

# **Sourcing in China**

Supplier Quality, Costs and Strategies of companies that source from China





# **Preface**

Prof. Dr.-Ing. Günther Seliger

With modern societies turning more and more into a global village, "coopetition" is, for global companies, becoming the name of the game. The logic behind this concept is simple: under the premise that "only the one who knows best the challenges I am facing can help me overcome them", numerous companies have sought lately to establish collaborations with their closest competitors in order to foster technological development in a specific area.

This approach can be extrapolated to a country level. Traditional industrialized countries such as Germany have long faced procurement and cost competition challenges especially in the manufacturing scene. China on the other hand, as the biggest emergent economy is also starting to face the establishment of lower-cost competitors in other emerging economies in the region. The question is then, how can, under these circumstances, both economies maintain their respective commercial and technological leadership in a growingly global competitive environment, whilst at the same time securing sustainability in their resource consumption and manufacturing processes?

The answer lies, at least partially, in the development of strong and trustworthy supply chains and manufacturing networks oriented towards the upholding of high quality and sustainability standards, which both countries (with granted, surely different degrees of success) have been developing in the last decades.

The present study intends to offer a contribution towards understanding the perception European and Western companies have gained when it comes to quality and sus-

tainability standards observed by Chinese suppliers and networks, as well as the influence new emerging economies are having in the Asian giant's commercial strategies. The results are relevant for those seeking to build up their "coopetitive" partnerships with local Chinese producers and supply chains.

Wishing you an enjoyable read.

# Prof. Dr.-Ing. Günther Seliger

Technische Universität Berlin Chair of Assembly Technologies and Factory Management Head of Department





# **Preface**Stephan E. Willigens

Many companies across the world have adopted sourcing activities in China as a strategy for competitive advantage. This strategy was successful in the past due to China's vast offer of low cost labor and resources. During the last three decades, the economy of China has evolved from a system near to international trade to a market-oriented system with a fast growing private sector. China's exports growth has supported its rapid economic growth (Meyer, 2010). The Chinese growth rate in GDP measures the rate in the adjusted value of goods and services produced in China. China's economy has become the second largest economy in the world. The Chinese currency has strengthened remarkably over the past years by more than 30 percent and companies are expected to see what is going to happen (Trading Economics, 2014). However, this situation began to weaken through continuous significant labor cost increases, very high fluctuation rates and a growing competition with other developing Asian countries and never the less related to the weak Euro logistics advantages in Eastern Europe.

International companies having sourcing activities in China are looking for solutions to lower their costs of goods sold. Most companies mainly tend to focus on manufacturing savings, rather than on total cost of sourcing, hence being exposed to different hidden costs and risks including longer material pipelines, increased rules and regulations, currency fluctuations, customs requirements, increased management attention and other cultural and regional issues. (Christopher, Jia, 2007).

This study is aimed to evaluate the benefits and problems that medium-size companies are currently facing in sourcing from China, to identify new industry trends to maintain a competitive advantage, to foresee future movements and potential competing markets to China and to propose the best measures and solutions to react to this rapidly changing environment. The methodology used for this study is a mixed method including qualitative and quantitative research and the study was conducted through a questionnaire over a sample of over 300 different companies currently sourcing from China.

We wish you a stimulating and rewarding read, and every success in your sourcing activities in China.

Stephan E. Willigens Vice President Supply Chain Management msg systems ag

# Acknowledgments

On behalf of the initiators of this study I would like to thank the supply chain team at the msg group of companies, the TU Berlin, China Consulting and iTraining for their active participation and support. This study would not have been possible without them. We would like to specifically thank Barbara Bickel, Julia Kohlmorgen, Ananth Revankar, Raquel Elda Gonzalez, Jens Palacios, Bastian Müller, Reinhard Hill and Federico Avellan Borgmeyer for their support. In addition, we would also like to thank the procurement decision makers who actively participated in the study and discussed the future of 'Sourcing in China' with us through relevant social networks, workshops and interviews.

Stephan E. Willigens Vice President Supply Chain msg systems ag

# **Company Information**

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# **Key Findings and Trends**

### Suppliers and Quality

Companies show a clear preference to source components and / or parts from China rather than finished goods that would need no further handling. Among the problems associated with sourcing in China, quality issues remain the major concern.

Some of the most important facts and trends concerning suppliers and quality are:

- Electronic, electrical and mechanical products account for the majority of industry products being sourced from China (over 50 percent).
- Companies prefer to have a pool of strategic suppliers from which they can
  choose according to availability and product specification. The majority of
  participating companies in the survey (40 percent) indicate the presence of
  10-50 strategic sourcing suppliers.
- According to the respondents companies prefer to only place up to 25
  percent of their suppliers into one country to avoid dependencies but still
  take advantage of cost benefits and synergy effects. Almost 75 percent of
  companies have a small but steady percentage of their global suppliers
  based in China. China is thereby part of a mix but not the dominant country.
- Over 70 percent of the companies use KPIs to measure their suppliers' performance to allow transparency and evaluation. The top classifications used to measure performance are quality and supplier reliability that both have a direct impact on costs.
- Almost half of the companies report no change in lead time over the past three years while sourcing from China. Only 9 percent achieved a positive change and managed to decrease their timings. 43 percent of respondents believe that lead times have increased over the past few years.
- The percentage of defaults has either increased since companies have moved their sourcing activities to China or has remained unchanged. Improvement is rare.

- 95 percent of companies that are sourcing from China face some kind
  of quality issue. The majority of that is related to production and / or the
  quality of raw materials being used. Since moving into China the amount of
  defects has been increasing.
- To ensure supply companies utilize various measures without dominant preference. Alternative suppliers are being used from within China as well as developed countries.
- The majority of measurements in regard to sustainability such as audits, assessments and spot checks have already been taken by companies. Only supplier awards and workshops are not too popular just yet.
- China's top challenges confirm previous findings in regard to quality and cost control. The importance of sustainability has increased significantly in previous years.

#### Costs

Low-cost advantages of the Chinese market remain the main incentive for companies to source from China. Main facts and trends are:

- Companies continue to expect low cost advantages in China. Although other
  requirements such as sustainability, social issues or risk-mitigation capabilities are increasingly discussed in the media, cost pressure remains the
  ultimate criterion for companies to source in China.
- The grand majority of companies do not only consider China to be as attractive as a sourcing country as three years ago but even regard China as being more attractive than ever. The negative consequences of some of the economic changes of the past few years did not outweigh China's dominance and its competitive advantage.
- To meet changing market conditions companies engage in dual and multiple sourcing strategies ("second source") but also in greater engagement and control in regard to the Chinese market.
- Apart from labor costs the main areas that companies work on in order to reduce costs include the technology that deals with the work process, the sourcing strategy and the materials.
- Even though labor costs constitute an important factor, companies see the
  highest potential for cost reduction in improving their production efficiency
  by further investing in manufacturing processes such as lean management,
  six sigma and quality improvement.

#### Strategy

China will remain a key part of the sourcing mix but the significance of other emerging markets such as Eastern European and Southeast Asian countries will grow. Main facts and trends are:

- Companies expect savings that are achieved through sourcing from China neither to decrease nor increase very much but rather steady themselves in a range of 10-20 percent.
- Products that are being sourced in high quantities are mainly used for manufacturing and / or sales outside of China to take full advantage of the economies of scale.
- The risk of supply guarantee is regarded with the greatest concern among all potential risk factors. This is why alternative suppliers are being used.
   Organizational risks are seen to have a rather minor effect on procurement activities in China.
- The vast majority of companies take advantage of a supplier mix which implicates suppliers in China but also suppliers in other markets in developed and / or emerging countries.
- Southeast Asia proves to be the most attractive alternative sourcing market for companies which are sourcing in China right now. Countries which will be considered in the next few years include Vietnam, Thailand, Indonesia, Cambodia, Myanmar and Laos but not Malaysia or the Philippines.
- Countries that will receive less consideration in the future according to the survey results include most of the Central European countries such as Slovenia, Slovakia, Poland, Czech Republic, Hungary, Serbia and Croatia.
- Currently important alternative sourcing countries in Eastern Europe such
  as Turkey and Romania will be considered less frequently for sourcing
  activities in the future while the standing of less dominant markets such as
  Macedonia, Montenegro, Bosnia and Albania is expected to increase.
- Considering the BRIC(S) debate, it is noteworthy that neither Brazil nor South Africa are considered to be alternative markets while the importance of Pakistan, India and Bangladesh is continuously rising. The United States of America and Mexico will also lose importance in the future.

