)

After 2000s, many firms consider the suppliers resource as one of their key competition advantages. Cooperating with selected and qualified strategic suppliers will be the purchasing behaviors to underpin corporation's performance. Supplier qualification, design involvement, strategic partnership development, and information sharing are the new key value-creation points for integrated supply chain management and modern purchasing organizations (Handfield *et al.*, 2010).

Augier and Teece (2009) studied the role of manager in business strategy and economic performance through three dimensions, i.e., cognition, social capital, and human capital, to indicate the role of manager played important role in business activities and proposed MNCs should pay close attention to it as to achieve a better cost and profit performance within China.



The managers play key role in management resource allocation in MNCs' subsidiaries, and managers also play an essential role in both identifying and capturing new strategic opportunities, and in inventing business models and new organizational forms. The managers can bargain, negotiate, buy or sell or swap investments or assets, organize and transact internal and external resource, and design and implement new business models. Managers can sense and seize strategic opportunities to transform and reconfigure them as opportunities and competitive forces dictate. Thus, the manager could help to set the goals, evaluate the opportunities, set culture, build trust, and play key role in strategic decisions making.

Helfat and Martin (2015) further studied and identified the managerial resource that impact on strategic change, i.e., three core underpinnings of dynamic managerial capabilities provide the capacity to direct strategic change: managerial cognition, managerial social capital, and managerial human capital. Helfat and Martin argues that the managers of MNCs with superior dynamic managerial capabilities can make the strategic changes more successfully in MNC than those of less effective managerial capabilities. The dynamic managerial capabilities may affect not only the internal attributes of MNCs but also its external environment. Managerial cognition consists of mental models and beliefs, i.e., knowledge structures; mental processes or mental activities, i.e., attention, perception, reasoning and problem solving, language and communication; emotions, i.e., management and modification of one's own emotions. The knowledge structures influence managers' biases and heuristics that come into play in anticipating market changes, understanding the implications of different choices, and ultimately taking actions. Moreover, Helfat and Martin indicated managers have difficulty transferring their knowledge structures from one context to another. Managerial social capital consists of goodwill derived from both formal and informal relationships with others to obtain resources and information. The senior executives with super power in internal social network may confer power over resources in seizing opportunities, and may facilitate alterations in personnel, organizational structure, and physical assets involved in reconfiguration. Organization would be unable to acquire, recombine, and release resources without the social capital of individuals. Human capital refers to that individuals develop through their prior experience, training, education, knowledge, learned skills, general intelligence, personality, values, and interests. All of these forms of managerial human capital can be beneficial to enterprises. Human capital may not direct create value for organizations, but managers can draw on their knowledge and expertise to sense opportunities and threats, seize opportunities, reconfigure organizational resources,

capabilities and structure to benefit their companies. Managers with different industry background will offer different judgement or decision based on the same information, which will result the different opportunities. Human capital also considers that the individual manager and team may have a positive impact on firm performance.

Ma, Gabriela Silva, Callan, and Trigo (2016) presented, in China, the retention of highly talented professionals and skilled employees become major challenge. Chinese employees in MNCs will have more positive perceptions of the HR practices of their companies, the tenure and job functions were significantly and positively related to turnover intentions in MNCs. The investigated results show that respondents in MNCs hold significantly more positive perceptions, which is a higher level of job satisfaction and lower turnover intentions than those in local Chinese firms. There is an evidence that MNCs are perceived to be much more attractive to employees in their HRM (human resource management) practices. When these people leave MNCs to pursue careers in other firms, they will naturally transfer the HRM “best practices” from their previous employers to new firms which could bring significant benefits, i.e., economic capital or purchasing cost related.

Managerial cognition, social capital, and human capital have not only separable influence the purchasing strategies but also interact with one another. Managerial cognition affects the development of human capital by influencing the search for information during education, training, and working experience. Social capital also affects human capital through the knowledge that managers obtain from their social relationships. Human capital affects managerial cognition. Managerial human capital may also affect social capital. Social capital may affect cognition and vice versa.

Language constructs not only the necessary meaning grid for society but also constructs and dredges the necessary grid of power relations for social operation, which makes the whole society as rich and diverse human life community in the process of linguistic communication, exchange, and competition. The usage of language is the essential intermediary factor of the most complicated daily life, economic, political, religious, and cultural activities in human social activities. Bourdieu (1991) presented that society is the market of linguistic exchange. The verbal exchange between people and groups in society is not only the relationship of conversation between them, the communication and exchange of opinions between them, but also the comparison, adjustment and competition of power relations between them, and the social position, power, talent, capital and knowledge of different speakers (Gao, 2002).

Bourdieu (1991) believes that economic capital, social capital, and cultural capital will transform each other, and closely linked with linguistic capital. All kinds of capitals must rely on linguistic capital as an intermediary to connect the whole society and also have to rely on the linguistic capital for exchange. As a kind of exchangeable economic capital, linguistic capital is shaped by the market rules formulated by market institutions. Linguistic competence is cultivated not only in market exchange but also trained by schools and educational institutions. People who master different capital will have different educational opportunities, thus they also have different linguistic abilities which formulated their personal capital. If the language becomes official language, its marketability will become more explicit. Linguistics skills can display and create objective power in the market of linguistic exchange and present the total amount of capital of linguistic users in varying degrees. Linguistics skills also determine the social position of linguistic users and the various capital advantages they derive. Mastering official languages means the potential to play a dominant role. That is to say, whoever mastered the official language has a potential power advantages within the scope of the official language. The more skilled and refined the official language is, the greater the possibility of mastering the potential power advantages has (Gao, 2002).

Understanding the rules of linguistic exchange in market can take initiative in linguistic exchange. The exchange of linguistic between people is like the commodity market and the words of the speakers' must have a certain price on the spoken words if they are to be accepted by the listener and act in accordance with the words, just like the commodity must have a certain value. And the listener could calculate the most valuable words of the various words and then choose the most valuable words for him in the linguistic exchange market to do things or make necessary reactions.

Zhu (2017) argued the language, as one main and most basic but vital factor to work in MNCs, plays an extremely important role in analyzing social action of the informants and language is always the first problem for procurement staff, particularly Chinese staff, who were not born in the language environment of the native country of MNCs. Language is not only a mere competence but also a sort of capital that support procurement staff could well work in MNCs. The linguistic capital means the people, with good education background, who could speak several foreign languages may help them to apply a good job at a MNC which pays well.

Weisberg (1996) proved that employees' education background, i.e., general human capital, and working years, were positively related to job performance; Hatch and Dyer (2004) found that human capital is an important source of sustainable competitive advantage for

enterprises; Colombo and Grilli (2005) studied the data of 506 high-tech enterprises in Italian manufacturing and service industries and presented that the working experience of the entrepreneurs was an important human capital of the enterprise which helped to promote the growth of the enterprises; Zhao (2007) argued there was a positive correlation between human capital and enterprise performance. The management experience of core employees was positively related to the market value of the enterprise and the education level of the employee's is positively related to the return on assets, the return on sales and the productivity. Deng, Huang, Zhang, and Zhou (2012) studied the human capital through the empirical analysis on the 60 listed companies and concluded human capital is positively related to enterprise performance. Shen (2013) took the managers as the research objectives to conduct an empirical study of managers' cognition and concluded that the social cognition of entrepreneurs had a significant positive impact on corporate performance, and there also were significant positive effects on corporate financial performance and non-financial performance.

Hayton (2003) argued that strengthening human resource management activities can promote employees to more actively work, more knowledge sharing, and organizational learning, thus significantly improve the corporate performance; Shrader and Siegel (2007) proved the fact that team experience was really correlated with the realization of enterprises' strategic objectives, especially for the differentiated strategy; Crook *et al.* (2011) carries out an empirical analysis on the relationship between human capital and enterprise performance in 66 SMEs, which resulted that the human capital is strongly related to the enterprise performance, especially the relationship between untradeable human capital and uncontrolled operational performance is stronger; Suo and Li (2015) made empirical research and concluded that education investment of human capital has a significant impact on corporate performance, more human capital investment, more beneficial to the improvement of enterprise performance, especially the improvement of enterprise operation performance and growth performance. Selected 223 manufacturing enterprises listed in stock exchange of Shanghai and Shenzhen in China from 2010 to 2014, Li (2016) studied the relationship between managers' cognition, which included the external environment cognition and internal condition cognition, and enterprises' performance and concluded that the cognition of managers has a significant impact on enterprises' performance.

The relationship emerges together with the human beings' evolution; the society emerges together with the relationships occur; the relationship management emerges together with the relationships occur, these three elements are inseparable. As an important part of human social

practice, relationship begins with the human civilization and the practice of relationship management has been appeared in ancient times. The relationship is closely linked with people, and people are always living with all kinds of relationships, the real study has only started in the latter half of the twentieth Century. Human is the main body of the relationship management and also the object of relationship management (Ju and Hu, 2006).

After the two World Wars and the Great Depression in latest 60 years, the interpersonal relationship and relationship management has achieved rapid development as promoted by various factors, and the interpersonal relationship tends to more globalization. Yang (2003) put forward that the relationship circle is every people is surrounded by many circles, the first one is his heart circle; the second is his parents, wife, and children which forms the family circle; the third is the grandfather, uncle, nephew of the family circle; the fourth is the circle of friends subsequent the supervisor-subordinate, neighbor, city, country. The study of relationship management is people-centered, between people and people, between the organization and its inside, and between country and its inside; public relationship management focuses on the communication activities of a social organization to comply with certain norms and guidelines for achieving two-way communication with the expected public; interpersonal relationships mainly study the behavior of individuals.

Morgan (1998) proposed the relationship capital and pointed out that the enterprise's external market or customer relationship in all relationships should be regarded as the most important relationship capital. The external market relationship accounted for much proportion of the relationship capital, the external market relationship will have a direct impact on market competition and investment, and the nature of the relationship capital determined the routine management and business should be re-examined.

The core of the classical management theory is to achieve the organization goals and the real "relationship management theory" comes from the modern classical management theory. Taylor integrated the traditional management experience of U.K. and U.S. in nineteenth century and put forward the general scientific management principles based on a lot of facts tested in factory. This is the initial stage of relationship management, however, the academic scholars did not evaluate the corresponding achievements at that time (Guo, 2002); Mayo proposed the interpersonal relationship theory, one traditional management branch. Mayo used scientific experiments to confirm the importance of interpersonal relationship to organizational vitality. This theory began to turn to attention to human being and started the study of behavioral science; Then, the theory of the human beings' hierarchy needs by

“Maslow” is more prominent the study of human emotion and belonging, which greatly put forward the interpersonal relationship management (Ma & Sun,1991). These theories are still useful for MNCs which tend to run their business in China.

MNCs will face double changes in the geographical environment and social environment when they began to run their business in China. Due to the great different environment between MNCs' native country and China, the facts have also proved that MNCs use most different practices within their native country to deal with many relationships in China. When a MNC faced the regulation pressure in its home country, it does not often comply with the pressure of stakeholders. Instead, it often transfers the corporate business practice of misconduct social responsibility to the host country where its subsidiary is located. Liu (2016) pointed only when MNCs really deal with all kinds of relationships can they exert the greatest positive influence on the society, and at the same time, get the most substantial and lasting business interests. In future, with the economy development of China, MNCs' subsidiaries in China will have to deal with all kinds of relationships, including social responsibility, as a key for their future survival and development otherwise the operation of MNCs in China will often be in trouble or even fail.

In General, positive relationships often have positive outcomes and negative relationships result negative ones. However, Shimul and Naomi (2015) studied workplace relationships and pointed out the “ambivalent relationships”, or love-hate relationships, were characterized by tension and conflict and involved both positive and negative feelings towards the other person. Their studies argue the love-hate relationship is more benefit for people and their work because people are more likely to put themselves in the other person's shoes, in part because people spend more time on trying to understand what the relationship means. Also, because these relationships make people feel uncertain about where they stand, people are more motivated to work harder to establish their position.

Doney and Cannon (1997) argued the trust of the supplier firm and salesperson influence a buyer's anticipated future interaction with the supplier. However, after considered previous experience and supplier performance, neither trust of selling firm nor its salesperson influence the current supplier selection decision. The high-level trust relationship can enable both customers and suppliers to focus on the long-term benefits, which may make the competitive advantages and reduce the transaction costs. Akbar, Bill, and Vincenzo (1998) also argued the interpersonal and interorganizational trust will always influence the negotiation process and the performance though it is difficult to get the precise insight. The interpersonal trust is not

playing direct role to influence the negotiation process and performance but it can influence them by influencing the interorganizational trust.

Kulmala (2004) argued the customer-supplier relationship has significant influence on the cost customers could achieve. Cost information transfer and utilization depended on the balance of the power between firms, on the trust between interpersonal, and on the volume of firms' mutual business. Kulmala also indicated that the suppliers that have good relationship with a customer, are likely to reach win-win situation, or do not have exclusive position as a supplier are ready to openness, this is very important for firms to deduce the total cost in supply network.

Johnson, Klassen, Leenders, and Awaysheh (2007) presented the enterprises must have the ability to manage the external relationship which includes the ability to effectively use the e-commerce technology rather than just making investment in technology to obtain the relationship rents. In fact, interorganizational relationship belongs to the category of intangible resources. With the fierce competition in global economy, more and more MNCs are trying to disperse production factors and key resources globally, such as important R&D and market resources, by establishing good interorganizational relationships or network relationships with other organizations. This is a big challenge for the resource-based traditional theory which only focus on the sources of competitive advantages to the resources owned by the organization. So, more and more scholars have extended their research from interpersonal to inter-organizational ties, and from how network shape individual's behavior to how they impact organizational performance.

In order to cope with the fierce competition among enterprises, individual enterprises joined a particular relationship network to strengthen the organizations' internal cross functional activities. In order to pursue the joint economic interest and organizations' objectives, the enterprises spontaneously combine the knowledge, ability, and various resources widely distributed by a single organization or individual to reintegrate and innovate so as to maximize utilization of the intangible knowledge formed by specialization. They produce and collaborate around one or some kinds of products to form a large-scale collaborative network. The whole network shares confidential information and exchanges the knowledge through inter-organizational communication. On the basis of long-term transactions, the relationship between two parties can be successfully developed and the resources needed for each other can be obtained, which will be far beyond the purchasing cost goals that individual organizations can achieve.

Network relationship between organizations can generate intangible network resources. The network resources school is sociological concept, originated in the study of the interpersonal network in 1970s. Lin, Ensel, and Vaughn (1981) put forward the theory of social resources and argued that those social resources embedded in personal social networks connection such as power, wealth, and prestige are not directly owned by individuals but acquired through personal direct- or indirect- social network. Gulati, Lavie, and Madhavan (2011) proposed the network resource concept of enterprise when they studied the influence of network location and learning on the formation of the alliance, and brought it into the field of strategic management, which directed and impacted scholars' study from focusing on either organization structure or relationship to focusing on the specific content of the nodes in inter-organizational relationship. The researchers then proposed an organization ties to other organizations furnish resources that bestow various benefits. They also presented reach, richness, and receptivity as three fundamental mechanisms to explain how network resources could contribute to organizational performance. Reach is the extent to which an organization's network connects it to diverse and distant partners. Richness represents the potential value of resource available to the organization through its ties to partners. Receptivity denotes the extent to which the organization can access and channel network resources across inter-organizational boundaries. The interplay of these three mechanisms determines the benefits that the organization obtains from its network; reach and richness jointly determine the potential value of the work, while receptivity is crucial in realizing that potential.

Dyer and Singh (1998) indicated the inter-organizational relationship is one of the critical factors to understand an increasingly competitive advantage. Knowledge-sharing routines is very important for firms' competitive advantages and success. More than two-third innovations come from customers' proposal or idea. The further study in biotechnology indicates most innovation and patents come from network rather than individuals. After the further study, Dyer and Singh argued many companies kept their suppliers at arm's length while the partner with vendors sharing valuable knowledge with them through organized networks could be a sustainable source of competitive advantages. Their study also proved a high degree trust between organizations can promote knowledge sharing and information exchange; inter-organizational communication and coordination is conducive to the development of the relationship, and the cooperation between both sides can have the needed resources and keep the competitive advantages.

The formation of inter-organizational relationship provides a more effective mechanism



to access and integrate all kinds of resources such as physical resources, information, knowledge, and relationships, and is the main means and ways for organizations to acquire various resources, create value, and maintain competitive advantages. Luo and Zhao (2012) argued the incomplete market and market information asymmetry caused the incomplete competitive market which reflected by the difference among commodities and intellectual property protection as well as the currency exchange rate and tax differences among nations. The unique advantages that MNCs own such as internal knowledge transfer, mergers and acquisitions, joint ventures, multinational supply chain, and strategic alliance relationship between organizations, has the lower cost in the production, finance, marketing and management, and has stronger monopoly position in technology, knowledge and market entry standards. They can surpass borders to offset the extra cost increased in cross-border and can also strongly compete with the enterprises in host country.

Inter-organizational network is not only a kind of relationship but also a resource. It is a resource generated by the connection between organization nodes, and it is an intangible resource. The traditional organization theory presented that the value creation occurs within the enterprises and emphasizes the enterprises' autonomous and independent. Fiercely competing with other enterprises in order to expand their living space, the relationship between organizations is regarded as low economic efficiency. Inter-organizational cooperation affects the value distribution, thus at that time the competition is the main research subject. Wang and Ren (2009) argued that in the economic globalization, product modularization, information management, and business network era, each organization is the node in the network and it can not control all resources and the value-added process by itself. Meanwhile, the bottleneck of the enterprise development can not fundamentally be solved by enterprise's internal management improvement. The understandings of inter-organizational network relationship such as "cooperation is as important as competition", "aiming competition by mean of cooperation", and "work together to make a big cake and then share it" has become the consensus of nowadays entrepreneurs. The intangible resources are heterogeneous, difficult to deal with and imitate, which meet the increasing marginal revenue and the diminishing marginal cost.

The effective resource reconfiguration of the inter-organizational relationship network can achieve the benefits internally and externally. For inside of enterprise, the individual organization has achieved its own benefit through highly specialization. For outside of enterprise, it means the expansion of market scale and the speeding up the diffusion of

information exchanges and technology after the formation of the whole network organization, which resulted the total efficiency improvement. Based on the view of synergism  $1+1>2$ , the achieved maximum benefit by network organization through resource reconfiguration is greater than that of the sum of individual enterprises, thus the organization can sustain its competitive advantage and market share. The members of inter-organizational relationships share or exchange valuable resources in pursuit of common interests on the principle of mutual benefit according to the heterogeneity and complementarity of their existing resources. That is to say enterprises use their existing resources to complement each other and get reconfiguration of resources, which can effectively offset the market failure existing in the incomplete competitive market.

The intangible resources such as knowledge owned by organizations are the key elements to create lasting competitive advantages and core competencies, and inter-organizational relationship is one of the most important ways for organizations to acquire multiple knowledge. A crisscross connection relationship between organizations is the resource that can not be imitated. The relationship is one of the most important sources of competitive advantages, so the ability of enterprise development relationship will have a significant impact on business performance; the combination of inter-organizational complementary resources and ability is one of the sources of competitive advantage; alliance firms can combine their resources to form a new competitive advantage to obtain more profits. The profit gained through this combination is greater than the sum of the profits earned by each other. The main factors that affect the competitive advantages are the complementarity of resources between the organizations and the compatible of the complementarity of resources between the organizations.

Sykes and Venkatesh (2017) argued friends and acquaintances of social network relationship influenced deep structure use of the new enterprise system as well as employee job performance. Advice networks comprise employees who seek and provide information, assistance, and expertise in order to perform their jobs while impeding networks comprise employees who make it difficult for a focal employee to complete his or her job. Advice networks has generally based the networks on those to whom an employee goes for work-related advice, such advice is generally believed and shown to have positive effects on behavior and performance. An impeding network maps the ties to employees who make it difficult for an individual to do his or her job.

Sykes and Venkatesh presented that the source and content of social network ties can

play in influencing deep structure use and employee job performance during the shakedown phase of an enterprise system implementation. Social network constructs played a strong role affecting job performance, both directly and indirectly via deep structure use.

## **2.4 MNC theory**

### **2.4.1 The development of MNC**

Company group appeared in the stage when the production scale of enterprises reached very high level, which involves parent company and subsidiary companies. The parent company takes charges of subsidiary companies through the property right relationship. Thus, the MNC formed when the parent company business is beyond national borders.

The first MNC in the world is the “British East India Company” since its setup by the end of sixteenth century, which also called as “East India Trade Company”, which was mainly trading with the East Indies subsequently trading with China and India, this is the rudiment of MNC while “Bayer” is the modern MNC appeared by the end of nineteenth century. Nowadays, the MNCs have been becoming an important driving force in economic development. By the end of twenty century, the number of MNCs has exceeded 6 million and continually increases in high speed through their subsidiaries. The MNCs controlled more than 40% global GDP, more than 60% international trade, more than 70% total international technology trade, more than 90% international research and development, and more than 90% global investment. From these data, it is easy to conclude that the most international investment is from MNCs, and MNCs controlled the most resources of the world. With the acceleration of international trading and global economic integration, the MNCs are developing at high speed in the way of foreign investment and the annual investment amount more substantially grows over the previous year. By the end of 2000, the investment of MNCs is more than 100 billion USD and continues to grow fast (Lu *et al.*, 2016).

The budding stage of the modern MNCs was from the end of nineteenth century to the World War I. In this period, many companies of the Western Europe and America started to invest abroad with their advanced technology and human resource, and their business just covered the manufacturing industry such as the British Petrol (BP), the Standard Oil of America, the Kodak film of America, and the Ford automobile of America. The slow development stage of MNCs is between the World War I and World War II because of the Great Depression of the global economy since 1929 while the rapid development stage of

MNCs is after the World War II. With the good economic background, the rapid technology development, and the deepening integration of the world economy, the MNCs have entered a rapid development period. The MNCs are from the single-industry to multi-industries, being expanded by acquisition, launching the localization strategy and more internalization, which make their business bigger and bigger. For example, in 1980s the acquisition amount of MNCs is only several tens billion USD while in 2007 it is more than one trillion USD, now the acquisition amount continues going up (Lu *et al.*, 2016).

#### **2.4.2 Characters of MNC**

The MNCs engage in the production and business activities in many countries with extensive distribution. Dong (2004) studied and found that modern MNCs should have more than six manufacturing sub-companies in different country and should have at least 25% shares of sub-company.

The strategic objectives of MNCs are globalization. Through developing the internationalized strategic goals, the MNCs can maximize resources allocation in the world. The MNCs can also make full use of the resource advantages of host countries to maximize their overall interests. Through developing global strategies, the MNCs can setup a global operation network, namely, global product marketing, global resource allocation, and global competitive advantages to achieve global synergy. The MNC has a complete decision-making system and the highest decision-making center. Each subsidiary or branch also has its own decision-making system and can make decision according to their own fields and characteristics but the decisions made must be under the decision center of parent MNC.

The production and operation are globalized. Many MNCs usually arrange their business activities based on their global strategy. The MNCs always develop new global market and setup the reasonable worldwide production locations to smooth their production and sell products and provide services worldwide. Because of the special advantages of the economic, technology and the production, the MNC always has certain degree monopoly advantages in certain products or in certain areas.

The transfer of elements is internalized. According to their own needs and the regulations of host country, MNCs often use internalized market instead of external market so that materials, technology, human resource, products, and capital can be traded within MNCs. On

one hand, the efficiency is improved and the cost are reduced, and on the other hand the reasonable tax avoidance can be realized.

The internal management of MNC is integrated. The worldwide subsidiaries of MNCs are basically implementing the strategic decisions of their parent company such as major production, investment, R&D, and appropriation of profits. The global and long-term profit maximization of MNCs is the key reason for MNCs to consider these key elements, i.e., product, manpower, technology, management and capital (Lu *et al.*, 2016). MNC and its four main characters are all supported by following theories.

### **2.4.3 Development of micro-theories of investment of MNC**

Before the World War II, foreign investment was generally considered as a special case of securities investment that the parent company directly invested capital or credit to its subsidiaries. Compared with native country, such capital will encounter differences and obstacles such as distance, time, market, culture, language, personnel, and government because these factors are generally favor to the competitors of host countries. The ability of MNCs to successfully challenge these obstacles requires corresponding theoretical support and explanation, however the theory of securities investment can not explain these problems. Therefore, after 1960s academia had started the study of “direct investment” and formed many theories and schools, which was concluded as micro-investment theory and macro-investment theory.

Hymer (1976) is one of the early scholars who distinguished securities investment and direct investment. Hymer believed that securities investment has no direct control over business entities but direct investment has. From the incomplete theory of the market, Hymer studied the monopoly reason of the industrial organization on MNC and presented the monopoly advantage theory. Hymer believed that the reason for investors to obtain the enterprises' control through direct investment is to ensure capital safety and to obtain some advantages, and hoping to exploit this advantage to develop international market. The explanations by Hymer is: (1) if the market is incomplete, that is, if there is a horizontal or bilateral monopoly or oligopoly, some form of conspiracy will be profitable. One company controls or owns a number of different companies, which is one of the companies' motivation to control foreign companies. (2) if the market is incomplete and investors have some advantages over the competitors of host countries, it is logical for investors to invest abroad

with this advantage. Meanwhile, the researcher also concluded that the monopolistic advantages of MNCs can offset the competitive advantages of the local enterprises of host countries, that is to say, the monopolistic advantage has a certain compensation effect on MNCs.

Vernon (1966) proposed the product life cycle theory in 1966 and defined it as 3 stages, which were the product innovation phase, the mature product phase, and the standardized product phase. Vernon believed that high wages could stimulate innovation, in this way, the company has rich capital to develop new products, and often consider the industry location factors to produce the new developed and non-standardized products in domestic country in order to save transaction cost. Once the product was standardized, its production will be transferred to abroad subsidiaries, thus the MNC has the monopolistic advantages in host country. The research conclusion is summarized as assuming that Japan and Taiwan of China are underdeveloped areas and these areas are at the last stage of the product cycle, thus they can only produce the fully standardized products. Therefore, this theory can also explain the concept and strategy that China is a "World Manufacturing Factory".

Johnson (1970) studied and developed the monopolistic advantage theory, and further explored the investment theory of MNC on the viewpoint of intellectual property. The researcher pointed out that the transfer of knowledge assets within the companies is the key to international direct investment. The main monopolistic advantages of MNCs are their possession and control of intellectual assets such as proprietary technology, trademark, patent, management technology, sales technology, and other intangible assets. Although the cost of acquiring knowledge capital by MNCs is relatively high, however such knowledge assets can be used at a low cost in their global subsidiaries which need not spend extra cost too. If one company in host country, not the MNC's subsidiary, wants to acquire such knowledge assets, it has to pay a very high cost which makes the MNCs have special competitive advantages. This theory can well explain that the change of China National Strategy from "Made in China" to "Invented in China" is very important for future sustained economic development, and it also explained why some SOEs, i.e., the automobile industry, spent so much money on the technical transfer fee to acquire MNCs' intellectual property and technology.

On the basis of previous studies, Dunning (1977) put forward 3 factors which are ownership advantage, location advantage, and internalized advantage, for MNCs to invest abroad, which is concluded as the "OLI" (ownership, location, and internalization) mode. Then Dunning (1981) further developed it as the "Eclectic Theory of International

Production". According to this theory, the MNCs will direct invest abroad if meeting following 3 conditions: (1) the potential investors have certain net ownership advantages compared to the enterprises of the host country; (2) it is easier and more favorable for potential investors to maintain these advantages than that of leasing or licensing them to the companies of the host country; (3) for potential investors or manufacturers, it is profitable to fully utilize these advantages, at least some key factors outside the home country otherwise the foreign market will be completely filled by export. This theory can explain the fact that a large number of MNCs have entered China when Chinese Government started the reform and opening-up policy since 1980s.

Glass and Kamal (2002) found that the host country strengthens the intellectual property protection can not promote the technological innovation for developed countries. They argued that technology can pass through 2 ways among countries: (1) imitate or copy the advanced technology, and (2) directly transfer through foreign investment. When developing countries strengthen the intellectual property protection, the imitation cost in developing countries will increase which can help MNCs to avoid being imitated in developing countries, but it can not avoid being imitated in developed countries. This theory explained that domestic manufacturers of China were unable to imitate the engineers and the transmission modules that the VolksWagen group of German transferred them to China when Chinese government strengthened the intellectual property protection.

The microcosmic-theory schools of MNCs is summarized above, and the macroscopic-schools will be summarized as following.

