# Benefits and risks of outsourcing to China, and the solutions to the problems – a case study of an Australian company

Dr Jeffrey Jian Wang

College of Business, Victoria University, Melbourne, Australia

phdletter@hotmail.com

Dr Himanshu Shee

College of Business, Victoria University, Melbourne, Australia

Himanshu.Shee@vu.edu.au

Dr Ian Sadler

College of Business, Victoria University, Melbourne, Australia

Iansadler2@bigpond.com

Dr Catherine Lou

College of Business, Victoria University, Melbourne, Australia

Catherine.Lou@vu.edu.au

## Benefits and risks of outsourcing to China, and the solutions to the

## problems – a case study of an Australian company

## ABSTRACT

Many companies in Australia outsource components and finished products particularly to mainland China to take advantage of lower labour and other production related costs. Although outsourcing can achieve many significant benefits, it presents variety of risks and problems in this extended supply chains. A problemsolution approach is used to investigate inter-firm outsourcing problems and the way companies do solve these problems. Research methodology includes a review of relevant literature to identify research gaps, a face-to-face focus interview, and compilation of a case company. The solutions include management control of supplier's production, improving communication, hiring quality inspection agents, retaining part payments, keeping alternative suppliers, improving trust, cost/benefit analysis, and understanding cultural and other differences.

Key words: outsourcing, Australia and China, problems, solutions

## **INTRODUCTION**

In Australia, many companies have increased their outsourcing of components and finished products to developing countries, particularly to China where local companies in China primarily offer lower labour and production costs (Harland, Knight, Lamming & Walker, 2005; Lei, 2007). However, the outsourcing activities in an extended supply chain have generated a variety of new business problems that require solutions (Beaumont & Sohal, 2004; Gurtu, Searcy & Jaber, 2016; Song, Platts & Bance, 2007). In this context, this research adopts an organisational-level investigation to explore and analyse a range of inter-firm business problems associated with the companies in Australia outsourcing to China, and the solutions that the companies have implemented. Whilst many companies in Australia achieve significant cost savings and other benefits from these practices, other companies cannot achieve their anticipated business goal of cost savings due to many problems (Beaumont & Sohal, 2004). There is a need to investigate such management problems, plausible solutions and main business success factors. The impetus for this study includes the dearth of research focusing on outsourcing management relationships between

organisations in Australia and China; outsourcing risks of manufacturing products; and company-level management control systems for inter-firm outsourcing relationships and ongoing management. With this backdrop, the research question is what extent the interfirm business problems are associated with outsourcing decision and what management control is required to solve problems arising from the outsourcing processes.

The aim of this research, therefore, is to investigate the real management practices of both Australian-based manufacturers that outsource their manufactured components and finished products to manufacturers at China.

#### LITERATURE REVIEW

While outsourcing practices are significantly beneficial, the practices are frequently not perfect from business perspective (Belcourt, 2006; Kennedy & Clark, 2006; MoosaviRad, Kara & Hauschild, 2014). For example, there are high transaction costs and other risks associated with the practices when compared to vertically integrated operations (Bidanda et al., 2006). There is also a risk of transferring main technologies to suppliers thereby the purchasing firms lose their core competency and market positions along the time line (Leavy, 2004). The risks are higher in international outsourcing due to the complexity of overseas transactions and the problems of international inter-firm alliances as well as the different business environments in other countries (Metters, 2007). Wrong decisions in outsourcing can also lead to higher product costs and wrong use of resources resulting in an industrial decline in some western companies. Furthermore, some firms may end up hollowing out organisations, losing core production skills and expertise, and losing control over production (Kamminga & Van derMeer-Kooistra, 2007).

In comparison with the service trade, outsourcing of production has high variable transaction costs such as transport, handling and inventory charges (Ellram et al., 2008). Beaumont and Sohal (2004) point out that it is too difficult to specify all final costs in advance when contracting to external suppliers. Benson and Littler (2002) further state

3

that transaction costs such as legal fees, redundancy payouts, increased quality checks, and the cost of managing an outsourcing operation may outweigh any planned cost savings.

