

Martin Lockström

## **Low-Cost Country Sourcing**

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**Einkauf, Logistik und  
Supply Chain Management**

Herausgegeben von  
Professor Dr. Christopher Jahns

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Martin Lockström

# **Low-Cost Country Sourcing**

Trends and Implications

With a foreword by Prof. Dr. Christopher Jahns

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## Foreword

Low-cost country sourcing has for long been one of the hottest buzz words in the purchasing and supply management community, especially among practitioners. The lack of coverage in the academic field can potentially be explained by the complexity and the breadth of the topic. Although companies in most industries have sourced on a global level for decades or even centuries in order to reduce cost, the subject have received increasing attention over the last few years in a sense that the concept has become more and more institutionalized as part of the overall sourcing strategy.

The developments are welcome – especially since the field of purchasing and supply management traditionally has been lagging behind other, more “acknowledged” disciplines such as finance, accounting, and marketing, among others. This lag is glaring if one considers the absence of faculties involved in the discipline among many universities. Therefore, the initiative of Supply Management Institute to build a worldwide research and training network has proven to be highly attractive for both scholars and practitioners.

Furthermore, the discipline has also become increasingly complex due to globalization effects, where business networks become increasingly intertwined and the flow of goods, services, money and human capital grow exponentially over time. To handle the situation, companies are in desperate need for knowledge and information that can help them to crafting effective strategies that can secure supply, reduce risk and ultimately translate into competitive advantage.

This dissertation provides a significant contribution to the current body of research, by dealing with two very important subtopics of low-cost country sourcing – namely trends and implications. The trend analysis of this dissertation provides guidance where the field is heading; this is extremely helpful for companies in order to increase the planning horizon and reduce uncertainty. Also from an academic perspective this will contrast and add perspectives to earlier studies, and provide a solid basis for longitudinal research in terms of follow-up studies.

Moreover, the thesis part investigating implication puts the topic in perspective, by probing into an area which has yet been covered to a very low extent. This part contrasts the long tradition of heavily focusing on external factors as key strategic drivers, instead looking at the internal factors of the firm and how these contribute to the performance of low-cost country sourcing initiatives.

The results of the thesis show that there is currently a tremendous momentum in the field of low-cost country sourcing. Companies that do not leverage their organizations in low-cost regions will miss opportunities to reduce cost while maintaining quality levels, get access to new suppliers, get closer to new customer bases and so forth. Those that do not exploit opportunities in emerging supply markets and protect their strategic assets will most likely suffer from competitive disadvantages and deteriorating profits on a long term. Those who do will be the future market leaders.

Finally, I would hereby like to congratulate Dr. Martin Lockström for a great effort. As part of the first generation of doctoral students at the Chair for Purchasing, Logistics and Supply Chain Management at European Business School, he has understood that performance is not only measured through successful delivery of research projects, scientific publications and high-quality lectures, but more importantly, through a very strong and amiable personality and mindset. Not to mention the least is Dr. Lockström a couple of months after his doctoral degree ceremony appointed as Associate Professor at SMI China to build up the BMW-SMI Endowed Chair for Purchasing and Supply Management at Tongji University in Shanghai. I can simply congratulate to the successful career of Dr. Lockström and express my honor to let him reach his full potential.

A handwritten signature in black ink that reads "Christopher Jahns". The script is fluid and cursive, with the first letter of each word being capitalized and prominent.

Univ.-Prof. Dr. Christopher Jahns

## Acknowledgements

This thesis is an embodiment of a journey in space and time. Coming from Sweden as a newly hatched M.Sc. graduate and starting at the Chair of Purchasing, Logistics and Supply Chain Management, ebs European Business School, in the small town of Oestrich-Winkel, Germany, I knew little about what was to come. With an initial headcount of four, the Chair organization now includes almost forty staff members in three countries. Through the growth and success of the Chair, I have gathered knowledge and experience that I will benefit from for the rest of my life. Topics such as entrepreneurship, strategy, human resources management, and internationalization, are nowadays things I have not only read about in text books, but dealt with on a daily basis at the Chair.

Moreover, as this thesis is part of larger on-going research activities, it gives an indication of the tremendous amounts of work that have been invested in realizing it. Nevertheless, the work has undoubtedly been worthwhile, as I have developed intellectually and personally at a pace I thought was not possible. I have also had the opportunity to visit places I have never before seen, and meet interesting people both from academia and practice.