#### **2.4.4 The development history of macro-theories of investment of MNC**

With the rapid development of MNCs, the micro-investment theories have some limitations to explain it. The academic research has developed and summarized a series of macro-investment theories to explain the rapid development of MNCs. Before 1990s, Kojima (1978) proposed the marginal industrial expansion theory and Dunning (2012) proposed the investment development cycle theory; after 1990s, Porter (1990) proposed competition theory, Ozawa (1992) proposed the dynamic comparative advantage theory, Mjoen and Tallman (1997) proposed the international alliance of MNC theory, Gao (1999) proposed the effect of manufacturing agglomeration and cost-factor advantage theory, and Albuquerque (2003) proposed risk sharing advantage of the foreign direct investment theory.

On the basis of studying former theories, Kojima (1978) proposed the theory of

“Marginal Industrial Expansion” and explained the global direct investment behaviors of Japan after the World War II. The foreign investment of U.S. is monopolistic-oriented while the direct investment of Japan is trading-oriented. The monopolistic advantage theory and product life cycle theory can well explain the investment behaviors of the MNCs of U.S., but there are some limitations to explain the investment of MNCs outside the U.S. Then, Kojima divided foreign direct investment of MNCs as natural resource oriented, labor oriented, and market oriented. According to this theory, the abroad investment of Japanese MNCs is basically natural resource oriented while the America MNCs is mainly the labor and market oriented. This theory can also well explain the “One Belt, One Road” strategy of China (Li & Cui, 2015), which will transfer the domestic overcapacity to meet the other demand worldwide, therefore it is the foreign direct investment of market oriented.

Dunning (2012) put forward the theory of investment development cycle when its eclectic paradigm is extended dynamically at the macro level. This theory argued that the economic development level and the international investment level is highly related, which are: (1) the ownership advantages and internalization advantages of the country will be small and even zero if the national economic development level is low; meanwhile the infrastructure, income level, human resource capital, and the legal system are inadequate, thus the location advantage is not obvious which leads to low direct investment; (2) the level of national economy development drives the infrastructure, education and income improvement, and the domestic enterprises have a certain ownership and internalization advantages, thus the import substitution and natural resources oriented flows in; however the enterprises' advantages of their own country are not enough to overcome the barriers to invest in host countries, so the foreign investment scale is still small; (3) with the national economic significantly increasing, the market economy is gradually improved, and the ownership advantages and internalization advantages of their own national enterprises are also further improved which can overcome the barriers to invest in the host country, thus there will be more and more foreign investment, and the growth rate also rapidly increased; (4) the national economy in the developed stage, the importance of domestic resources and policy advantages in location advantages gradually declines, so the foreign investment of import substitution and natural resource oriented began to gradually decline, which begins to move to more location advantages countries. This theory can well explain the economic development model of China in past 40 years that highly rely on the drive by foreign investment, and also explains part of the foreign investment withdrawal from China to lower level developing countries such as Vietnam and India. For



example, Matsushita office equipment manufacturer exit Chinese to re-invest and re-setup factories in Vietnam. The theory also explains the adjustment and upgrading of the coastal industries in Southeast China, and some industries that are no longer obvious location advantages in Southeast coast area are moved to less developed Northwest areas such as part of labor-intensive manufacturing industry.

Porter (1990) argued that the traditional comparative advantage theory is hard to explain this special phenomenon, i.e., many industries in many countries still have obvious competitive advantages though the cost is high. For example, Switzerland is a landlocked country with high labor cost, has strict environmental protection law, and lack of natural resources. However, the watch and chocolate industries of Switzerland is very well known all over the world. The researcher proposed a national competition theory, i.e., the fierce competition is the impetus for enterprise's foreign direct investment, and the success conditions in international competition. This theory explained the "Going out" strategy of the photovoltaic industry in China, i.e., the domestic production environment is perfect, domestic demand is nearly saturated, the supporting industry is perfect, and domestic photovoltaic industry competition is also fierce too.

Ozawa (1992) put forward the theory of dynamic comparative advantage based on the researches of previous scholars on MNC's direct investment and explained the motives and mode choice of direct foreign investment of MNCs. Ozawa combined the economy development which contributed by MNC and the economic development theory, and then use one integration theory to explain how developing countries setup their own MNCs to promote the economic transformation and how to realize this mechanism when the economy developed to certain level in their countries. This theory is mainly divided into 4 stages: (1) attract foreign direct investment; (2) the transition stage of foreign direct investment inflows to the outflow of foreign direct investment; (3) from foreign direct investment of labor oriented to technology oriented supported by trading; (4) the cross stage of foreign direct investment of capital intensive inflow and outflow of resource-oriented investment. These four stages used the comparative advantage stage, the marginal industry stage, the new comparative advantage, and the resource integration stage. The theory provides the direction of developing countries to catch up and also offers the direction of foreign direct investment in transferring knowledge and technology in developed countries. This theory explains the behaviors of many America and Japanese MNCs' foreign direct investment, also explains the strategy of "Going out" of China and the MNCs' development strategy of the "One Belt, One Road" in China.

Mjoen and Tallman (1997) studied how MNCs cope with the uncertain international environment and meet the global demand and put forward the theory of the MNC alliance. The theory holds that the establishment of a multinational alliance can cope with global uncertainty and global demand, and alliances can enable single business to rely on the same assets to cover the global market. The establishment of an international joint venture is one of the most important forms of an international alliance. The research provides a solid theoretical basis for the rapid implementation of global competition strategy for modern MNCs.

Gao (1999) has put forward the theory of industrial agglomeration economies and factor-cost advantages. This theory holds that the production of MNC is the result of the trade-off between the industrial agglomeration economies and factor-cost advantages. With the rapid development of economy, the disadvantage of increasing production cost in large manufacturing centers will surpass the advantages brought by industrial agglomeration effect, which will promote enterprises to relocate their production from the existing site to other sites or other countries. This theory well explained why many R&D centers of MNCs stayed in their own country and transferred the standardized products to other industrial agglomeration areas could gain competitive advantages.

Albuquerque (2003) studied the motivation of MNCs' foreign direct investment from the perspectives of asset safety and pointed out that the loans and bonds investment may be subject to legal and political risk, thus the investment maybe completely confiscated by the borrowing nations. However, the foreign direct investment in intangible assets may not be easily confiscated. The theory explains why developing countries attract large amounts of foreign investment is not because they have comparative advantages but because they have poor financial condition and can not get more other foreign capital such as loans and bonds.

## **2.5 Chapter summary**

With the rapid development of global economy, and more and more complex business environment inside and outside of the organization, it is difficult to use only one theory or thought to explain and guide the organizations' trajectory. Therefore, this chapter reviewed the theories and literatures about procurement theory, strategy theory, purchasing management and related literature on managerial resource, which seems to provide useful references for organization development. At the end of this chapter, the MNC theory was presented because they are an important player in the Chinese context.



## Chapter 3: Research Methods

### 3.1 Research strategy

Case study is one of the most important methods in the management field (Yin, 2017) and Li (2008) advocated that case study is a choice of “what” and “why” questions to be studied.

Schramm (1971: 5) proposed that “The essence of case studies, that is the core intent of various case studies, lies in the presentation of one or some of the decision-making processes: why is this decision being made? How is the decision carried out? What are the results?”. Yin (2017) proposed that case study is an empirical study, which deeply studies the phenomenon that happened in real life environment, that is the case, especially when the boundary between what is to be studied and its environmental background is not very clear. At the same time, the case study is the special case, where the “to be researched variables” are more than the data points.

Yin (2017) argued that case study has three advantages, as follows: (1) it may innovate new theories. In case study process, researchers may be more open to look at the material and data obtained from the studies, and the alignment between the case material and the existing literatures may promote further studies, which is more likely to generate new theories; (2) it is possible to test the theory with more readily available measuring tools and more easily to testify hypotheses. This is because, in the case study process, the given research tools and hypotheses can be repeatedly tested in different case environments; (3) the conclusion of case study may be more practical and effective. This is because the conclusions of the case study are directly from the empirical evidence, and it is more likely to be an objective reflection of the reality. The advantages of case study are manifested in several folds, which include the construction of theory, the theory testing, and the application of conclusions.

Li (2008) proposed that case study is not suitable for problems that need to be analyzed with large samples. The conclusions are often being challenged on the following aspects: (1) general and theoretical knowledge are more valuable than specific and practical knowledge; (2) People can not summarize and carry out on a case basis, therefore, the case study can not

contribute to the development of science; (3) case study is most useful for hypothesis suggestion while other methods are more suitable for hypothesis test and theoretical construction; (4) case study is included in the prejudice of empirical research because there is a kind of subjective tendency to confirm researchers' previous thought; (5) it is difficult to summarize and develop general proposition and theory based on specific case study; (6) there are difficult technical problems for the boundary confusion of the case selection and the investigation process.

Ouyang (2004) presented that the limitations of case study method are expressed in the following four aspects: (1) case study is time- and resource-consuming, so there will not be a large number of case samples but small number samples; (2) case is often a true story and contains abundant information, which may require higher competence for researchers to grasp the important situation and refine variables; (3) case study method mainly focuses on the analysis, so it is often challenged by its arbitrariness and subjectivity, and sometimes the internal validity of the case study method will be questioned; (4) if the researchers used multiple case studies, there may be heterogeneity among the cases which may bring difficulties to sum up the findings, and it would introduce reliability issues. Yin (2017) pointed out the weakness of case study as: (1) the rigor of case study; (2) not clear about teaching cases; (3) the ability of induction from research findings; (4) uncontrollable workload.

In fact, case study, like other research methods, has its own advantages and disadvantages. There are no research methods that can be applied to all researches, each case has its own application in scope and conditions instead.

This thesis aims to gain an in-depth understand of the procurement activity in China. Case study as one of the most important research methods was used in this thesis to obtain the perceptions, understandings and experiences of practitioners who are working in the procurement field in MNCs' subsidiaries and domestic enterprises in China.

### **3.2 Research method**

There are two main research methods working parallel for social sciences. One is the quantitative study, based on the empirical research methodology, which focuses on quantitative analysis and statistical analysis. The other is the qualitative research method, based on humanistic methodology, which focuses on the collection of text information.

The qualitative research is often applied to social sciences. The qualitative research method emphasizes the following aspects: (1) through the personal experience on the scene and the original research data collected, the researchers study the social phenomenon to explain the meanings of “scenarios” and “inter-subjectivity”. Therefore, the qualitative research is carried out under a natural situation which is inseparable from the social and cultural situation in which it is located; (2) understanding “social meaning” involves studying the society, which is composed of individuals, full of individualized and subjective consciousness. Researchers must pay attention to social individual’s action and subjective consciousness, individual experience and the meaning people ascribe to them when they grasp the social reality. It is difficult to find a unified model as the natural science research does, because when it comes to study social life the researcher needs to study the subjective consciousness, personal experience and meaning of the personality; (3) the qualitative research is keener to openness and flexibility, which makes it easy for the use of the inductive method. The researcher interprets personal experience and practice to obtain comprehensive understanding of all aspects of the objects researched, the social and cultural background and customs where the objects are embedded. That is to say, standing in a specific social situation, by collecting research materials and analyzing data, the researcher may put forward theoretical hypothesis in an induction process, and then test the theory in the process of practice.

The characteristics of the quantitative research are as follows: (1) the quantitative research method is mainly from natural science, which has the distinct characteristics of scientific rigor and generalization. The quantitative research methods focus on data and statistical analysis, and advocates that the research results and conclusions should be present through figures; (2) quantitative research focuses on the application of mathematical methods in strict logic. It is believed that reliable conclusion derives from the mathematical method, because of the use of formulas and theorems. The main differences between the quantitative and qualitative research methods are presented in table 3-1.

Table 3-1 The Difference between Qualitative and Quantitative Research Method

Item	Qualitative research	Quantitative research
Research perspective	A little subjective	Much objective
Research environment	Nature	Artificially controlled environment
Research technique	Inductive analysis	Hypothetic deductive
Research type	Experiential observation	Non-experiential investigation and experiment
The relationship between the researcher and the researchers of the case	Interacted between both sides	Non-interacted between both sides

At the end of the twentieth Century, numerous debates between qualitative and quantitative studies triggered a combined thought of both qualitative and quantitative methods such that the mixed method was formulated. For example, Burke Johnson and Onwuegbuzie (2004) proposed to use the mixed research method in the same case study, by combining both quantitative and qualitative research techniques, methods, concepts or language category. Tashakkori and Teddlie (2003) presented that the mixed method uses both qualitative and quantitative method for data gathering and analysis. The study of mixed methods is regarded as the “third methodological revolution” following the single qualitative or quantitative method. As a methodology, the mixed method research involves philosophical hypotheses that guide data gathering and analysis as well as a mixture of qualitative and quantitative methods in many stages of the research process. As a method, the study of mixed method focuses on collecting, analyzing and mixing qualitative and quantitative data in single or multiple studies (Jiang, 2009). The mixed method was proved to be a superior approach to understand and solve research problems than a single method. Therefore, the study of mixed methods has become a new research orientation and development trend in the research of Social Science.

In this thesis, we used the combined qualitative and quantitative research method to understand the procurement activity in China.

### 3.3 Data generation

When performing a case study, and despite the type of method being used, there are several techniques that can be applied to gathered data: questionnaire, archive sources,

interviews, participant-observation, direct observation, physical artefacts (Robson, 2002; Yin, 2017). In this study, the emphasis was placed on the structured questionnaire and the semi-structured interview format.

The structured questionnaire is a simple, flexible, fast, effective, cheap technique to gather data. It is widely used in the various disciplines in Social Sciences both domestically and abroad. The questionnaire can just collect past information without affecting the data collection process. It has less interference on respondents and is easily supported by respondents. The questionnaire also allows the researcher to get a relatively large number of responses in a short period of time (Zohrabi, 2013).

The use of a structured questionnaire aimed to characterize the purchasing practices in China, as well as to understand whether the purchasing prototypes segregate companies in a clear pattern in this region. Therefore, in this study, the questionnaire was applied to procurement staff working in MNCs' subsidiaries, SOEs and POEs operating in China.

The semi-structured interview, as one of the main data collection tools in qualitative methods, is a good way of accessing people's perception, meanings, definitions of situations, and constructions of reality. It is also a technique that allows the researcher to obtain the first-hand historical and real-time qualitative data of the enterprises (Kallio, Pietilä, Johnson, & Kangasniemi, 2016). Considering that the quantitative study highlighted the factors that may characterize the purchasing practices in China, the semi-structured interviews aimed to improve our understanding about the subject area.

In this study, the interview format was only applied to procurement staff working on MNCs' subsidiaries in East-China. The emphasis on semi-structured interviews aimed to gain an in-depth understanding of what is happening in MNCs' subsidiaries. On one side, we were interested on revealing the drivers, obstacles and facilitators to a purchasing cost strategy implementation by MNCs' subsidiaries in East-China. On the other side, because MNCs seem to be better equipped with modern purchasing technologies and practices, we were interested to reveal the extent to which this group of companies were able to dynamize the purchasing practices in China.

The emphasis on studying only MNCs' subsidiaries in East-China aimed to gain an in-depth understanding of a key player in the Chinese economy. As it was referred above, from 1995 to 2003, MNCs contributed to 16-34% of China's GDP, 11-29% of China's employment, 45% of China's import and export business, 20% of China's total tax, and gained 25% of China's total industrial profits (Enright, 2017; Sang & Zhang, 2018). But,



more specifically, 80% direct investment by MNCs in China is concentrating in East-China. Therefore, the study of MNCs' subsidiaries in East-China would better fit the particularities of the Chinese market and the research findings would better sum up the reality of MNCs in China.

The emphasis on studying the purchasing cost strategy of MNCs' subsidiaries aimed to gain an in-depth understanding of the activities that these corporations are performing to deal with opportunities and challenges faced in the Chinese market. As it is well known, since the reform and opening-up in China in 1980s, more and more MNCs have caught this good opportunity to enter China and expand their business. At the beginning, their activities were supported by the low operational cost, such as purchasing cost and commercialized buildings cost, and consequently they made good profits and rapid development progress. However, nowadays, with both internal and external environment changes, especially the tremendous increase of both labor cost and commercialized buildings cost, and the fierce competition, more and more MNCs are facing great challenges and pressure on competition and the ability to strive for good profits.

Furthermore, my working experiences in procurement position in different MNCs, which headquarters are in the U.S. and Germany, within different industries, such as machinery, electronics and chemical, have told me that the pressure on the purchasing cost reduction is becoming higher and higher than before. This knowledge drove me to investigate the purchasing cost and understand what and how different factors influence the purchasing cost of MNCs' subsidiaries in East-China. Subsequently, my curiosity led me to investigate how these group of companies could help others to adopt more advanced purchasing practices, management systems and technologies.

### **3.4 Quantitative study**

#### **3.4.1 Sample**

The study subject of the quantitative study was procurement staff who were working at the time on companies operating in main China-Chinese companies, i.e., SOEs and POEs, and MNCs' subsidiaries in China. It was received 336 responses, but 30 people were not working in the purchasing department. So, the number of valid responses is 306.

Initially, paper-and-pencil questionnaires were sent to purchasing people working in MNCs' subsidiaries in East-China, in SOEs and POEs. The paper-and-pencil questionnaire

was taken in two ways: one was the post survey, the other was the direct distribution door-to-door. The post survey consisted on directly posting the questionnaires to the respondents' company, which was filled out by them, and then the questionnaires was sent back to the designated collection point. Door-to-door distribution was to contact the respondents prior to sending the questionnaires to the door, made a simple explanation for the questionnaire, gave respondents enough time to fill them up, and picked them up according to appointed time. Later, it was used a professional survey agency (www.51diaocha.com. ID:1094697) to gather a larger number of responses. The data were gathered for a period of one year, from 2015 to 2016.

Table 3-2 shows some relevant information about the participants. Most of the respondents worked in East-China (79%). 65% of the participants work in MNCs' subsidiaries (199/306) and 29% in Chinese domestic enterprises (25 people in SOEs and 64 people in POEs).

Table 3-2 Distribution of Respondents by Region

Region of Respondents	Number of respondents	% of respondents
East China	242	79%
North China	20	7%
South China	18	6%
Northeast China	6	2%
Northwest China	20	7%
Total	306	

### 3.4.2 Questionnaire

Hinkin (1995) pointed out that the items or scale development of questionnaire can generally be obtained from two ways, one is the related literature; the other is from individuals with the corresponding working experience. In this study, a systematic review of the literature was applied to get an understanding of the current procurement management. This review revealed several factors that are important to characterize the purchasing practices. They include purchasing criteria, supply chain management and manager capabilities. Based on the insights gathered in the literature review, a total 108 pre-identified items were identified. Later, we conducted several conversations with one expert in the field to discuss the questionnaire's content, questions arrangement, questions difficulty, whether

the description of the questions was clear, whether the design structure was plausible, and whether there was any omission. Before finalizing the questionnaire, a pre-test of the questionnaire was done by 26 potential participants for review and comments. Some items were identified as ambiguous and not understandable. Then, some improvements were done, including the wording and sequence of questions.

Following the recommendations provided by Mitchell and Jolley (2010), the final questionnaire was composed and divided into two main parts (Appendix 2):

- Content section, which includes the 32 questions about factors that influence the procurement practices;

- Sociodemographic and professional section, which includes questions about the respondent's profile and background.

The questions were short and precise, organized into sections related to each factor to minimize misunderstandings. Relevant information about the survey was provided to participants, terms were clearly defined, and the response scale explained. The questionnaire also offered clear directions about how to respond to each item. The questionnaire was applied to procurement people who worked in domestic companies and MNCs' subsidiaries in China. To obtain accurate responses and avoid misunderstandings, the original questionnaire was written in Chinese.

### **3.4.3 Statistical technique**

The statistical methods employed to analyze the gathered data were exploratory factor analysis and cluster analysis. All these procedures were done through IBM SPSS statistics Version 23.0.

The factor analysis, also called dimension reduction analysis, was mainly proposed by Karl Pearson and Charles Spearman in early twentieth Century. The factor analysis is primarily concerned with grouping variables. The aim is to simplify the data through the reduction of a large number of original variables by grouping them into a smaller number of new variables that measure similar aspects of the same dimension (Zheng, Hu, & Xue, 2015).

The factor analysis was performed through Kaiser-Meyer-Olkin, i.e., KMO, sample appropriateness measure and the Bartlett's spherical test. The KMO tests the suitability of the sample. The KMO value ranges between 0 and 1. It is generally considered that the KMO value above 0.6 is appropriate for factor analysis. Additionally, the Bartlett's test was also

used to assess the hypothesis that the correlation matrix is an identify matrix. A probability value lower than 0.05 informs that it is adequate to proceed with the analysis.

To run the factor analysis, it was employed the principal component method with Varimax rotation. In the rotated matrix, items with a loading value equal or greater than 0.5 were considered significant for the study and were associated to the respective factor. The reliability analysis was also computed through the Cronbach's alpha coefficient. A value of at least 0.7 was considered as acceptable (Zheng *et al.*, 2015).

After this first analysis, the cluster analysis followed. Cluster analysis is a group of multivariate techniques whose primary purpose is to classify a sample of entities (individuals or objects) into a smaller number of mutually exclusive groups based on the characteristics they possess. The cluster analysis technique is different from factor analysis. That is, factor analysis makes the grouping based on the patterns of variation (correlation) in the data, whereas cluster analysis makes the grouping on the basis of distance (proximity) (Hair *et al.*, 2009).

In this study, it was employed hierarchical cluster analysis and K-means cluster analysis. It was used hierarchical cluster analysis to group the respondents on the basis of their profiles on the factors extracted by the factor analysis. This procedure was done by using Ward's method and squared Euclidean distance as a distance measure. Taking into consideration the resulting dendrogram, the appropriate number of clusters for a given data set was specified. Then, the K-means cluster analysis was employed to map the profiles of purchasing prototypicality (Khashei, 2017).

### **3.5 Qualitative study**

#### **3.5.1 Interview participants**

Twenty-one interviewees, all male, are the main participants of this study. Considering the sensitivity of topic investigated, several requirements were pre-defined to identify possible informants: (1) participants must be procurement staff of MNC's subsidiaries, (2) placed in East-China, (3) and not familiar with the researcher. The participants were mainly qualified from the friends of friends or friends of family members.

Table 3-3 provides the basic information of all interviewees. Informants are procurement staff who were working at the time on MNCs' subsidiaries in East-China. The participants'

age ranges from 30 to 60 years old and their seniority range from 8 to 37 years. The participants covered different industries, different job level, different working experience, and different nationalities. Regarding their functions, there are three buyers, seven procurement managers, five procurement directors, five vice presidents, and one chairman.

Table 3-3 Socio-demographic Characteristics of the Formal Participants

When	Participant	Age	Nationality	Position	Industry	Location
2017	Shan	39	Chinese	Supply manager	Chemical	Ningbo
2017	Roger	57	American	Purchasing Manager	Electronics	Shanghai
2017	Mi	30	Chinese	Senior buyer	Automobile	Suzhou
2017	Guo	36	Chinese	SCM (supply chain management) manager	Steel	Shanghai
2017	Sang	43	Chinese	Procurement director	Mining	Shanghai
2017	Huang	38	Chinese	VP	Chemical	Shanghai
2017	Alex	49	Chinese	Commodity manager	Energy	Hangzhou
2017	Tang	38	Chinese	Logistic director	Security	Hangzhou
2017	Roland	47	Holland	VP of GSP	Electronics	Shanghai
2017	Li	33	Chinese	Buyer	Electronics	Hangzhou
2017	Qing	60	Taiwan (China)	Chairman	Electronics	Ningbo
2017	Loo	48	Malaysia	APAC procurement Director	Machinery	Shanghai
2017	Mu	36	Chinese	Purchasing Manager	Machinery	Ningbo
2017	Zhu	36	Chinese	Operation VP	Solar	Hangzhou
2017	Hary	46	America	SCM director	Electronics	Shanghai
2017	Lang	49	Chinese	Sourcing Director	Machinery	Shanghai
2017	Chen	40	Chinese	Buyer	Electronics	Shanghai
2017	Wang	42	Chinese	Manager	Electronics	Hangzhou
2017	Shuang	39	Chinese	Operation VP	Chemical	Suzhou
2017	Zi	56	Chinese	Operation VP	Electronics	Shanghai
2018	Chong	41	Chinese	Planning Manager	Machinery	Hangzhou

### 3.5.2 The nature of the interviews

When analyzing the findings from the quantitative study, few constructs were identified as relevant to characterize the purchasing practices in China. Then, the interview format was applied to seek new insights and evidences about the subject area, revealing what is really happening in MNCs' subsidiaries in East-China. As Kallio *et al.* (2016) noted, the main advantages of interviewing are the possibility of accessing people's perception, meanings, definitions of situations, and constructions of reality, which could not be obtained in a questionnaire survey, but revealed through interviewees' eyes and stories.

All interviews were undertaken in 2017 and 2018. Participants were informed about the purpose of the interview and that their confidentiality and anonymity will be guaranteed. All

interviews were conducted in Chinese. The interview lasted on average 45 minutes. Thirteen interviews were recorded and transcribed from Chinese to English. Eight interviews were not audio recorded. During the interview, we were taking some notes about the interviewees' narratives. Interviews took place at coffee shops in a relaxed environment. Both researcher and participant could feedback immediately if there was any question needed to be clarified.

The interviews were of a semi-structured nature with open-ended questions to allow an informal conversation with the informants. The semi-structured interview had a script containing 12 questions (Appendix 1) that were divided in four sections as follows:

1. Information about the organization and the respondent;
2. Information about the procurement strategy;
3. Information about procurement practices;
4. Information about the cultural factors that may influence the working life in the procurement department.

### **3.5.3 Interpretation of the empirical material**

We began to analyze the interviews after finishing the data collection process. The interview data were fully transcribed into a word document that contains the integral interviews to facilitate the interpretation of the participants' speech. We did the verbatim transcriptions process for the thirteen recorded interviews. For the eight interviews left, we compiled the notes written during the interview, since it was not possible to record the conversation. This writing process was done in Chinese. Then, we used the translation services of a professional person to translate the transcriptions from Chinese to English.

We used thematic analysis to interpret the informants' narratives (Braun & Clarke, 2006). Thematic analysis is a qualitative technique widely used for identifying, analyzing and reporting features in the data, often employed to capture something important in relation to the overall research question. Therefore, thematic analysis was used to identify core themes in the data. By theme, we adopted the definition provided by Boyatzis (1998: 4), which says that theme is a "pattern found in the information that at the minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon".

Concerning the analysis, the quantitative study provided general but key ideas to begin to explore the informants' narratives. Interview transcriptions were analyzed based on the emerging themes, using an inclusive criterion, i.e., each theme could be included in more than

one category. An initial coding grid was used to guide the initial coding (e.g., experience, education, and job position were independent codes); through a process of refinement and improvement, new inductive codes emerged, and former codes were often adjusted (e.g., personal attributes incorporated the three codes identified above). The final coding grid is presented in a “tree diagram” (Wolcott, 1994), where the branches on the top represent the most abstract and general categories and the ones on the bottom represent the least abstract and generalized categories (Appendix 3). Themes associated with the purchasing cost strategy emerged from the data, through an interpretative work.

To ensure the goodness and trustworthiness of the findings, it was employed a constant comparative analysis of the data and a dense description of the meanings found in participants' narratives. The evidence of this exhaustive procedure will be present in the chapter Qualitative Data Analysis through an extensive and detailed presentation of each category with excerpts of the informants' speech.

### **3.6 Chapter summary**

This chapter described the methodology used in the current study. The mixed methods were used to gather data and, in turn, answer the research questions. The quantitative data were analyzed by applying multivariate analysis techniques; the participants narratives were interpreted following the thematic analysis. Findings will be present in the next two chapters. The following one will deal with the quantitative data; the following one with informants' speech.

## Chapter 4: Quantitative Data Analysis

### 4.1 Principal component analysis

The first step in the quantitative data analysis was to compute exploratory-principle component factor analysis to identify the factor structure that can describe the original data.

Based on Hill and Hill (2008), the minimum number of valid responses for, at least 16 observed variables, is 5 times the number of observed variables. In this study, there are 17 variables to be analyzed and 306 cases. Hence, it is possible to apply this technique to the dataset. As the observed variables employ 5, 7 or 9 Likert points, and each variable should receive equal weight in the analysis, then the observed variables were standardized before conducting a factor analysis (Woelfel, 1980).

In the first analysis, one item (the level of association between purchasing cost and the relationship with suppliers) was excluded from the analysis due to its low extraction value. The KMO, which quantifies the correlations between the observed variables of the sample, presented a 0.883 value, which is considered as acceptable; the Bartlett's test presented a null significance value, which indicates that the observed variables are also correlated in the population. Table 4-1 reports the factor loadings of all items. As expected, almost all items had substantial loadings on their hypothesized factors (greater than 0.70). In addition, most of the cross-loadings were below 0.40. Only one item had cross-loading greater than 0.40. This item (the influence of supplier's social responsibility on the purchasing cost) was dropped, because it was cross-loading on factor 1 (0.67) and on factor 3 (0.57). A subsequent analysis in which the above item was omitted demonstrated that dropping this item did not have any impact on the pattern of effects or the nature of the conclusions.