An outsourcing operation faces the risk of linking to a supplier with deficient capabilities and defective quality problems (Bergin, Feenstra & Hanson, 2011; Quelin & Duhamel, 2003). This is due to some suppliers in developing countries lacking both capability and motivation to control and improve product quality (Leavy, 2004; Schoenherr et al., 2008). Many purchasing firms in developed countries find quality non-compliance by their business partners, and product quality often does not meet the required standards for developed countries (Lam & Han, 2005; Ting, 2004). Some suppliers accept low-price contracts, but then frequently use cheap materials, low technology and labour-intensive production that lacks quality standard (Aubert et al., 2008).

The specific problems when outsourcing to China for Western companies in conducting business with companies in China include:

- hidden costs which are unpredictable (for example, local government and bank fees in China) (Kennedy & Clark, 2006);
- overloaded bureaucracy, erratic government responses and unclear government policies (Li et al., 2007);
- violation of intellectual property rights in China (Ting, 2004);
- loss of an organisation's confidential information;
- and extra inter-firm business costs being too high (for example, travel, select locations, contracting, telecommunication and training costs) (Leavy, 2004).

The literature suggests some possible solutions for outsourcing issues (Berman & Swani, 2010; Bock, 2008; Schoenherr, Narayanan & Narasimhan, 2015). Sample solutions include the development of specifications that are more complete, long-term contracts, and the development of strategic, trusting, and cooperative relationships. The solutions also include 'out-tasking' which consists of assigning operations tasks to business

partners (for example, overseas call centres) or retaining own management overseas (for example, build own factories overseas). Other examples include improvement in planning, performance management, trust and communication (Cao & Wang, 2007; Wadhwa & Ravindran, 2007). Further solutions include changing suppliers in China, building new relationships in other countries, or returning to insourcing in own countries (Drauz, 2014; Fratocchi, Di Mauro, Barbieri & Nassimbeni, 2014; Gray, Esenduran, Rungtusanatham, Skoweonski, 2017).

While the majority of researchers have focused on domestic outsourcing within European countries and the United States, or outsourcing from these countries to developing countries, much less research has focused on the outsourcing relationships between firms in Australia and China. The fact is that the latter has rapidly increased due to China's lower labour costs among other cost advantages (Liu & Brookfield, 2006; Ting, 2004). Australia and China have reciprocal trade relationships, and China has become Australia's largest trading partner (DFAT, 2017). Australia–China trade is therefore very important to companies in Australia. Companies in China have the advantage of low-cost skilled labour, some manufacturing technologies, and huge production facilities for labour intensive products. Chinese ports have also improved their shipping capacity for their imports and exports (Kennedy & Clark, 2006; Nassimbeni & Sartor, 2006). This attraction of China has enticed businesses all around the world and Australia in specific promoting outsourcing.

## METHODOLOGY

This study is a problem-centred research, primarily aiming to investigate the practical management issues faced by specific organisations with a view to investigating and resolving outsourcing problems for real-life management. A face-to-face interview was conducted with a manager of an Australian company to gain more detailed personal opinions especially regarding the inter-firm business relationships. Based on the principles

of case study (Fifarek, Veloso & Davidson, 2008; Yin, 2003), interview information was written up as a case study. Therefore, the method of qualitative research approach of this study was devised as extraction of secondary data; face-to-face focused interview; and compilation of a case study.

The reason for choosing extraction of secondary data is because secondary data can cover a broad range of existing research results, some of which are significant for comparison with the results of this research. A face-to-face focus interview was used to collect company's detailed information about real business phenomena, and can provide opportunities for a protracted period of exploration of in-depth topics, issues and responses. Therefore, case study is an effective means to collect a lot of detailed evidence (Lancaster, 2005). Open-ended and informal questions were designed to be answered in as much detail as possible and thus the answers achieved can be the essential evidence for case studies (Yin, 2003). The method of focused interviews provides more insight and detailed qualitative information, as well as the knowledge and opinions of the managers, who are guided to focus on discussions of the main topics.

#### THE CASE STUDY

## Introduction to the company - electrical and household goods

This case study of outsourcing electrical and household goods to China was undertaken to discuss its problems and the subsequent solutions the company undertook to turnaround for business benefits. Following the completion of an interview with the managing director of the company, the data were analysed, together with the information gathered from the company's website.