# Key Findings and Trends

# **Company Information**

Most of the companies that participated in the survey report that they have been sourcing from China for more than 10 years and that they prefer to do so through in-house forces such as International Purchasing Offices (IPO's).

Main facts and trends:

- Almost 50 percent of the companies report that they control all the company related operations from a corporate office located somewhere in Europe.
- The majority of the company representatives, who took the survey, can be described as decision makers who are working in departments directly connected to sourcing activities.
- The medium sized companies of an average employee base of 5,000 employees that operate mostly in the production industry have been in the lead in taking the survey as also envisioned upfront.
- Also according to their global procurement volume most companies fall into the category of medium size. The procurement volume for China amounts for 50 percent to more than USD 50 million.
- More than half of the companies surveyed report that they have used China for sourcing activities for more than 10 years. Only 12 percent discovered the market just recently.
- Most of the companies rely on in-house procurement managers preferably located in an own IPO somewhere in China (35 percent of participating companies). Alternative organizational set-ups such as procurement offices located in the companies headquarter or at the Chinese manufacturing site, third-party service provider or local dealer are used little.
- The vast majority of participating companies that is working through an IPO is trusting on an IPO directly located inside of China instead of using an IPO located in another Asian country.

- IPO's are relying on local manpower for operational tasks but are managed and lead by 1-3 expatriates. For 2017 the relation of locals vs. expatriates is broadly to be expected 10:1.
- In IPOs most of the disciplinary issues are managed by the local management whereas there is a corporate communication in case of technical discrepancies.
- IPOs in China will be able to exercise more control in the upcoming years due to an increasing procurement volume to manage.
- The two most common legal set-ups for IPO's are either using an existing subsidiary or setting up a WFOE (Wholly Foreign-Owned Enterprise).
- IPOs in China perform various tasks and are responsible for most operational issues at location such as supplier development, supplier search, supplier negotiation and supplier management but also benchmarking and cost analysis. Their presence close to one of the suppliers thereby plays a crucial role in exercising control.

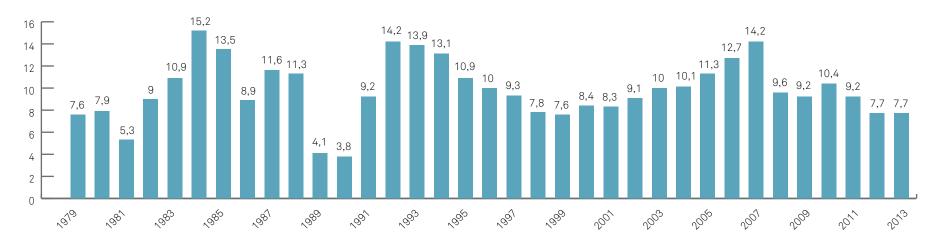
# Insights on China's Economic Situation and its Repercussion on Global Sourcing

China initiated its industrialization process in the early 1950s, after the establishment of the People's Republic in October 1949; but its economic proliferation really started after 1978. Before 1978, China had a standard GDP growth rate of 3 percent a year; similar to the growth rate in the United States, however starting from more challenging conditions. From 1978 on, the Chinese GDP speeded up exceeding a 9 percent average real growth rate per year (Chow G., 2004). Figure 1 shows the Chinese GDP average yearly growth rate from 1979 to 2013. The average level thereby proves to be continuously high.

In 1979, China promoted foreign trade and investment and implemented free market reforms turning it into one of the world's fastest-growing economies. China has recently emerged as a leading global economic and trade power. It is today the world's second-largest economy, largest trading economy, largest holder of foreign exchange reserves, largest manufacturer and second largest

destination of foreign direct investment (FDI) (Morrison, 2014). Figure 2 shows the largest recipients of global foreign direct investment in billions of US dollars.

In the year 2008, the global economic crisis had a high impact on China's economy. Imports, exports, and FDI inflows decreased, consequently the Chinese GDP growth stalled, and unemployment increased. As a measure to counteract this negative impact, the Chinese government geared up a USD 586 billion economic incentive program to promote domestic consumption by loosening monetary policies to increase bank lending. This program helped to prevent a demand recession for Chinese products and the potentially resulting negative or idle economic growth. During this period of time until year 2011, the Chinese GDP grew at an average of 9.6 percent; but in the past two years economic growth has slowed down to 7.7 percent as shown in Figure 1 (Morrison, 2014).

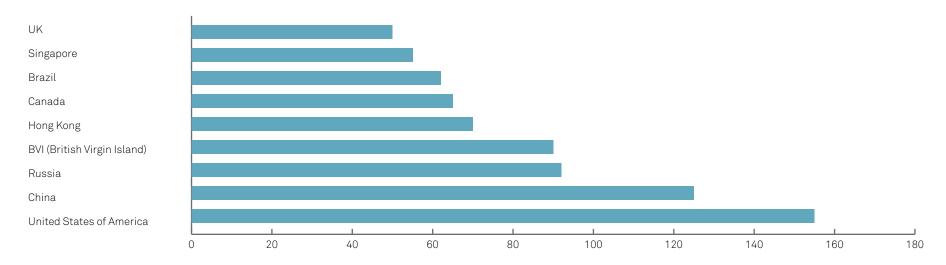


1 | Chinese Real GDP Growth (Percent): 1979-2013 (Source: Morrison, 2014)

# Insights on China's Economic Situation and its Repercussion on Global Sourcing

As the Chinese economy evolves, its economic growth is somewhat stagnating with recent growth rates beneath the past decade. The repercussion of growth decline on labor markets has so far been relatively small due to the changes of economic activity into labor-intensive service sectors; as drivers of economic growth keep shifting from manufacturing to services on the supply side and from investment to consumption on the demand side, and as actions to curb the rapid aggregation of credit were implemented (The World Bank, 2014).

China is no longer simply a low cost country but a sourcing region with firstclass infrastructure, a highly skilled workforce and high-end technology in regards to a lot of industry sectors. Wage levels in China have risen increasingly during the past decades as the economy expands and the private sector creates new business and employment opportunities. Figure 3 shows the development of China's average yearly wages over the past decade. The cost of manufacturing in China is constantly increasing and this is directing companies to search for alternative sources of supply, particularly if they are producing low-priced goods such as garments. Popular destinations for those companies are countries in Southeast Asia; usually specializing in one single product. Globalization has given the opportunity for companies to explore cost arbitrage around the world; the low cost countries phenomenon induces foreign direct investment flows away from developed to developing countries offering more attractive cost advantage. Although average labor cost is surely lower in these low cost countries, it is very important to take into account many other factors when selecting another sourcing destination.