The research of this thesis would not have been possible without support from other organizations and individuals. Although I risk omitting people that should have been mentioned, I would like to name a few of those who have contributed most to the emergence of this thesis. As a start, I would like to thank the faculty at the Chair of Purchasing, Logistics and Supply Chain Management of ebs European Business School. First of all, I would like to thank my first supervisor, Prof. Christopher Jahns, who has truly inspired me to work hard, and he has given me the authority and autonomy to realize my dreams. I would also like to thank Dr. Evi Hartmann for sharing her long experience in practice, and her invaluable input regarding technical issues and methodology, but also for providing helpful feedback on my research.

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There are also a number of people outside the Chair I would like to thank. Firstly, I would like to thank Mr. Peter Bernard, Mr. Paul Hampton and Mr. Steve Muddiman at Ariba, Inc., for providing funding and support that enabled the empirical research of my thesis. I would also like to take the opportunity to and thank Mr. Alexander Vukotic at Confield Research who always was very cooperative and friendly during the field study execution. I also owe thanks to DAAD for the financial support in terms of a scholarship during my doctoral studies, which has greatly facilitated my personal situation. Another institution that should not go unmentioned is CDHK of Tongji University, Shanghai, at which I had the opportunity to experience the world's number one supplier market from within. My stay there greatly served as a source of inspiration when working on my thesis in the end phase.

I would also like to thank my parents, and my wife Veronica. Without their kindness, support and patience, I would not have been able to accomplish my goals. They have also helped reminding me that there is a life besides and beyond writing a dissertation. Finally, I would like to express my sincere apologies for anyone forgotten to be mentioned. Therefore, I hereby collectively thank all of those who deserve being mentioned but unintentionally were omitted.

A handwritten signature in black ink, appearing to read 'Martin Lockström', with a long horizontal flourish extending to the right.

Martin Lockström

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## List of Abbreviations

CATI	Computer-Aided Telephone Interviewing
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COO	Chief Operations Officer
CPO	Chief Procurement Officer
DMNC	Diversified Multinational Corporations
e.g.	exempla gratia (for example)
ERP	Enterprise resource planning system
EU	European Union
FDI	Foreign direct investment
GDP	Gross domestic product
HCC	High-cost country
i.e.	id est (this means)
IPO	International Procurement Office
IMP	International marketing and purchasing paradigm
IT	Information Technology
LCC	Low-cost country
LCCS	Low-cost country sourcing
LISREL	Linear Structural Relationships
MRO	Maintenance, repair and operations
NAISC	North American Industry Standardization Code
PLS	Partial Least Squares
PSM	Purchasing and Supply Management
R&D	Research & Development
RBV	The resource-based view
SCA	Sustainable competitive advantage
SCM	Supply chain management
SEM	Structural Equation Modeling
SWOT	Strengths, weaknesses, opportunities and threats
TCT	Transaction cost theory
VRIO	Valuable, rare, inimitable and organization support
WFOE	Wholly foreign-owned enterprise

# 1. Introduction

The aim of this chapter is to introduce the reader to the topic of *low-cost country sourcing* (LCCS) and to provide relevant background information as well as the main problem to be solved within the scope of the thesis. It also contains the setup of research objectives and definition of research questions as guidance for the research. It also contains an overview of the thesis structure in order to facilitate navigation throughout the thesis.

## 1.1. Background and Problem Definition

Globalization has induced immense competition in many industries. Moreover, firms competing in mature markets have experienced increasing difficulties to grow revenues, especially in the aftermath of the economic recession caused by the dot-com crash and the September 11 event in 2001. As a result, firms are increasingly focusing on cost reduction as a means for increasing shareholder value.

As indicated by Monczka (1995), offering low product prices as a result of being a low-cost producer is one of the most important competitive advantages from a marketing perspective. However, firms with strategies focusing on differentiation also benefit from low costs since released capital can instead be spent on more value-adding activities. Furthermore, cost-savings translate directly dollar by dollar to the bottom line result, making it the most effective means for improving corporate profitability (Aberdeen Group Inc., 2002).

In order to reduce costs and thus satisfying internal customer demand (Jahns & Bänziger, 2002; Koppelman, 2003), an important objective of the corporate supply function is to source goods and services in a way that yields reductions in total cost while delivering adequate quality. The strategic importance of this task has increased significantly over the last few years, as the degree of value added has decreased to less than fifty percent in many industries (Jahns, 2005).