## **Background information**

The company is in a business of manufacturing, import, distribution, export and product-marketing. It was initially established as an oil filter manufacturer in 1940, then incorporated in Victoria in 1958, and listed in Australian Stock Exchange since 1959.

Being in Sunshine, it employs more than 1000 personnel in Australia and positioned itself as Australia's leading consumer and industrial product company. The principal activities include product design, development, manufacturing, offshore sourcing, brand management and export. It manages several large subsidiary companies in Australia and New Zealand. The company develops, owns, and manages their premier brands in consumer and industrial markets of the Asia-Pacific region in the areas of electrical household goods, powered garden tools, automobile components, cleaning hardware, water equipment and security locks. Its customers include department stores, manufacturers, hardware outlets, specialist electrical retailers, automotive aftermarket wholesalers, water system dealers, builders and locksmiths.

The company exports its own Australian-made water equipment and security lock products. Export markets include Europe, the Middle East, South East Asia and North America. Currently, the company produces 60 per cent of their water equipment and 50 per cent of their security lock products in Australia. However, the company is further looking for other suitable suppliers overseas who have the capability to fully satisfy their production needs as the company plans to further outsource up to one hundred of their products in future.

## **Business with China**

During the last twenty years, the company has contracted sixty suppliers including twelve key suppliers in China. Most of these are located in Guangdong province. These suppliers make twenty different household electrical items under one brand that includes microwave ovens, blenders, and coffee machines. Four million items of this brand are imported into Australia each year. However, the company does not make any sales inside China.

Although the company has experienced some outsourcing problems, it believes that China is the best place for sourcing labour intensive products because there is low-cost production with good skilled labour, reasonable facilities, good shipping infrastructure, and a good understanding of product design and production requirements. As Chinese companies put their efforts towards long-term relationships, it is easy to communicate and work with most suppliers. The company invests and owns tooling equipment in its business partners' factories to encourage long-term relationships. The main motivation and advantages of outsourcing include reducing the direct costs of labour and materials; avoiding the investment of hiring its own staff and setting up its own facilities; increasing the flexibility to change suppliers; and having a greater number of choices of components and suppliers to meet innovation needs. Although the company has business relationships with other suppliers in other countries, the company does most of its outsourcing to China because other countries such as India and some Southeast Asian developing countries such as the Philippines and Malaysia do not have such good infrastructure for the international manufacturing business.

## **Business problems and solutions**

Although the company has been in good relationships with most suppliers, it faces some inter-firm business problems in outsourcing. The problems broadly identified are in relation to contract enforcement, product quality, tooling investment, and loss of supplier. The company has had some workable solutions for each of these problems discussed below.

## (1) Contract enforcement

The problem: Since 2007, some suppliers of the company in China have continually increased product sales prices, claiming increasing costs in raw materials and labour, loss of export rebates from the Chinese government, and decreases in the US dollar compared to the Chinese Yuan (RMB). Shipping costs have also increased due to rising fuel costs. When the company did not satisfy their claims for additional payments, these suppliers refused to make and ship their products. In reality, contracts may not bind suppliers in China; some suppliers keep asking for changes after signing contracts, or ignore contracts altogether.

Production and delivery schedules are also problems, as products sometimes cannot be made and shipped out on time in accordance with contracts. Lack of some raw materials and the production capabilities of some suppliers can also make production schedules difficult. However, compared to the benefits from cost savings, these are still small problems and the company believes it is worth maintaining the relationship, and therefore makes a big effort to solve these problems with the suppliers.

The solution: the company concludes that strong control is needed to ensure that products received can maintain an agreed quality and are delivered on time. Because contracts signed with companies in China are less likely worked out without outside oversight, push and control, the company believes that Australian companies need to retain strong control on outsourcing projects. For example, as phone calls and emails may be ignored or misunderstood, face-to-face communication is essential. Therefore, to negotiate and ensure that contracts are enforced, the managing director and his bilingual assistant visit the factories of suppliers in China two or three times a year. Production and purchasing managers and engineers of the company also visit to ensure timely process and quality control during production. Their tasks include negotiating with the Chinese managers, and training the factory foremen who then train their Chinese staff to ensure that production processes are correct.