2 | Largest Recipients of GLOBAL FDI Inflows in 2013 (Source: Morrison, 2014)

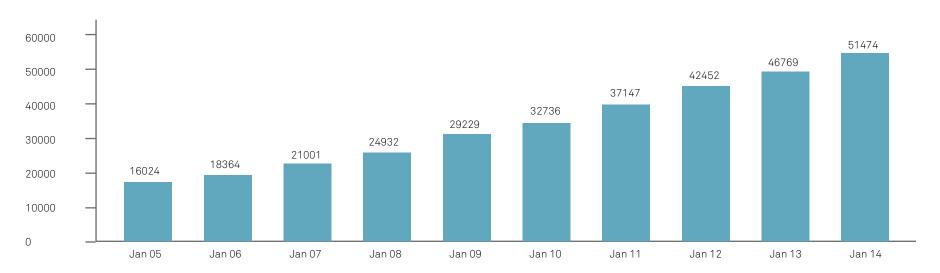
# Insights on China's Economic Situation and its Repercussion on Global Sourcing

Wage levels in China increased continually over the last two decades as the economy has developed and the private sector has created new employment opportunities. However, disparities among geographic regions, industrial sectors and employment levels have also increased significantly, widening on the one hand the rich-poor gap but also allowing China to still offer rather low cost labor that can compete with other low cost countries. Costs of land in these regions appear to have similar conditions (Cuñat, 2014).

Even though China is shifting to become a more expensive sourcing country, it still offers many other advantages other low cost countries do not have. Among these advantages are the vast availability of natural resources, world class infrastructure and supply channels, good quality products, high skilled

labor and the ease of doing business. Low cost countries might present some issues such as skilled workforce deficit, lack of infrastructure and geopolitical instability among others (Cuñat, 2014).

China might not be convenient for all business opportunities, but it is still playing a major role when formulizing most global supply chain strategies. China's continuous development has created the adequate competitive conditions to appeal to companies around the world. In order to counter the increasing production costs, Chinese companies are currently focusing on optimizing the value chain to enhance productivity and efficiency and to keep its position as a leading world-class manufacturer (Yue, 2010).



3 | China Average Yearly Wages in RMB (Source: Trading Economics, 2014)

# Methodology and Sample

The project was completed as a close cooperation of four research partners of whom two are located in China: msg systems ag, Technical University of Berlin, China Business Consulting Ltd. and i-Training Asia Ltd.

#### Phase 1: Content Analysis and Literature Review

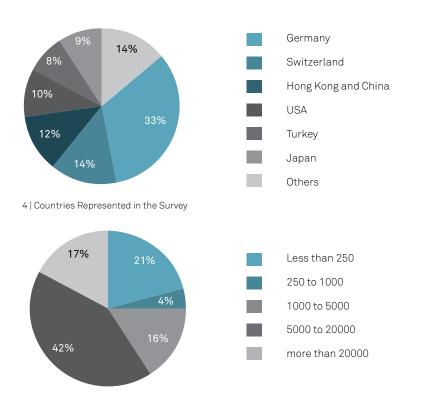
The methodology used for this project consists of two phases. First, an analytical review of the literature was conveyed to provide the academic support for the research, pursuing an evidence-based approach. Second, the application of an interview divided into four different dimensions: service and quality, costs, strategy and type of company. These dimensions were developed in order to obtain relevant data covering all major issues and features companies frequently encounter when sourcing in China.

The investigation uses a mixed method combining quantitative and qualitative research. Qualitative Research is basically exploratory research. It is used to develop concepts to understand fundamental reasons, characteristics and motivations, by using a specific set of research methods such as in-depth interviews, focus group discussion, observation, content analysis and visual methods among others. This study uses open questions that were partially answered through personal interviews to allow the results to have the intended depth.

Quantitative research refers to the systematic empirical investigation using statistical or numerical data. It is a research strategy that asserts quantification by the collection and analysis of numerical data showing the relationship between theory and research, in which the purpose is the testing of hypothesis. Most questions of this survey were presented online and answered in this quantitative approach.

### Phase 2: Survey Launch

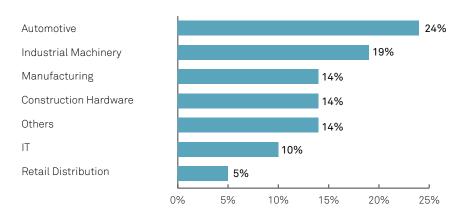
The survey targeted mid-size companies across major global regions, in an effort to obtain a representative sample of organizations. As shown in Figure 4 a wide diversity of responses from Western and Eastern Europe, United States of America and Southeast Asia was obtained.



5 | Size of Companies Represented (No. of Employees Worldwide)

Almost 50 percent of respondents were from manufacturing industries, with 10 percent focusing on construction hardware and 5 percent on IT. The sizes of the companies surveyed are shown in Figure 5. The location of the majority of participants indicates that international sourcing decisions mostly are made out of the headquarters. In regards to company size either the smaller or the larger medium size corporations show more activity when it comes to sourcing in China.

Figure 6 illustrates the sample of participants which is widely spread across industries in an effort to obtain a diverse point of view. Yet dominant players remain in manufacturing industry. Core industries represented in the survey are all linked to products that require production activities in one way or the other. Above all the survey represents the automotive industry's dominant interest in the Chinese market.



6 | Industry Sectors Represented

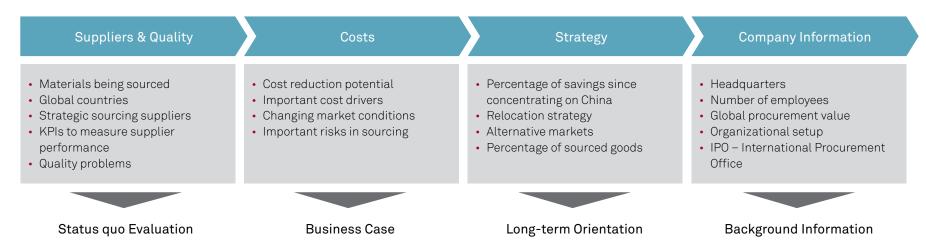
# Methodology and Sample

### Phase 3: Survey Analysis and Report

The last phase of the study concluded with the analysis of the results and a final report of the study. In the remainder of the report, we describe the major trends and strategies identified in the analysis.

### Content and Focus of the Study

To present a holistic overview of business activities taking place in China the study is broadly structured into four major categories that cover different angles as seen in Figure 7.



7 | Focus Areas of the Study

# Results and Outcomes of the Survey

# **Suppliers and Quality**

Global outsourcing and co-development are on the rise as companies increase their focus on their core competencies. Supplier performance is about more than just a low purchase price. Instead it is equally important to select multiple suppliers for the same raw material taking into account concerns such as running out of stock or a desire to play suppliers off against

Sourcing Material

Companies show a clear preference to source components and / or parts from China instead of finished goods that would need no further handling. From Figure 8 it is clear that the majority of companies are sourcing parts, components and semi-finished goods from China. This implies that China is regarded mostly as a source of parts to be assembled into end-products in own production facilities in China or out of China.

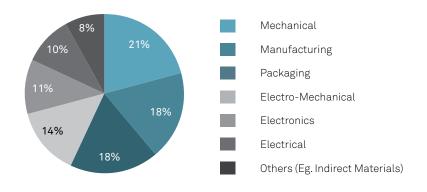
Components
Parts
Semi-finished goods
Finished Goods
Raw Material
Services
Other
Energy Sources (coal, oil, gas, etc.)
0% 5% 10% 15% 20% 25%

8 | Sourcing Material

each other for price reductions. But this has given way, in some industries, to working more closely with a smaller number of suppliers in longer-term, partnership-oriented arrangements. This section is shedding light on recent developments in regard to supplier arrangements and evaluates sourcing mixes and China's existing potential.

#### Type of Industry Products

Companies being contacted for this survey concentrate on sourcing goods from China that are connected to the high-tech industry. Consequentially, electronic, electrical and mechanical products account for the majority of industry products being sourced according to survey participants (Figure 9). In comparison to that indirect materials are being sourced very little from China. Due to their high-tech requirements expert knowledge and specific skill levels are needed to produce such products, as well as large batches being required to achieve efficient cost per product making major electronics and mechanical plants in China most efficient.



