

Making it in China

Andrew Cook, MIOM, DABA Services Limited

INTRODUCTION

To gain cost advantage many British companies have outsourced at least some of their manufacturing to China. A study by EEF / NOP in 2003 reported that more UK companies see more opportunities in China than any other country.

With manufacturing wages as low as 17p an hour the attractions of China can be compelling to many British companies. However, there are many examples of companies dealing with China where things went disastrously wrong. This may be due to a corrupt individual stealing from the customer or to genuine mistakes from mis-communication (for example if your purchase order specified a delivery date of 04/03/05 you would get the goods a month later than expected on 3rd April 2005 and not 4th March 2004). As a result of cultural and language differences and different 'standards' there is scope for many problems to occur.

This article explores the strategic options British companies have when deciding how to take advantage of China's manufacturing capability and suggests courses of action to overcome some of the problems.

CHINA

China has an official population of 1.3 billion people. Overseas manufacturing is mainly based in Guangdong Province, on the East Coast (including Shanghai) and Beijing. These areas have the best transport and telecommunications infrastructure. Hong Kong's western business practices have passed into Guangdong. Consequently it is relatively easy for Western companies to deal with companies based in Guangdong. The factories in Guangdong are often well equipped with Hong Kong or Taiwanese financial and management backing. The greater the distance from Hong Kong, Shanghai or Beijing the less well equipped the factories tend to be

and the quality also deteriorates. However, these companies are cheaper – you get what you pay for!

THE STRATEGIC OPTIONS

There are two main strategic options open to British companies to take advantage of China:

- direct investment in China (ie. establishing your own plant)
- procurement of parts and products.

Direct investment can take the form of establishing your own factory (wholly owned foreign enterprise – WOFE) or a Joint Venture with a Chinese manufacturer. Since China joined the World Trade Organisation it has relaxed the rules on foreign direct investment and a joint venture is no longer required for an overseas company to establish an operation in China.

Joint ventures have the advantage of sharing the risk with a company that knows the Chinese ways. However, the partner may 'steal' from the British company and distort costs. Joint ventures are now really only beneficial when the British company sells in China and the partner has access to the market.

Establishing an overseas operation takes time and capital investment. Depending on the products it could take anything from 6 months to several years to get a plant operational in China. There are many potential pitfalls to be aware of, for example:

- employers' obligations or employees' expectations to provide accommodation and food for staff (different provinces have different regulations)
- appointing someone in a position of authority that awards contracts on the basis of bribes (this is particularly a problem in the North of China and in state owned companies).

Having your own factory is a relatively fixed investment and you will not be able to take advantage of the even lower costs in the Western

parts of China as the infrastructure improves. One of the Chinese Government's main initiatives for 2004 is the 'Go West' strategy where it is investing heavily to improve the well being of the rural inhabitants of this under-developed region.

Procuring parts and products from China is a low cost, low risk and flexible approach to taking advantage of China's low manufacturing costs. There are, however, many risks that can be encountered when buying parts and products from China.

If you intend to make products in China the first question to answer is "do you set-up your own plant or do you sub-contract the work?". Obviously this need not be an either/or decision. It is possible to make some products in your own plant and sub-contract others or undertake the final assembly in-house of bought-in parts. The latter approach may allow your new factory to be operational quicker. Alternatively, you may decide to buy parts and products in the short term with the intention of building your own factory. This approach has the advantage of you gaining experience of Chinese business practices (and reaping the associated benefits) without jeopardising your supply chain or not having the factory set-up in time for the Christmas rush.

Some products and parts are better prospects for Chinese manufacture than others:

- a high labour content gives greater cost savings
- parts that are subject to frequent engineering changes tend to be difficult to manage
- the planning process and inventory holding policies must allow for products to be in transit from China for about four weeks
- there must be sufficient volume (either with one part or a mix of parts) to overcome the shipping costs.

COMMON CONSIDERATIONS

Regardless of the approach there are a number of considerations that should

be taken into account.

Moving work to China is a project and should be managed as such. Many of the potential issues discussed below can be avoided with careful planning and risk management. It should be remembered that the project involves organisational change and will have an impact on various stakeholders. For example, your existing British suppliers will lose business and you may suffer supply problems. There may be the need for redundancies in your British plant and if people leave because they find the right job elsewhere before the Chinese are in full production there may again be problems with supply. Individuals' roles will inevitably change which will cause anxiety in some employees. An effective organisational change management process would help overcome these problems.