Cronbach's alpha was also analyzed for each factor. The low alpha value for the third factor (0.29) was considered as problematic, in that the two scale items were not understood in the same way, and this factor was discarded from subsequent analysis. Therefore, three new artificial variables were created containing the items of the Factor 1, Factor 2 and Factor 4, respectively.



Table 4-1 Principal-Component Factor Analysis of 17 Items with Varimax Rotation

	Component			
	1	2	3	4
The influence of supplier's negotiation power on purchasing cost.	<b>0.87</b>	-0.1	-0.07	0.14
The influence of the fit between purchasing strategy and supplier strategy on purchasing cost.	<b>0.86</b>	-0.1	0.01	0.26
The influence of the ratio between purchasing spending and supplier's total sales revenue on the purchasing cost.	<b>0.86</b>	-0.08	0.01	0.27
The influence of the time spent on cooperation with suppliers on the purchasing cost.	<b>0.86</b>	-0.06	0.05	0.23
The influence of the quality certification of supplier's products on the purchasing cost.	<b>0.81</b>	-0.04	0.35	-0.05
The influence of long lead-time material on purchasing cost.	<b>0.77</b>	-0.06	0.4	0.14
The influence of quality performance of supplier's product on purchasing cost.	<b>0.76</b>	0.02	0.04	0.33
The influence of supplier's environment protection responsibility on the purchasing cost	<b>0.71</b>	0.03	0.51	0.07
The influence of supplier's social responsibility on purchasing cost.	0.67	0.04	0.57	0.15
Purchasing price margin comparing with the market average price.	-0.13	<b>0.9</b>	-0.05	-0.14
Quality level comparing with the market average quality.	-0.16	<b>0.83</b>	0.12	-0.07
Price fluctuation for strategic and important raw materials comparing with the market average price.	0.12	<b>0.73</b>	0.13	-0.04
The influence of purchasing cost in the supply chain management.	0.35	0	<b>0.75</b>	0.04
The influence of monopoly suppliers on the purchasing cost.	-0.15	0.23	<b>0.7</b>	0.06
The influence of the qualifications of procurement employees on the purchasing cost.	0.25	-0.1	0.06	<b>0.86</b>
The influence of purchasing staff behavior on purchasing cost.	0.34	-0.16	0.11	<b>0.8</b>
Eigenvalue	7.34	2.43	1.21	1.09
Percentage of variance	45.85	15.17	7.58	6.82
Cumulative percentage of variance	45.85	61.01	68.6	75.42
Cronbach alfa reliabilities	0.94	0.77	0.29	0.76

Note: Boldface indicates hypothesized factor loadings.

The items of factor 1 are all more associated with the power of suppliers since they deal with the formation of the purchasing cost. They were, therefore, regrouped into a new variable designated as power of suppliers, consisting of the following items:

- The influence of supplier's negotiation power on purchasing cost.
- The influence of the fit between purchasing strategy and supplier strategy on purchasing cost.

- The influence of the ratio between purchasing spending and supplier's total sales revenue on the purchasing cost.
- The influence of the time spent on cooperation with suppliers on the purchasing cost.
- The influence of the quality certification of supplier's products on the purchasing cost.
- The influence of long lead-time material on purchasing cost.
- The influence of quality performance of supplier's product on purchasing cost.
- The influence of supplier's environment protection responsibility on the purchasing cost

Factor 2 has items that are related to criteria for buying strategic and raw materials, such as procedures to analyze prices and product quality. Thus, this factor was labelled as procurement policy and is composed by:

- Purchasing price margin comparing with the market average price.
- Quality level comparing with the market average quality.
- Price fluctuation for strategic and important raw materials comparing with the market average price.

Factor 4 has items that are related to managerial competencies, such as employees' educational background and behaviors. Thus, this factor was named as managerial capabilities and is composed by:

- The influence of the qualifications of procurement employees on the purchasing cost.
- The influence of purchasing staff behavior on purchasing cost.

## 4.2 Cluster analysis

The second step in the quantitative data analysis was to compute the cluster analysis, by employing hierarchical cluster analysis and K-means cluster analysis. It was computed a hierarchical cluster analysis to group the participants based on their profiles on the constructs (new artificial variables) identified in the exploratory-principle component factor analysis: power of suppliers, procurement policy, and managerial capabilities. The result dendrogram shown in figure 4-1 is read from bottom to top in order to gain insight into the way by which cases are agglomerated in order to arrive at a single group containing all cases. A 3-cluster alternative was determined to be the optimum solutions.

Then, K-means cluster analysis was employed to classify all participants into one of the

three groups based on the constructs revealed by the factor analysis. Table 4-2 shows that the first cluster has 27 individuals. In the second cluster, there are 189 individuals (representing about 62% of the cases) and in the third cluster there are 88 individuals. The figure 4-2 indicates the Eta squared coefficient for the constructs created through the factor analysis. Sixty percent of variation of manager capabilities is explained by this 3-cluster solution, which represents a strong association between both variables. Similarly, the 3-cluster solution can also explain 59% of variation of purchasing criteria. The variables power of suppliers and cluster have a moderate association (44%). In other words, the most relevant variables to classify individuals into three mutually exclusive groups are managerial capabilities and purchasing criteria. The distances between cluster centres 3 are shown in table 4-3. It indicates that clusters 2 and 3 are the ones which are more closed to each other (1.94). Clusters 1 and 2 are the ones which are more distant from each other (2.71).

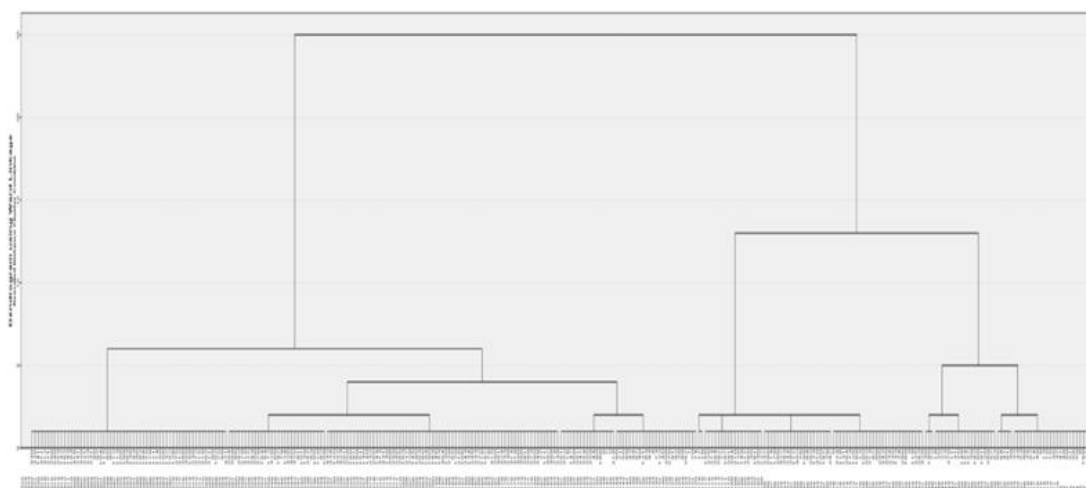


Figure 4-1 Dendrogram Using Ward Method

Table 4-2 Number of Cases in Each Cluster

Cluster	Quantity
1	27
2	189
3	88
Total	304
Missing	2

Table 4-3 Distances between Final Cluster Centres

Cluster	1	2	3
1		2.71	2.30
2	2.71		1.94
3	2.30	1.94	

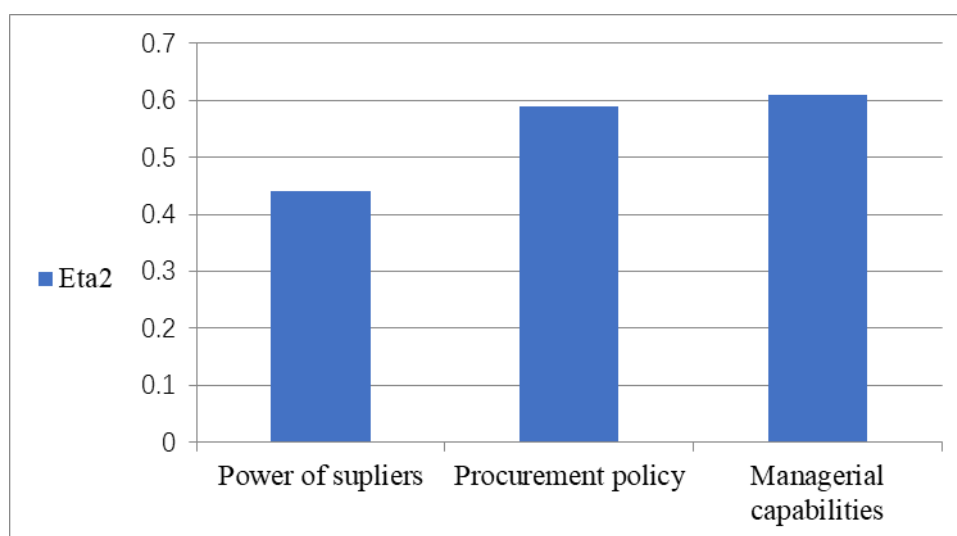


Figure 4-2 Eta<sup>2</sup> Coefficient for the Constructs Identified in the Factor Analysis

### 4.3 Characterization of the three clusters

Some socio-demographic, professional, and organizational features were employed to characterize the three clusters. To do so, it was computed the Cramer's V association coefficient. Figure 4-3 shows, on average, weak to moderate associations between the qualitative variables and the cluster variable. The associations between the criterion to select suppliers, quality/cost trade-off for selecting suppliers, or the ownership structure and the cluster variable are the most expressive. The cluster variable explains about 41% of the variations on criterion to select suppliers and 40% of the variation on quality/cost trade-off for selecting suppliers. Thirty-nine percent of the variation on ownership structure is explained by the 3-cluster solution.

In addition, there are other variables with levels of association above 0.35, such as number of suppliers, supplier origin, nationality of the participant and purchasing cost method. Therefore, we will characterize the groups extracted above using these seven variables.

Figure 4-4 is the detailed analysis of these three groups for ownership structure, and figure 4-5, figure 4-6, figure 4-7, figure 4-8, figure 4-9, and figure 4-10 is for the detailed analysis for the nationality of the informant, the supplier origin, the number of suppliers, the criterion to select suppliers, the quality or price tradeoff for supplier selection, and the negotiation strategy to find the best purchasing price respectively.

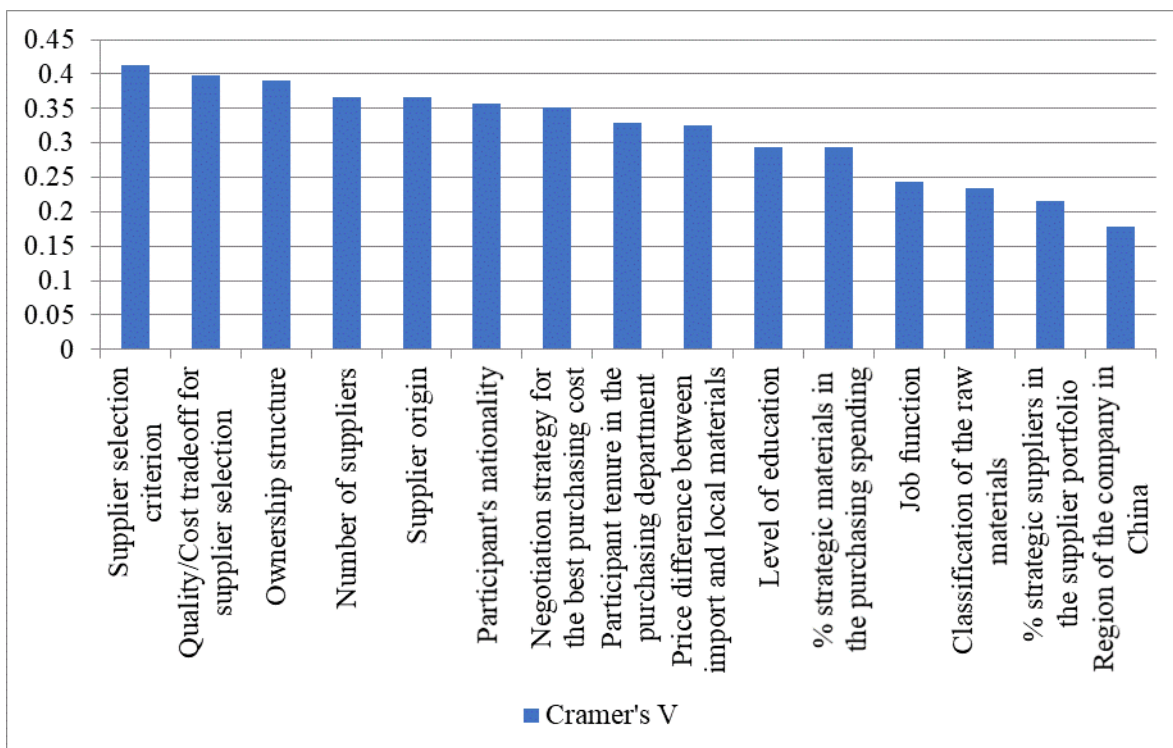


Figure 4-3 Cramer's V Coefficients for the Association between the Cluster Variable and Each Socio, Professional or Organizational Variables.

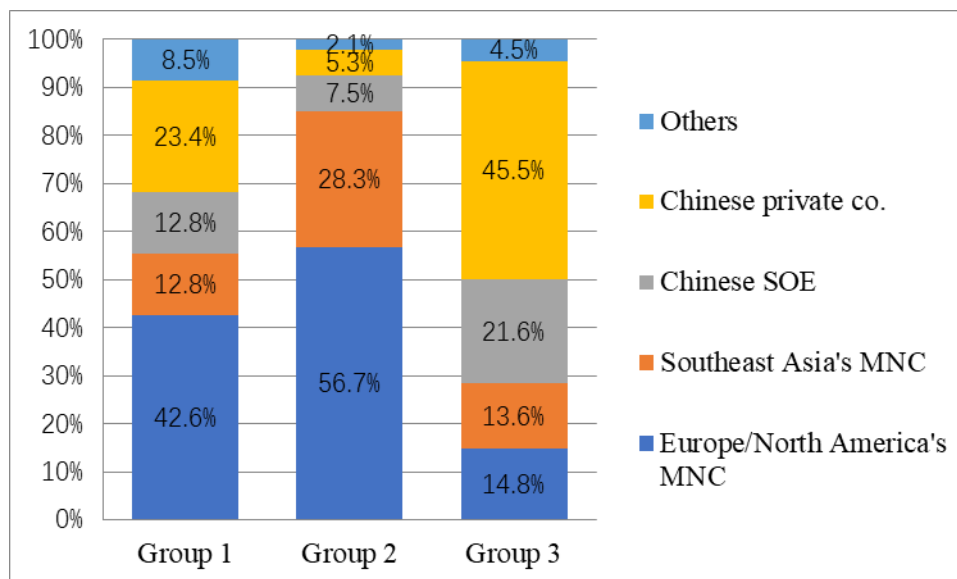


Figure 4-4 Characterization of Groups Based on the Ownership Structure

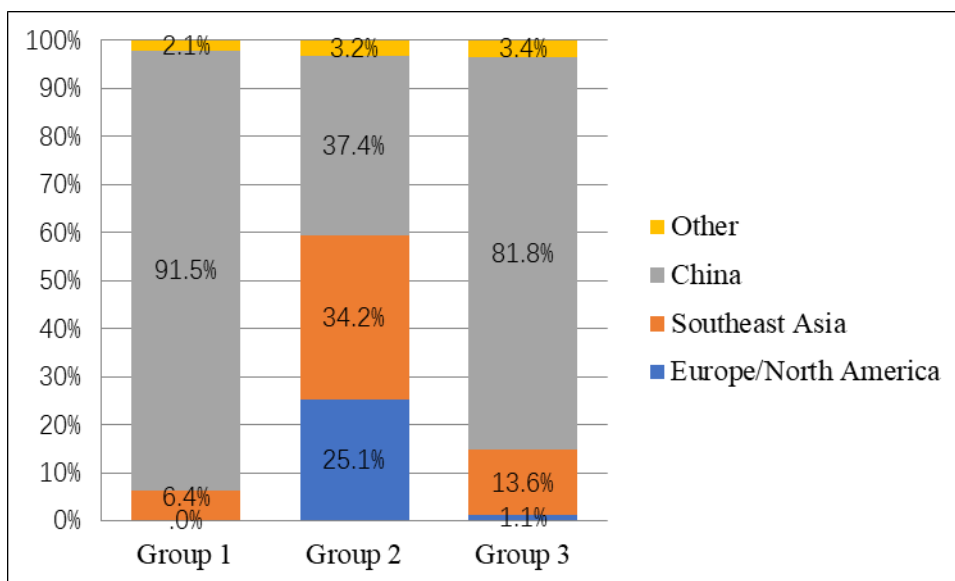


Figure 4-5 Characterization of Groups Based on the Nationality of the Informant

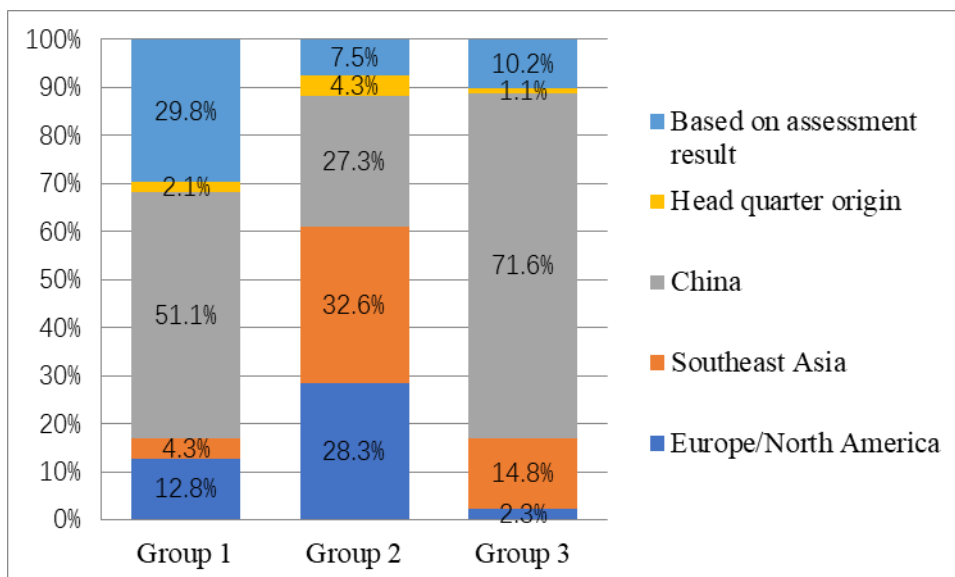


Figure 4-6 Characterization of Groups Based on the Supplier Origin

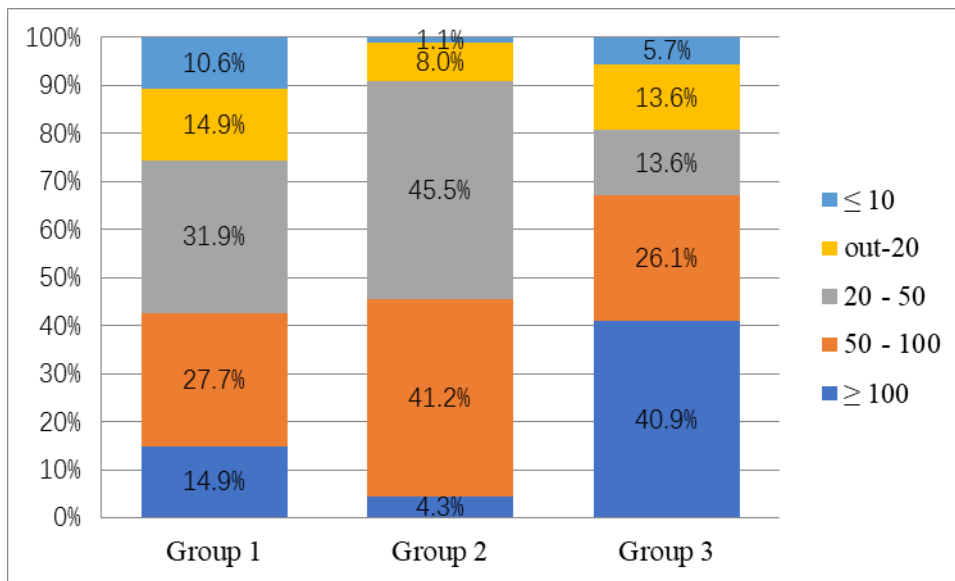


Figure 4-7 Characterization of Groups Based on the Number of Suppliers

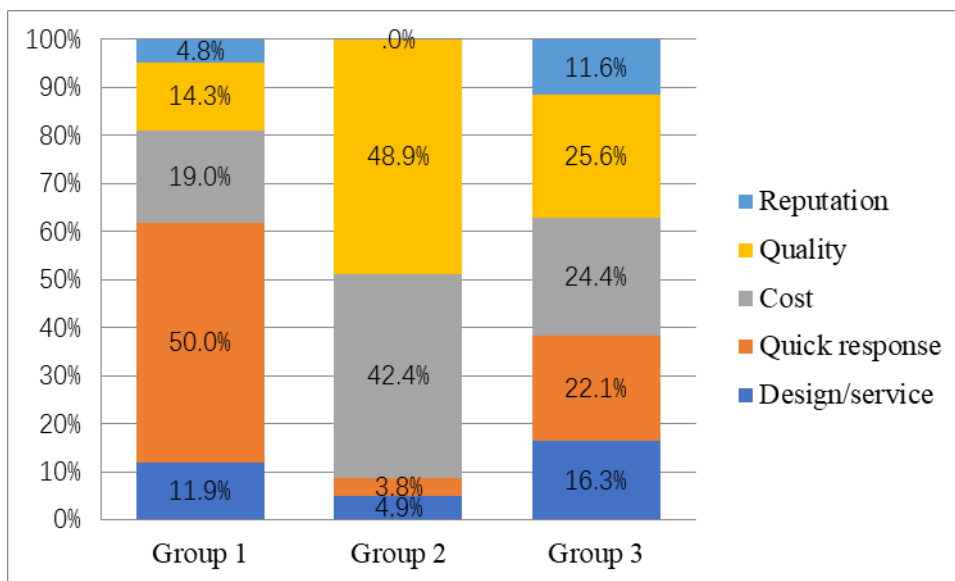


Figure 4-8 Characterization of Groups Based on the Criterion to Select Suppliers

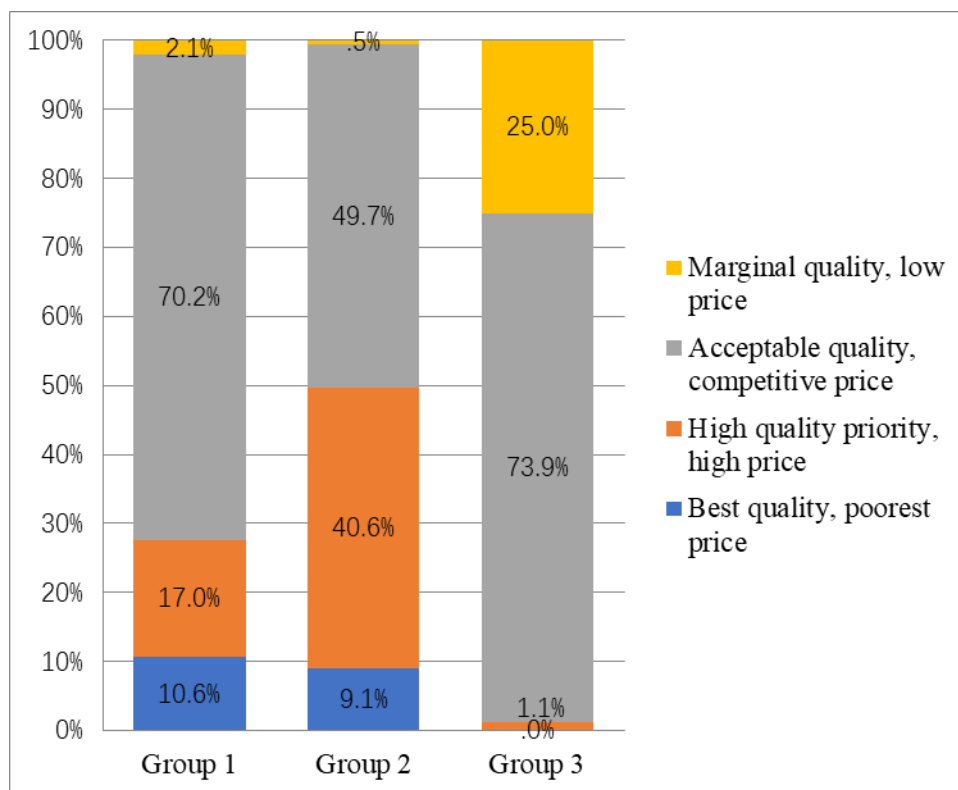


Figure 4-9 Characterization of Groups Based on the Quality/price Tradeoff for Supplier Selection

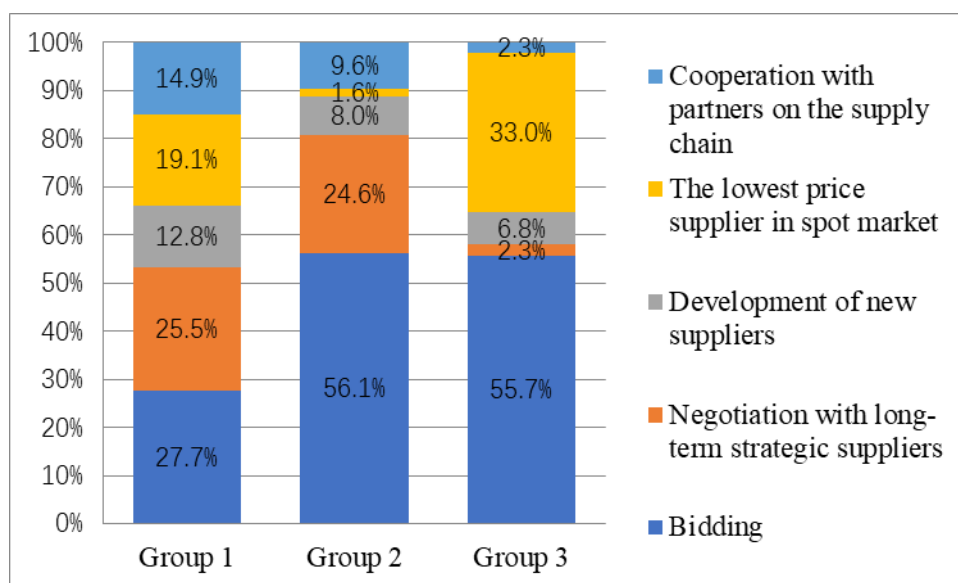


Figure 4-10 Characterization of Groups Based on the Negotiation Strategy to Find the Best Purchasing Price



Group 1 is the smallest cluster (27 enterprises). It is mainly made up of Western MNCs (42.6%) and Chinese private enterprises (23.4%), but the majority of informants are Chinese (91.5%). The 51.1% respondents indicate that their companies work mainly with Chinese suppliers, but in some circumstances they also select their suppliers based on assessment results (29.8%). The majority of companies in this group have medium supplier portfolios—31.9% and 27.7% of them work with 20-50 suppliers and 50-100 suppliers, respectively. Fifty percent of the companies choose the quick response criterion to select suppliers and 70.2% of them give preference to acceptable quality/competitive price. Regarding the negotiation strategy to get the best purchasing price, there is no a clear preference for a particular negotiation strategy—27.7% of companies prefer the bidding process, other prefer negotiation with long-term strategic suppliers (25.5%), and other the lowest price supplier in spot market (19.1%).

Group 2 is the biggest cluster and joins together 189 informants. It includes 159 MNCs, from Western and Southeast Asia, representing about 80% of the MNCs that participated in this study. Informants are mainly foreigners—34.2% are from Southeast Asia and 25.1% from Europe or North America; 37.4% are Chinese people. Regarding the supplier origin, the findings show that different companies adopt different strategies—32.6% of companies prefer suppliers from Southeast Asia, while 28.3% and 27.3% of them prefer European/North American and Chinese suppliers, respectively. Many supplier portfolios have between 20-50 suppliers (45.5%) or between 50-100 suppliers (41.2%). The most relevant criteria to select suppliers are quality (48.9%) and cost (42.4%). To decide about the quality/cost trade-off to select suppliers, the vast majority of companies make a decision based on either acceptable quality, competitive price (49.7%) or high quality priority, high price (40.6%). To get the best purchasing price, companies in group 2 prefer bidding (56.1%), followed by negotiation with long-term strategic suppliers (24.6%).