9 | Industry Products Categorization

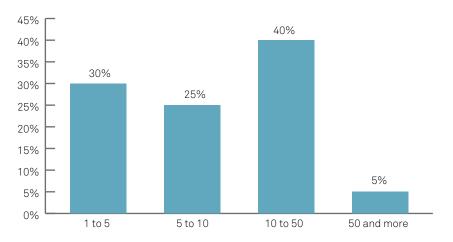
# Results and Outcomes of the Survey - Suppliers and Quality

### Strategic Sourcing Suppliers in China

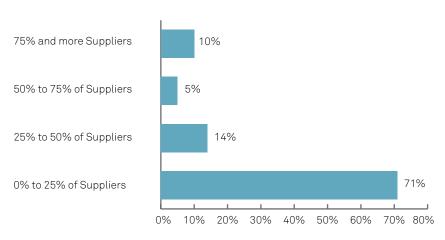
The majority of participating companies (40 percent) in the survey indicate the presence of 10 to 50 strategic sourcing suppliers in China (Figure 10). Another 30 percent work with 1 to 5 suppliers and another 25 percent with 5 to 10 strategic sourcing suppliers. This indicates that companies prefer to have a pool of strategic suppliers from which they can choose according to availability and product specification. Being closer to the market through supplier contacts makes it easy to keep up with new developments and allows to build up more trust worthy relationships. Only a very small minority is working with 50 or more strategic sourcing suppliers as complexity presumably increases with a larger number of suppliers to manage.

### Global Suppliers in China

Most of the companies surveyed (71 percent) only have up to 25 percent of their suppliers based in China. They prefer a small but steady percentage where China is part of the mix but not the dominant country (Figure 11). Placing such an amount of suppliers into one country allows cost benefits and synergy effects without dependencies. By avoiding too much concentration companies thereby mitigate their risks through the greater diversification of their global sourcing outreach.



10 | Strategic Sourcing Suppliers



11 | Global Suppliers in China

### KPIs - Supplier Performance

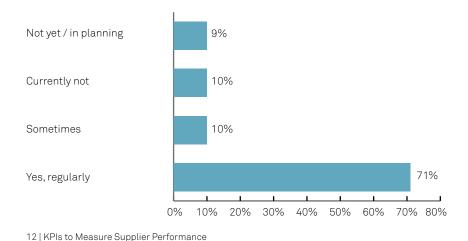
Over 70 percent of the companies use KPIs to measure their suppliers' performance to allow transparency and evaluation. Most suppliers remain under close supervision and control of their buyers. This indicates that buyers closely monitor and manage performance.

The main purpose of KPIs is to:

- · Measure the supplier's performance and improvement.
- Manage supplier improvement efforts as per your expectations and requirements.
- Strengthen and improve supplier relations.
- · Develop suppliers.

All KPIs can be broadly arranged according to six main categories. Quality and supplier reliability related KPIs are the most dominant as seen in Figure 13.

The work on quality and delivery related issues require major care as both have a direct impact on costs and overall supply chain performance. Over 50 percent of the participating companies provide special consideration to these areas and regularly evaluate the performance here.



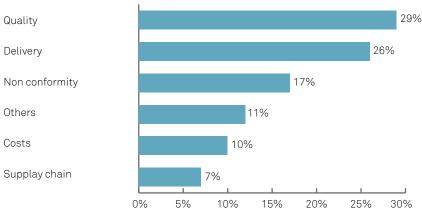


Quality

Delivery

Others

Costs



# Results and Outcomes of the Survey - Suppliers and Quality

### Degree of Change in Lead Time

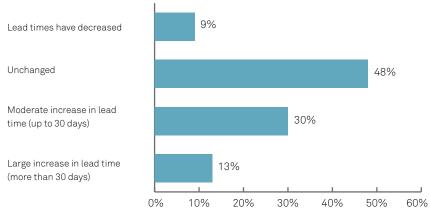
Almost half of the companies report no change in lead time of their Chinese suppliers over the past three years (Figure 14). Only 9 percent achieved a positive change and managed to decrease their timings.

Consequentially, more than 90 percent of surveyed companies observe that lead times have not been changing or that there is an increase in lead time. To a significant level the change was even stated to have largely increased to over a month.

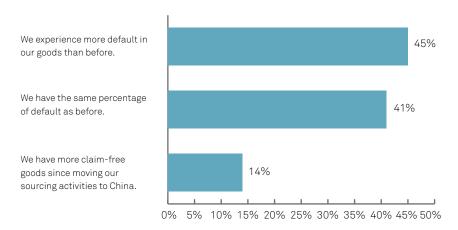
### Claim-free goods

The percentage of defects has either increased since companies have moved their sourcing activities to China or has remained unchanged (Figure 15). Improvement seems to be the exception.

Moving sourcing activities to China had an increasing effect on defective products for almost half of the companies. Only a small share of companies stated that they felt their products arrived in a better quality compared to conditions before moving into China. This very well explains why the KPIs focusing on quality have also been ranked so highly. Quality in China still remains a significant focus of attention and its current level allows a great enough range for improvement.



14 | Lead Time Statistics



15 | Percentage of Claim-free Goods since Sourcing from China Compared to the Time before Sourcing from China

Since moving into China the condition of products has either not been changing at all or has improved. Only a minority of companies state a decrease in quality as observed in Figure 16. While sourcing from China the situation did not change in most cases. One third of the companies experience more claimfree products, implying that they were successful in managing their suppliers' quality.

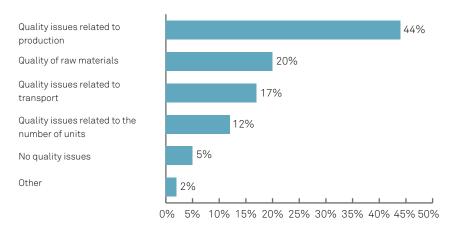
#### We experience more defect in 15% our goods today than when we started sourcing from China. We have the same percentage 50% of defect all along. We have more claim-free 35% products today than when we started sourcing from China. 0% 30% 40% 10% 20% 50% 60%

#### 16 | Percentage of Claim-free Delivered Goods while Sourcing from China

### Nature of Quality Related Issues

95 percent of companies that are sourcing from China face some kind of quality issue. The majority of that is related to production which accounts for almost half of the problems (Figure 17). This implies that the majority of issues are directly connected to the product quality and shows that it is crucial to manage quality closely at an early stage before and during production.

Nevertheless, there is also a cluster of three non-production topics that have an impact on quality. Most dominant are thereby quality problems being caused by raw material and / or transportation. Especially transportation related issues, counting for over a quarter of all issues, show a great potential for improvement as this is an area that can be influenced directly by the company and should hence not be ignored. In general, KPIs focusing on quality have been widely installed already and provide a first beneficial step to improve and further control product quality issues.



17 | Quality Issues Categorization

# Results and Outcomes of the Survey - Suppliers and Quality

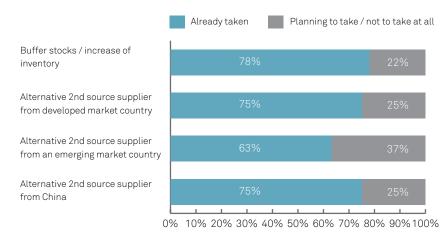
### Risk Management to Ensure Supply

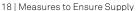
To ensure supply companies utilize the usual measures without dominant preference. However, choosing an alternative supplier from an emerging market appears to be less beneficial.