One of the most effective ways to achieve cost-saving targets is to source from countries with a comparatively lower price level, so called *low-cost country*

*sourcing* (LCCS). Although the term does not specify which costs are actually lower, one is usually referring to the vast difference in labor costs between the *high-cost country* (HCC) and the *low-cost country* (LCC). Typically, the labor cost difference ranges between a factor of two to twenty, meaning that a wage rate including benefits in a HCC of €20 could translate to as little as €1 in an LCC (Battacharya et al., 2004). As a result, the opportunity cost of not sourcing from LCCs is very high.

Reducing costs is not the only reason for LCCS, however. LCC markets are often characterized by rapid growth and absolute market size, and increasing customer demand has turned these regions into important sales markets as well. Hence, corporate LCC presence is important not only for sourcing and manufacturing, but also for serving local consumer markets. In other words, companies that can acquire significant market shares in these regions are more likely to breed cash cows in the future.

The low labor cost level has a number of secondary implications, especially in manufacturing and assembling operations. Firstly, it is possible to increase the amount of manual labor content and hence reduce capital requirements in terms of expensive automation equipment such as welding robots, conveyor belts etc. Whereas lower labor costs translates directly to the bottom line, lower capital investments can significantly reduce the amount of tied-up capital on the balance sheet (Battacharya et al., 2004). An increase in manual labor content also means increased flexibility and reduced costs for exiting legacy assets, since less machinery and tooling equipment need to be sold or moved when operations are relocated.

However, LCCS is a crucial task that needs to be planned and executed with grate care. Despite anecdotal evidence of vast cost-savings opportunities, a company can easily end up with increased instead of decreased total costs if not doing LCCS operations properly. Due to the many challenges imposed by globalization (Jahns, 2001), there are numerous challenges and obstacles to overcome, for

example cultural barriers, fluctuating currencies, increased distances for travel and transportation, political instability among others (Battacharya et al., 2004).

The aim of the sourcing initiatives is to identify suppliers that can deliver maximum amount of value at the lowest possible total cost, at adequate quality levels. Firms must learn how to develop strategies that can ultimately lead to adequate organizations and processes that can cope with challenges in the environment, in other words creating a “strategic fit” (P. Lawrence & Lorsch, 1967; Zajac, Kraatz, & Bresser, 2000). The main problem for the strategist (i.e. the CPO) is therefore to obtain critical information and knowledge to craft sound and viable sourcing strategies.

## **1.2. Research Objectives**

Over the last two decades, a rich body of research on the topic has emerged. As shown in the literature review in chapter 2, most of this research has either focused on the nature of the supplies sourced by applying transaction cost theory (TCT) (Kotabe, 1994; Murray, 2001; Murray, Kotabe, & Wildt, 1995) or more pragmatic approaches in terms of physical characteristics of supplies being sourced (J. M. Smith, 1999). Other scholars have investigated situational factors as motivation for global sourcing (Alguire, Frear, & Metcalf, 1994). Much of the research has focused on organizational issues, such as organizational design (Guinipero & Monczka, 1990), and centralization/decentralization issues (Arnold, 1999). Others, such as Monczka and Trent (1991), and Bozarth et al. (1998), investigated trends in the field of global sourcing. Another interesting stream is the debate about the strategic importance of purchasing (Mol, 2003; Ramsay, 2001a), which has important implications for the theoretical foundation of this thesis.

Interestingly, less attention has been paid to the role of intra- and inter-firm resources as a source of competitive advantage and their potential influence on performance. Although somewhat contradictory empirical evidence (e.g. Schmalensee, 1985), there seems to be empirical evidence from general research settings in favor of the importance of intra-firm factors (Cool & Schendel, 1988;

Cubbin, 1988; Hansen & Wernerfeldt, 1989; Roquebert, Phillips, & Westfall, 1996; Rumelt, 1991). Hence, the first objective of this thesis is to examine these effects in a global sourcing setting, in effect also providing a novel and different perspective on the topic compared to the dominating TCT-based research on global sourcing done during the 1990s and early 2000s.

Moreover, despite vast amounts of macroeconomic data available at country-level, very little scientific research has been done about the future developments of LCCS at firm-level. In other words, there is an academic knowledge gap about where and to what extent sourcing activities will be located in a near future. As a result, the second objective of this thesis is to investigate trends and developments in the field.