In dealing with the poor management of some suppliers, in addition to training, the company produces sample items, conducts on-site sample production demonstrations and quality control. These activities cost time and money, but the company found that it is worthwhile to do so. In this way, the company can achieve better results in product quality, on-time production and shipping.

The company believes that having a company registered in Hong Kong is less costly and more effective than in Mainland China. Having an office in Hong Kong helps the company doing production control, especially in the area of quality control. The company staff can travel faster and with less cost to Mainland China from Hong Kong compared with travelling from Australia. For small tasks, the company will continue to send their staff from their Hong Kong office to Mainland China, whereas for important issues the managing director will go to China from Australia.

## (2) Product quality

The problem: The company is satisfied with the product quality in general, but still experiences some problems, especially in relation to electrical items. The quality of goods from suppliers in China is usually better in the first shipment but deteriorates at later stage. For example, when technical specifications in contracts with suppliers promise to produce to a quality standard, this standard is not always met. At one time there was substitution of components when suppliers could not source the correct ones. To make matters worse, the company usually did not get to know about the quality problem until it obtained negative feedback from the final users. This was because the incorrect electrical components (for example, resistors) were inside some of the electrical items and could not be found until used. As the volume of the items imported was very high and the items were not high value-added products, the company did not do a significant amount of testing. The quality problems could damage the company's brand names and reputation in the consumer market. In addition, by the time feedback from customers arrived, the company had already made payment for the goods and lost the opportunity to withhold payments. Generally, this kind of problem occurs due to poor management in factories in China, where component inventories are inadequately planned. For example, sometimes only 50 per cent of the inventory needed for production is prepared in advance. When suppliers run out of the components needed, these factories just substitute others from whatever components are available. This substitution problem can occur in both small and large factories in China.

The solution: In order to ensure continuing consistency of product quality, besides sending personnel to monitor production and provide training, the company hires independent, licensed quality inspection agents in China to visit factory production lines and watch over production, carry out inspection tests, reject defective items, and issue quality inspection certificates with shipments. Even though most of the company's outsourced products are low technology, they still need to be regularly inspected to ensure that quality is maintained. Hence, the company believes that very strong control is absolutely needed in addition to sending personnel from their own company to China.

With regard to the previously mentioned quality problem caused by the substitution of different components, the company recently had an occasion when it had to recall defective products from the Australian market. The company then demanded that the suppliers in China either replace or pay for the recalled products. This resulted in many disagreements and took several months to resolve. However, the company did not need to go to the international court or arbitration, as the supplier later decided to cover the damage rather than lose the trade relationship which involved about US\$4 million of household electrical items contracted each year. Following this experience of imperfect business relationships, the company planned to retain part of the payments for goods until it received them and was satisfied with their quality. This, together with other requirements such as the exclusion of unspecified components, was laid down in their later purchase contracts.

## (3) Cost of tooling investment

The problem: There is a lack of specialised tools with some suppliers in China. With minimal funds and low technological capabilities, these suppliers are less likely to invest in additional production facilities such as special tooling. Therefore, the suppliers are reluctant to take the risk of investing the tooling as it is used for specific products and may not be reusable in the future. However, some products cannot be made without such special tools, generating a problem in relation to who invests money and time to manufacture the tooling, the Chinese suppliers or the company by itself.

The solution: Because the tooling that some Chinese suppliers have in factory is not always appropriate or is not always available, the company has to invest and own some tooling in order to produce its outsourced goods. This is necessary for the purposes of current production and long-term relationships.

(4) Loss of suppliers

The problem: the company also has a problem with loss of suppliers. Some Chinese factories, especially in Guangdong province, rely on export demand. Due to the world financial crisis in 2008–2010, the demand of manufactured product from Europe and the United States of America dropped significantly. For example, some big client like Wal-Mart contracts for significantly less goods than previously, meaning that many factories in China do not have enough work, and can no longer afford the costs of factory labour and facilities. In addition, some Chinese factories lack working capital and the ability to source new capital, and only rely on sales revenue to cover their business loans. Hence these businesses run the risk of becoming bankrupt once their sales volumes drop. The company therefore loses some of its suppliers.