Group 3 is made up of 88 companies. In this group, there are 19 SOEs and 40 POEs, which, in total, represents 66% of Chinese-owned enterprises that collaborated in this research. Informants are mainly Chinese people (81.8%). These companies (71.6%) tend to prefer Chinese suppliers and work with big supplier portfolios. In other words, findings indicate that 40.9% of companies have more than 100 suppliers, followed by 50 up to 100 suppliers (26.1%). The criteria to select suppliers are not very consistent within these group of enterprises—among the most representative subgroups, some companies prefer the quality (25.6%), other prefer the cost (24.4%), and other the quick response (22.1%). However,

regarding the criterion to make the quality/cost trade-off for supplier selection, the preference is very consensual-73.9% of companies give priority to acceptable quality, competitive price, followed by high quality priority, high price (25%). The negotiation strategy to get the best purchasing price is decided almost between two options: the bidding (55.7%) and the lowest price supplier in spot market (33%).

#### **4.4 Chapter summary**

The exploratory factor analysis identified three important constructs to describe the purchasing field in China: power of suppliers, procurement policy and managerial capabilities. Later, these constructs were used to classify informants into a small number of mutually exclusive groups based on the similarities among them. In this cluster process, three well-defined groups of companies emerged: the biggest group includes almost MNCs; another group joins together mainly Chinese-owned firms; the smallest group is, to some extent, a hybrid group with MNCs and domestic companies.



## Chapter 5: Qualitative Data Analysis

This chapter presents the research findings from a thematic analysis of 21 semi-structured interviews. At the time of the interview, informants were working in procurement position in MNCs' subsidiaries in East-China. The participants included both Chinese staff and expatriate staff; buyers, managers, and chairman; chemical, machinery, and electronics industry, as summarized in table 3-3 in details.

### 5.1 The purchasing cost strategy

All participants described the purchasing strategy of their companies as a cost leadership strategy (Porter, 1979). For instances, some participants described the following:

*“Our purchasing cost strategy is 5% to 10% annual cost reduction for all material, which can make sure the purchasing cost has great competition in market.” (Alex, Commodity manager)*

*“We are labor-intensive enterprises. We must pay attention to every penny of our total cost. The purchasing strategy, i.e., the task of purchasing department, is to challenge the best purchasing cost of the industry, in other words, to achieve the possible lowest purchasing cost.” (Qing, Chairman)*

According with informants' speech, the purchasing strategy is defined by top management team (TMT) and clearly includes the specific percentage of purchasing cost reduction statement.

*“I knew the strategy was defined by our executive in both Singapore and China, one of the important items is to pursue more competitive purchasing cost in this industry than competitors.” (Huang, Procurement vice president-VP)*

*“As the operation VP in this MNC's subsidiary in Shanghai, I personally organized and involved at least three times procurement meeting attended by whole procurement staff every year. The first time procurement meeting is to review the purchasing strategy of last year and define the purchasing strategy of next year, then procurement team will follow it up; the second time procurement meeting is to define the specific annual raw material cost reduction*

*of each category, i.e., 1% to 12%, then procurement team will implement it; the third time meeting is to summarize and evaluate the detail purchasing cost reduction performance achieved.” (Zi, Operation VP)*

To better fulfill the TMT purchasing strategy, the organizations often offer financial incentives, i.e., bonus. As one participant, *Alex* (Commodity manager) said:

*“We launched the ‘motivation plan’ for procurement staff since 2014. That is to say we reward procurement staff with half of the cost reduction that buyers acquired over their targets. The result is very good, now every buyer takes active actions for cost reduction negotiation.”*

Similarly, another participant *Loo* (procurement director) told:

*“I am Malaysian and working in procurement in several MNCs’ subsidiaries in East-China such as Suzhou, Shanghai, and Wuxi cities for 20 years. My understanding for the most effective way to implement the purchasing strategy and obtain good purchasing performance is the annual year-end bonus.”*

## **5.2 Preliminary findings**

Analysis of the interviews yielded the following four main themes that describe how the purchasing cost strategy can and is achieved in the respondents’ companies. Following a combined procedure with deductive and inductive logic, the key constructs identified in the factor analysis, reported in Chapter 4, provided the baseline to analyze the informants’ speech and the categories emerged from the data. The four themes are drivers for purchasing cost reduction, facilitators of purchasing cost reduction, barriers to purchasing cost reduction, and procurement policy.

### **Theme 1: Drivers for purchasing cost reduction**

The drivers for purchasing cost reduction refers to key working elements that trigger off the execution, extension, or transformation of the purchasing strategy: (1) low supplier power or high bargaining power of buyers, which is associated with the buyers’ large purchasing orders or suppliers’ non-monopoly advantages; (2) the competence of the buyers to achieve substitute material, which is focused on the import material localization activities or replacement activities for other purchasing materials; (3) the vertical integration conducted by the buyer to manage and control the whole value-chain process; and (4) the ownership of a license issued by the government for production.

## **Theme 2: Facilitators of purchasing cost reduction**

The facilitators of purchasing cost reduction include the major resources available in the company to assist the execution, extension, or transformation of the purchasing strategy: (1) social capital, also labeled as Guanxi network, covers looser business ties and the strong business ties with positive impact on purchasing cost; (2) linguistic capital available in communications with headquarter; (3) bargaining skills of buyers in negotiation processes; and (4) personal attributes, such as positive traits, education, experience, and job position.

## **Theme 3: Barriers to purchasing cost reduction**

The major barriers preventing the purchasing cost reduction refer to obstacles related to human and cultural factors: (1) the obligations and duties that extend to interactions with suppliers and other external stakeholders (social capital); (2) misunderstandings disclosed in communication with headquarters (e.g., national cultures' clashes) or coworkers (professional cultures' clashes), in an horizontal or vertical base; and (3) the subversion of the most effective job behavior duo to ambiguities about the job (counterproductive behavior).

## **Theme 4: Procurement policy**

The procurement policy covers the elements that informants understood to be relevant to ensure an efficient and cost saving procurement department: (1) basic principles, which includes transparency, accountability, business integrity, and environmental sustainability; (2) the level of supplier-buyer relationship, which can be defined in a continuous between two extreme poles (competition and antitrust versus collaborative relationships); and (3) the expected outcomes, which includes cost saving, increased quality or purchasing improvements.

Each of the themes will now be examined in some detail in terms of the proportions that each category has within each theme. Concerning the *drivers for purchasing cost reduction*, import substitution was ranked as the most important factor, representing 42% of the situations recalled by participants. After that, backward integration accounted for 20% of total drivers. Following this were the replacement/complement of other purchasing materials, large orders, no supplier's monopoly and licensed production with 16%, 8%, 7% and 6% respectively. Figure 5-1 shows the details of the analysis of the *drivers for purchasing cost reduction*.

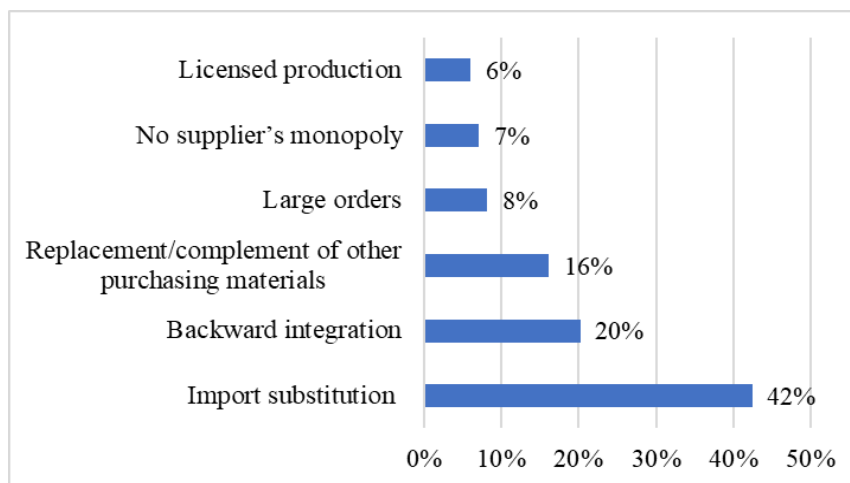


Figure 5-1 Drivers for Purchasing Cost Reduction Identified by the Participants

Regarding the *facilitators of purchasing cost reduction* theme, the most frequent category was the Guanxi network (positive impact) with 39% of total situations remembered. Negotiation with supplier, positive traits, job position, education, and experience received about 21%, 15%, 8%, 7%, and 6% of the participants' voice on facilitators, respectively. The remaining factor, namely communication with headquarter, was ranked as less important, at 4%. Details are shown as figure 5-2.

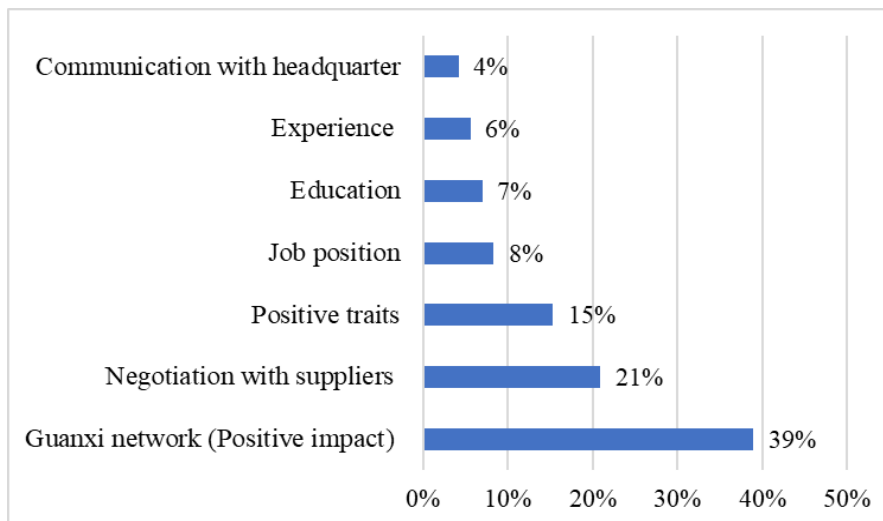


Figure 5-2 Facilitators of Purchasing Cost Reduction Identified by the Participants

In terms of *barriers to purchasing cost reduction*, 42% of the participants' discourse voiced the Guanxi network (negative impact) as a major factor. Clash of professional culture and clash of national culture were next with 24% and 15% of total barriers, respectively. Counterproductive behavior and communication misunderstanding with headquarter accounted for 12% and 7%, respectively. Details are shown in figure 5-3.

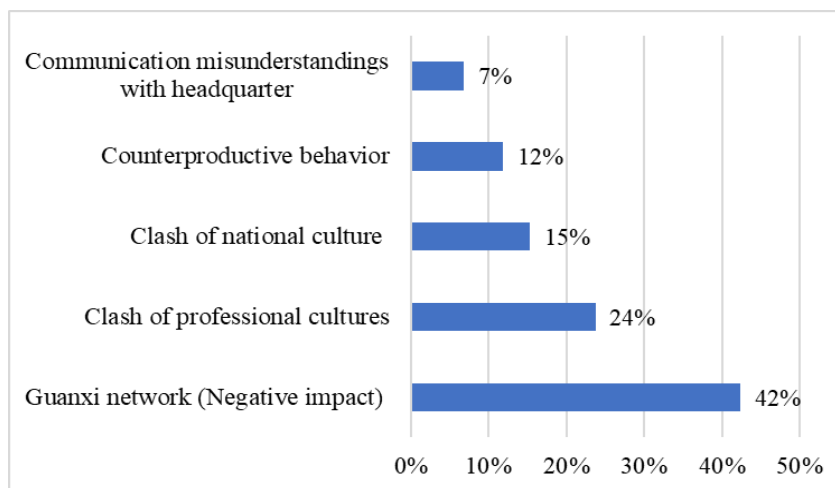


Figure 5-3 Barriers to Purchasing Cost Reduction Identified by the Participants

The most highlighted category on theme *procurement policy* is cost saving with 46% of informants' speech. Competition/antitrust, developing and maintaining supplier partnerships, accountability, business integrity, and purchasing improvement accounted for 14%, 12%, 7%, 6%, and 6% of the situations recalled, respectively. Transparency was ranked with 4%. Finally, increased quality and environment sustainability received 2% each. Figure 5-4 provides the details.

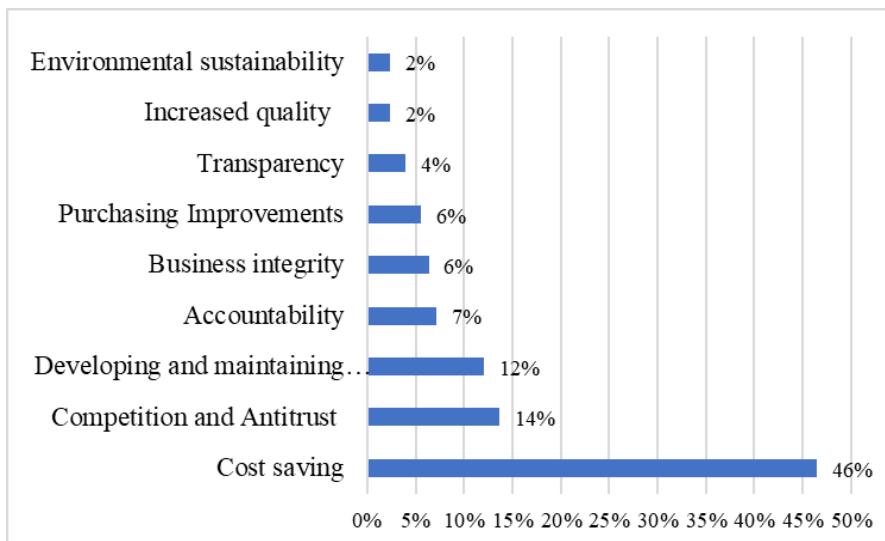


Figure 5-4 Procurement Policy Identified by the Participants

### 5.3 Thematic analysis

The analysis of the informants' narratives will now be discussed in line with the research themes. Direct quotations from interview transcriptions or notes highlighting aspects of these



themes can be found throughout the text and each participant is identified by an alias (interviewer code).

**Theme 1: Drivers for purchasing cost reduction**

The theme drivers for purchasing cost reduction can be categorized into four subordinate themes:

1. Low supplier power: factors arising from the large orders and no supplier's monopoly;
2. Ability of the buyer to substitute: factors emerging from the import substitute and replacement/complement of other purchasing materials;
3. Vertical integration: factors associated with the backward integration (positive impact);
4. Threat of new entrants: factors connected with the licensed production (government regulation).

Each subordinate theme is made up of several issues as shown in figure 5-5.

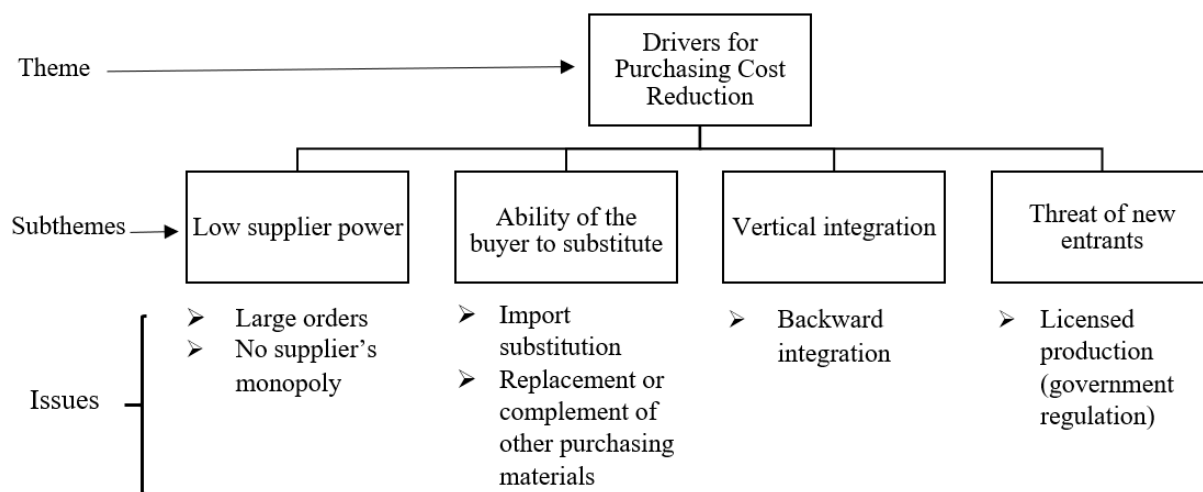


Figure 5-5 Drivers for Purchasing Cost Reduction, Subthemes and Issues

**Low supplier power**

The interviews data by participants identified low supplier power of the suppliers as followings.

1. High bargaining power for the participant's company that buys high volume of materials.
2. High bargaining power for the participant's company when the suppliers do not have a

monopoly.

Bargaining as one important procurement management tools to obtain good purchasing cost is mentioned by many enterprises. Participants from the MNCs' subsidiaries in East-China consider that high bargaining power has many advantages, such as less investment, direct purchasing cost reduction, better interactions with suppliers. They define it as the preferred purchasing cost reduction method. One of the participants claimed:

*“Our company trained and directed us for the purchasing cost reduction methods ... negotiation, localization, and acquiring suppliers. The negotiation can make direct cost reduction result though sometimes it is not high, and most senior management team like it because of very small investment on this activity. For example, the annual purchasing cost reduction assignment of our company in 2009 was procurement team made many rounds of negotiation with critical and strategic suppliers, and finally achieved the top 3 best purchasing cost performance in this industry...made cost reductions on 363 suppliers ...”.* (Zi, Operation VP)

High bargaining power for the participant's company that buys high volume of materials arose from the interviewee as one of the most important categories of low supplier power. It is consistent with Porter's (1979) view, who stated that the participant's company can have high bargaining power if it purchases large volumes.

The Chinese participant **Shan** (Supply manager) explained it in this way:

*“The strategic or controlled raw material is the aurous potassium cyanide or called as gold salt. Supplier offers us standard price with 1000 grams quantity purchasing order. If we combined the total demand of our global subsidiaries company (4000 gram) to bargain with the qualified gold salt supplier, we can gain 0.6 RMB per gram purchasing cost reduction. Moreover, other candidate gold salt suppliers are also contacting us for the cooperation regarding the high volume”.*

The expatriate participant **Roland** (VP of GSP-global sourcing and procurement) said like this:

*“I am the vice president and in charge of the global sourcing and procurement activities in this MNC. The Nylon of FR52 made by Dupont company is the strategic commodity for our company and Dupont supplier also considered us as the strategic customer because of the high-volume orders demand. We negotiated the best price in industry for FR52 material with Dupont supplier by our high volume, which best purchasing cost performance greatly*

*strengthened our company's competition in market. However, the electronic component team still can not achieve good purchasing price for the fuse commodity because of the very small quantity purchased."*

Another high bargaining power for the participant's company, which is little monopoly in the commodity market, also arose from the interviews. That is, if there is no supplier's monopoly, the respondent's company would have high bargaining power and receive a good purchasing. Otherwise, if the supplier has the unique and valuable resource, then the supplier will have a certain monopoly position in market based on the resource holding view, which may result in sustainable competitive advantages such as high bargaining power or sale price so as to obtain the long-term super-profits (Colis & Montgomery, 2011).

The participant **Sang** (Procurement director) explained it as following:

*"Alice is one of the purchasing managers and she is assigned to manage packaging material such as carton box and wooden box, and standard material such as fastener. Alice can achieve good purchasing cost reduction performance in these 3 years. Alice is re-assigned to manage the gas valve component because Jone can not gain any purchasing cost reduction. However, Alice also can not achieve good purchasing cost reduction performance on one gas valve component. I analyzed the reasons why Alice can achieve the good purchasing cost reduction performance on both packaging and standard material is because these materials are standard or undifferentiated in market while the gas valve is the unique or differentiated product that this supplier own the patent of invention and does not tend to drop any selling price."*

### **Ability of the buyer to substitute**

Another category of drivers for purchasing cost reduction is the ability of the buyer to substitute, which can be split into two issues:

1. Import substitution: the replacement of imported materials by domestic materials or equipment with positive impact on purchasing cost-cutting.

2. Replacement/complement of other purchasing materials: finding alternative sources for domestic or import raw materials to complement or replace actual supplier.

In the interviews, many participants argued that the import substitution can directly benefit their companies, because it allows them to reduce the purchasing cost through overcoming the high purchasing price, long lead-time or supply shortage. According to the interviewees, many imported materials are better than domestic materials on quality and

technical performance, but their price and delivery are often poorer than those of domestic materials.

One of participants named **Chong** (Planning manager) said:

*“The import material is good in quality but their lead-time is very long and price is much higher than China domestic. We have the localization strategy and related procedures in working instruction in the localization program. The localization strategy is greatly influencing the purchasing cost performance. For example, 5 years ago about 70% material was bought from Suzuki supplier, right now the import material is less than 5%. The reason is the import material purchasing price is very high which caused our final product becoming less competitive. Customers like General Motor and Wuling started to challenge us why we did not expedite the localization process. We pursued localization as our peers did and the localization resulted in more than 32% cost reduction for import material, and overall over RMB 20 million total purchase in material.”*

The participant **Huang** (VP) said:

*“My team has just successfully finished one small localization project, which is one metal axis and previously imported from South Korea. We did not draw the localization plan for this axis because of its spending is not so high, account for about 1% of our total spending, though its unit price is very high. But that Korea supplier met some legal problem in its country, which forced us to take urgent actions to launch the location strategy. The result is very good after three months of supplier and product qualifications. The new supplier is from QingDao city. The purchasing cost reduction is up to 32%, lead-time reduction is 29 days, quality and payment term are also better than Korea supplier. Therefore, I can not only resolve the supply issue but also bring in cost reduction.”*

One expatriate participant named **Roger** (Purchasing manager) from MNC's subsidiary in East-China summarized the advantages of import substitution as:

*“The localization purchasing strategy for epoxy commodity was launched some months ago, the financial result is very good.”*

Finding alternative sources for domestic raw materials in order to complement actual suppliers can always solve the sole source problem and the potential risk for the operation of the MNCs' subsidiaries in East-China. Some participants interviewed pointed out they defined the alternative source strategy to minimize the long lead-time risk and supply shortage risk and maximize the purchasing cost reduction.

The participant **Alex** (Commodity manager) said:

*“We often encountered supply shortage due to various reason such as politics, which forced us to find alternative source. We only qualified one supplier for electronic sensor module 5 years ago. With our customer’s demand ramp up this year, there is 3 times production line down in our company because of sensor module delivery shortage, which brought us great loss. We run the alternative source program for this sensor part and finally succeeded to qualify two new suppliers to fill the demand gap, moreover the new qualified suppliers also offered us 6.5% purchasing price reduction.”*

One expatriate participant **Hary** (director of SCM) said in these words:

*“By the end of last year, we still had 5 kinds of strategic material with sole source supplier. My team was challenged two times last year because of the high purchasing price and delivery problem caused by these 5 sole source materials. The strategic decision was to qualify 2 new suppliers for those 3 sole source materials to solve the delivery problem and drop the purchasing cost in short-term while the long-term was to cooperate with R&D to change the design for the balanced 2 sole sources because they were design-in material. The short-term result is good, i.e., the candidate suppliers are qualified, the delivery problem are solved, and the purchasing cost also drop 5.6% on average.”*

### **Vertical integration**

Another category of the driver for purchasing cost reduction identified from interviews data is the vertical integration.

Many participants mentioned that vertical integration strategy can directly and greatly contribute enterprises not only on the cost but also on securing the supply, however, it needs huge investment for the integration. The finding also confirmed the result of the study conducted by Williamson (1971) who argued that the vertical integration is a core strategy for the company to acquire enterprises upstream or downstream, thus the core enterprise can control the whole processes of the raw material supply, manufacturing, and sales. They initiate such strategy when they face the fierce market competition, however they need to spend a lot of manpower and material resources under vertical integration structure.

When the participant’s company incorporates the value-chain of a supplier into its own value chain it can receive better purchasing performance, such as purchasing cost and delivery, than those of the simple negotiations, which is verified by few participants interviewed.

One expatriate participant **Roger** (Purchasing manager) from MNC’s subsidiary in East-China talk about the vertical integration in these words:

*“The copper wire supplier can not smooth the supply though it offered us the best favor purchasing price which troubled our production line. The headquarter decided to settle this issue to acquire one small copper wire manufacturer. I am one of the key team members to acquire this small copper wire supplier. The acquisition processes and activities will be finished soon after both parties signed the legal agreement. The analysis report shows it will bring Shanghai company total 19.6% cost saving by internal transfer price business model comparing to previous supplier’s selling price. Oh, the internal transfer price is the subcompany sell its material to sister company within the same group by its cost plus 5% margin, I like it.”*

Another participant **Lang** (Sourcing director) said in these words:

*“About 20% of our company’s final products are made by aluminum sheet, we bought the semi-finished aluminum parts from one small supplier before 2015. The quantity we purchased accounted for 78% of that small supplier’s total sales quantity. Our company decided to take aggressive actions to launch the cost leading strategy in 2016 to expand the market share for our company’s middle-class products. Our company invested on that small supplier to held its 65% share and enlarge its production capacity. Then all purchasing order of aluminum parts were moved to it, the internal transfer price model was introduced, which bring 18% purchasing cost reduction.”*

However, regarding the vertical integration strategy some senior-level participants considered that the control exercised by the participants’ company could not bring them good purchasing cost reduction quickly. **Qing** (Chairman) mentioned that:

*“I knew the purchasing cost reduction to acquire one company is much higher than negotiation and even alternative source qualification. However, as chairman I could not approve this huge investment report because your analysis did not give me one clear picture on the investment on return. Fifteen percent purchasing cost reduction was just the supplier’s profit, which you move it to your purchasing report! I need more information and data for following 5 years.”*

### **Threat of new entrants**

A fourth subordinate theme of the driver for purchasing cost reduction is the threat of new entrants.

Few participants considered that the existence of licensed production is a good factor to discourage new entrants to entry in a particular commodity market.

The participant **Tang** (Logistic director) talked about it like this:

*“We serve the security industry and the serious barrier or niche is the licensed production issued by China government. Six years ago, there were only 6 manufacturers in this industry thus our product could be sold in market with 52% margin or 56000 RMB per set. China government released another 22 licenses during these 6 years, which caused our company had to drop the margin to 20% on average. Furthermore, the annual sales quantity also dropped 33% comparing to it of 6 years ago.”*

In addition, in the informants' speech, it was possible to understand that whenever a company has a licensed production, it could also benefit from supplier's channels with lower purchasing prices and some economies of scale.

For example, one expatriate participant, **Huang** (VP), noted that:

*“For example, it must ‘spend or invest’ eight to ten million RMB to obtain the license for equipment production and sales in chemical industry through many nodes assessment by ‘experts’. Of course, if you think you are very strong and your company’s qualification is very good, then you do not tend to ‘invest’ it, the ‘market’ will tell you ‘sorry, the assessment result by experts is that your qualification is not good enough to meet government’s requirement or something else...’. I saw 3 MNCs’ applications for this license were failed because of no ‘investment’, while one local private enterprise passed and awarded the license though its qualification is poorer than MNCs. Thus, this private does not only produce and sell that equipment but also can buy the specified raw material with 16% lower price comparing to average market price.”*

## **Theme 2: Facilitators of Purchasing Cost Reduction**

Four subthemes emerged and highlighted different aspects of the facilitators of purchasing cost reduction:

1. Social capital: factors associated with Guanxi network, in terms of looser business tie or strong business tie, with positive influence on processes to reduce the purchasing cost;
2. Linguistic capital: factors linked to knowledge of languages in the communications with headquarter;
3. Bargaining skills: factors associated with the ability to negotiate with supplier;
4. Personal attributes: factors related with the participants' traits and professional background.

Each of the subthemes is made up of a few issues as shown in figure 5-6.