From a practical perspective, anecdotal evidence has shown that companies have so far primarily relied on the external assessment, or market-based view (“outside-in perspective”), in order to identify attractive supplier markets, while paying less attention to the internal assessment (“inside-out perspective”) during the strategy development phase. Therefore, it is likely that many companies miss opportunities to adapt their organizations to a highly dynamic and complex sourcing environment and thus not exploiting comparative advantages to the fullest extent possible.

This motivates further research on how internal factors on the buying side affect business performance. Academic research in this field is highly needed, as many firms are experiencing increasing competition on a global level and are therefore more or less forced to source globally. Since the research stems from actual needs among companies, it is very likely that the findings from the thesis will have a significant importance to business executives as well as scientists in the field.

### **1.3. Research Questions and Thesis Outline**

Based on the discussion above, it is evident that there exist research gaps about the role of internal factors of the firm for the success of LCCS as well as future trends in the field, both in theory and practice. In order to eliminate, or at least close these research gaps, a theoretical framework based on *the resource-based*

*view of the firm* (RBV) and parallel streams of research will be applied as a theoretical lens onto the topic. The theoretical framework will also be briefly discussed in the light from other theories from organizational science, economics and strategic management. Examples of such theories are systems theory, international trade theory, transaction cost theory and theory of foreign direct investment. In line with the purpose of the study in combination with the research gaps, five overarching research questions can be formulated:

1. What is low-cost country sourcing?
2. What makes low-cost country sourcing different from general sourcing?
3. How do firm resources affect business performance when sourcing in LCCs?
4. What is the relative importance of firm resources for superior business performance when sourcing in LCCs?
5. How will the sourcing patterns in LCCs change in a near future?

The ultimate goal of the thesis is of course to answer the research questions above. The research questions themselves also provide guidance for the structure and contents of the thesis. As such, the thesis is structured in a way that it fulfils three types of requirements as defined by Gleich (2001). These are as follows:

1. **Theoretical objective:** Definition of terms and positioning the topic into existing streams of research
2. **Explanatory objective:** Conceptual development and empirical evaluation of relationships between constructs within a research model
3. **Presentation objective:** Drawing conclusions and deriving recommendations for practice and research

From a structural point of view, the thesis is divided into six chapters (Figure 1). Chapter 1 serves as an overall introduction to the thesis. More in-depth, chapter 1.1 introduces the reader to the topic by providing relevant background information and defining the main problem to be solved by the thesis. Based on the background information and problem definition, chapter 1.2 elaborates the objectives that are to be accomplished over due course of the research within the

thesis. Finally, in chapter 1.3 (i.e. this chapter) explicit research questions that are to be answered are formulated, and the structure of the thesis itself is explained.

Chapter 2 contains the literature review, which lays the groundwork for understanding the LCCS topic itself, as well as the reasoning and argumentation in later chapters. Chapter 2.1 deals with explanation and definition of important terms used throughout the dissertation (cf. Gleich, 2001, p. 18). The terms are also compared in order to highlight crucial nuances and differences that are essential for the understanding of the subject of study. In chapter 2.2 internationalization of firms are discussed. This chapter helps understanding why and how firms are expanding into new geographical regions. The knowledge gained from this section is very helpful in order to broaden the resource-based perspective on which the theoretical fundament in later chapters is based. Chapter 2.3 builds on the previous chapters by further developing terms and defining the concept of LCCS. The LCCS term is then positioned with respect to literature through the deployment of a morphological analysis in chapter 2.4.