One of the most serious potential problems is ensuring continuation of supply during the transition to China. Also, if the customers know about the move they need to believe that there will be no disruption in supply. Making customers believe that the supply chain will continue smoothly is often more difficult than actually making it happen. A clear and structured communications plan needs to be put in place with the customers to overcome their concerns and stop them going elsewhere for the products.

Most people associate Chinese products as low quality. This is essentially true because the West buys Chinese products because of low cost and the buyers drive the cost down as low as possible. This results in the Chinese companies producing low quality goods – the old adage 'you get what you pay for' comes into play. If you push for a 70% cost reduction over UK prices you will get poor quality whereas if you accept a 30% cost saving some Chinese companies can produce products of world-class quality.

ESTABLISHING A FACTORY IN CHINA – PRACTICAL CONSIDERATIONS

China is a huge country with hundreds of local Governments competing for inward investment. China has developed 'clusters' of expertise in different areas. For example, GuangDong Province is

famous for electronics, plastic injection moulding and toys (80% of the world's toys go through the ports at Shenzhen and Hong Kong) and Shanghai makes most of China's cars. With local knowledge and a relatively simple analysis it is straightforward to determine where to locate your new factory.

Most companies appoint an expatriate on a two year contract to run the new company (or JV). Westerners either love or hate China, there is no half way house. Westerners either go to China and end up there for life or are on the first plane home. Before you tell your best high flyer that he is off for a two year spell in China you should be aware that he may never come back or may leave your company just to get out of Asia.

To avoid surprises it is essential that any potential expat visits China and specifically the town he will live in before he signs-up for two years. There are now many foreigners that permanently live in China and are available to be recruited. Although doing this has the advantage of the new recruit understanding Chinese business practices and having a network of contacts, he or she will not know your company's culture but this may also overcome the need of a costly expat contract.

Factory workers move thousands of miles from their home towns and villages to work in factories. They leave behind their families and go in search of the bright lights to earn their riches. Typically a worker will only go home for Chinese New Year. It is normal for a factory worker to be given a 'package' that includes accommodation and meals. The accommodation may be in factory dormitories (four people in one room 2 x 3 metres) and the meals may be subsidised and not 'free'. There is also an unwritten rule of the more senior people being in higher rooms in the dormitories or apartments. Each province has its own legal minimum standards for staff accommodation.

Products that have been designed for British manufacture are not necessarily good products to be made in China. Products that are to be made in Western plants with relatively high labour costs tend to use capital intensive manufacturing processes. To maximise the cost savings some re-design of a product may be necessary. The biggest savings from China are to be had with products

and parts with a high a labour content.

Best practice product development involves co-locating the designers, manufacturing engineers, marketers, buyers, etc. This is obviously not possible if the factory is in China and the designers are in the UK. Visits to China by the designers and other staff should be costed into the decision process of establishing a plant.

The control of product data can be an issue. Too many mistakes occur with version control and the interpretation of drawings when the designers are in the same building as the factory. These problems only increase with distance. Product Data Management (PDM) systems can help disparate parts of the organisation by creating a central repository of product data and managing engineering change to ensure all parts of a company are working on the right version of a part and product.

Another source of errors is in-house company standards. Just because everyone in your factory in the UK that has been with your company since they were an apprentice knows the in-house standards (tolerances, surface finishes, packaging and implied rules – for example if it is greater than 5mm it is always painted) it does not mean that new recruits in China will know them. To avoid problems and to give consistency it is important to use International Standards and to precisely specify the important requirements.