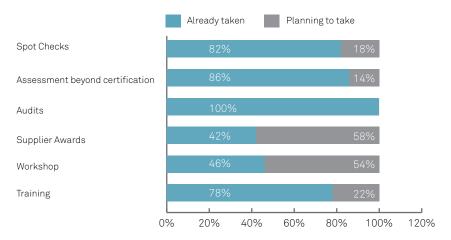
From Figure 18 it can be clearly observed that most companies already use buffer stocks but also alternative suppliers from developed markets and / or China. This option has apparently been exploited to the extent of 75 percent already. The use of further alternative suppliers from other emerging markets is also already being exploited by 63 percent of survey participants although the degree of further unknown costs and risks that cannot be anticipated in advance is a little higher in those markets which makes companies slightly more cautious. Companies remain in China but additionally explore alternative markets.

#### Supplier Awareness towards Sustainability

The majority of measures in regard to sustainability have already been taken by companies (Figure 19). Only supplier awards and workshops are not too popular. All companies participating in the survey work with audits in order to measure sustainability. Spot checks, assessments and training also take place in the sustainability program of most companies with the aim to guide and support their suppliers in that topic. Supplier awards and workshops are still less implemented and will get more attention in the future.



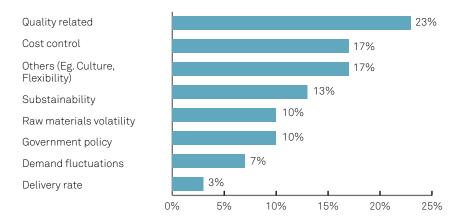




19 | Supplier Awareness Categorization

# Sourcing Challenges

China's top challenges confirm previous findings in regard to quality and cost control. Improved quality thereby has a direct impact on saving costs and hence companies mainly regard both challenges accumulated. The importance of sustainability has increased significantly in previous years (Figure 20). Other differences such as language and culture also play a role and count as difficult to manage.



20 | Sourcing Challenges Categorization

# Results and Outcomes of the Survey

# Costs

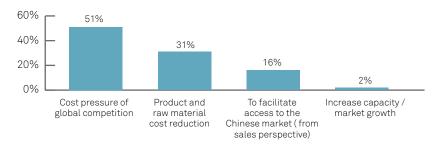
The shift to a global economy is driven by a desire to access lower labor costs, but exposes organizations to higher transportation costs which are in turn driving a dramatic impact on where companies source, where they produce, and the complexity of processes required in delivering the products to the customer. As organizations grow and sell to more customers in more re-

gions, complexity is rising. New global customers present a lucrative target, but there are considerable costs inherent in serving these customers. This section focuses on the significance of costs, cost advantages and measures taken by companies that source globally.

# Why Source from China?

Low cost advantages of the Chinese market are the major factor leading companies to source in China (Figure 21). More than 80 percent of the companies surveyed indicated cost advantages.

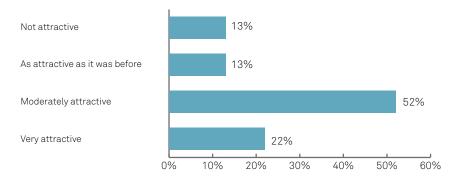
- Cost pressure seems to remain the ultimate criterion for companies that are sourcing from China.
- Raw material costs also play a major role and go along with the pressure of competition.
- Sourcing in China helps to access lucrative markets and investment options in the region.
- The growth of the Chinese market and the potential that comes along with it play a rather minor role.



21 | Reasons for Sourcing from China

# Attractiveness of Sourcing from China

The most successful companies source globally in order to achieve cost benefits and synergy effects. The resources are obtained irrespective of the location, wherever they are available in sufficient quantity, at the required quality and at the optimum price. Against this background, China remains to be as attractive as a sourcing country as it was three years ago in spite of the economic changes that have happened in China (Figure 22). Only 13 percent of firms are not satisfied with the situation in China and regard the market as unattractive. This confirms China's consistent importance as a sourcing country and the fact that China is not neglected but still holds on to its dominant role in the global supply mix.



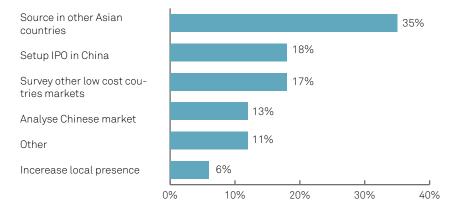
22 | Attractiveness of Sourcing from China

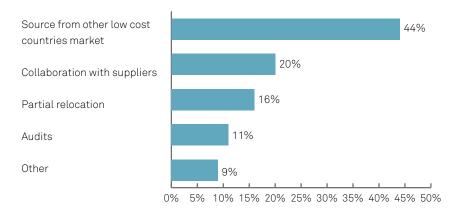
# Managing Changing Market Conditions

Having acknowledged China's remaining standing as a sourcing country companies nevertheless look ahead and try to mitigate potential future risk factors. Therefore, in order to meet changing market conditions, they engage in second and multiple sources but also in more control in regard to further take advantage of the beneficial Chinese market conditions.

In detail this implies that more than 50 percent of companies source in other markets or try to evaluate other low cost countries (Figure 23) in addition to their activities in China. Only very few companies plan to not stretch their activities in the years to come.

Looking ahead this trend continues with 60 percent firming-up their planning and a dominant 44 percent being positive to source from other low cost countries in the future further to their presence in China (Figure 24). This confirms that to avoid total dependency on the Chinese market companies have already spread their risk without however disputing China's standing. This trend continues with a focus on dual and multiple sourcing strategies that allow widespread sourcing relations.





24 | Actions Planned to Be Taken

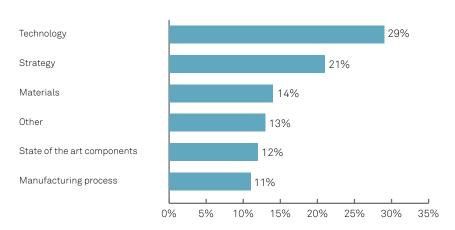
23 | Actions Already Taken

# Results and Outcomes of the Survey - Costs

#### Potential Areas of Cost Reduction

Main areas that companies work on to reduce additional costs include manufacturing technology, the strategy and the materials (Figure 25). The potential areas for cost reduction can be mainly divided into six categories; the dominant ones are technology and strategy. Companies see the highest potential for cost reduction in improving their efficiency at location by further investing in manufacturing processes such as lean management, six sigma and quality improvement.

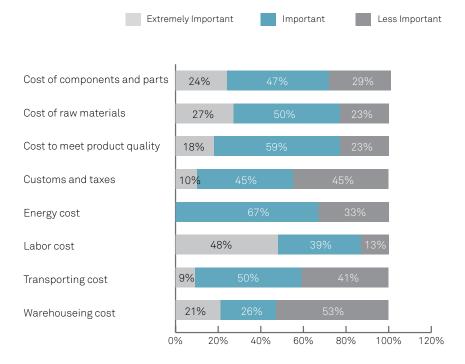
Also, they constantly work on their sourcing strategy and consider other suppliers, locations or other means of how to approach the market. Further materials or the way of sourcing are being analyzed and questions such as the product state when leaving China or the use of alternative parts are under consideration.



25 | Cost Reduction Potential Areas

# Cost Drivers Affecting Procurement Activities

Companies need to identify the cost factors which contribute significantly to overall cost to ensure effective cost management. Labor costs still play a dominant role for companies sourcing from China followed by the importance of materials and parts and the costs to ensure quality (Figure 26).



26 | Cost Drivers Affecting Procurement Activities

# Results and Outcomes of the Survey

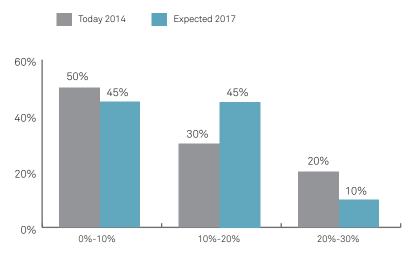
# **Strategy**

A "Strategy" refers to an organization's intended plans to mitigate, respond, or react to a change / trend. The success of a strategy must be measured to ensure that it did in fact effectively address the challenge it was designed to meet. A supply chain strategy involves making decisions: How do you distribute? Do you distribute into your own warehouse structure or another?