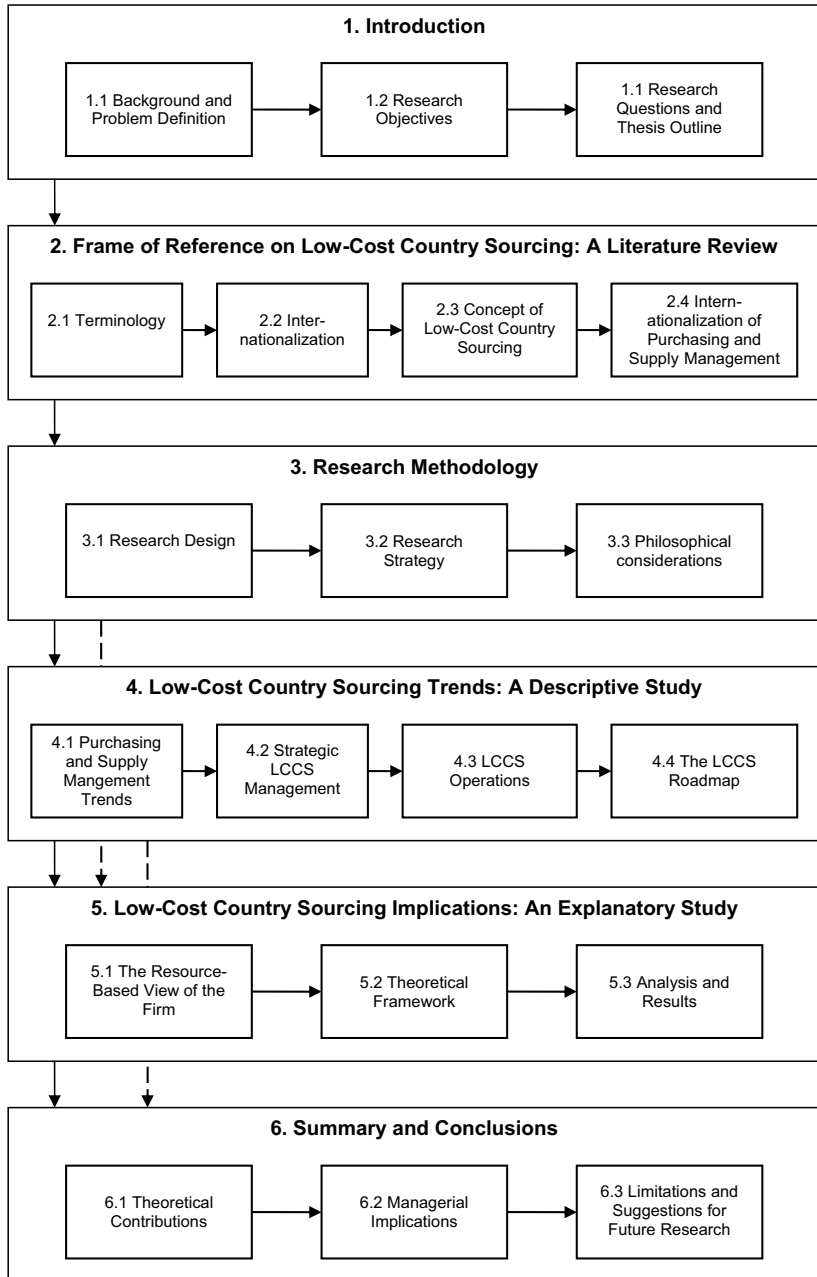
Chapter 3 elaborates on the methodological aspects of the research conducted within the dissertation. More specifically, chapter 3.1 discusses important research design parameters such as quantitative/qualitative research, cross-sectional/longitudinal research, and deductive/inductive research, and how they are configured in this particular case. Next, chapter 3.2 deals with the practical proceedings of the research in the shape of a research strategy. It includes practical considerations for the literature review, development of a theoretical framework, data collection and analysis, as well as sampling procedures. Lastly, in chapter 3.3 philosophical considerations are performed. Here, aspects such as ontology, epistemology, human nature and their impact on methodology are covered.

Chapter 4 comprises one of the cornerstones of the dissertation, namely “trends”. This is a purely descriptive section without any special theoretical underpinnings, which aims at providing a snapshot picture of the current situation, but also expected development in the field subject of study for the next five-year period.

Thus, it tries to give answer to the “what” and “when” questions. Chapter 4.1 contains a general overview of LCCS trends in terms of improvement requirements, importance, organizational developments, system development, performance measurement and responsibilities. Chapter 4.2 deals with strategic LCCS management, based on the Supply Management Navigator (Jahns, 2005). Next, chapter 4.3 examines trends at the operational level, i.e. activities that are performed on a day-to-day basis. Then, chapter 4.4 summarizes key activities into a strategic guideline that helps managers and other practitioners structure activities in a timely manner. The chapter ends by providing an interim summary in chapter 4.4.