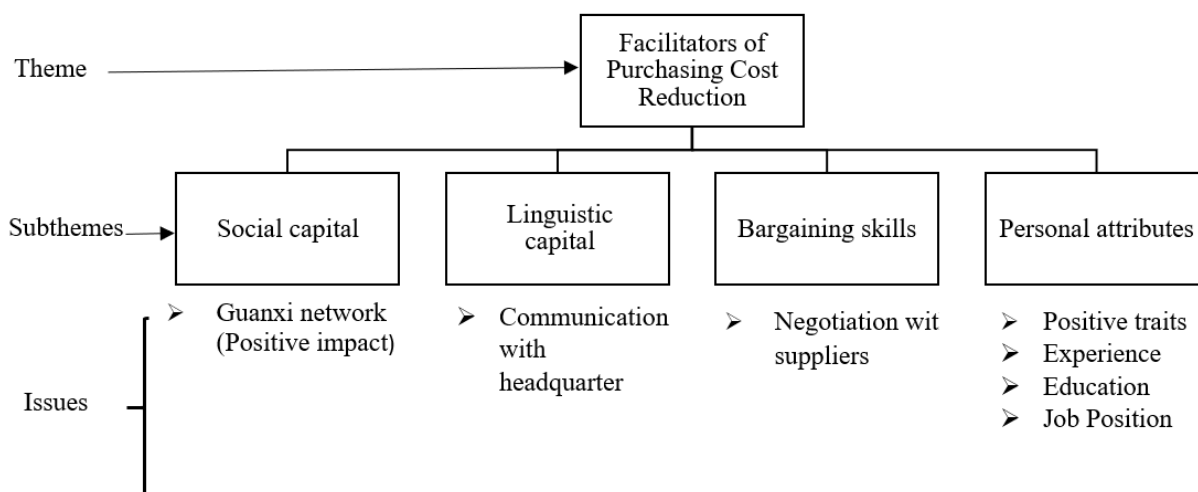


Figure 5-6 Facilitators of Purchasing Cost Reduction, Subthemes and Issues

## Social Capital

All participants identified the relationships as a key facilitator of the purchasing cost reduction in China. More specifically, they referred to social network or Guanxi network, which we label here as social capital, as an instrument to acquire, recombine, or release resources and information.

Guanxi network plays a very important role in influencing the purchasing decisions, activities, and strategies that manager would do and plan.

*“Without good relationship and Guanxi network, it is terrible, very terrible, terrible...to win the business in some bidding projects” (Shuang, Operation VP)*

Many participants mentioned the looser business ties, i.e., ties between companies or entities in different industries. For them, looser business ties allow to achieve special favors that, in turn, assist the company. One participant, named *Alex* (Commodity manager), said:

*“I think the Guanxi network can help our company to improve the working efficiency and the purchasing cost performance. We need to use acetone chemical material in our silk screen process, however our company is not authorized to buy this acetone because it is one of raw material for drug production. Local government completely controlled the buying process for acetone material. It is not only to spend certain amount money on the license application but it will also take many days to register the purchase order in local police station prior to the purchasing. The deputy GM personally asked his friend, who has strong Guanxi with local police station, to settle this case. In this regard, our chairman offered the deputy GM special*



*bonus too.*”

Some informants also reported strong business ties, i.e., ties between companies within the same industry that may not be directly competing with each other. Curiously, interviews highlighted different ways of using the strong business ties. On the one side, Guanxi network allows them to renew the supplier portfolio or update old relationships. The participant **Guo** (SCM manager) stated:

*“Guanxi is important for our Shanghai branch, but it is more important for Chinese suppliers. Last year one of my buyers named Joan applied a 3 months maternity leave and I had to assign Jack to fill the slot for those 3 months. Jack could not well cooperate with that fastener supplier which resulted a sudden delivery on hold and 3% purchasing cost up! Joan resumed her job and ‘restored’ the Guanxi with that fastener supplier in one month and at the same time Joan also achieved 4.3% cost reduction (actual net 1.3% comparing to the purchasing price 4 months ago).”*

On the other side, they refer to strong business ties as a vehicle to develop and maintain supplier partnerships. Here is **Mu**'s (Purchasing manager) speech, which clearly explains the value of having a good Guanxi relationship:

*“Both parties will trust each other if you have the ‘solid’ Guanxi, then the solid Guanxi also brings you what you want. For example, in 2013 I sourced five candidate suppliers for our valve business, and the price of the Taizhou (one city of Zhejiang province, P.R.C) supplier is the second lowest. Taizhou supplier came to my office to offer us one free technical training and the cost analysis for this material. Finally, Taizhou supplier said they made this training for customers was not only to expand their market share but also make sure customer could buy good quality material. At that time Taizhou supplier even ‘promised’ the supplier would use fake quality material for their product if its sales price is lower than Taizhou supplier’s. I trusted him and buy 5 samples from each supplier for testing. The result verified Taizhou supplier’s analysis. We just qualified Taizhou supplier as our strategic supplier. Last month Taizhou supplier called me and said they would send us one official price change letter, they would drop their sales price from 19 RMB each to 17 RMB each because they upgraded their production line and the production efficiency was improved!”*

### **Linguistic Capital**

Informants often recalled situations related communication with headquarter. They claimed that the language, as the main and most basic but vital factor and tool, plays an extremely important role in analyzing social action. Knowing foreign languages is a

competence; it has a great influence on the work of the procurement staff and the acquisition of information resources.

Every Chinese participant considered the English as the foreign language for them, but it is either the formal working language or preferred language in their companies (MNCs' subsidiaries in East-China). Many MNCs evaluate candidates' English skills to determine whether qualify them or not in their position.

Many participants highlighted the idea that being fluent in English is an advantage to succeed in his job and gain purchasing cost reduction. This idea is in line with Dyer and Singh (1998) findings, which indicate that inter-organizational communication is conducive to the development of relationships; and the cooperation between both sides can have the needed resources and keep the competitive advantages (cost).

For example, one of the participants, *Mi* (Senior buyer), claimed:

*"I graduated from Nanjing University and my English skill is CET-8 (College English Test), thus I can fluently speak, listen and write English...I ever worked 3 years in New Zealand...my boss, an American, interviewed me for 2 hours, the topics covered topics, such as football and basketball, travel in a Newland, economics such as credit crisis, culture such as the history of China, however my boss did not talk about any procurement related topics ... my boss finally offered me a very competitive salary. With this skilled English language, it is easy for me to communicate with headquarter for procurement related conference call and transfer the purchasing cost decision made on the meeting to my team.... next month I would be promoted as supervisor when I worked in this company 8 months... my boss told me he would recommend me as his successor too."*

### **Bargaining Skills**

Another relevant facilitator that emerged in the informants' speeches is bargaining skills. It refers to the ability to negotiate with suppliers and, in turn, the capability of influencing the outcome of negotiations.

The existence of buyer' bargaining skills is often connected with masculine traits, which the literature refers to agentic behavior like aggressiveness, independency and achievement (Madera, H Hebl, & Martin, 2009).

*"I graduated from Fudan University in 1996, major mechanical engineering, and am working in this MNC's Shanghai branch for 5 years. My supervisor assigned me to manage the packaging material, fastener material and sheetmetal part in turn in these years, and my*

*supervisor considered my working performance especial the purchasing cost reduction as the 'excellent' and recommended me as the 'star employee' regarding my excellent bargaining skills. Generally say, I always take aggressive negotiation actions till the expected result achieved such as negotiating with suppliers in whole day by comparing supplier's price with competitor's, showing the future great blueprint, analyzing supplier's cost structure, and inviting senior manager to join the negotiation. Moreover, the final deadliest weapon that the supplier would probably lose the contract will be shown unless not aligning the purchasing cost reduction. I always do some exercises prior to the purchasing cost reduction with suppliers, control the pace of the negotiation, and speak some English in front of Chinese supplier and speak some Chinese in front of oversea suppliers. Therefore, I can perfectly finish the assigned purchasing cost reduction tasks."* (Wang, Manager)

**Lang's** (Sourcing director) narrative also illustrates the above idea.

*"One buyer in my team is too easy to 'disclose' her bottom line when she negotiates with suppliers. Quite often, she can not achieve the objectives because suppliers already knew her 'targets' on the negotiation table, so suppliers can find many ways to maximize their benefits and minimize her benefits. The buyer reported me many times she could not achieve the purchasing cost reduction objectives for aluminum sheet and iron casting parts. She explained the 5% purchasing cost reduction objective for the iron casting parts could not be achieved was because supplier did not agree the 5% but only agree 2.5% cost reduction. I carefully listened the whole negotiation story she repeated. The buyer asked supplier to come to our company for purchasing cost reduction negotiation for iron casting parts and at the same time she also made one preliminary negotiation with supplier by phone for the 5% cost reduction target. The buyer showed the 5% cost reduction target to supplier at the beginning of the negotiation. Later, I coached her the negotiation skills and reminded her not to show your bottom-line at the beginning otherwise the objective can not be achieved. She adapted it step by step and much bigger objectives were achieved gradually."* (Lang, Sourcing director)

### **Personal Attributes**

Four issues emerged and highlighted different aspects of the personal attributes: positive traits, experience, education, and job position.

Positive traits include the personal persistence during a process of negotiation with suppliers. One of the participants **Shuang** (Operation VP) said in this way:

*"Procurement job is one of challengeable job, it needs the procurement staff have the positive working attitude, active work enthusiasm and the persistence momentum, thus the*

*procurement staff can receive the good purchasing performance. Most suppliers are aware of that the buyers of the decadent working attitude can not achieve the expected purchasing cost reduction objectives, which is verified in my 15 years working experience.”*

And the participant **Chen** (Buyer) offered the similar understanding as:

*“Last year I was assigned to handle 6 purchasing cost reduction projects and 4 out of 6 projects achieved the objectives. The summary on the 4 successful projects is I take active actions to follow up each process and solve the problems met. Two projects fail the objectives and I gave up the prolonged negotiation with supplier for the 17% cost reduction ... in one project I just terminated this negotiation and agreed the final 15% cost reduction offered by supplier; the other project I failed to meet the cost reduction because company decided to phase it out based on the customer's demand change.”*

The experience is recognized by many participants as another key factor to influence positively the outcome of negotiations. Different working experience might offer different judgement or decision even on the same facts collected, which will influence the result of different purchasing cost reduction opportunities. To put it in another way, the more working experience managers have, the better purchasing performance the managers can achieve.

One of the Chinese participants **Guo** (SCM manager) said:

*“The buyer with rich experience and higher education background would make a simple analysis before place the purchasing order as to maximize the benefits and minimize the risk to company. The buyer with poor experience and junior education background would simply select imported material as to minimize the risk of his own.”*

Some other participants mentioned the previous experience might not directly favor to MNCs' purchasing cost performance, but manager with rich working experience can identify the opportunities and threats, then seize the opportunities and reconfigure organizational resources, capabilities, and structure to benefit MNCs' purchasing cost.

**Shuang** (Operation VP) provided the following view:

*“I am the vice president of the operation in this America MNC's subsidiary. Up to now, worked for the company 3 years while I had total 21 years purchasing experience...there are 6 times accidents in both procurement team and supplier side last year...company lost 10.3 million RMB on these accidents!...I worked in one chemical industry before I joined this electronic component industry...it is big difference between chemical and electronic industry, quality and safety are the most important elements in chemical industry...I often use the*

*'safety and quality' to guide my current job... so far we did not meet any safety and quality accident wherever in my team or in suppliers, the CEO (chief executive officers) appraised it as 'no safety and quality accident' is the best contribution to company...now I understood why headhunter recommended me to join this company, and also understood why CEO think so. "*

Education is another key facilitator of purchasing cost reduction. The higher education background managers have, the better purchasing performance the managers can achieve.

One chairman level participant **Qing** (Chairman) claimed:

*"I direct HR to recruit high education background employees with competitive salary package because these employees are always thinking and analyzing how to gain better purchasing cost, not just following the routine job to pursue the common target like the junior education background employee. So, it is worth to invest on the higher education background employees. One procurement manager with Master degree often made decision based on strategic viewpoint while the other procurement manager with junior bachelor degree just made tactical decision, of course the former procurement manager's performance is better than the later one."*

Often education is not dissociated with experience. For example, the manager **Guo** (SCM manager), said as below:

*"The buyer with rich experience and higher education background would make a simple analysis before place the purchasing order as to maximize the benefits and minimize the risk to company. The buyer with poor experience and junior education background would simply select imported material as to minimize the risk of his own."*

Finally, informants also reported the position in the hierarchy as an important aspect to influences the final purchasing cost. This idea is congruent with Helfat and Martin (2015) results, which suggest that senior executives with super power (job position) over internal social network and other resources may be able to seize opportunities and change personnel, organizational structure, and physical assets, which would finally benefit the purchasing cost of the company.

For example, **Roger**, who is an expatriate and purchasing manager, stated:

*"In one case, I am surprised for quotation on one of our commodities, the sales representative of one supplier offered to my subordinate for the final price at \$15.4 after 4 rounds negotiation. I am not happy because there is still big gap with target, so I directly knocked the door of their General manager in order to achieve the new purchasing price at*

\$12.4 or 19.5% cost reduction. It takes me around 10 minutes to complete this deal.”

Similarly, **Huang** (VP) argued the formal power could influence the purchasing cost:

“The power in different management level also influence the purchasing cost performance. For example, vice president could always obtain better price than director level, director could always obtain better price than manager, and manager could always obtain better price than buyer in one round negotiation if supplier exactly know your position.”

### Theme 3: Barriers to Purchasing Cost Reduction

According to the interviews, the barriers to purchasing cost reduction are categorized into three main subthemes:

1. Social capital: factors arising from the Guanxi network with negative impact on purchasing management;
2. Misunderstandings: factors emerging from communication problems with headquarter and cultures' clashes regarding to professional or national culture differences;
3. Ambiguity about job: factors associated with behavior that explicitly runs counter the goals of the organization or evades management systems.

Each of the subthemes is made up of several issues as shown in figure 5-7.

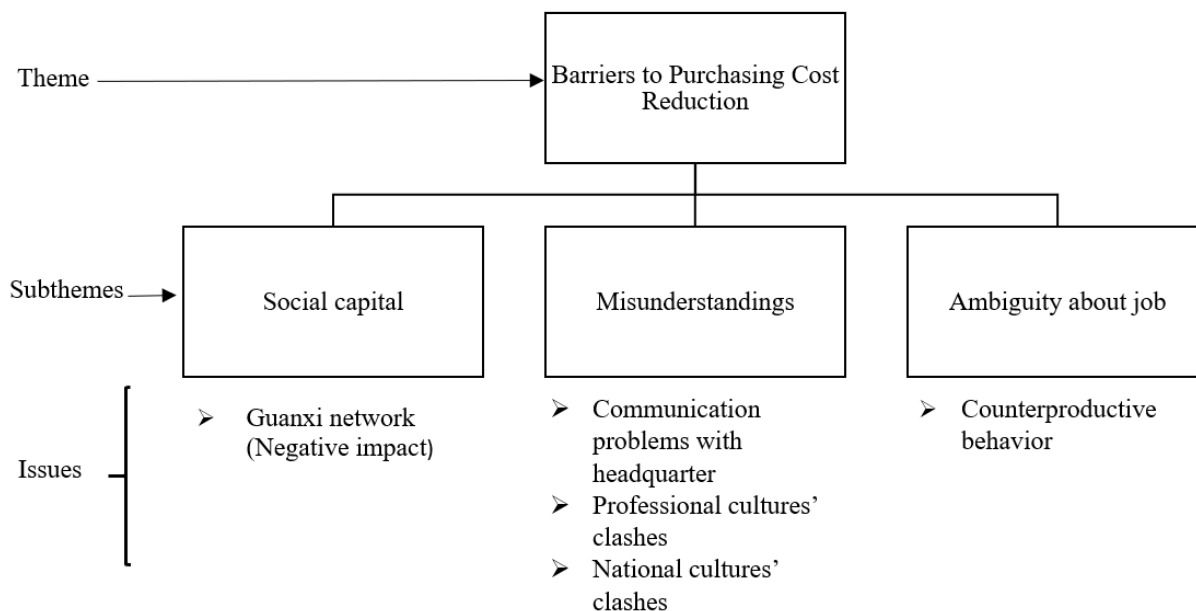


Figure 5-7 Barriers to Purchasing Cost Reduction, Subthemes and Issues

## Social Capital

Above, in the section facilitators of purchasing cost reduction, Guanxi network was presented as a positive influence on the purchasing activities. However, depending on the way actors use and apply the social network, it may have distinct impacts on purchasing management. Here, we will report the negative side of Guanxi network and how it may affect negatively the purchasing performance.

Some informants described a phenomenon similar to Song's inverted relationship (Song, 2008). That is, the Guanxi network is a very important factor influencing the purchasing in procurement activities, but often plays certain negative influence on the purchasing cost reduction. It often happens when people feel they have to honor relationships, no matter if they are personal or business relationships.

An illustrative example of honoring personal relations in the scenario of strong business ties that disrupt negotiations performance is given by **Alex** (Commodity manager) who claimed that:

*"In my company there are 2 suppliers who have special Guanxi. The boss of supplier A is our chairman's friend, the other supplier B is our GM's relative. It is not easy for me to well manage these 2 suppliers. I have to allocate more business to these two suppliers as possible as they can do, and I have to make some compromise on the annual cost reduction negotiation with them. Supplier A did not agree any cost reduction since 2013 but they asked me to increase 6% purchasing price at the beginning of this year! Supplier B is a little difference with supplier A. Supplier B's quality is poor, and they are often complained by QA (quality assurance) and production. My team had to spend more time on it either to rework or schedule many meetings to discuss with other departments for the acceptance under 'waive' condition. Maybe you would say you can escalate them to senior managers or make decision as per your company's rule! Sorry, this is in China, and I am working for GM (general manager) and chairman. No one dare to challenge the Guanxi these two suppliers have."*

Similarly, another informant, **Li** (Buyer), recalled his experience with local authorities when he had to choose a more expensive equipment in exchange of business favor.

*"The local environment protection bureau made a strict supervision on industrial waste water since 2008, our company had to upgrade the on-line COD (chemical oxygen demand) testing equipment. The local environment prevention bureau directed our company to buy this specified model equipment within 3 months so that they can start to monitor our waste water on the on-line basis. We checked several would-be suppliers and their quotations were 280*

*thousand RMB, 190 thousand RMB and 170 thousand RMB respectively. The supplier who quoted 280 thousand RMB is 'recommended' by local environment protection bureau. The other two suppliers confirmed us their equipment was the same model as 'recommended' by local environment protection bureau, the only difference was that supplier had many years good Guanxi with local environment protection bureau. The result was we had to buy it with 280 thousand RMB!"*

### **Misunderstandings**

Misunderstandings was divided into communication problems with headquarter, professional cultures' clashes, and national cultures' clashes.

According to the interviewees, the lack of language skills is always a bottleneck and obstacle which may greatly affect the purchasing cost of MNCs' subsidiaries in East-China. The MNCs enter China with different management mode and idea, and their subsidiaries in East-China follow the commands from headquarters. So, the communication process always plays a key role and it is hard to avoid the communication deviation because no everybody speak fluently the formal working language.

Most participants experience communication barrier between procurement team in host country and head quarter because of lack of language competencies and skills in foreign languages, which could influence purchasing cost, working efficiency, problem solving and decision making.

*"We are speaking English, and the official language in my company is also English, not Chinese...my subordinates always think there are many barriers to communicate with headquarter and the foreign sales representative in American suppliers. For example, my subordinates reported the sales manager of an America supplier is a Belgian, she can not speak Chinese, there is often communication problems and misunderstanding which often not pull in some urgent material, so the communication with her in English is necessary and 'must' ...". (Roger, Purchasing manager)*

*"My boss is based in Japan and my subordinates are Chinese. My Japanese boss can not speak Chinese but can listen Chinese and fluently speak English. My English skill is poor but I can speak some Japanese. So, sometimes it is very difficult for me to clearly express what I was delivering during the conference call with headquarter. This will not only decrease the communication efficiency and increase the purchasing expense/cost but also delay some critical purchasing decision." (Alex, Commodity manager)*



*“I am the buyer and working in this MNC’s subsidiary located in Taizhou city, Jiangsu province, P.R.C for 3 years. My foreign language such as English and German are not fluent which sometimes bar me directly from communicating with headquarter and foreigners, thus the working efficiency with headquarter and oversea suppliers are very low because sometimes I can not fully understand their speaking, the English documentations. I attended the English training program and expected to improve two or three level which could help my job.” (Chen, Buyer)*

In addition, the lack of language skills also leads people to develop and maintain contacts with those who speak their own language. One of the participants **Shan** (Supply manager) said:

*“My supervisor, one German, also tends to cooperate with German suppliers or English speaking suppliers while my favor is to cooperate with local Chinese suppliers. It is easy to communicate with them to manage the purchasing activities. Sorry, I can not cooperate with Japanese suppliers because I can not speak Japanese.”*

Another internal dynamic that ought to be highlighted are the different professional cultures that exist within the enterprise. Some informants reported that different departs have different styles of perceiving things in the daily life and, consequently, professional clashes often emerge with negative impact on the purchasing cost performance. A typical example is the issues that emerge between the procurement department and production department, because on average the engineer is technology oriented and procurement staff is cost oriented.

*“In the kick-off meeting of new project/product, there are two options for one flange, one is common which can be easily bought in market with cheaper price, the other is patented which can be bought only throng that monopoly supplier with far higher price (higher 600 RMB each than common). R&D team proposed to use the patented flange as the design-in while procurement team recommended to adapt the common flange so as the future easy purchasing cost reduction...GM made final decision to use the patented flange as design-in, and procurement team did not achieve any purchasing cost reduction in following 3 years.”*  
(Zi, Operation VP)

Regarding the perceptions about the quality of the raw materials, **Shan** (Supply manager) said:

*“Last year, our zinc alloy supplier shipped one batch zinc alloy material to us, the incoming material inspector checked it by eye to feedback supplier the surface is oxidized either to return it or debit 20% order value. The supplier is very angry because he already*

*lost 6% for this order comparing to customer order price and his purchasing price. This supplier will lose 26% or eighty hundred RMB for this order if fully accept this debit note. The buyer does not think the slight surface oxidization is a problem! After three rounds back and forth negotiations and quarrels, the inspector insisted it is poor quality and must be rejected, the supplier also refused the debit note and took back his zinc alloy material. The buyer reported to me to place order to the other supplier with 11% higher purchasing price. The purchasing cost increased more than sixty thousand!”*

In relation to design, **Lang** (Sourcing director) claimed:

*“The over-design by higher level material and component will always increase the purchasing cost. For example, one designer likes to design 200 micro inch thickness film for one silver plating terminal. However, the buyer thinks the 50 micro inch thickness is good enough as per China National Standard. The purchasing price for the part with 50 micro inch silver plating is 66 RMB while it is 220 RMB for 200 micro inch silver plating.”*

Or, as **Loo** (Procurement director of APAC- The Asia Pacific Region) explained:

*“Last week production team complained one deformed sheetmetal part, the possible reason may be extrusion, which wasted them 2 days to rework on it. The buyer explained this is one special and independent case, however production team does not think so and insists to strengthen the packaging design. The buyer did not agree because the new design solution would increase 6% purchasing cost and supplier also did not tend to absorb it. The final decision is to run 3 months by change the logistic service provider and not change the original design, then evaluate the result. The result in 3 months is good, and no purchasing cost up!”.*

The last type of misunderstandings is associated with national cultures' clashes, i.e., the inability to achieve mutual understanding between Western people and Chinese people about business practices at the country which is different from itself. For Western people, it is hard to understand business practices in China; for Chinese people, it is hard to understand business practices in Western Countries.

The participant **Shuang** (Operation VP) stated:

*“I think the national cultures' clashes absolutely influences the purchasing cost. In China, I believe you have the same understanding on the importance of cultural difference and clashes. Influenced by Confucian culture, Chinese is implicit in its implications while Western often directly express the ideas they think. In the conversation, communication and*

*negotiation between China and the Western, the China side often thinks that the Western goes straight to the theme without considering the 'face or Mianzi' while the Western often thinks that the Chinese plays Taijiquan and has low efficient. These culture difference and clashes often slow down the project and influence the purchasing cost."*

Curiously, an expatriate participant, **Roger** (Purchasing manager), shared with me his experience when he negotiates with Chinese suppliers.

*"I found the purchasing cost problems and I began to investigate this case, the supplier initially confirmed my purchasing staff that the offering price which we received is the most 'preferential price'. After I looked at their related contracts, orders and documents, the suppliers revealed that our company was their third-tier strategic customers, of course, I had to enjoy the third-tier strategic customer price. I was no longer enjoying the first-tier strategic customer price, the price difference between the first-tier and third-tier was 3.5%, it was about 6 million RMB based on total purchasing amount. I did not receive the confirmation from supplier's executive why my prices had never been adjusted to the best one but I got news from one supplier's staff that they were also dealing with their company according to 'industry practice'. I asked what the 'industry practice' was, the employee of supplier would not be willing to share more but just said it was the same as 'hidden rule'. Later, I learned that 'hidden rule' is one special phenomenon in Chinese business activities, which is definitely conflicting with the value of my company."*

### **Ambiguity about Job**

Some participants argued counterproductive behavior also dominates people's behavior and is outside the formal system. It is an unwritten rule governing the operation in real life. For example, **Chong** (Planning manager) told:

*"There are always the management loopholes in manufacturing company. The 'smart' procurement staff could find the loopholes and evade them to the way for their interest."*

Two illustrative behaviors that explicitly runs counter to the goals of the organization are described as follows:

*"Our company used the MRP (material request planning) system to manage the operation activities which include purchasing, production, quality, finance and sales. The purchasing order is being managed in system, and it will be transferred to suppliers automatically for urgent small amount value (less than twenty thousand). One of our buyers like to place orders in system in off-duty time, and then he likes to transfer the orders to*

suppliers by urgent way. The first half year in 2015, finance team reported the purchasing price variance (PPV) for one commodity is very big, more than three hundred thousand RMB! Further investigation revealed that 80% of PPV is made by that buyer, and those two purchasing orders with PPV were transferred to suppliers by urgent way in off-duty time. This buyer's personal behavior is not good." (**Huang**, VP)

"As I know, the counterproductive behavior is very popular in China and almost every company and the executive met this case before. It is deeply harming and challenging company's value and rule. Personally, I hate it, however it is impossible to avoid it entirely, and the parties who participate in are very careful and 'smart' enough to harness the management loopholes. For example, tin bar material is non-controlled material, it means it is not strategic material for my company and it is not 100% in my attention. One new buyer found this management loopholes and proposed me to source one new tin bar supplier to drop the tin bar purchasing cost. I read the supplier appraisal report and found there is 0.5% cost reduction, moreover both lead-time and payment term are a little better than that of current active tin bar supplier's. Finally, I approved this new supplier. One year later, this tin bar supplier complained the buyer to me because this buyer withheld their overdue payment more than three months! This is totally unacceptable because it would make their cash-flow broken. The supplier did not tend to tell me the truth though I asked them two times. Finally, I advised supplier I would not offer any help if his final decision was not to tell me the truth, and I also did not care if his cash-flow broke or not. Three minutes later, the supplier told me the truth that there are some under-table transactions with that buyer. Why that buyer withheld his overdue payment is because that supplier did not 'pay the overdue to buyer'! This is one terrible case, it is seriously influencing my purchasing cost." (**Shan**, Supply manager)

#### **Theme 4: Procurement Policy**

Procurement Policy is categorized into three main subthemes as follows:

1. Procurement principles: factors arising from the transparency, accountability, business integrity, and environmental sustainability.
2. Supplier relationship management: factors emerging from developing and maintaining supplier partnerships, and competition and antitrust.
3. Procurement effectiveness: factors arising from cost saving, increased quality, and purchasing improvements.

Each of the subthemes is made up of a number of issues as shown in figure 5-8.

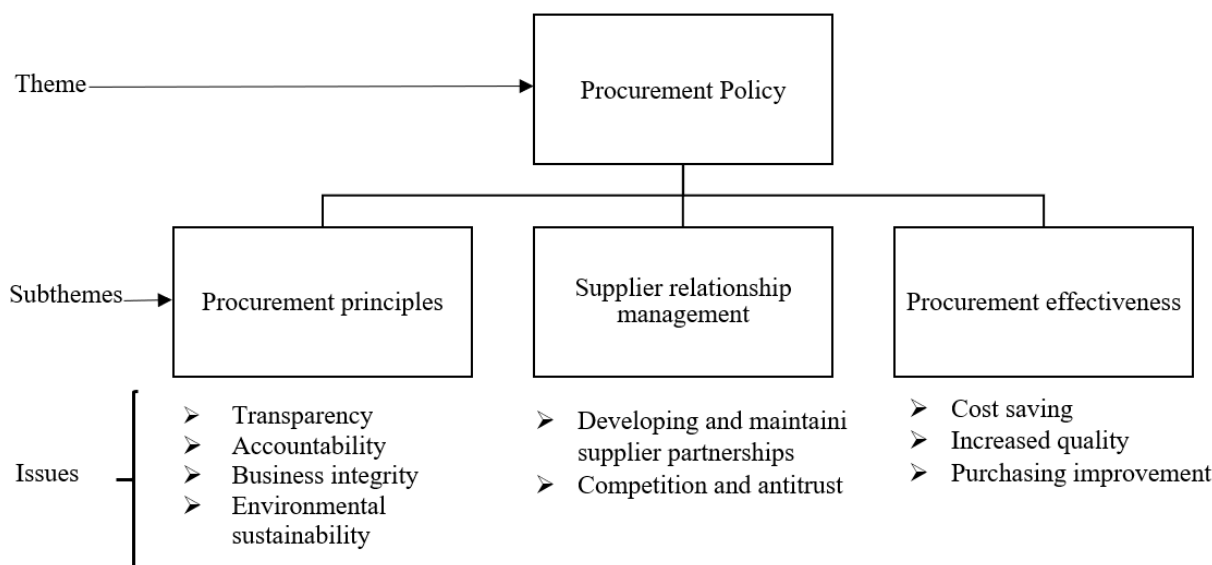


Figure 5-8 Procurement Policy, Subthemes and Issues

### Procurement principles

Procurement principles were divided into transparency, accountability, business integrity, and environmental sustainability.