And how many distributors do you select for the territory? Organizations are recognizing that they need to identify partners who can optimize and understand local legislation and conditions to effectively navigate this increasingly complex set of decisions.

# Savings Achieved through Sourcing from China

Companies do not expect savings that are achieved through sourcing from China to change very much in the upcoming three years. Instead average savings in the range of 10-20 percent are anticipated to steady themselves meaning a slight increase while very little (0-10 percent range) or very high savings of 20-30 percent range are estimated to be achieved rather less frequently by 2017.



27 | Savings Achieved by Sourcing in China

Whereas today 1/5 of companies achieve cost savings of 20 percent or more, this number will be half in 2017. Only 5 percent of the companies that today achieve savings of 0-10 percent expect to realize higher savings in the future. In general higher savings than 20 percent will not be expected and the overall dominance lies within 10-20 percent.

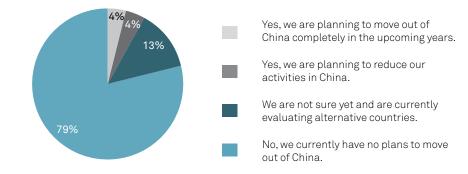
#### **Destination of Sourced Goods**

According to the survey participants companies that source a high quantity of the same product from China mainly need it for activities outside of the country. The economies of scale play a major role. If the volume is low the product is mostly used within China to feed into the Chinese market. This state of things will have to remain under careful surveillance as the spending power of the Chinese population evolves.

# **Relocation Plans of Companies**

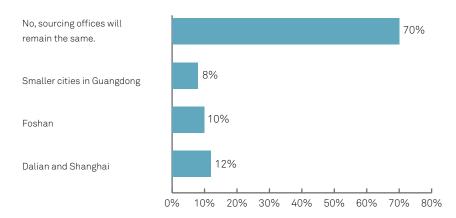
The vast majority of companies does not plan to move their entire sourcing activities to other countries but is instead planning on relocating parts while at the same time further using China as a sourcing country. This does not eliminate the desire to mitigate risk by using multiple sources and suppliers from other countries additionally in the future. Hence only partial relocations are of interest in the mid and long term.

# Results and Outcomes of the Survey - Strategy



28 | Relocating Sourcing activities

70 percent of companies do currently not see the need to move their sourcing locations within China but are happy to remain with their current location in China. If other sourcing sites are considered all of them receive similar attention while Dalian / Shanghai on the East Coast appear slightly more interesting.



29 | Relocating Sourcing activities within China

### Risks of Sourcing from China

The vast majority (70 percent) of companies is mostly concerned about insufficient guaranteed supply (Figure 30). Other risks considered important are transportation (47 percent) and the country risk of China (42 percent) which includes political components and volatility. The risk of processes and the procurement organization receive less attention and are regarded as less critical. The risk of insufficient quality is in this context considered to be an integral part of 'lacking supply guarantee' as quality problems impact sufficient supply in a manner that should not be underestimated.

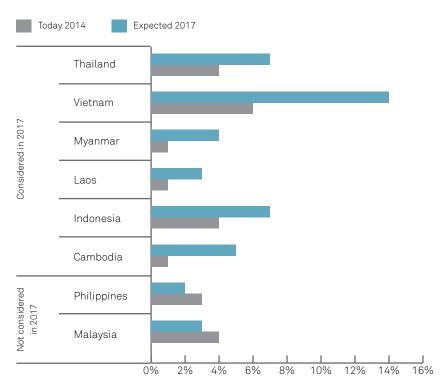


30 | Risks of Sourcing from China

# **Alternative Sourcing Markets**

For this study a total of four regions were considered as potential alternative sourcing markets in addition to the operations that remain in China: Southeast Asia, Central Europe, Eastern Europe and Other Countries.

#### Southeast Asia

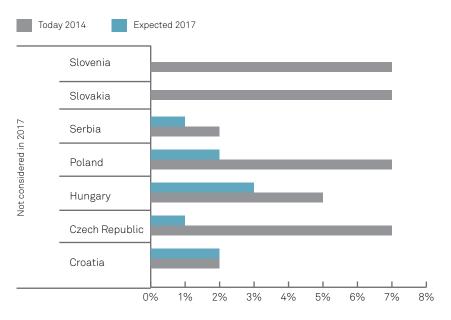


31 | Alternative Sourcing Market - Southeast Asia

Amongst the various Southeast Asian countries, Vietnam is going to be the most preferred alternative country (Figure 31). In the future countries such as Thailand, Indonesia and Cambodia are also going to be on the rise. All of them are accounted to offer low cost labor but also a relatively established infrastructure which allows sourcing to be potentially efficient.

#### Central Europe

A lot of countries in Central Europe that are still being exploited as sourcing markets will lose importance in the future. The Asian markets remain in the focus.

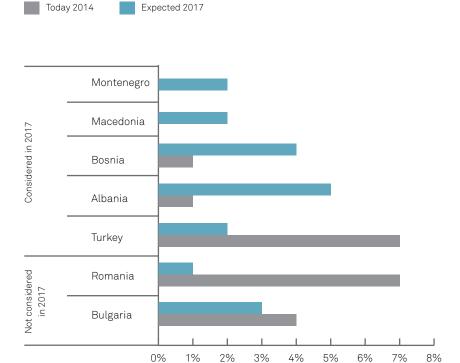


32 | Alternative Sourcing Market - Central Europe

# Results and Outcomes of the Survey - Strategy

# Eastern Europe

Current important sourcing countries in Eastern Europe such as Turkey and Romania will be considered less frequently for sourcing in the future while the standing of less dominant markets such as Macedonia and Montenegro is expected to increase.



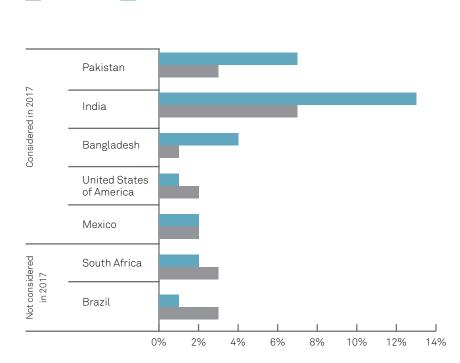
#### 33 | Alternative Sourcing Market - Eastern Europe

#### Other Countries

Today 2014

Bearing in mind the BRIC(S), it is interesting to note that neither Brazil nor South Africa are considered alternative markets while the importance of Pakistan, India and Bangladesh is rising. The United States of America will also not receive the expected increase of attention according to the respondents of the survey.

Expected 2017



34 | Alternative Sourcing Market - Other Countries

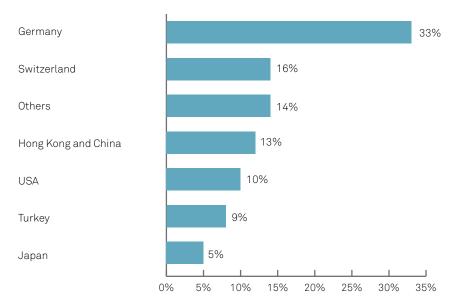
# Results and Outcomes of the Survey

# **Company Information**

This section deals with the information pertaining to International Procurement Office (IPO), global procurement volumes, organizational setup and other details of the company.

#### Company's Headquarters

Almost 50 percent of the companies report that they control all the company related operations from a corporate office located somewhere in Europe (Figure 35). Also, the majority of participants indicate international sourcing decisions mostly to be made out of their headquarters in Europe.