Chapter 5 comprises the second cornerstone of the thesis, namely “implications”. This chapter is of explanatory nature, i.e. it tries to answer the “how” and “why” questions. More in-depth, chapter 5.1 discusses the theoretical underpinnings of the chapter by comparing various economic and organizational theories (cf. Gleich, 2001, p. 18), by elaborating the historical developments of the resource-based view, and its fundamental logic. In chapter 5.2, the theoretical framework is developed by deductively deriving a total number of fifteen hypotheses, building a research model out of the hypotheses, and finally operationalizing the constructs contained in the hypotheses. Chapter 5.3 involves empirical testing of the research hypothesis in terms of factor analysis and path analysis. The results from the hypothesis tests are also evaluated, and discussed in the interim summary in chapter 5.4.

Chapter 6 is a relatively brief and contains conclusions from the research as such, but also a discussion in a broader sense. Chapter 6.1 discusses the theoretical contributions of the research to the existing body of research and it is thus of primary interest for academics. Chapter 6.2 deals with the managerial implications of the research, i.e. the practical considerations and recommendations (cf. Gleich, 2001, p. 18) to CPOs and equivalent senior purchasing managers that have ultimate responsibility for sourcing operations within firms. Finally, in chapter 6.3 limitations of the research is provided and suggestions for future research is provided.



**Figure 1.** Thesis outline

## 2. Frame of Reference on Low-Cost Country Sourcing: A Literature Review

As the degree of value added is continuously decreasing, the importance of purchasing and supply management will increase accordingly in the future (Jahns, 2005). Furthermore, as many supplies have relatively high strategic importance, the ability to enhance and transfer value from suppliers is highly dependent on the supply management capabilities of the buying firm. In contrast to the environment within the firm boundaries, the external environment is characterized by a great deal of uncertainty and complexity regarding communication, coordination, and conflicting strategic objectives.

The aim of this chapter is to provide a foundation for the LCCS concept by presenting work done by scholars and practitioners from the past. In other words, the chapter serves as a review of the literature on the topic. Moreover, a subsection is devoted to clarify the differences and nuances in terms used in order to facilitate the reading of this thesis. Finally, some general conclusions are drawn about the status quo of the research in the field along with some guidance of future directions. This is essential for the understanding of the topic and to be able to juxtaposition the concept of LCCS with other streams of research. Few literature reviews with respect to LCCS have been performed in the past, potentially indicating an underdeveloped body of research.

In order to get a clear picture of what low-cost country sourcing is, it makes sense to dichotomize the word into its constituent parts and analyze them separately. First of all, the word *sourcing* needs to be clarified. It is a word that has gained a lot of popularity over the last decade and become a commonly used “buzz word” in business-related contexts. This has also led to a situation where it is partly misused and used in too many different contexts. Alas, it is difficult to give the word a precise definition. Very often, it is used to overarch the *sourcing process*, which, put simply, involves the search, evaluation, and selection of suppliers.

With this in mind, the word can be used to represent sourcing from one or many suppliers for a given supply category, so called *single* and *multiple sourcing*, respectively. It can also be used to represent specific regions to source in, for example *local sourcing* for domestic suppliers, *global sourcing* for suppliers regardless of geographic location, or *low-cost country sourcing*, which will be further elaborated later in this chapter. Some people even use the sourcing term synonymously with the term *outsourcing*, a discussion that is omitted in this thesis.

Another frequently used term is *strategic sourcing*. This term is somewhat debated, as some scholars have claimed that is a purely operational and not strategic task (Ramsay, 2001a); from this viewpoint the term strategic sourcing is an oxymoron. By examining the meaning of the terms used both in academia and practice, this section will show that sourcing indeed is a strategic task (although it involves a number of operational tasks as well), where a huge step already has been taken in order to traverse from purchasing to supply management (Kraljic, 1983).

## 2.1. Terminology

In order to successfully explain and investigate the low-cost country sourcing phenomenon, a number of underlying terms and concepts need to be elaborated. The meaning and use of the various terms are dependent on the evolutionary paths that firms have taken throughout the history of acquisition of factor inputs. The vocabulary used also greatly varies from scholar to scholar, and most terms overlap to some extent in terms of their meanings. As a result, many of the terms are used interchangeably, which sometimes can cause confusion. The situation gets even more complicated as the terms and concepts are not only related to each other, but also to other fields such as material handling, logistics and supply chain management. Consequently, the aim of this section is to clarify frequently used terms as a support to the reader.