The principle of transparency means that relevant information regarding the procurement process and the company's expectations of suppliers should be clearly communicated inwards and reasonably practicable. Therefore, the laws, policies, procurement procedures should be available to those who interact with suppliers. Like *Alex* (Commodity manager) argued:

*“Frankly speaking, the hidden rule is one special commercial related phenomenon, sometimes it is equal to the commission on sales. In this company, so far I do not find procurement people made use of the hidden rule because we just launched new MRP (material request planning) system which can support the procurement job on one hand while limit to ‘freedom’ of buyer to overrun the system on the other hand. For example, the buyer can not print out the purchase order (PO) if the PO price is higher than standard price in system unless higher level manager released it in system. However, the warehouse people can still log the physical raw material to warehouse with buyer’s ‘support’ even though there’s no approved hardcopy POs. Now we plan to update the software to limit the PO placement in system if PO price is higher than standard price in system as to eliminate one potential management loopholes.”*

Another participant **Chen** (Buyer) explained:

*“I am responsible for the commodity bidding activities. We defined formal bidding management system which includes the information of demand publish, bidding documentation assessment, candidate tenders sourcing, bidding result evaluation, formal contract and whole process supervision system. The purchasing price of the sheetmetal part and plastic part are lower 7.9% and 9.3% respectively than our competitor. All bidding information and files are available for all authorized employees to review, check and even challenge. This bidding system could save annual 11 million RMB for our purchasing cost.”*

According to some interviewees, the accountability principle refers that the company (and its employees), as well as suppliers should be accountable for their actions, decisions and mistakes. They highlighted the most important thing is to purchase products according to the principles of fairness and openness, to sign and perform the contract with suppliers according to the basic principles of credibility and integrity. One participant **Alex** (Commodity manager) argued:

*“Though both Japanese and Chinese are in oriental culture, but they still have some difference. For example, I like to work with Japanese and do not like with Chinese because most Japanese in our company are more honest, credibility, integrity and stick to the principles. For example, some Chinese procurement staff often forced suppliers to absorb all potential loss for design change caused while my Japanese boss and his Japanese team thought the party who made the mistake should take the liability.”*

Another participant **Guo** (SCM manager) stated:

*“In our company each procurement staff signed the ‘Incorruptible and Self-discipline Statement’ since they joined procurement team, and French headquarter will assign one team to do the annual audit.”*

The participant **Guo** (SCM manager) claimed again on this topic:

*“I think the delivery time will influence the purchasing price. We have to spend more money if we place urgent order comparing to standard lead-time because suppliers have to take urgent actions to support our urgent order such as using air-shipment to replace the delivery by sea.”*

All senior level managers argued business integrity is important in businesses. That is, the procurement staff should be completed responsibly and with a high degree of integrity in compliance with enterprise policies and applicable laws, rules and regulations. In other words,

business integrity requires procurement staff to conscientiously fulfil the rights and obligations, strive to behave according with the rules, and establish a good image and professional ethics. Here are two speech excerpts:

*“The procurement is regarded as one of the highest risk jobs because of so many temptations. The hidden rule by and large not only harm the company’s purchasing cost but also the company’s operation and organization overall. Last year, one buyer, who was in charge of the indirect material purchasing activities, involved the hidden rule. He received a certain amount of commercial interest from a supplier who had bid the contract not in the lowest price but finally won one of the facility contracts. The company’s decision was to coercion this buyer to resign even though he serviced this company for more than 11 years. At the same time other managers who was involved and got this contract approved also received warning letter.” (Li, Buyer)*

*“A Jiangxi supplier quoted us the similar price as Shandong supplier. I recruited a new procurement supervisor and sent her to visit and audit Shandong supplier, then Jiangxi supplier told the supervisor he would offer 3% discount than original quotation if she is the owner of this company, otherwise he would like to keep the original quotation and move the 3% commission to the supervisor. I told the supervisor she could make a final decision. As a result, the supervisor asked Jiangxi supplier directly reduced 3% price!” (Mu, Purchasing manager)*

According to few participants, the environmental sustainability is becoming increasingly important in business in China. However, they recognized that the environment sustainable can not directly contribute to the procurement cost performance, but indirectly benefits the organization. That is, if every procurement effort ensures sustainable business practices through strategic alignment with internal and external actors, it helps to create a long-term lifecycle for the enterprise. A good example is to follow the external regulators (e.g., China National policy) regarding raw materials and equipment.

*“The local environment protection bureau made a strict supervision on industrial waste water since 2008, our company had to upgrade the on-line COD testing equipment.”*

*“The national policy will always influence the purchasing cost. For example, now Chinese government starts to take aggressive actions to close those enterprises with high pollution and high energy consumption, which indirectly caused our purchasing cost being went up.” (Li, Buyer).*

## Supplier Relationship Management

Many participants mentioned that it is important to manage supplier relationships either by developing and maintaining the supplier partnerships (collaboration and mutually beneficial relationships) or by promoting competition and antitrust.

Scarce participants referred to developing and maintaining the supplier partnerships (SRM). Here, SRM is understood as a management idea that aims to improve the relationship with the upstream supplier of the supply chain to establish and maintain a long-term, close partnership with the supplier. It can be reached through the integration of resources of the two sides to jointly expand their positions in the market, reduce the high cost of the product, and achieve a win-win enterprise management model. Therefore, all employees engaged in procurement on behalf of the company should collaborate with key suppliers to build on synergies, through the exchange of information, regular meetings, and leveraging supplier knowledge and capabilities.

One participant **Guo** (SCM manager) talked about:

*“With the fierce competition and the continuous rising labor cost, we had to launch the new purchasing strategy as cooperating with local suppliers as more as possible in last year. This change will bring us more than 8% cost reduction as tested.”*

And the other participant **Alex** (Commodity manager) stated the visiting to suppliers like this:

*“My Japanese boss directed my team to stay at suppliers' plant at least 5 days each month.”*

And some participants also mentioned the SRM is also referring that when a trial or sample testing is required to judge the work of a supplier, the procurement staff should provide clear assessment criteria and ensure the confidentiality of the information provided by the supplier. One of the participants **Chen** (Buyer) said:

*“The Guanxi with suppliers I am in charge of is very good. I am following up the annual supplier performance assessment procedure to re-rank them to A, B, C in according to the information such as lead-time, payment-term, quality performance and the design competency, provided by suppliers, and most suppliers are willing to cooperate with me.”*

Most participants emphasized competition and antitrust. It means that qualified suppliers are invited to participate in the bidding process and are evaluated against each other on the same criteria. After China entered WTO, MNCs quickly took the leadership in China to



capture the market and monopolize the market. MNCs reached dominant positions and many domestic enterprises had to cooperate with MNCs to supply raw material, product, and service. Most MNCs do not really consider all suppliers as the partners; instead MNCs always use the bidding tools to get better purchasing price with similar or same purchasing cost evaluation criteria among suppliers. One of the participant *Li* (Buyer) stated like this:

*“For myself, I would invite some potential suppliers to join the bidding for annual contract and agreement. We will shortlist five suppliers as potential suppliers for RFQ process. Then, these suppliers would compete the bidding according to the monthly purchasing amount from our SAP (system applications and products) system and other service requirements on the open and equal environment. Generally, we can achieve 0.5% to 2% cost reduction from the quotation process, which was able to meet the annual 1% cost reduction objective. ... I designed it, and it was approved by my manager. Other buyers did not use this model. However, my manager liked this and praised the innovation and the achievements. He said he would extend this model to the whole procurement team next year.”*

Another participant *Wang* (Manager) talk about the competition and antitrust as:

*“Both headquarter and its Hangzhou subcompany defined the top important performance indicators for purchasing team as purchasing cost, delivery, material or product quality, payment-term, inventory, and service. And the first and most important performance indicator for our Hangzhou team is also purchasing cost. My supervisor always focuses on the price when he evaluates new supplier qualification report. Last year, total 9 new suppliers qualification applications were rejected due to the non-competitive price. Last week my supervisor just approved candidate supplier C and rejected both candidate supplier A and B because supplier C's price is better than A and B but C's lead-time and quality are poorer than A and B! My supervisor explained my first focus is the purchasing price, and others such as technical, quality, delivery, and service are less important than price, I must follow up headquarter's direction.”*

### **Procurement effectiveness**

Informants referred to procurement effectiveness into three folds: cost saving, increased quality, and purchasing improvements. Cost saving is the most important, if not the only one, criterion to assess the purchasing effectiveness. The following speech's examples illustrate well the idea.

*“I defined the procurement cost leadership strategy for procurement department and measure it through measuring the factors of the procurement policy, i.e., purchasing cost*

*reduction and competitiveness, where the cost saving is the result of the purchasing cost reduction. Whether the purchasing cost reduction is good or not can directly reflect the procurement effectiveness. I am not sure if I state it clearly or not? Procurement department achieved very good cost saving performance in the first half year, and I would like to see their great success in next half year.” (Qing, Chairman)*

*“Our purchasing cost strategy is to take leadership in our industry, and thus other competitors will benchmark their purchasing cost with ours. The annual cost reduction strategy is from 1% to 6% depending on the material category. For me, purchasing cost saving for packaging material is about 400 thousand RMB or average 4% cost saving for total packaging material.” (Li, Buyer)*

*“For example, my subordinate recommended me one good performance paint supplier for review, this supplier is recommended by his friend. I finally approved it based on the qualification report. Comparing to current supplier, the new qualified supplier will bring us 6.7% purchasing cost saving and 33 days lead-time reduction based on the same procurement specification.” (Roger, Purchasing manager)*

Based on the narratives recalled in the interviews, some participants mentioned the quality as an imperative to work with suppliers. For them, it is important to find ways of improving the quality of the materials, because when an item has improved quality either by using a different supplier or by negotiating with the existing supplier, the improvement will be reflected in a reduction of waste or production resources.

**Chong** (Planning manager), for example, told:

*“I helped new GM to implement the ‘12 months cost reduction plan’ and finally this cost reduction plan was successfully, i.e., 16.7% purchasing cost reduction and no quality complain (no internal and external quality loss cost caused by suppliers) on raw material in that year. 86% original suppliers were removed from the supplier base, because of poor quality performance (about 33%), poor cost performance (about 46%) or stop the cooperation (about 7%) due to expiration of the agreement or replacement by new suppliers which were ‘recommended’ by CH company and new GM.”*

Another participant **Lang** (Sourcing director), said:

*“Last year my company launched the new designed electric oven to market, 6 month later our company received a lot of complaints from customers because of the poor quality sensor. Normally, the sensor can well work in laboratory while it often shut down under tough*

*working condition. The sensor supplier claimed they can not improve its performance any more though they have good Guanxi with designer. We made decision to terminate the relationship with that sensor supplier. The supplier, which cooperated with me when I worked in Flextronics, was recommended and urgently qualified. The testing result of the sensor was much better than old one, and at the same time the new supplier offered us the 7.8% lower price than old one.”*

Similarly, **Chen** (Buyer) said:

*“These days I am busy on the carton box quality complained by both internal production team and one external customer. This is not the first quality accident for this supplier! The purchasing spending of this batch carton box is 3900 RMB, the quality problem is the quality performance of its compression strength test is far lower than our quality standard (actual 270 KG vs. standard 520 KG), and final investigated result is supplier used poor quality raw material (paper). The quality loss of our production is 8500 RMB, the quality loss of customers, i.e., compensation for customer loss, is 29000 RMB, and the total quality loss is 37500 RMB! Our company forced this supplier to take the full liability, and 3 months later our company terminated the cooperation with this supplier after new good quality supplier was qualified.”*

Finally, regarding the purchasing effectiveness, few participants also highlighted the purchasing improvements through the efficiencies in the methods and procedures used in the purchasing department. They basically referred to the formal systems for processing procurement orders, e-procurement systems, vendor managed inventory and pay on receipt processes.

One participant **Huang** (VP) talk about the efficiency:

*“Our company used the MRP (material request planning) system to manage the operation activities which include purchasing, production, quality, finance and sales. The purchasing order is being managed in system, and it will be transferred to suppliers automatically for urgent small amount value (less than twenty thousand). Comparing to manually manage the purchasing order 3 years ago, we made big improvement on purchasing efficiency such as 5 headcounters downsized and each buyer can easily manage 215 purchasing orders weekly.”*

The participant **Wang** (Manager) described the formal system for purchasing improvement:

*“How to improve purchasing performance is always challenged by the senior management team in our company. The agenda in the annual procurement meeting will be the purchasing strategy review and update, the quarterly meeting will be the detailed purchasing actions, and the monthly meeting will be the purchasing performance review. The annual procurement meeting worked out 2 critical purchasing projects, one is to launch the e-procurement system named SAP system, the other is to phase in the vendor management inventory (VMI) program. The SAP system could greatly improve purchasing efficiency which would not only drop purchasing expense such as procurement overheads but also improve the management efficiency on the purchasing orders which could indirectly improve the purchasing. The VMI program could help us significantly to down the raw material inventory which could directly benefit our cash-flow, lead-time, raw material quality and warehouse subsequently indirectly benefit the purchasing.”*

#### **5.4 Chapter summary**

This chapter has discussed the data gathered through semi-structured interviews with informants from the MNCs' subsidiaries in East-China. Buttressed by the data, four themes were identified based on the 21 interviews: drivers for purchasing cost reduction, facilitators of purchasing cost reduction, barriers to purchasing cost reduction, and procurement policy.

Findings revealed that the most frequent categories in turn are cost saving, Guanxi network (positive and negative impact), and import substitution.

In the next chapter, we will discuss the results, from the quantitative and qualitative studies, in depth.



## Chapter 6: Discussion

The central aim of this study was to identify the key factors that influence the purchasing cost of MNCs' subsidiaries and domestic companies in China. The findings revealed stimulating ideas that should be summarized:

1. The exploratory factor analysis highlighted a few constructs, i.e., power of supplier, procurement policy, and managerial capabilities. These constructs were also explored by interviewees.

2. The cluster analysis provided evidence for two well-defined groups of companies, i.e., the MNCs' subsidiaries in China and the Chinese-domestic companies.

3. Regarding the MNCs' subsidiaries, informants revealed that their companies are focused on a cost leadership strategy. To reduce costs, companies seem to adopt similar approaches—they try to find a (or even the best) competitive price in the market through the substitution practices (Porter, 1979) and a complex web of relationships and interests.

In this chapter, I will discuss further the findings and answer the research questions: (1) What key factors are highlighted by purchasing staff to characterize the purchasing practices, in the Chinese context? (2) Do different ownership structures have different profiles regarding the purchasing practices, in China? (3) What forces determine the implementation of the purchasing cost strategy in MNCs' subsidiaries, in China? (4) To what extent can MNCs' subsidiaries be a catalyst to enhance the desirable transition from traditional to modern purchasing management, in China? To do that, I will interweave the findings of both the quantitative study and qualitative study with the literature.

### **6.1 What key factors are highlighted by purchasing staff to characterize the purchasing practices, in the Chinese context?**

The survey data analysis in chapter 4 indicated three key factors to characterize the purchasing practices in China: (1) *power of suppliers* that deals with the formation of the purchasing cost; (2) *procurement policy* that includes the procurement criteria, principles, supplier relationship, and procurement effectiveness for buying strategic raw materials; and (3) *managerial capabilities* that include managerial competencies, language skill, and personal

attributes that influence on the purchasing cost.

The *power of supplier* is a factor, which would have a relevant impact not only on the formation of the purchasing cost but also on the negotiation process and result. As Porter (1979) argued, powerful supplier could influence buyer's cost.

The notion that powerful suppliers influence the purchasing cost of MNCs' subsidiaries and domestic companies in China is also highlighted in studies conducted in China or in Western countries (Porter, 1979; Kraljic, 1983; Chen *et al.*, 2004; Zhang, 2011; Su, 2016; Li, 2016). It is often mentioned that suppliers try to make their products more profitable in the market through: (1) reduce the supply quantity to market if their products have certain technical or patented advantages; (2) improve the quality of the products if they have certain internal production or quality control advantages such as special know-how on the quality control, thus more and more buyers would like to switch to them; (3) initiate the price war to improve supplier power if they have cost leadership advantages, then control the market and thus increase buyer's switching cost. However, the buyers are also taking more aggressive actions to respond to suppliers' challenges. The buyer could either (1) expedite the alternative source qualification to depress suppliers' technical or monopoly advantages or (2) combine its demand for a long period of time or the demands of all subcompanies to generate large orders and depress suppliers' bargaining power advantages.

However, other approaches could also be used to positively deal with the power of suppliers. For example, Su (2016) suggests that the power of supplier would not have a high impact on the purchasing cost of the raw material if the buyer sets up the purchasing alliance with suppliers. Thus, the suppliers would be invited for the joint design for buyers' product, and both buyers and suppliers trust each other for the common purpose, i.e., competitive cost.

In China, the reality can be characterized as follows: most companies, even the MNCs' subsidiaries, have difficulties to achieve the competitive purchasing cost when they negotiated with suppliers for the high-tech and patented material. To deal with the situation, most procurement people trade high quantities, such as combining their global demand for large orders, to negotiate with suppliers for a good price (Qu & Liu, 2014).

The *procurement policy* is a key factor of the purchasing strategy and has impact not only on the purchasing cost by itself, but also on other functions such as finance, R&D, QA, and production, which indirectly influence the purchasing cost (Benton, 2010).

Some studies in the procurement field indicate that it is important to launch the right procurement policy in order to achieve a cost leadership strategy (Han & Zhu, 2007; Marc,

2008; Benton, 2010; Meng, 2014). Buyers should follow up their procurement policy as much as possible to obtain better competitive purchasing cost in the market through (1) setup the procurement criteria, such as purchasing cost, quality, and delivery, and regularly update it according to the dynamic external market; (2) setup the supplier qualification standard to ensure the better performance suppliers could be qualified and, subsequently, achieve the competitive purchasing cost; (3) setup the qualification standard for procurement staff so as to indirectly achieve the competitive purchasing cost.

However, other authors claim that the procurement policy might not influence the purchasing cost. For example, Nguyen, Knight, Roughead, Brooks, and Mant (2015) noted that the procurement policy would not impact the purchasing cost of the pharmaceutical industry. In their study "Policy options for pharmaceutical and purchasing: issues for low- and middle-income countries", the buyer's budget and the supplier's selling strategy influence the buyer's procurement policy. Nevertheless, this finding and view would guide the special pharmaceutical industry rather than other industries such as electronics and machinery.

In China, the reality can be characterized as follows: most companies formulate the procurement policy no matter it is formal hard copy or informal soft copy. The MNCs' subsidiaries always have the formal procurement policy which guides them to achieve good purchasing cost while some Chinese domestic companies, such as POEs, just have an informal procurement policy which often result into either poor purchasing cost issue or poor material quality and delivery issues (Zhu, 2006; Hou, 2011).

The *managerial capabilities* are another factor acknowledged by respondents. In the quantitative study, managerial capabilities are one of the key dimensions that characterizes the purchasing activities of MNCs' subsidiaries and Chinese domestic enterprises. In the qualitative study, informants emphasized the idea that managerial capabilities directly impact on the procurement staff's performance and indirectly influence the purchasing cost. In other words, depending on how procurement employees perform their purchasing activities, their performance affects the purchasing cost of raw materials and equipment. Likewise, Helfat and Martin (2015) argued that the managers of MNCs' subsidiaries in East-China with superior dynamic managerial capabilities can make the strategic changes such as purchasing cost more successfully in MNCs whatever the internal purchasing cost related or external marketing related.

Other studies conducted in China or in the U.S.A. present similar findings (Zhao, 2007; Li, Jiang, & Li, 2010; Helfat & Martin, 2015; Suo & Li, 2015). For example, some studies



highlight the idea that managerial capabilities play a critical role on supporting companies to achieve the competitive purchasing cost in the dynamic market. On one hand, those managers, who are able to sense and catch the good purchasing cost reduction opportunities, can integrate such opportunities into the purchasing decisions, actions, and strategies. On the other hand, managers inspire and influence subordinates. In doing so, they can help the purchasing staff to better perform its duties and, in turn, positively contribute to the purchasing cost. Hence, the role of manager is very critical to company's cost.

However, the dynamic external environment could either strengthen the managerial capabilities to indirectly improve the purchasing cost performance or weaken the managerial capabilities to indirectly reduce the purchasing cost performance. It means that the managerial capabilities might not impact on or benefit the purchasing cost because of so many uncertain factors and risks in the external dynamic market (Chang, Zhao, & Wang, 2006).

In China, the reality can be characterized as follows: most companies, especial the MNCs' subsidiaries, often consider the managerial capabilities as the critical competence and HR capital, and also consider them as the most important intangible assets for purchasing cost performance improvement. Therefore, most MNCs, POEs, and SOEs not only spend a lot of money on training to improve managerial capabilities but also reward managers with high managerial capabilities with more competitive salary in order to retain them and finally secure a better company's purchasing cost performance (Luo, Li, & Liu, 2014).

## **6.2 Do different ownership structures have different profiles regarding the purchasing practices, in China?**

The exploratory factor analysis identified three important constructs to describe the purchasing field in China: power of suppliers, procurement policy, and managerial capabilities. Later, these constructs were used to classify informants into a small number of mutually exclusive groups based on the similarities among them. In this cluster process, three well-defined groups of companies emerged: the biggest group includes almost MNCs; another big group joins together mainly Chinese-owned firms; the smallest group is, to some extent, a hybrid group with MNCs and domestic companies.

These findings suggest that different ownership structures adopt different purchasing practices in China. MNCs' subsidiaries have a more diversified portfolio of suppliers than Chinese domestic companies. Domestic companies tend to have supplier portfolio with more

entities than MNCs' subsidiaries. In MNCs' subsidiaries, the criteria to select suppliers are dominantly quality and cost; in SOEs and POEs, the criteria are quality, cost or quick response. Regarding criterion to make the quality/cost trade-off, Chinese domestic enterprises are very consensual: they prefer acceptable quality, competitive price. However, MNCs' subsidiaries prefer either acceptable quality, competitive price or high-quality priority, high price. Furthermore, both group of companies often adopt the bidding approach to negotiate with suppliers. However, MNCs also highlight the importance of promoting long-term strategic alliances with suppliers, whereas domestic companies emphasized finding suppliers who offer the lowest price.

Chen (2008) argued the ownership structure is a core feature to distinguish management practices and processes among enterprise in China. In addition, he indicated that ownership structure is so important to make such characterization as the enterprise culture, decision-making and leadership style, and management technology.

Overall, POEs can be characterized as follows: (1) focus on short-term interests rather than long-term strategy; (2) core competitiveness shortage, low independent brand competitiveness, and often rely on temporary marketing planning; (3) formal management regulation shortage because of the excessive and concentrated management which often resulted into low efficiency (Li, 2017). However, the private enterprises: (1) can make flexible decisions which are rarely restricted by the state; (2) can easily cooperate with other enterprises; (3) have family-style management practice with high efficiency, low cost, especial the strong sales and service network suitable for China's national conditions; (4) have the unique competitive advantages (Zhang, 2007; Li, 2017).

The SOEs can be characterized as follows: (1) have difficulties to introduce the modern enterprise management system; (2) the governance structure is not perfect because many employees have administrative positions; (3) are in monopoly industries that lack of market competition; (4) have lack of talent; and (5) lack of supervision and innovation system (Yin, 2017; Zhang, 2017).

In contrast, MNCs meet the following features: (1) are the most advanced economic entities with the advantages of capital, technology, management, and the global resource integration capabilities; (2) have an advanced matrix organizational structure that could avoid the disadvantages of the traditional hierarchical structure; (3) have the strategic advantages of globalization; (4) run a differentiated product strategy. The prototype products are often been researched and developed by the headquarters while the mass production was moved to host

countries to achieve the best production cost; (5) have good credit system that many suppliers are willing to work with; (6) have the perfect talent system that could hire high-end talents; (7) the system is diversified and can be flexibly implemented in different countries according to the requirements of the host country (Zhang, 2007; Li, 2015; Zhang, 2017). However, the MNCs also have the disadvantage of centralizing the critical decisions in the headquarter, which often result into losing good business opportunities.

### **6.3 What forces determine the implementation of the purchasing cost strategy in MNCs' subsidiaries, in China?**

The questionnaire survey analysis in chapter 4 identified the key constructs as the *power of suppliers*, *procurement policy*, and *managerial capabilities*, which influence the purchasing cost of MNCs' subsidiaries in East-China. Following a combined procedure with deductive and inductive logic, the key constructs identified in chapter 4 provided the baseline for further analysis on the interviews in chapter 5, which yielded four main themes, i.e., *drivers for purchasing cost reduction*, *facilitators of purchasing cost reduction*, *barriers to purchasing cost reduction*, and *procurement policy*, which can describe how the purchasing cost strategy can and is achieved in MNCs' subsidiaries in China, i.e., participants' companies. Regarding these four themes, there are few topics that deserved special attention in participants' discourses. So, in this part of the thesis, I will draw some considerations about each one: purchasing cost leadership strategy, ability of the buyer to substitute, social capital, and cost saving.

Porter (1979) argued the *cost leadership strategy* is an important strategy for enterprises to participate the competition in market. Wang (2000) put forward Porter's competition theory that the competitive advantage of an enterprise comes from the cost advantage, that is to say, the cost of all the activities of an enterprise is lower than that of its competitors, then the enterprise has cost advantage. If this advantage is unique and competitors can not imitate and obtain, then the company has a sustainable competitive advantage. Cost leadership strategy does not necessarily have to strive the lowest cost in the industry but strive the cost that is lower than the average cost in the industry which could be called cost leadership strategy. As long as cost control is below the industry average level, extra benefits could be obtained. Value chain is the important tool to drive cost leadership strategy. Therefore, many MNCs' subsidiaries in East-China drive the competitive purchasing cost through cost leadership

strategy based on the value chain or supply chain.

Cost leadership strategy requires that the cost of each node on the value chain should be cost leadership as far as possible, therefore the firms can achieve sustainable competitive costs. Purchasing cost as an important part on the value chain is influenced not only by internal factors, such as Bao (2014) proposed that the investment of R&D under the cost leadership strategy has not only a direct impact on enterprise performance but also an indirect impact on purchasing cost; cost leadership strategy is also affected by external factors that Wei, Yao, and Shi (2015) presented the financial crisis can seriously affect the core competitiveness of MNCs, thus affecting the cost leadership strategy and purchasing cost performance.

The MNCs' cost leadership comes from their competitive advantage, i.e., the core competitiveness. The core competitiveness on the value chain can be quickly and efficiently transformed into the competitive advantage of purchasing cost when MNCs implement localization strategy and vertical integration strategy so as to obtain better purchasing cost than competitors, which can support MNCs to participate in market competition and obtain higher profits than the market.

The *ability of the buyer to substitute* is the most significant driver for purchasing cost reduction and almost all informants highlighted the ability of the buyer to substitute import materials by domestic ones. Similarly, other authors found that not only most Chinese companies launched the substitute strategy through import material localization and alternative source qualification, but also most Western companies implement it to strive the competitive purchasing cost (Porter, 1979; Hong & Hayya, 1992; Cui & An, 2015; Chen, 2016).

Porter (1979) said that the substitute strategy could limit the ceiling price of one product and industry. However, substituting practices are not always synonym of purchasing cost reduction, at least in the short-term. As a matter of fact, the idea of implementing substitution practices to drop purchasing cost could be reached into two ways: directly by finding suppliers that offer more competitive price; or, indirectly by finding suppliers that offer, for example, better quality, lower lead time, or less supply risk. But, it is also important to acknowledge that substituting practices could also mean increasing the purchasing price. For instance, the study "Analysis of the energy saving and greenhouse gas emission reduction related to aluminum alloy parts for automobile" (Ding, Gao, Wang, & Gong, 2012) indicates that the common substitute strategy for the specified automobile parts in China is to obtain

better technology or more safety rather than better purchasing cost reduction. In fact, in that study, it is reported that the substitute strategy for some automobile parts increased the purchasing cost rather than reduced it. Hence, substituting practices could reach different outputs, depending to some extent on the purchasing strategy that support them.