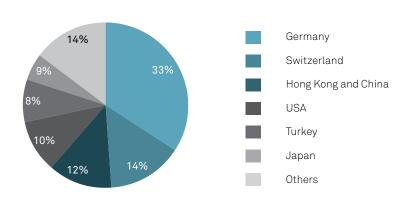


#### 35 | Headquarters Locations

### Participants' Responsibilities and Job Titles

The majority of survey participants is in the position to actively take decisions while working in departments that are directly connected to the function of sourcing.

The majority of participants are based within the DACH region in Europe (Deutschland / Germany – Austria – Switzerland). Other markets represented include China, Hong Kong, USA, Turkey and Japan.

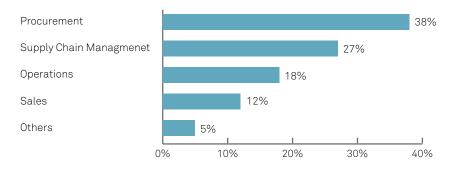


36 | Location of Participants

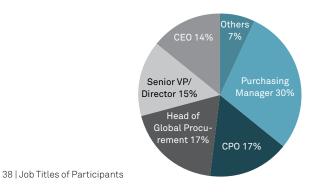
# Results and Outcomes of the Survey - Company Information

The majority of participants are in one way or the other linked to purchasing functions or supply chain management. Only 30 percent of the survey participants are related to operations and / or sales.

Over 90 percent of the survey participants were decision makers in their company (acting at least on a manager level) with 14 percent holding the position of Chief Executive Officer (CEO). This allows the conclusion that the results of the survey can be based on profound insights.



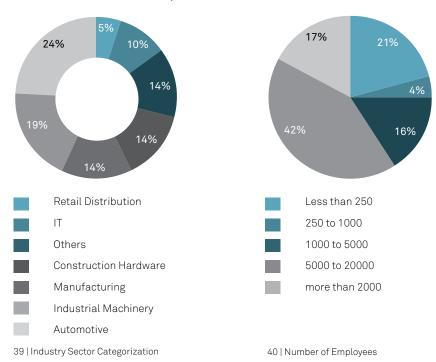
#### 37 | Responsibilities of Participants



# Industry Sector and Company Size

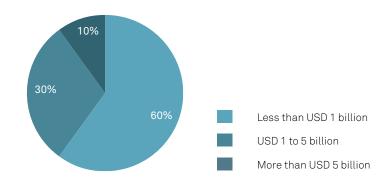
Most respondents operate in the production industry. In regard to company size the medium sized companies with an average employee base of 5,000 employees represent the majority of participants (Figure 41).

Amongst the various industries, the automotive industry is holding on to its dominant interest in the Chinese market as is reflected in a fairly high number of respondents (Figure 39). Further industrial machinery, manufacturing and construction hardware are represented.

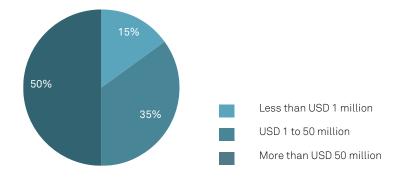


# Procurement Volume of Participating Companies

The majority of the participating companies can be categorized as medium sized according to their global procurement volume with half of the companies having a spend of more than USD 50 million in China (Figure 41 and 42).



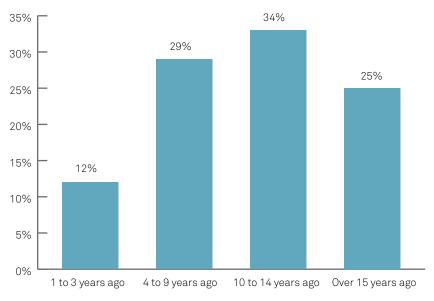
41 | Global Procurement Volume



42 | Global Procurement Volume in China

# **Duration of Sourcing Activities in China**

More than half of the companies surveyed report that they have used China for sourcing activities for more than 10 years. Only 12 percent entered the market just recently (Figure 43). One third of companies have been sourcing from China for 10–14 years and another quarter even more than 15 years.



43 | Duration of Sourcing in China

# Results and Outcomes of the Survey - Company Information

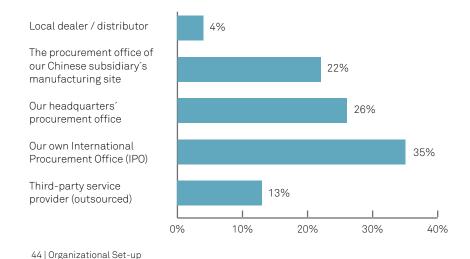
# Organizational Set-up of Sourcing Activities

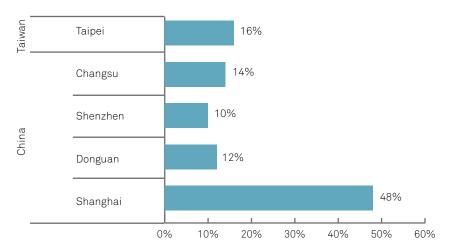
Every second company relies on in-house procurement managers preferably located in the company's own IPO in China. Only a minority dismisses control and uses external local players.

More than one third of the companies have set-up their own procurement office in China in order to facilitate sourcing activities (Figure 44). Another great percentage is either using their headquarters' procurement office or the procurement office of their Chinese subsidiary. Local dealers and / or third-party service providers alone are not among the favoured solution which suggests that seeing it as core competence plays a major role when deciding on the organizational set-up.

#### **IPO: Location**

In total, 35 percent of the surveyed companies have an IPO in China. Of those companies that do operate through an IPO the vast majority places their IPO directly in mainland China (Figure 45). Of the regions Shanghai plays an outstanding role holding almost 50 percent of IPOs that source from China.



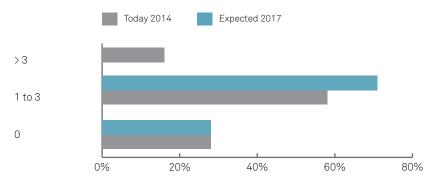


45 | IPO Location

#### IPO: HR Structure

The organizational structure of IPOs in China is focused on local manpower for operational matters and expatriates in regard to management tasks. For 2017 the relation is expected to be 10:1 as IPO's are growing in general while the share of expatriates in comparison to local employees is decreasing.





47 | Expatriates at the IPO

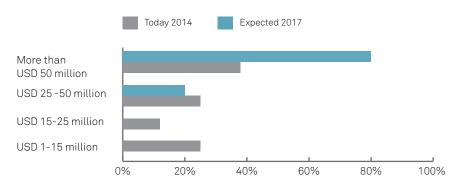
# IPO: Reporting Structure

The leadership of IPO's is exercised in two separate streams. Most of the disciplinary issues are managed by the local management whereas there is a centralized communication in case of technical discrepancies.

#### IPO: Procurement Volume

IPOs in China will have to manage an increasing procurement volume in the upcoming years.

Most companies expect an increase of the procurement volume managed by their IPOs (Figure 48). Most common set-ups managing their IPO are existing subsidiaries or a WFOE (Wholly Foreign-Owned Enterprise – Figure 49). Not very popular on the other hand are Representative offices, which have limited possibilities and are very often only allowed to act on behalf and account of their headquarters.