In the literature, most scholars differentiate between purchasing, procurement, sourcing, and supply management, although they are sometimes used interchangeably. What they all have in common is the highly debated question

about their strategic importance. Ellram and Carr (1994) gave a brief historical overview where Ammer's (1974) was one of the earliest writers to directly address the role of purchasing in business organizations. This view was also shared by Ansoff (1965) who viewed purchasing as an administrative rather than strategic task. Purchasing did not receive much attention as a strategic weapon until the 1980s, when Porter's five-force model established itself as the number one strategy framework (Porter, 1980). In this framework, two of the market forces are "bargaining power of suppliers" and "bargaining power of customers", respectively. Consequently, a stream of research emerged in which theories and concepts were elaborated on how to cope with and balance these forces. During the 1990s, the paradigm behind purchasing and supply management shifted from isolated and individual purchasing scattered across organizations, to a more integrated and holistic approach for the entire organization (Robert J. Trent & Robert M. Monczka, 2002).

Throughout the history, the perceived strategic importance of purchasing and supply management has often increased one notch after large-scale events with global impact. For example, Ellram and Carr (1994) noted that the oil crisis and corresponding raw material shortages during 1973-74 increased the cost pressure and accordingly the importance of purchasing as a mechanism for increasing profitability. Another major event that shocked the market was the dot com crash in 2001 which led to a situation where firms started to rely on cost-cutting rather than market expansion to an increasing extent. The terror attack in New York on September 11 the same year worsened the situation led to a world-wide recession that forced companies to streamline their organizations and cut costs to an extent never before seen.

### **2.1.1. Purchasing, Procurement, and Supply Management**

Generally speaking, *purchasing* refers to the operational activities that are performed by the functional unit frequently called the *purchasing department*. The fact that purchasing is considered operational implies that there is a lack of strategy; no visions or goals exist that can provide guidance for day-to-day activities. Instead, the purchasing department is considered a passive functional

unit of the firm that simply takes orders from internal customers and performs transactions with external suppliers. As a result, there is little or no coordination or integration of purchase requirements among the various internal customers of the firm. A summary of the scholarly work described in this chapter can be found in at the end of this chapter.

Another closely related term is *procurement*, which is defined as a broader set of activities with tactical importance (Dobler & Burt, 1996). Monczka et al. (1998) uses the terms purchasing and supply management interchangeably and defines them as “a functional activity that most often refers to the day-to-day management of material flows and information”. In contrast to logistical activities, purchasing activities are focusing on contracts rather than physical movement of goods (Tempelmeier, 1995). He defines procurement as any activity within the firm aiming at supplying it with needed factor inputs (Tempelmeier, 1995). According to Corsten (1995), the purchasing department is responsible for making procurement decisions. Furthermore, the purchasing process involves the task of obtaining the property rights of the procured goods (H. Corsten, 1995). His definition of procurement is the same as Tempelmeier’s (H. Corsten, 1995)

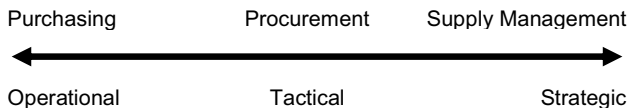
The definitions of purchasing and procurement by Arnold (1997) are very similar to those of Dobler and Burt (1996), but the main difference is that Arnold uses the term *supply management* as an overarching term that also includes procurement, materials management and logistics. Here, *logistics* includes *inbound logistics*, *internal logistics* and *outbound logistics* (Arnold, 1997). In a similar fashion, Corsten (1994) defines *supply management* as proactive procurement with a strategic orientation with the aim of making significant contribution to corporate performance.

As Kaufmann (1999) notes, the German literature on purchasing and supply management generally has slightly different definitions than most foreign counterparts. For example, Arnold (1997), Pieper and Pfohl (1993) and Tempelmeier (1995) include the acquisition of personnel and financial resources in their definitions. They argue that all factor inputs must be considered, although

they also claim that German companies exclusively focus on materials. Another argument is that many resources are interrelated (Arnold, 1997; Pieper & Pfohl, 1993). As an example, the use of a certain type of production material may need a certain type of tooling or machinery, which in turn needs personnel for operating and capital for financing.

In contrast, scholars such as Dobler and Burt (1996), Monczka et al. (1998) and van Weele (1995) restrict their definitions of purchasing and supply management to materials, services and capital equipment, thus excluding personnel and financial resources.