In China, most companies have launched the cost leadership strategy (Gu, 2016). MNCs' subsidiaries are not an exception. Rather, they also try to obtain competitive purchasing cost through substitution practices. *Chong* (Planning manager), *Alex* (Commodity manager), and *Hary*'s (SCM director) speeches clearly emphasize this idea. The literature also corroborates this finding. For example, Song, Peng, and Li (2015) conducted a case study and argued the case company, Galanz company, relies on the innovative cost leadership strategy that integrated various resources to strengthen the competitions through the sustained purchasing cost competition advantages, which supported by the vertical integration, strategic partnership alliance, and total quality management practices.

Another important topic that deserved the attention of interviewees was *social network*, which in the literature is often labelled as social capital (Bourdieu, 1986) and in China is referred to Guanxi or Guanxi network.

Guanxi is a Chinese social concept based on the exchange of favors and refers to the personal relationship networks, the informal social bonds in which individuals carry expectations and obligations to facilitate favor exchange (Leung *et al.*, 2011; He, 2015). It is supported by Confucianism and family-based Guanxi circle (Hui & Graen, 1997). It is often translated as "relationship or connection" since the two Chinese characters that make up the term mean a "gate/pass or to connect" (Yeung & Tung, 1996). Therefore, Guanxi is called as the relationship out of China and Guanxi in China (Hui & Graen, 1997).

Curiously, in informants' narratives, Guanxi network may have either a positive or negative influence on the purchasing cost, depending on which side owns the Guanxi network or Guanxi itself. Guanxi network plays a positive role on reducing the purchasing cost if the Guanxi network's holder is the buyer and plans to use it on purchasing activities. On the contrary, the Guanxi network often plays a negative role on buyer's purchasing cost if the supplier owns the Guanxi network. Guanxi network might not directly influence the purchasing cost; instead it often impacts the purchasing cost through the role of manager on the purchasing activities.

In Wester contexts, studies reported that social network positively influence the purchasing cost (Weele, 2010; Crook *et al.*, 2011; Gulati *et al.*, 2011). Similarly, some studies

conducted in China confirm the positive side of social network (Zhang, 2011; Shou & Wei, 2015). However, again, in China, there are authors who simply emphasize the negative influence of Guanxi in the purchasing cost (Song, 2008; Wu *et al.*, 2015; Lafley & Martin, 2017).

Lin & Yue (2015) claimed the Guanxi network has either positive or negative influence on the purchasing cost for the firms in China. In the same way, Kulmala (2004), Shimul and Naomi (2015), and Sykes and Venkatesh (2017) found that Guanxi network does not only positively influence the purchasing cost but also negatively influence the purchasing cost in China.

In China, the reality can be characterized as follows: MNCs' subsidiaries in East-China use the social network to run their business in similar ways as Chinese domestic enterprises (Berger, Herstein, Silbiger, & Barnes, 2015). Because, many managers and most subordinates in MNCs' subsidiaries are Chinese people, bringing the Guanxi features to the subsidiary's daily working life is something natural and to great extent beneficial. MNCs' subsidiaries in China deal with Chinese partners and they may play the "game" with the same rules (Bourdieu, 1986). Otherwise, it is not possible to establish a common ground and run successful business.

The last topic I want to explore to answer the above question is *cost saving*. Most, if not all participants, referred to cost saving as a priority to succeed in the implementation of a purchasing cost leadership strategy. The literature also points out that when companies are focused on purchasing cost performance, procurement effectiveness can be reached through cost saving (Zhang, 2011; Qu & Liu, 2014). The idea seems to be to obtain cost saving with the same conditions, such as the same payment-term, the same material quality standard, and the same lead-time among different scenarios.

However, Colton and Rohrs (1985) present the theory of "appropriate procurement principles", which affirms that an emphasis on cost only may not be the best approach to be competitive in the market. Instead, the authors propose an economic process at appropriate time, with appropriate quantity and appropriate quality, by appropriate price to obtain the resources in appropriate place through a proper process. Although this appropriate procurement theory does not emphasize and highlight the purchasing cost that traditional procurement emphasized and focused, this approach offers a different perspective, i.e., an emphasis on the synergy of various factors of procurement, which is similar to JIT practice of modern purchasing.

In China, the reality can be characterized as follows: most MNCs' subsidiaries in East-China achieve very competitive purchasing cost saving for raw material, products, and service while keep the good quality (Du, 2014). Most MNCs' subsidiaries in East-China have high procurement effectiveness which could be verified by their purchasing cost performance position in related industries (Liu & Wang, 2013; Zhang, Wei, & Liu, 2013; Qu & Liu, 2014; Xu, Wang, & Liu, 2014). Therefore, we might say the MNCs' subsidiaries have high procurement effectiveness if they can obtain more cost saving with the same conditions, i.e., the same payment-term, the same material quality standard, and the same lead-time among different scenarios.

#### **6.4 To what extent can MNCs' subsidiaries be a catalyst to enhance the desirable transition from traditional to modern purchasing management, in China?**

During the whole interviews process, it was expected to receive the "yes response" for the modern purchasing that MNCs' subsidiaries in East-China are doing it or plan to do it but it did not happen. The participants considered most MNCs' subsidiaries in East-China are still doing the traditional purchasing which *only* focuses on the purchasing price reduction or cost saving through the competition and antitrust practices. Further, the qualified strategic partner suppliers are being invited to join each purchasing order bidding instead of negotiation to drive the better price by the same price evaluation standard.

Some studies suggest that the MNCs' subsidiaries can enhance the desirable transition from traditional to modern purchasing in China (Zhang, 2005; Chen, 2013; Lu *et al.*, 2016; Sang, 2018). It is often mentioned that MNCs' headquarters try to transfer the advanced modern purchasing to their subsidiaries in order to get competitive purchasing cost, which often influence and enhance the transition from traditional purchasing to modern purchasing for Chinese domestic companies through: (1) bringing the abundant capital, advanced technology, and scientific management to China's economy on one hand, and also bringing the fresh "blood" and motivation to China's economy on the other hand. At the same time, these advanced science, technology, and management can promote the sense of social responsibility of Chinese enterprises; (2) introducing the high-end products strategy that can affect the upgrading of products structure of Chinese enterprises on one hand, thus the purchasing strategies and capabilities of Chinese enterprises will be improved on the other

hand; (3) launching the procurement centers in China, which can achieve not only the competitive purchasing cost for MNCs but also, in this process, bring domestic suppliers into their products chain system, thus the Chinese domestic enterprises can seize this “good” opportunity to learn the advanced modern purchasing management and technology from MNCs. Therefore, some evidence seem to suggest that Chinese domestic enterprises are cooperating and following with MNCs' subsidiaries and, in doing it, they are able to deeply realize not only the disadvantages of traditional procurement but also the advantages of modern purchasing.

However, other authors argued the MNCs' subsidiaries might not enhance the desirable transition from traditional to modern purchasing in China. For example, Yang (2004) argued that the MNCs' subsidiaries in East-China can not positively enhance the desirable transition from traditional to modern purchasing in China because of the unsuitable conditions such as the different internal and external management environment, and the different micro- and macro-economic environment.

With the deepen reform and opening-up policy, the procurement management practice in China is in the transition period from traditional purchasing to modern purchasing (Lu *et al.*, 2016), which is deeply influenced by the MNCs' subsidiaries. At the beginning, when MNCs' subsidiaries started to entry the East-China market, they were often following up the same traditional purchasing practices as Chinese domestic firms, and it was impossible for MNCs to simply and fully transfer the modern purchasing strategy from their native countries to their subsidiaries in China. Nowadays, there are few MNCs entering the Chinese market. The conditions for modern purchasing such as collaboration and win-win are rarely mentioned in the interviews. The MNCs' subsidiaries are still doing the traditional purchasing management because the conditions for modern purchasing are still missing. With the deepening reform and opening up, internet technology development, better micro- and macro-economic environment conditions, it is expected that more and more MNCs' subsidiaries in East-China will begin to launch the advanced modern purchasing practice based on SCM. Accordingly, the suppliers of the MNCs' will also begin to learn and run these modern purchasing practices with the supports by MNCs, which would achieve collaboration and mutually beneficial relationships.



## **6.5 Chapter summary**

In this chapter the main findings presented the previous chapters were summarized and set the tone to answer the four research questions. Some studies were also introduced in order to challenge, complement or corroborate the main results. In the next chapter, I will provide the main conclusions, limitations, contributions and future developments.

## Chapter 7: Conclusions

### 7.1 Conclusion

This thesis explores the importance of the purchasing cost for companies to compete and survive in the Chinese market, aiming at identifying and addressing the key forces that influence the purchasing cost of MNCs' subsidiaries in East-China. Considering the complex, dynamic environment that companies face in China, this study follows the combined quantitative research, i.e., questionnaire survey and data analysis by SPSS 23.0, and qualitative research, i.e., interviews and thematic analysis, to conclude the relevant and consistent research results as below.

Firstly, the empirical research began by identifying the key factors that influence the purchasing practices of MNCs' subsidiaries and domestic companies in China, i.e., *power of suppliers, procurement policy, and managerial capabilities*. These factors were then explored, and data revealed that different ownership structures have different profiles regarding the purchasing practices in China. Two big and distinct groups were identified: MNCs' subsidiaries and Chinese-owned enterprises; and, a very small and hybrid group that joins different ownership structures.

Then, to get a profound understanding about what companies are doing in China, in the procurement field, MNCs' subsidiaries in East-China were selected. The second part of the empirical research focused on disclosing what purchasing strategies MNCs' subsidiaries are employing and what forces they emphasize to accomplish with success such strategies. The thematic analysis revealed that MNCs' subsidiaries in East-China employ the purchasing cost leadership strategy and the most relevant forces to achieve it are: *the drivers for purchasing cost reduction, the facilitators of purchasing cost reduction, the barriers to purchasing cost reduction, and the procurement policy*.

Regarding the drivers for purchasing cost reduction, the most sounded force is the ability of the buyer to substitute, with a particular emphasis on substituting imported materials by domestic ones. The Guanxi network, synonymous of social capital, plays either a positive or negative influence on the accomplishment of purchasing strategy, depending on which side holds it in the purchasing business. Associated with purchasing cost strategy is the idea of cost

saving rather than other ways of achieving procurement effectiveness.

Finally, the combination of all forces that MNCs' subsidiaries in East-China produce, reproduce and transform reveals that, at present days, they are not being able to be the catalyst that may enhance the desirable transition from traditional to modern purchasing management, in China.

## **7.2 Limitations**

As identified in the theoretical part of this study, the purchasing activities or practice that influence the purchasing cost of MNCs' subsidiaries in East-China were rarely studied. This thesis advanced some insights about this topic. However, there are obviously some deficiencies and limitations that should be taken into consideration.

Firstly, by conducting a qualitative study on MNCs' subsidiaries in East-China, it was not possible to have insights about other regions in China. East-China is one of the early developed regions in China, with the most comprehensive laws and regulations and previous intercourse with the Western society and culture. However, other regions, such as Northwest China, have their unique socio-economic environment and the conclusions may be different.

Secondly, this study only conducted semi-structured interviews with the procurement staff in MNCs' subsidiaries in East-China during the research process. It did not involve other stakeholders, like government officials, customers, suppliers, headquarter executives, and other non-procurement staff, who might have different perceptions on the forces that influence the purchasing cost of the MNCs' subsidiaries in East-China. Therefore, this research only offers one perspective about the research topic.

Thirdly, it was possible to gathered 336 valid responses with the survey. Taking into consideration that this study was conducted in China, the analyzed responses might not have covered relevant features of the purchasing practices that characterize the field in China. In addition, it was adopted a convenient approach to find interviewees. 21 participants is also a small number of informants and the issue of saturation may be questioned.

Fourthly, it was not always possible to record the interviews. Moreover, some face to face interviews were rescheduled and changed to phone interviews because of the inflexibility of the timetable of participants. Participants did not directly answer or answered with a few words some questions – for example, participants did not provide any information on some topics such as the hidden rule factor or transferring benefits to their social relationship

network, which caused difficulties to analyze these questions and may have influenced the conclusions.

Finally, interview's participants work in diverse industries, i.e., electronics, machinery, solar, chemical, mining, steel, security, automobile, and energy. Therefore, participants offered different answers for the same question, which reflect the different purchasing criteria/policy adopted in each industry. Such fact influenced the analysis and may have affected the conclusions.

### **7.3 Contributions**

Despite of the deficiencies and limitations of this thesis, key forces that influence the purchasing cost of MNCs' subsidiaries in East-China were identified. On the literature, researchers attribute the competitive cost to specialized purchasing strategy and suppliers. In addition, the procurement policy and managerial capabilities should be developed on a worldwide competitive supply base; and, suppliers should be integrated into the company's business processes to create value for the companies (Weele, 2010).

This study points out that MNCs' subsidiaries in East-China are not aligned with such perspective: most MNCs' subsidiaries in East-China are still doing the traditional purchasing which only focuses on the purchasing price reduction or cost saving through the competition and antitrust practices. Hence, this study provides new insights about what is happening in the procurement field in China and helps managers, practitioners, and scholars to acknowledge that the desirable transition from traditional to modern purchasing practices and technologies in China is still at an earlier stage of development.

### **7.4 Future developments**

In the future, it would be interesting to conduct a similar study with MNCs' subsidiaries in other regions in China. Another possibility would be to adopt a more integrative approach and give voice to other stakeholders in order to gather different perspectives about the research topic. As it was identified a cluster that joins SOEs and POEs, another research avenue would be to investigate the domestic companies to understand how they conduct their procurement activities.



## Bibliography

- Akbar, Z., Bill, M., & Vincenzo, P. (1998). Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science*, 9 (2), 141-159.
- Albuquerque, R. (2003). The composition of international capital flows: risk sharing through foreign direct investment. *Journal of International Economics*, 61 (2), 353-383.
- Andrews, K. R. (1984). Corporate strategy: the essential intangibles. *McKinsey Quarterly*, 4, 43-49.
- Ansoff, H. I. (1965). *Corporate Strategy*. New York: McGraw-Hill Inc., U.S.
- Ansoff, H. I., Declerck, R. P., & Hayes, R. L. (1990). From strategic planning to strategic management. *Physica-Verlag HD*, 44 (3), 110-147.
- Augier, M. & David, J. T. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, (20) 2, 410-421.
- Bao, X. Z. (2014). Study on the relationship among competitive strategy, innovation R&D investment and enterprise performance. *Forum on Science and Technology in China*, 6, 63-69.
- Benton, W.C. (2010). *Purchasing and Supply Chain Management*. Beijing: Tsinghua University Press.
- Berger, R., Herstein, R., Silbiger, A., & Barnes, B. R. (2015). Can Guanxi be created in Sino-Western relationships? An assessment of Western firms trading with China using GRX scale. *Industrial Marketing Management*, 47, 166-174.
- Bourdieu, Pierre: The forms of capital. In: John G. Richardson (ed.): Handbook of Theory and Research for the Sociology of Education. New York: Greenwood Press 1986, s. 241-258.
- Bourdieu, P. (1991). *Language and Symbolic Power*. Cambridge: Polity Press.
- Boyatzis, R. E. (1998). *Transforming Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks, CA: Sage Publications.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Burke Johnson, R. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33 (7), 14-26.
- Chandler, A. D. (1977). *Strategy and Structure*. Massachusetts: The MIT Press.
- Chang, D. P., Zhao, Y. L., & Wang, J. J. (2006). Analysis of the capability characters of the modern professional managers. *Journal of Shandong University of Finance*, 1, 83-84.
- Chen, C. (2016). *Research on optimization of a company indirect procurement management*. Master Thesis, East China University of Science and Technology.
- Chen, F. (2013). A brief discussion on the influence of multinational corporations on China. *Foreign Investment in China*, 297, 1-2.
- Chen, I. J., Paulraja, A., & Lado, A. A. (2004). Strategic purchasing, supply management, and

- firm performance. *Journal of Operations Management*, 22, 505–523.
- Chen, X. (2010). *Research on relational governance theory for inter-firm partnership based on process and structure design*. Doctorial Dissertation, Harbin Institute of Technology.
- Chen, Z. Q. (2008). Research of management model of private enterprise in China. *China Forestry Economy*, 3, 52-55.
- Clarkson, G. P. E. & Simon, H. A. (1960). Simulation of individual and group behavior. *American Economic Review*, 50 (5), 920-932.
- Colis, D. J. & Montgomery, C. A. (2011). *Corporate Strategy-A Resource Based Approach*. Dalian: Dongbei University of Finance and Economics press Co., Ltd.
- Colombo, M. G. & Grilli, L. (2005). Founders' human capital and the growth of new technology-based firms: A competence-based view. *Research Policy*, 34 (6), 795-816.
- Colton, R. R. & Rohrs, W. F. (1985). *Industrial Purchasing and Effective Materials Management*. Reston, Virginia: Reston Publishing Company.
- Crook, T. R., Combs, J. G., Todd, S. Y., Woehr, D. J., & Ketchen Jr, D. J. (2011). Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *Journal of Applied Psychology*, 96 (3), 443-456.
- Cui, Q. L. & An, S. S. (2015). Selection and management strategy of local service providers. *East Journal of Translation*, 6, 15-18.
- Deming, W. E. (2000). *Out of the Crisis*. Massachusetts: MIT Press, Reprint.
- Deng, X. F., Huang, G. X., Zhang, X. Y., & Zhou, J. H. (2012). An empirical study on the relationship between human capital and firm performance: Taking high-tech enterprises as an example. *Macroeconomics*, 1, 73-79.
- Ding, N., Gao, F., Wang, Z. H., & Gong, X. Z. (2012). Analysis of the energy saving and greenhouse gas emission reduction related to aluminum alloy parts for automobile. *Automobile Technology*, 2, 55-59.
- Doney, P. M. & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61(2), 35-51.
- Drucker, P. F. (1969). *The Age of Discontinuity: Guidelines to Our Changing Society*. New York: Harper and Row, Publishers, Inc.
- Du, J. W. (2014). *On international procurement cost control for multinational company*. Master Thesis, University of International Business and Economics.
- Duan, H. B. (2017). The analysis of the problem of “going out” in the process of “going out” of the state-owned enterprises. *Modern Economic Information*, 12, 25-27.
- Duan, W. C., Geng, X. F., & Gao, A. Y. (2007). Analysis of the supply chain model of NOKIA. *Logistics & Material Handling*, 8, 82-85.
- Dunning, J. H. (1977). *International Production and the Multinational Enterprise*. London: HarperCollins Publishers.
- Dunning, J. H. (1981). *International Production and the Multinational Enterprise*. London: HarperCollins Publishers.
- Dunning, J. H. (2012). *International Production and the Multinational Enterprise (RLE International Business)*. London: HarperCollins Publishers.
- Dyer, J. H. & Singh, H. (1998). The relational view: cooperative strategy and source of

- interorganizational competitive advantage. *Academy of Management Review*, 23 (4), 660-679.
- Enright, M. J. (2017). *Developing China: Remarkable Impact of Foreign Direct Investment*. Beijing: China Financial & Economic Publishing House.
- Frederick, E. & Webster, J. (1992). The changing role of marketing in the corporation. *Journal of Marketing*, 56(4), 1-17.
- Gao, A. Y. (2009). *Research on key problems of enterprise procurement under the supply chain environment*. Doctorial Dissertation, Beijing Jiaotong University.
- Gao, T. (1999). Economic geography and the department of vertical multinational production. *Journal of International Economics*, 48 (2), 301-320.
- Gao, X. Y. (2002). *Bourdieu*. Taiwan, China: Sheng-Chih Book Co., Ltd.
- Gasser, A. J. (2000). *Purchase and Profit*. Beijing: National School of Administration Press.
- Glass, A. J. & Kamal, S. (2002). Intellectual property rights and foreign direct investment. *Journal of International Economics*, 56 (2), 387-410.
- Gu, Z. J. (2016). *Research on the matching relationship between cost leadership strategy and enterprise capital*. Doctorial Dissertation, Beijing Jiaotong University.
- Gulati, R., Lavie, D., & Madhavan, R. (2011). How do networks matter? The performance effects of interorganizational networks. *Research in Organizational Behavior*, 31, 207-224.
- Guo, X. G. (2002). *The History of Western Management Thought*. Beijing: Economic management press.
- Hair, J. F. (Eds.). (2009). *Multivariate Data Analysis A Global Perspective, 7th Edition*. New Jersey: Pearson, Prentice Hall.
- Han, J. L. (2008). The study of the procurement performance improvement of the manufacturing industry of East-China based on supply china management theory. *Journal of Management Science*, 143, 191-192.
- Han, J. L. & Zhu, G. W. (2007). The study of key elements of suppliers performance improvement. *Modern Business*, 112 (98), 150-151.
- Handfield, R. B., Monczka, R. M., & Patterson, J. L. (2010). *Sourcing and Supply Chain Management*. Beijing: Tsinghua University Press.
- Hannan, M. T. & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology*, 82 (5), 929-964.
- Hatch, N. W. & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25 (12), 1155-1178.
- Hayton, J. C. (2003). Strategic human capital management in SMEs: An empirical study of entrepreneurial performance. *Human resource management*, 42 (4), 375-391.
- He, Z. Y. (2015). The Chinese Guanxi (relationship). *PKU Business Review*, 8, 8-10.
- Heinritz, S. F. (1959). *The Principles of Purchasing and Its Application*. New York: Free Press.
- Helfat, C. E. & Martin, J. A. (2015). Dynamic managerial capabilities: review and assessment of managerial impact on strategic change. *Journal of Management*, (41) 5, 1281-1312.
- Hill, C. W. L. & Jones, G. R. (2004). *Strategic Management: An Integrated Approach*. Boston: Houghton Mifflin Company.



- Hill, M. & A. Hill (2008). *Investigação por Questionário. 2nd ed.* Lisboa: Edições Sílabo.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21 (5), 967-988.
- Hou, Y. D. (2011). *Government procurement policy research to promote private enterprise development.* Master Thesis, Nanjing University of Aeronautics and Astronautics.
- Hong, J. D. & Hayya, J. C. (1992). Just-in-time purchasing: Single or multiple sourcing? *International Journal of Production Economics*, 27, 175-181.
- Hong, J. M. (1995). Pioneering, enterprising and continuous development-from the Santana 2000 saloon car put into operation in Shanghai to talk about the production development of Shanghai Volkswagen. *Shanghai Auto*, 4, 1-5.
- Huang, Y. (2017). *Choosing the research of purchasing way in accordance to the purchasing theory of supplying chain.* Master Thesis, Capital University of Economics and Business.
- Hui, C. & Graen, G. (1997). Guanxi and professional leadership in contemporary Sino-American joint ventures in mainland China. *The Leadership Quarterly*, 8 (4), 451-465.
- Humphreys, P. K., Li, W. L., & Chan, L. Y. (2004). The impact of supplier development on buyer-supplier performance. *The International Journal of Management Science* 32 (2), 131-143.
- Hutt, M. D. & Speh, T. W. (2004). *Business Marketing Management.* Mason, OH: Thomson, South-Western Cengage Learning Press.
- Hymer, S. (1976). *The International Operations of National Firms: A Study of Direct Investment.* Massachusetts: The MIT Press.
- Jiang, Y. M. (2009). Mixed methods research as “the third methodological movement”. *Zhejiang Social Sciences*, 10, 27-37.
- Jiang, Z. Y., Yu, H. H., Peng, L. B., & Zhao, L. D. (2003). Methods of vendor managed inventory control in supply chain management. *Journal of Southeast University (English Edition)*, 19 (4), 406-409.
- Johnson, H. G. (1970). *The Efficiency and Welfare Implications of the International Corporation.* Massachusetts: MIT press.
- Johnson, P. F., Klassen, R. D., Leenders, M. R., & Awaysheh, A. (2007). Utilizing e-business technologies in supply chains: The impact of firm characteristics and teams. *Journal of Operations Management*, 25 (6), 1255-1274.
- Ju, Y. A. & Hu, M. Y. (2006). *Relationship Management: An Integrated Approach.* Shanghai: Fudan University Press.
- Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72 (12), 2954-2965.
- Khashei, M. (2017). Learning speed of supervised neural networks as similarity measurement in unsupervised cluster analysis. *Intelligent Data Analysis*, 21, 867–892.
- Kojima, K. (1978). *Direct foreign investment: A Japanese Model of Multinational Business Operations.* London: Croom Helm.
- Kraljic, P. (1983). Purchasing must become supply management. *Harvard Business Review*, 61(5), 109-117.

- Kulmala, H. I. (2004). Developing cost management in customer-supplier relationships: three case studies. *Journal of Purchasing & Supply Management*, 10 (2), 65-77.
- Lafley, A. G. & Martin, R. (2017). Don't overestimate customer loyalty. *Harvard Business Review*, 5, 23.
- Lamach, M. W. (2017). How our company connected our strategy to sustainability goals. *Harvard Business Review*, 10, 2-4.
- Lei, H. S. (2015). The development of social responsibility of multinational corporations in China. *Chinese & Foreign Entrepreneurs*, 1, 269-270.
- Leung, T. K. P., Chan, R. Y. K., Lai, K. H., & Ngai, E. W. T. (2011). An examination of the influence of Guanxi and Xinyong (utilization of personal trust) on negotiation outcome in China: An old friend approach. *Industrial Marketing Management*, 40 (7), 1193-1205.
- Li, B. (2016). The key factors analysis which affect the successful implementation of strategic procurement. *Enterprise Reform and Management*, 18, 5.
- Li, C. L. (2017). Research on management mode of private enterprise in China. *Market Modernization*, 22, 88-89.
- Li, D. & Cui, R. M. (2015). "One Belt, One Road" strategy and reconstruction of global economic and trade pattern. *Economist*, 8, 62-70.
- Li, F. F. (2017). *Research on wealth effect of Chinese real estate*. Doctorial Dissertation, Graduate School of Chinese Academy of Social Science.
- Li, J. Y. (2015). Research and analysis on management mode of multinational corporations. *Market Modernization*, 20, 94.
- Li, L. (2016). *A study on the relationship between managers' cognition, corporate social responsibility and firm performance*. Master Thesis, South China University of Technology.
- Li, R. (2016). Discussion on supplier development and negotiation skills. *ZHONGXIAOQIYE GUANLI YU KEJI*, 1-2.
- Li, S. J. (2008). On the case study in international relations. *Journal of Contemporary Asia-Pacific Studies*, 3, 111-123.
- Li, W. X. (2008). The emergence, evolution and review of the theory of enterprise strategic management. *Contemporary Economics*, 6, 144-145.
- Li, X. Y., Jiang, Q. Q., & Li, Y. (2010). An empirical study on the relationship among professional managers' motivation, capacity and corporate performance. *Wuhan University Journal (Philosophy & Social Sciences)*, 63 (4), 606-612.
- Liao, J. K. (2011). *Research on climate change legislation of China: from the paths of mitigation, adaption and their synthesis*. Doctorial Dissertation, Wuhan University.
- Lin, M. S. & Yue, Y. Y. (2015). Study on relationship networks of family firms based on enterprise's life cycle. *Henan Social Sciences*, 23 (4), 64-73.
- Lin, N., Ensel, W. M., & Vaughn, J. C. (1981). Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review*, 46 (4), 393-405.
- Lindblom, C. E. (1956). The American economic review-The failures of economics: A diagnostic study. *American Economic Review*, 46 (4), 672-674.
- Liu, H. B. & Kou, E. H. (2017). The impact of minimum wage relative value change on wage distribution-Based on the analysis of minimum wage data at county level. *Economic Science*,

4, 5-21.

Liu, H. J. (2016). The evolution of corporate social responsibility in China. *PKU Business Review*, 1, 78-87.

Liu, Y. S. & Wang, C. (2013). Review of enterprise procurement cost control methods. *Contemporary Economics*, 7, 72-74.

Lu, J. Y., Yang, G. L., & Yang, L. Q. (2016). *The Development History of Transnational Corporations in China and Foreign Countries*. Beijing: University of International Business and Economics Press.

Luo, H. X., Li, H. X., & Liu, L. (2014). The influence of company executive's personal characteristics on the firm performance-the introduction of mediating variables: investment efficiency. *On Economic Problems*, 110-114.

Luo, M. & Zhao, Y. R. (2012). Causes of the formation of inter-organization relationship: based on the perspective of Pareto improvement. *China Industrial Economics*, 4, 76-88.

Ma, H. & Sun, S. Q. (1991). *Modern Management Encyclopedia*. China Development Press.

Ma, S. Z., Gabriela Silva, M., Callan, V. J., & Trigo, V. (2016). Control and commitment HR practices, job satisfaction and turnover intentions: a comparison between local and multinational firms in China. *The International Journal of Human Resource Management*, 27 (9), 974-990.

Ma, X. (2016). Localization strategy of MNCs in China. *New Economy*, 12, 24-25.

Madera, J. M., H Hebl, M. R., & Martin, R. C. (2009). Gender and letters of recommendation for academia: Agentic and communal differences. *Journal of Applied Psychology*, 94, 1591-1599.