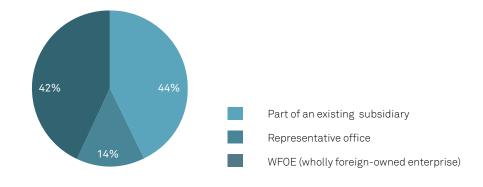


48 | Procurement Volume managed at IPO

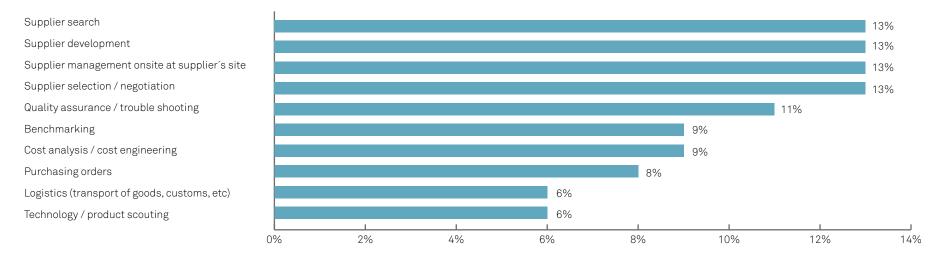
# Results and Outcomes of the Survey - Company Information

#### IPO: Task List

IPOs in China perform several tasks and are responsible for most operational issues at location. Taking care of everything related to suppliers is key (Figure 50). IPOs concentrate on various tasks such as supplier development / search / negotiation / management but also quality and cost control. In general it can be said that tasks to be carried out by local IPOs are very much focused on managing the operations in China in all aspects.



49 | Legal form of IPO



50 | Tasks carried out by the IPO

# Conclusion

This study outlines clearly the dilemma for companies who are already sourcing in China or plan to move toward it. While the size of the Chinese market and the development of it still is very interesting (for both sourcing and selling) sourcing risks and alternatives are growing not only in Asia.

This means there is no single answer how to handle and manage a company's value sourcing activities for direct and indirect materials. Companies need to evaluate and align their sourcing decisions taken into consideration their global strategy, sourcing market developments and risks as well as "real" total costs of ownership.

It is far away from stating that China is no longer an interesting and competitive sourcing market but no longer the only serious option. This circumstance has to be imbedded into companies' evaluation processes.

Looking into the future the importance of the Chinese B2B and B2C market will continuously grow and therefore the flow of goods and materials to and from China will increase. This will have significant impact on the costs of logistics and sustainable aspects (GRI 4) which are becoming more important in the western world increasing the complexity of decision making. In this light sourcing has become (if it is not already) a key element of the value chain of companies. The alignment of sales and sourcing strategy leading to a global or at least regional approach and the trends known as Industry 4.0 require a holistic view on sourcing.

Therefore 4 steps are key to land on the company's sourcing strategy

- 1. Align your sourcing strategy with the all over company strategy
- 2. Assure the positive impact of it on the end to end value chain of the company (costs, quality, risks)
- 3. Base your decision on a "real" total cost of ownership evaluation
- 4. Keep flexibility and ensure responsiveness to market changes

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# References

- Bielaz, Brown, Muldowney, Partida and Williams Erin. "Supplier Category Management DRIVING VALUE THROUGH THE PROCUREMENT ORGANIZATI-ON". APQC (2012). Print
- Brannen, Julia. Mixing Methods: Qualitative and Quantitative Research. Aldershot: Avebury, 1992. Print.
- "China GDP Growth Rate."TRADING ECONOMICS. N.p., n.d. Web. 16 June 2014. <a href="http://www.tradingeconomics.com/china/gdp-growth">http://www.tradingeconomics.com/china/gdp-growth</a>.
- "China Economic Update." The World Bank (2014): 31. 1 June 2014. Web. 12 July 2014.
- Chow, Gregory C. "Economic Reform and Growth in China." ANNALS OF ECO-NOMICS AND FINANCE 5 (2004): 127–152. Print.
- Christopher, Jia, Khan, Mena, Palmer and Sandberg Erick. "Global Sourcing and Logistics: Logistics Policy project number - LP 0507". Cranfield School of Management (2007). Print
- Cook, Thomas A. "Global sourcing logistics how to manage risk and gain competitive advantage in a worldwide marketplace". New York, N.Y.: AMA-COM (2007). Print.
- Cuñat, Javier. "China's Transformation: Implications for Global Supply Chains." The China Analyst. The Beijing Axis, 1 Sept. 2013. Web. 10 June 2014. <a href="http://www.thebeijingaxis.com/tca/editions/the-china-analyst-sept-2013/203-chinas-transformation-implications-for-global-supply-chains">https://www.thebeijingaxis.com/tca/editions/the-china-analyst-sept-2013/203-chinas-transformation-implications-for-global-supply-chains</a>.
- Errasti, Ander. "Global production networks operations design and management". 2nd ed. Boca Raton, FL: CRC Press (2013). Print.

- Fang, Olsson, Sporrong Josefin. "Sourcing in China: The Swedish Experience". Stockholm University School of Business (2004). Print
- "Global Sourcing". Morrison & Foerster LLP (2010). Print
- Goh, Wang, Gan, Li and Yu Zahnfu. "China 2015: Transportation and Logistic Strategies". ATKEARNEY (2010). Print
- Hemerling Jim and Lee David. "Sourcing from China: Lessons from the Leaders". Boston Consulting Group (2007). Print
- "Is China Trade becoming Less or More Expensive for Your Business?." Accounts Receivable Financing. N.p., n.d. Web. 13 June 2014. <a href="http://www.invoicefactoringus.com/is-china-trade-imports-more-expensive/">http://www.invoicefactoringus.com/is-china-trade-imports-more-expensive/</a>>.
- Kayser, Albrech, Billings, and Ruske, Klaus- Dieter. "Sourcing and logistics in China: Costs, processes and strategies of German companies procuring in the Chinese market". PricewaterhouseCoopers (2008). Print
- Kitagawa, Hironobu. "The Procurement Activities of Japanese Companies in Asian Countries". Institute of Developing Economies (2008). Print
- Liwen, Liu. "Logistics Sourcing Strategies in Supply Chain Design". The Josai Journal of Business Administration (2007), Vol. 4, No.1, 11-19. Print.
- Mayer, Jörg. "Global Rebalancing: Effects on trade flows and employment".
   United Nations (2010). Print
- Mauldin, John. "China Has The Potential To Become A Real Economic Problem." Business Insider. Business Insider, Inc, 1 June 2014. Web. 13 June 2014. <a href="http://www.businessinsider.com/looking-at-the-middle-kingdon-with-fresh-eyes-2014-6">http://www.businessinsider.com/looking-at-the-middle-kingdon-with-fresh-eyes-2014-6</a>.

# References

- Mohamad, M.N, Julien, D.J. and Kay, J.M. "A Framework to Improve Sourcing Strategy Implementation". The 11th Asia Pacific Industrial Engineering and Management Systems Conference (2010). Print
- Morrison, Wayne M. "China's Economic Rise: History, Trends, Challenges, and Implications for the United States." Congressional Research Service 9 July 2014. Print.
- Platts Ken and Ninghua Song. "The true costs of overseas sourcing", Institute for Manufacturing (2009). Print
- Rendon, Rene G. "Commodity Sourcing Strategies: Processes, Best Practices, and Defense Initiatives". Journal of contract management (2005). Print
- •Taylor Colin and Leng Stephen. "Integrated Capabilities for Global Sourcing and Import Logistics in the Retail Industry A Smarter Strategy". IBM Global Business Services (2009). Print
- "The Supply Chain Risks of Global Sourcing". LCP Consulting (2009). Print
- Weinberg, Darin. Qualitative Research Methods. Malden, MA: Blackwell, 2002. Print.
- Wolf- Rodda Howard A. and Mitterhoff Daniel J. "International Procurement".
   University of Maryland (2012). Print
- Yu Carrie, "Global Sourcing: Shifting Strategies". PricewaterhouseCoopers (2008). Print.
- Yue, Pan. "Moving up the Value Chain: Upgrading China's Manufacturing Sector."Iisd2010 (2010). Www.iid.org. Web. 25 July 2014. <a href="http://www.iisd.org/pdf/2010/sts\_3\_moving\_up\_the\_value\_chain.pdf">http://www.iisd.org/pdf/2010/sts\_3\_moving\_up\_the\_value\_chain.pdf</a>.

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