The solution: For existing contracts, the company helps suppliers to produce the products. For example, a supplier contracted by the company to make electrical slow cookers was facing financial difficulties. In order to get the products made, the company invested US\$250,000 to help the supplier buy raw materials and hire labour to make the products. In accordance with their agreement, after the goods were made and shipped, the company deducted this amount from the payment made for the slow cookers. Fortunately, the products arrived on time before the winter season started. The company later switched to another supplier in China, who was able to provide new contracts for the same products. Because some contracted Chinese suppliers went out of business, the company had to look for other suppliers to continue its outsourcing.

## **Discussion and Implications**

Overall, the company has achieved good cost savings of up to 40 per cent in production over the past five years. The value of its imported products reaches US\$70 million per year. Outsourcing its production to China has been recognised as the correct manufacturing strategy. Though alternate offshore outsourcing locations can be argued for, but the choice of location is dependent on the case company's objectives and its preference over others (Elias and Mathew, 2012). Australian businesses in general, and this company

in specific, prefer to stay with China over India and other low-cost countries because of their business legacy and risk of moving away from China. While achieving the benefits of outsourcing to China, the practices however generate some new inter-firm business problems. These are evidenced in the areas of contract enforcement, product quality, tooling investment, loss of suppliers and the varying costs of doing business in China. The solutions to these problems include imposing strong management control on supplier's production, improving communication levels, having an office in Hong Kong, hiring quality inspection agents, retaining part payments until satisfaction with the products, investing in tooling, keeping own suppliers for production, seeking new suppliers in China. Other important means for solving problems are improving trust levels, cost/benefit analysis, correct selection of suppliers, and understanding and tolerating cultural and other differences.

The risks of outsourcing can be significant, but solutions are available. The company does not plan to withdraw from outsourcing to China. In general, the problems encountered, the solutions used have some things in common but there are also differences between companies. There is no one general solution for all companies. Their decisions of make-or-buy, levels of manufacturing restructure and management styles depend on individual companies, their suppliers, business environments and the overall objectives.

Theoretically, this research fills the gap in the available knowledge about management of outsourcing relationships between companies in Australia and China which is novice in itself. It reveals the ongoing risks and problems of outsourcing manufacturing products, and company-level management control systems for inter-firm outsourcing relationships and management which are yet to document in greater detail. This research places its main emphasis on providing detailed information of the problems, plausible solutions and business success factors of inter-firm manufacturing outsourcing relationships between Australia and China.

Practically, this research provides managers an insight on outsourcing as a strategy of manufacturing restructuring. Although offshore sourcing saves production and purchasing costs, yet managers need to decide on offshoring to China on first place, and then take up any form of investment as they go along. While outsourcing is inevitable, this decision may likely allow them to take up the lower level of manufacturing as the case may arises, or higher level of restructuring such as contracting out whole products with designs, technological support, or building their own factories in China. Managers also need to realise that most companies cannot fully achieve their cost saving goals, the companies however are less likely to withdraw such sourcing operations from China.

## **Conclusion and limitations**

After reviewing the relevant literature on international outsourcing, collecting company information, and a face-to-face interview, this study uses a case study to develop a suitable strategy for presenting and dealing with problems when outsourcing manufacturing to China. This study is significant because it can assist managers in avoiding the wrong decisions that can lead to failure of the practices. It provides useful insights for managers enabling them to make better decisions regarding problem solving and working on upcoming business plans.

This study is a component of an important research area of logistics and supply chain management that western companies frequently face in achieving their anticipated cost savings and other business goals when outsourcing products to China. Therefore, this study aims to provide current information on what solutions to problems managers can adapt to achieve these business objectives. Both managers and researchers in related areas can use this current outsourcing knowledge addressing the issues and plausible solutions. The Australian managers may also realise the benefits of the outsourcing as low-cost products from China can result in significant retail cost savings.