Of course, the purchasing processes for personnel and capital are very different regarding the competencies needed to execute them; this is why such purchasing processes are handled by other departments (Kaufmann, 1999). Although not named as such explicitly, “purchasing processes” for the acquisition of personnel and marketing campaigns are almost exclusively handled by the human resources department and marketing department, respectively.



**Figure 2.** The purchasing and supply management continuum

Kaufmann (1999) strongly argues that the acquisition of services should be part of the purchasing department’s task list. He claims that purchasing of machinery and equipment is closely related to other purchasing processes and such purchases often are associated with purchases of indirect material and services such as maintenance, repair and operations (MRO).

Another argument for including services in the definitions is because the difference between a product and a service is often very vague and blurry. For example, when one buys a mobile phone, one not only gets the mobile phone

itself, but instead a bundle of products and services, such as customer support via telephone, access to web services, and so on.

A third argument for including services is the fact that the degree of value added among companies is constantly decreasing and is on average lower than fifty percent in some industries (Jahns, 2005). Thus, companies are focusing on core competencies to a greater extent than ever, and this focus not only includes products, but also services (Monczka & Trent, 1993). As the degree of value added decreases, the need for professionally managed procurement of products and services increases (Monczka & Trent, 1993).

Somewhat simplified, the difference between purchasing, procurement and supply management is the degree of strategic importance, where purchasing is the most operational and supply management the most strategic. Comparing supply management and logistics management, the basic difference is that the latter encompasses the whole company; only inbound logistics represents an overlap of both sets of activities (Kaufmann, 1999).

Analogously, *materials management* includes not only receiving and storing production inputs but also includes activities in the production and operations (e.g. materials for work-in-process). Without question, these activities go beyond the scope of supply management. In other words, the three terms are overlapping when it comes to inbound logistics, but none of them overlaps the other two completely.

It is also interesting to compare purchasing and supply management with the concept of supply chain management (SCM). The main difference between the terms is that SCM does not only include dyadic relationships (e.g. buyer-supplier), but encompasses multiple organizations across more than two echelons of the supply chain (M. Cooper, Lambert, & Pagh, 1997). In sum, SCM could be seen as an overarching term for cross-company supply management, materials management and logistics management, stretching from the extraction of raw materials to consumption by the end-customer, including waste, recycling and reverse logistics.

**Table 1.** Terms related to purchasing and supply management

Author(s) / Year	Term(s)	Key Insights
Ammer (1974)	Purchasing	Empirical study concluding that top managers perceive purchasing as an operational activity
Ansoff (1965)	Purchasing	Purchasing perceived as administrative rather than strategic task
Arnold (1997)	Supply management	Supply management as overarching term that includes procurement, materials management and logistics
Cooper et al. (1997)	Supply chain management	Supply chain management as cross-company supply management, materials management and logistics management
Corsten (1994)	Supply management	Supply management as proactive procurement with strategic orientation
Corsten (1995)	Purchasing	Purchasing as the task of obtaining property rights and making procurement decisions
Dobler and Burt (1996)	Procurement	Day-to-day management of material flows and information
Ellram and Carr (1994)	Purchasing	Purchasing as an operational activity that slowly evolves towards a more strategic activity
Kaufmann (1999)	Purchasing and supply management, supply chain management	Argues for including acquisition of services in definition of terms. Purchasing defined as operational, supply management as strategic.
Monczka and Trent (2002)	Purchasing	Purchasing as part of cross-functional and cross-business unit activities
Monczka et al. (1998)	Purchasing and supply Management	Use of the terms purchasing and supply management interchangeably
Pieper and Pfohl (1993)	Purchasing and supply management	The terms include acquisition not only of goods, but also personnel and financial resources
Tempelmeier (1995)	Purchasing, procurement and logistics	Purchasing defined as contracts and transactions management, logistics as physical movement of goods, procurement as supply of factor inputs

### 2.1.2. Strategic Sourcing

As stated in the previous subsection, sourcing has become increasingly popular both in academia and practice. Fundamentally speaking, the firm can be seen as a production function, where inputs are converted to outputs (Bain, 1968; Mason, 1949). With this model, the firm earns profits from the value it adds to the inputs when generating output. Inputs can be either tangible, such as raw material, or intangible, such as information or services. The *origin*, or *source*, is the starting point of the definition of the sourcing concept. A summary of the scholarly work described in this chapter can be found in Table 2 at the end of this chapter.