BUYING PRODUCTS AND PARTS FROM CHINA – PRACTICAL CONSIDERATIONS

Most companies that buy parts and products from China do so because of competitive cost pressures and to stop the erosion of profit margins. At one extreme 'hollow companies' are being created where a Western company orchestrates a network of Chinese manufacturers and sells their products internationally under a strong brand name. The Western company is no more than white-labelling other companies' products. However, most companies that buy from China simply outsource products and parts in an ad-hoc manner. This typically involves tactically moving parts that are being purchased from local suppliers overseas. Buyers under pressure to achieve buying

price variance targets see an opportunity for cost reduction when their existing suppliers are increasing prices due to increases in commodity prices (especially steel). More often than not, the buyer goes on to one of the sourcing web sites and searches for potential vendors of a product. The buyer emails the potential vendors through the web site. In the next few days the buyer receives email quotes from the potential vendors. There is normally a wide variation in the quoted prices. The buyer then places an order with his new supplier and pays upfront by telegraphic transfer or by letter of credit – standard practice for Chinese companies dealing with foreign companies. A number of different scenarios are now possible ranging from the buyer looking for a new job outside the company to the buyer being promoted. A buyer should be aware of a number of things when buying from Chinese companies:

- Use the company's standard new supplier vetting procedures (eg. on-site QA audit and financial audits).
- Do not rely on ISO 9000 as a sign of quality – a certificate can be easily bought. Knowing a company's current international customers is far more useful.
- Chinese companies often demand cash up-front. If this happens there is a danger of a rogue supplier running off with your money and not delivering the goods. Although Letters of Credit can be costly they do protect you. Alternatively negotiate a phased payment scheme. As Chinese companies turn cash over quicker than Western companies and operate on lower margins payment terms are fundamental in China.
- Buy sample parts before committing to a production run.
- With the first few deliveries from a new supplier inspect the goods in China. This would involve either sending an Inspector from the UK or using the services of a third party QC company. This would also reduce the likelihood of a rogue company disappearing with your cash.
- Use shipping container weights that conform to British road regulations – you do not want to have to unload the container at the dock – it just adds time and costs.
- Using the cheapest shipping company may be a false economy. The small print of shipping contracts

allows a ship to go via any route to accommodate operational requirements. A scheduled shipping time of four weeks may take seven weeks if it goes from China to Singapore before going to Felixstowe. This could result in shortages in the UK and failed customer commitments.

A more structured approach is normally beneficial. This would include analysing the candidate parts for Chinese manufacture, piloting parts to gain experience of the Chinese way of working, an ABC analysis of the spend and setting targets.

When dealing with China, Western companies are concerned about protecting their Intellectual Property (IPR). Everyone can give examples of IPR being stolen or goods being faked. In reality this is not normally a problem but when it does happen it is a big problem. Pirating is normally associated with consumer goods – clothes, CDs (more than 80% of CDs and DVDs sold in China are pirate), electronic equipment, automotive parts, etc. If a Chinese company wants to copy your product they will simply buy it and reverse engineer it. Nothing can be done to stop this. There are, however, a number of things that you can do to make it harder for a supplier to copy your products. These include:

- Non-disclosure agreements (NDAs).
- Only issuing the supplier product data that is required to

make the parts.

- Not issuing the supplier with complete CAD models – if possible use 'shrink wrap' functionality so that the supplier only sees the surfaces.
- Distributing work packages to different suppliers so that no one supplier knows the entire product.
- Using companies that are manufacturers and that do not have the infrastructure to sell your products in the UK or China.
- Using British and International Copyright, Design Registration and Patent Laws to legally protect your products. The Chinese are enforcing more and more patents and the Government is taking this as a priority.

As a last step it may be necessary to take legal action (in the UK and / or China) against the manufacturer and the seller.

CONCLUSIONS

Major savings can be achieved from manufacturing in China – either by the simple procurement of parts and products or setting-up your own plant. In the rush to cash in on the savings there are many obstacles to overcome. Moving parts and products off-shore should not be done tactically. If the obstacles are to be avoided a more strategic method should be followed. A project plan with top management sponsorship and a formal risk analysis should be put in place. This needs to be supported by a rigorous organisational change management process.

About the author

Dr. Andrew Cook, MIOM, is a Director of DABA Services – a company that specialises in sourcing engineered parts and products for British companies from China. It is sole UK Agent for a number of Chinese companies that provide fabricated, machined, cast and moulded parts and tooling as well as complete products and also provides contract design services. DABA adds value to Western clients by only working with known 'good' suppliers, preventing and

resolving issues in China and working at an engineer-to-engineer level to maximise cost savings.

Andrew has worked in China, Turkey, Bulgaria and across Western Europe.

Prior to DABA, he worked in PDM software implementation, management consultancy and operations management.

Andrew is a Member of the IOM and a Doctor of Business Administration in Global Product Development.