Marc, D. (2008). How to improve national and enterprise's performance through purchasing strategy management. *China Business and Market*, 22 (6), 41-42.

Meng, X. L. (2014). *Research on the relationship between internal control effectiveness of listed companies' procurement cost and enterprise performance*. Master Thesis, Northwest University.

Mitchell, M. L. & Jolley, J. M. (2010). *Research Design Explained*. California: Wadsworth, Cengage Learning.

Mjoen, H. & Tallman, S. (1997). Control and performance in international joint ventures. *Organization Science*, 8 (3), 257-274.

Morgan, B. W. (1998). *Strategy and Enterprise Value in the Relationship Economy*. New Jersey: Wiley Blackwell press.

Nie, L. (2006). The keys to procurement management-the overview of Shanxi Xinhuangong machinery limited company purchasing system. *Enterprise Management*, 7, 57-59.

Nguyen, T. A., Knight, R., Roughead, E. E., Brooks, G., & Mant, A. (2015). Policy options for pharmaceutical and purchasing: issues for low- and middle-income countries. *Chinese Journal of Health Policy*, 8 (4), 1-11.

Ouyang, T. H. (2004). A case study on the subject of Business Administration. *Nankai Business Review*, 2, 100-105.

Ozawa, T. (1992). Foreign direct investment and economic development. *Transnational Corporations*, 1 (1), 27-54.

- Porter, M. E. (1979). How competitive forces shape strategy. *Harvard business review*, 57 (2), 137-145.
- Porter, M. E. (1990). The competitive advantage of nations. *Harvard business review*, 68 (2), 73-79.
- Prahalad, C. K. & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 5, 79-91.
- Qu, Y. & Liu, Y. K. (2014). Research on procurement cost management of assembling and manufacturing enterprises based on the value chain analysis: a case study of Sigma elevator. *Journal of Management Case Studies*, 7 (2), 118-130.
- Rao, W. J. (2009). Review on the development of enterprise strategic management theory. *Commercial Times*, 26, 51-52.
- Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*. 2<sup>nd</sup> ed. Oxford: Blackwell Publishing.
- Salancik, G. R. & Pfeffer, J. (1977). Who gets power- and how they hold on to it: A strategic-contingency model of power. *Organizational Dynamics*, 5 (3), 3-21.
- Sang, B. C. & Zhang, C. Y. (2018). Using foreign direct investment to promote the high quality development of China's economy. *Expanding Horizons*, 4, 83-88.
- Saunders, M., Lewis, P., & Thornhill. A. (2007). *Research Methods for Business Students*. Harlow, England: Pearson Education Limited.
- Schramm, W. (1971). *Notes on Case Study of Instructional Media Projects-A Working Paper*. Academy for Educational Development, Washington, D.C.
- Shen, B. L. (2013). *An empirical study on the relationship between entrepreneurial cognition, corporate social responsibility behavior and firm performance*. Master Thesis, Zhejiang Sci-Tech University.
- Shimul, M. & Naomi, R. (2015). Research: love-hate relationships at work might be good for you. *Harvard Business Review. Digital Articles*, 2-5.
- Shou, K. Y. & Wei, J. (2015). Network resource-based view: A new perspective for the inter-organizational relationship network studies. *Journal of Intelligence*, 34, 163-169, 178.
- Shrader, R. & Siegel, D. S. (2007). Assessing the relationship between human capital and firm performance: Evidence from technology-based new ventures. *Entrepreneurship*, 31 (6), 893-908.
- Song, H. (2008). Impact of supplier selection and supplier involvement on purchasing cost management performance. *System Engineering-Theory & Practice*, 12, 52-59.
- Song, X. Z., Peng, M. L., & Li, S. H. (2015). Research on cost leadership strategy based on full value chain-Galanz's competitive strategy. *The Chinese Certified Public Accountant*, 6, 45-49.
- Su, B. (2016). *Promoting strategy of procurement efficiency on research and development material in E company*. Master Thesis, Beijing Jiaotong University.
- Su, B. C. (2011). The influence of cultural differences on foreign direct investment in China. *HLJ Foreign Economic Relations & Trade*, 209 (11), 43-45.
- Suo, J. & Li, X. J. (2015). An empirical study of the human capital of small and medium-sized companies and firms performance: a case study of small and medium-sized

listed companies. *Inquiry into Economic*, 9, 185-190.

Sykes, T. A. & Venkatesh, V. (2017). Explaining post-implementation employee system use and job performance: impacts of the content and source of social network tie. *MIS Quarterly*, (41) 3, 917-936.

Tashakkori, A. & Teddlie, C(eds). (2003). *Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage Publications.

Tullous, R. & Munson, J. M. (1992). Organizational purchasing analysis for sales management. *Journal of Personal Selling & Sales Management*, (12) 2, 15-26.

Vernon, R. (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80, 190-207.

Wang, B. L. (2016). Innovation is the first driving force for development. *China Higher Education* 01, 10-12.

Wang, H. W. & Wang, Q. J. (2007). The influencing factors of enterprise strategy. *Liaoning Economy*, 9, 32-33.

Wang, T. N. (2000). Competitive advantages: rational thinking of low cost leadership strategy-comparative analysis of Wal-Mart and Han steel's competitive advantages. *Management World*, 2, 189-196.

Wang, Y. Z. (2008). *Sourcing strategy in China study of BST corporation*. Master Thesis, Chongqing University.

Wang, Z. J. & Ren, H. (2009). Interorganizational relationships: evolution and development framework. *Studies in Science of Science*, 27 (12), 1801-1801.

Waterman, R. H., Peters, T. J., & Phillips, J. R. (1980). Structure is not organization. *Business Horizons*, 23 (3), 14-26.

Weele, A. J. (2010). *Purchasing and Supply Chain Management-Analysis, Strategy, Planning and Practice*. Beijing: Tsinghua University Press.

Weele, A. J. (2010). Value creation and purchasing strategy. *International Trade Forum* 4, 34-35.

Wei, L., Yao, S. C., & Shi, Y. (2015). Effect of cost leadership strategy for enterprise core competitiveness-evidence from the listed companies around financial crisis. *Journal of Hebei University of Economics and Business*, 1, 89-96.

Weisberg, J. (1996). Differential teamwork performance: The impact of general and specific human capital levels. *International Journal of Manpower*, 17 (8), 18-29.

Williamson, O. E. (1971). The vertical integration of production: Market failure consideration. *American Economic Review*, 61 (2), 112-123.

Woelfel, J. (1980). *Message-Attitude-Behavior Relationship*. New York: Academic Press.

Wolcott, H. F. (1994). *Transforming Qualitative Data: Description, Analysis, and Interpretation*. Thousand Oaks, CA: Sage Publications.

Wu, F. (2013). Qualitative and quantitative in social science. *Theory Research*, 8, 25-29.

Wu, L. Y., Chen, P. Y., & Chen, K. Y. (2015). Why does loyalty-cooperation behavior vary over buyer-seller relationship? *Journal of Business Research*, 68, 2322-2329.

Xiao, Q. F. (2004). The development and historical impact of multinational corporations. *Expanding Horizons*, 1, 52-54.

- Xie, F. L., Jiang, G. R., & Liu, Z. S. (2009). Study of relationship quality trust model on supplier relationship management. *Computer Engineering and Application*, 45 (8), 216-220.
- Xu, J., Wang, X. J., & Liu, Z. X. (2014). Optimal ordering policy with multiple suppliers. *Journal of System & Management*, 23 (6), 883-890.
- Xu, Z. L., Xie, G. D., & Lin, C. X. (2006). Analysis of modern purchasing model and development trend. *Civil Aircraft Design and Research*, 1, 29-36.
- Yang, D. H. (2004). The impact of multinational corporations' entry on China's market structure. *Economic Theory and Business Management*, 3, 11-17.
- Yang, S. (2003). *Ancient Greek Philosophical Exploration*. Beijing: Commercial press, Eighth edition: 644.
- Yang, Z. H. (2003). DELL model and its development in China. *Chinese & Foreign Corporation Culture*, 7, 49-51.
- Yeung, I. Y. M. & Tung, R. L. (1996). Achieving business success in Confucian societies: The importance of Guanxi (connections). *Organizational Dynamics* 25 (2), 54-65.
- Yin, R. K. (2017). *Case Study Research: Design and Methods*. Chongqing: Chongqing University Press.
- Yin, X. X. (2017). The future development of the management system of state owned enterprises. *Business Economy*, 5, 33-34, 100.
- Yu, D. (2014). The course and trend of the development of purchasing. *Science & Technology Vision*, 14, 208-251.
- Yu, J. H. (2004). *Analysis, strategy and prospect forecast of global e-procurement model for domestic SMEs*. Master Thesis, University of International Business and Economics.
- Yu, Q. (2014). *Research on competitive strategy of Wal-Mart Chinese adjustment*. Master Thesis, Yun'nan University.
- Yun, X. (2013). "Chester I. Barnard": the father of modern management theory. *Modern Enterprise Culture*, 6, 52-53.
- Zhang, B. (2011). Influence of strategic purchasing on supplier development and purchasing performance: An empirical study. *Journal of Beijing Jiaotong University (Social Sciences Edition)*, 10 (2), 65-70.
- Zhang, J. (2015). *The localization strategy of the German BOSCH group in China and its enlightenment*. Master Thesis, Liaoning University China.
- Zhang, J., Wei, G. C., & Liu, C. Y. (2013). Research on small- and medium-sized enterprise procurement cost control. *Logistics Sci-Tech*, 4, 57-60.
- Zhang, X. Y. (2017). Human resource management in multinational corporations. *Human Resource Management*, 4, 59.
- Zhang, Y. J. (2005). The influence on Chinese enterprises' internationalization of transnational company's strategy changing. *Reform*, 139, 69-72.
- Zhang, Z. D. (2017). Reflections on the management innovation mode of state owned enterprises. *China Economist*, 5, 266-267.
- Zhang, W. M. (2007). Competition and Joint gains: the cooperative prevision of Chinese private enterprise and transnational corporations. *Academic Monthly*, 2, 92-97.
- Zhang, W. S. (2016). On global environmental cooperation from analyzing the two-level

games of Paris climate agreement. *Journal of Nanjing Tech University (Social Science Edition)*, 1, 56-66.

Zhao, J. R. (2007). *The study on how the investment of human capital influence the performance of high-tech enterprises*. Master Thesis, Chongqing University.

Zheng, N., Hu, X., & Xue, X. G. (2015). *The Application of SPSS21.0*. Beijing: Tsinghua university press.

Zhou, W., Wu, X. M., & Adel Ben, Y. (2017). *Research on the Direct Investment of Multinational Companies in China and Its Impact: From Macro to Micro*. Wuhan: Wuhan University Press.

Zhu, J. M. (2017). *Using Bourdieu's trilogy of habitus, capital and field to explore the employment experiences of the highly qualified 1.5<sup>th</sup> generation of Chinese immigrants in Portugal*. Master Thesis, Business School of ISCTE University Institute of Lisbon.

Zhu, H. (2006). *Chinese enterprises and international supply chain of TNCs*. Master Thesis, Tianjin University of Finance and Economics.

Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Academy Publisher*, 3 (2), 254-262.

## Appendix

### Appendix 1: Interview Guidance and Agreement

Dear friends,

First of all, thank you for your precious time to accept my interview. This interview is an important part of the research work on the doctoral thesis, i.e., the study of the key factors that influence the purchasing cost of MNCs' subsidiaries in East-China. In the course of the interview, you need to answer some of the questions that the interviewees put forward, which include the following:

Basic information about you, includes name, age, professional background, educational background, and job position.

Q1: Please describe your organization, and yourself. Information about your working activities in the company.

Q2: Do you think the bargaining power of supplier influences the purchasing cost performance? Why?

Q3: Do you think the substitute strategy influences the purchasing cost performance? Why?

Q4: Do you think the vertical integration strategy influences the purchasing cost performance? Why?

Q5: Do you think the new entrant strategy influences purchasing cost performance? Why?

Q6: Do you think the procurement principles influence purchasing cost performance? Why?

Q7: Do you think the supplier relations influences purchasing cost performance? Why?

Q8: Do you think the procurement effectiveness influences purchasing cost performance? Why?

Q9: Do you think the language skill influences purchasing cost performance? Why?

Q10: Do you think the personal attributes influence purchasing cost performance? Why?



Q11: Do you think the cultural clashes (communication related) influences purchasing cost performance? Why?

Q12: Do you think the Guanxi network, job, and management systems influence purchasing cost performance? Why?

In the formal interview, the conversation between us will be recorded by audio or video. If the interview involves issues that you consider as confidential, private, or you do not want to disclose them, you can refuse to answer the question. we will fully respect your decision. If you refuse any recording we also fully respect your decision.

In order to make the research more objectivity and the conclusion is more scientific, we ask you to answer the questions accurately and objectively. We solemnly promise you that all your answers will only be used for research work. we will fully protect your rights and interests, neither disclose any personal information to others nor use this information for other purpose except this doctoral thesis. If you consider the interview data should be destroyed, we also promise the relevant sensitive data will be destroyed after this thesis is completed.

This agreement will be effective when both parties signed it.

Interviewer:

Interviewee:

Date:

Date:

## Appendix 2: Questionnaire

Dear Ms./Mr.

I am a doctoral student at the Lisbon University Institute. To fully study the research topic “The key factors that influence the purchasing cost in China”, we sincerely invite you to cooperate with this questionnaire survey.

Any information or comments you have provided are only limited to the use of the doctoral thesis of the Lisbon University Institute. We promise to keep it strictly confidential.

Should you have any doubts or inquiries, please do not hesitate to contact Mr. Han at +86-138-5713-0871 or by e-mail [xiaolinhz@126.com](mailto:xiaolinhz@126.com). Sincerely thank you for your active participation and cooperation, we wish you a happy work, study and life!

If you are interested in the results of this study, please leave your contact information:

Name:

Telephone:

E-mail:

**Lisbon University Institute**

May 18,2015

Please answer each question based on your real working practice, experience, and judgement.

1. What is the property of your company?

A: The MNC of Europe or U.S.

B: The MNC of Southeast Asia

C: SOE of China

D: Private company of China

E: Others

2. Which position are you in charge of?

A: Decision maker level, final decision for purchasing

B: Middle upper level, certain purchasing decision-making power

C: The basic level, purchasing suggestion

D: General staff, no purchasing power

E: Other function (not related to purchasing)

3. Which region is your company located in?

A: East China

B: North China

C: South China

D: Northeast China

E: Northwest China

4. How many suppliers does each procurement staff take charge of in your company?

A: More than 100 suppliers

B: 50~100

C: 20~50

D: 10~20

E: Less than 10 suppliers

5. What is your nationality?

A: Europe or U.S.

B: Southeast Asia

- C: Chinese
- D: South America
- E: Others

6. What is your education level?

- A: Doctor
- B: Master
- C: Bachelor
- D: Junior Bachelor
- E: Others

7. How many years are you working at purchasing or SCM position?

- A: More than 20 years
- B: 10~20 years
- C: 5~10 years
- D: 1~5 years
- E: Less than 1 year

8. Do you think the qualification of procurement employee influence the purchasing cost?

- A: Never influence
- B: Rarely influence
- C: Occasionally influence
- D: Sometimes influence
- E: Usually influence
- F: Always influence
- G: Do not know

9. Which supplier do you prefer for strategic material?

- A: Europe or U.S. supplier
- B: Southeast Asia supplier
- C: Chinese supplier
- D: Native country supplier

E: Based on the assessment result

10. What is the price fluctuation of the strategic and important raw material of your company comparing to market price?

A: More than 20%

B: 10% - 20% higher

C: 5%– 10% higher

D: 2% - 5% higher

E: Almost similar

F: 2% - 5% lower

G: 5% – 10% lower

H: 10% - 20% lower

I: Less than 20%

11. Please sort the term for supplier evaluation according to its importance.

A: Design and service

B: Quick response

C: Cost

D: Quality

E: Reputation

12. Do you think the purchasing staff behaviors influence the purchasing cost?

A: Never influence

B: Rarely influence

C: Occasionally influence

D: Sometimes influence

E: Usually influence

F: Always influence

G: Do not know

13. Which quality level do you prefer comparing to market average performance?

A: More than 10%

B: 5% - 10% higher

C: 1%– 5% higher

D: 0% - 1% higher

E: Almost similar

F: 0% - 1% lower

G: 1% – 5% lower

H: 5% - 10% lower

I: Less than 10%

14. Which price level do you prefer comparing to market average performance?

A: More than 10%

B: 5% - 10% higher

C: 1%– 5% higher

D: 0% - 1% higher

E: Almost similar

F: 0% - 1% lower

G: 1% – 5% lower

H: 5% - 10% lower

I: Less than 10%

15. What is the influence of supply chain management on the purchasing cost of your company?

A: Increase more than 10%

B: Increase 5%~10%

C: Increase 1%~5%

D: No change

E: Decreasing 1%~5%

F: Decreasing 5%~10%

G: Decreasing more than 10%

16. Which terms does your company prefer for suppliers' selection?

- A: Best quality, poorest price
- B: High quality priority, high price
- C: Acceptable quality, competitive price
- D: Marginal quality, low price
- E: Poor quality, far lower price

17. Which method is the best one to obtain the best purchasing cost?

- A: Bidding
- B: Negotiate with long-term strategic supplier
- C: Develop new supplier
- D: The lowest price supplier in spot market
- E: Cooperate with partners on the supply chain

18. What is the reasonable price difference between import material and local source?

- A: More than 30%
- B: 10%~30%
- C: 5%~10%
- D: Within 5%
- E: Comprehensive assessment

19. What is the influence on the purchasing cost by a monopoly supplier in your industry?

- A: More than 30%
- B: 10%~30%
- C: 5%~10%
- D: 2%~5%
- E: No impact

20. What is the influence on your purchasing cost regarding the ratio between your purchasing spending and supplier's total sales revenue?

- A: Absolutely not impact
- B: Mostly not impact
- C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

21. What is the influence on purchasing cost regarding the cooperation time with supplier?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

22. What is the influence on the purchasing cost regarding the consistent between your purchasing strategy and supplier's strategy?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

23. What is the influence on the purchasing cost regarding the quality performance of supplier's product?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact



G: Absolutely impact

24. What do you think about the influence on your purchasing cost regarding the quality certificating (ISO, UL, CCC) of supplier products?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

25. What is the influence on your purchasing cost regarding the supplier's negotiation power with their upstream supplier?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

26. What is the influence on your purchasing cost if you receive strategic materials with longer lead-time than expected?

A: Absolutely not impact

B: Mostly not impact

C: Somewhat not impact

D: Neutral

E: Somewhat impact

F: Mostly impact

G: Absolutely impact

27. What is the influence on your purchasing cost if supplier takes social responsibility such as social insurance and labor protection?

- A: Absolutely not impact
- B: Mostly not impact
- C: Somewhat not impact
- D: Neutral
- E: Somewhat impact
- F: Mostly impact
- G: Absolutely impact

28. What is the influence on your purchasing cost if supplier takes the environment protection responsibility such as investment on environment protection?

- A: Absolutely not impact
- B: Mostly not impact
- C: Somewhat not impact
- D: Neutral
- E: Somewhat impact
- F: Mostly impact
- G: Absolutely impact

29. Does your company have a classification for raw material?

- A: Yes, did. Classified to strategic, important, general and common.
- B: No.

30. What is the percentage between the number of strategic and important suppliers and the total suppliers in your company?

- A: Less than 5%
- B: 5%~10%
- C: 10%~20%
- D: More than 20%
- E: Not fixed

31. What is the percentage between the purchasing amount of strategic and important materials and the total purchasing spending in your company?

A: More than 60%

B: 40%~60%

C: 20%~40%

D: Less than 20%

E: Not fixed

32. What is the relationship between your purchasing cost and the Guanxi with supplier?

A: Strong positive correlation

B: Moderate positive correlation

C: Weak correlation

D: No correlation

E: Moderate negative correlation

F: Strong negative correlation

**The end, thanks!**

### Appendix 3: Semi-structured Interview Worksheet

Theme/Subtheme	Description
<b>1. Drivers for purchasing cost reduction</b>	
1.1 Low supplier power	
➤ Large orders	▪ High bargaining power for the respondent's company that buys high volume of materials
➤ No supplier's monopoly	▪ High bargaining power for the respondent's company
1.2 Ability of the buyer to substitute	
➤ Import substitution	<ul style="list-style-type: none"> <li>▪ Replacement of imported materials by domestic materials/equipment with positive impact on purchasing cost-cutting</li> <li>▪ Reasons: <ul style="list-style-type: none"> <li>○ Overcoming high purchasing price (or high supplier bargaining power)</li> <li>○ Overcoming long lead-time</li> <li>○ Overcoming supply shortage</li> </ul> </li> </ul>
➤ Replacement/complement of other purchasing materials	<ul style="list-style-type: none"> <li>▪ Finding alternative sources for domestic (import) raw materials to complement/ replace actual suppliers</li> <li>▪ Reasons: <ul style="list-style-type: none"> <li>○ Overcoming high purchasing price</li> <li>○ Overcoming supply shortage</li> <li>○ Overcoming long lead-time</li> </ul> </li> </ul>
1.3 Vertical integration	
➤ Backward integration (Positive impact)	<ul style="list-style-type: none"> <li>▪ The respondent's company incorporates the value-chain of a supplier into its own value chain</li> <li>▪ The control is exercised by the respondent's company (Low supplier power)</li> </ul>
1.4 Threat of new entrants	
➤ Licensed production (government regulation)	<ul style="list-style-type: none"> <li>▪ When it is hard to obtain a licensed production, there are barriers for other companies to entry a particular (niche) market.</li> <li>▪ Advantages <ul style="list-style-type: none"> <li>○ Licensed production allows the company to have access to supplier's channels with lower purchasing prices</li> <li>○ Licensed production allows the company to have some economies of scale</li> </ul> </li> </ul>

Theme/Subtheme	Description
<b>2. Facilitators of purchasing cost reduction</b>	
2.1 Social capital	
<ul style="list-style-type: none"> <li>➤ Guanxi network (Positive impact)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Looser business ties (i.e., ties between companies or entities in different industries – e.g., external actors to the supply chain)                             <ul style="list-style-type: none"> <li>○ Asking for a special favor</li> </ul> </li> <li>▪ Strong business ties (i.e., ties between companies within the same industry that may not be directly competing with each other – e.g., supplier-buyer ties)                             <ul style="list-style-type: none"> <li>○ Renewal and updating of the supplier portfolio</li> <li>○ Updating old relationships</li> </ul> </li> <li>▪ Strong business ties (i.e., ties between companies within the same industry that may not be directly competing with each other – e.g., supplier-buyer ties)                             <ul style="list-style-type: none"> <li>○ Developing and maintaining supplier partnerships (Collaboration)</li> <li>○ Supplier-based initiative</li> </ul> </li> </ul>
2.2 Linguistic capital	
<ul style="list-style-type: none"> <li>➤ Communication with headquarter</li> </ul>	<ul style="list-style-type: none"> <li>▪ Knowledge of languages</li> </ul>
2.3 Bargaining skills	
<ul style="list-style-type: none"> <li>➤ Negotiation with suppliers</li> </ul>	<ul style="list-style-type: none"> <li>▪ The ability to negotiate influences the outcome of negotiations                             <ul style="list-style-type: none"> <li>○ Masculine traits (e.g., aggressiveness)</li> </ul> </li> </ul>
2.4 Personal attributes	
<ul style="list-style-type: none"> <li>➤ Positive traits</li> </ul>	<ul style="list-style-type: none"> <li>▪ The level of persistence influences the outcome of negotiations</li> </ul>
<ul style="list-style-type: none"> <li>➤ Experience</li> </ul>	<ul style="list-style-type: none"> <li>▪ The length and nature of the professional experience influences the outcome of negotiations</li> </ul>
<ul style="list-style-type: none"> <li>➤ Education</li> </ul>	<ul style="list-style-type: none"> <li>▪ The level of education influences the outcome of negotiations</li> </ul>
<ul style="list-style-type: none"> <li>➤ Job position</li> </ul>	<ul style="list-style-type: none"> <li>▪ The position in the hierarchy (which can mean formal power) influences the outcome of negotiations</li> <li>▪ Formal power</li> </ul>

Theme/Subtheme	Description
<b>3. Barriers to purchasing cost reduction</b>	
3.1 Social capital	
<ul style="list-style-type: none"> <li>➤ Guanxi network (Negative impact)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Strong business ties (i.e., ties between companies within the same industry that may not be directly competing with each other – e.g., supplier-respondent's company ties)                             <ul style="list-style-type: none"> <li>○ Honor personal relations → disrupt negotiations</li> </ul> </li> <li>▪ Looser business ties (i.e., ties between companies or entities in different industries – e.g., external actors to the supply chain)                             <ul style="list-style-type: none"> <li>○ Honor business relations</li> </ul> </li> </ul>
3.2 Misunderstandings	
<ul style="list-style-type: none"> <li>➤ Communication problems with headquarter</li> </ul>	<ul style="list-style-type: none"> <li>▪ Employees have lack of language skills</li> </ul>
<ul style="list-style-type: none"> <li>➤ Professional cultures' clashes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Employees from different departments have essential differences in the styles of running business                             <ul style="list-style-type: none"> <li>○ The notion of subjective constructs (like quality, items to carefully inspection) are different among people from different departments (like procurement dep. vs. production dep.)</li> <li>○ The approaches to problem-solving are different among people from different departments (like procurement dep. vs. production dep.) – e.g., Engineer is technology centered whereas procurement staff is cost oriented</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ National cultures' clashes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inability to achieve mutual understanding from Western people about business practices in China and vice-verse</li> <li>▪ Employees with different nationalities have essential differences in the styles of running business</li> </ul>
3.3 Ambiguity about job	
<ul style="list-style-type: none"> <li>➤ Counterproductive behavior</li> </ul>	<ul style="list-style-type: none"> <li>▪ Behavior that explicitly runs counter to the goals of the organization</li> <li>▪ Evading management systems to achieve employees' interests</li> </ul>

Theme/Subtheme	Description
<b>4. Procurement policy</b>	
4.1 Procurement principles	
➤ Transparency	<ul style="list-style-type: none"> <li>▪ Relevant information regarding the procurement process and the company's expectations of suppliers should be i) clearly communicated inwards and ii) reasonably practicable.</li> </ul>
➤ Accountability	<ul style="list-style-type: none"> <li>▪ The company (and its employees), as well as suppliers should be accountable for their actions, decisions and mistakes</li> </ul>
➤ Business integrity	<ul style="list-style-type: none"> <li>▪ Procurement staff should be completed responsibly and with a high degree of integrity in compliance with enterprise policies and applicable laws, rules and regulations</li> </ul>
➤ Environmental sustainability	<ul style="list-style-type: none"> <li>▪ Every procurement effort must ensure sustainable business practices through strategic alignment with internal and external actors in order to create a long-term lifecycle for the enterprise                             <ul style="list-style-type: none"> <li>▪ E-g., the characteristics of raw materials should obey the principles on environmental sustainability imposed by external regulators (e.g., China National policy)</li> </ul> </li> </ul>
4.2 Supplier relationship management	
➤ Developing and maintaining supplier partnerships (Collaboration) (mutually beneficial relationships)	<ul style="list-style-type: none"> <li>▪ All employees engaged in procurement on behalf of the company should collaborate with key suppliers to build on synergies, through the exchange of information, regular meetings, and leveraging supplier knowledge and capabilities                             <ul style="list-style-type: none"> <li>▪ When a trial or sample testing is required to judge the work of a supplier, the procurement staff should provide clear assessment criteria and ensure the confidentiality of the information provided by the supplier</li> </ul> </li> </ul>
➤ Competition and Antitrust	<ul style="list-style-type: none"> <li>▪ Qualified suppliers are invited to participate in the bidding process and are evaluated against each other on the same criteria.                             <ul style="list-style-type: none"> <li>▪ Purchasing decisions are often based on competitive price rather than on other criteria</li> <li>▪ There is no development of a long-term (and healthy) relationship with reputable suppliers</li> </ul> </li> </ul>
4.3 Procurement effectiveness	
➤ Cost saving	<ul style="list-style-type: none"> <li>▪ This can occur when a new supplier is found, a less costly substitute item is used, a new contract has been signed with the supplier, a cheaper transportation method has been found, or the purchasing department has negotiated a lower price with the existing supplier.</li> </ul>
➤ Increased quality	<ul style="list-style-type: none"> <li>▪ When an item has improved quality either by using a different supplier or by negotiating with the existing</li> </ul>

	supplier, the improvement will be reflected in a reduction of waste or production resources.
➤ Purchasing Improvements	<ul style="list-style-type: none"><li>▪ Efficiencies in the method used in the purchasing department will increase effectiveness.</li><li>▪ These can include the introduction of formal systems for processing procurement orders, e-procurement systems, vendor managed inventory and pay on receipt processes.</li></ul>