This research has limitations. The findings are based solely on the literature review and a single case study. Therefore, result of the case study does not provide a complete conclusion to the subject, and may not generally apply to other companies. Further, the purchasing and operations managers may be included as the prospective respondents to include more of their view points. Inclusion of more case companies in future studies may reveal extra information and help generalising the findings. Furthermore, the current high profile of Chinese-made product recalls due to quality and safety failures and its negative impact on trade could be a significant issue to research. Finally, the impact of increasing labour costs and environment control costs in China, the movement of manufacturing industries from the southeast coast to the inland of China, and increasing trends of the Chinese currency against the US dollar affecting outsourcing businesses could be a worthwhile research to build on the findings of this study.

#### REFERENCES

Aubert, B, Rivard, S, & Patry, M 2004, 'A transaction cost model of IT outsourcing', *Information & Management*, vol. 41, pp. 921–932.

Beaumont, N & Sohal, A 2004, 'Outsourcing in Australia', *International Journal of Operations & Production Management*, vol. 24, no. 7, pp. 688–700.

Belcourt, M 2006, 'Outsourcing – The benefits and the risks', *Human Resource Management Review*, vol. 16, pp 269 – 279.

Benaroch, M, Webster, S & Kazaz, B 2012, 'Impact of sourcing flexibility on the outsourcing of services under demand uncertainty', *European Journal of Operational Research*, vol. 219, pp. 272 – 283.

Benson, J & Littler, C 2002, 'Outsourcing and workforce reductions: An empirical study of Australian organizations', *Asia Pacific Business Review*, vol. 8, no. 3, pp. 16–30.

Bergin, PR, Feenstra, RC & Hanson GH 2011, 'Volatility due to offshoring: Theory and evidence', *Journal of International Economics*, vol. 85, pp163 – 173.

Berman, B & Swani, K 2010, 'Managing product safety of imported Chinese goods', *Business Horizons*, no. 53, pp. 39–48.

Bidanda, B, Arisoy, O & Shuman, L 2006, 'Offshoring manufacturing: Implications for engineering jobs and education: A survey and case study', *Robotics and Computer-Integrated Manufacturing*, vol. 22, pp. 576–587.

Bock, S 2008, 'Supporting offshoring and nearshoring decisions for mass customization manufacturing processes', *European Journal of Operational Research*, vol. 184, pp. 490–508.

Cao, Q & Wang, Q 2007, 'Optimizing vendor selection in a two-stage outsourcing process', *Computers & Operations Research*, vol. 34, pp. 3757–3768.

DFAT, 2017 'Direction of Merchandise Import', Australian Department of Foreign Affairs and Trade, viewed 01 May 2017, <<u>www.dfat.gov.au</u>>.

Drauz, R, 2014 'Re-insourcing as a manufacturing-strategic option during a crisis-Cases from the automobile industry', *Journal of Business Research*, vol. 67, pp. 346 – 353.

Elias, A.A. and Mathew, S.K., 2012, 'Offshore IT outsourcing between India and New Zealand: a qualitative system dynamics model', In Proceedings at the 30th International Conference of the System Dynamics Society, St. Gallen, July. pp. 22-26.

Ellram, LM, Tate, WL & Billington, C 2008, 'Offshore outsourcing of professional services: A transaction cost economics perspective', *Journal of Operations Management*, vol. 26, pp. 148–163.

Fifarek, BJ, Veloso, FM & Davidson, CI 2008, 'Offshore technology innovation: A case study of rare-earth technology', *Journal of Operations Management*, vol. 26, pp. 222–238.

Fratocchi, L, Di Mauro, C, Barbieri, P & Nassimbeni G 2014, 'When manufacturing moves back: Concepts and questions', *Journal of Purchasing & Supply Management*, vol. 20 pp 54 – 59.

Gray, JV, Esenduran, G, Rungtusanatham, MJ, Skoweonski, K 2017, 'Why in the world did they reshore? Examining small to medium-sized manufacturer decisions', *Journal of Operations Management*, vol. 49-51, pp. 37 – 51.

Gurtu, A, Searcy, C& Jaber MY 2016, 'Effects of offshore outsourcing on a nation', *Sustainable Production and Consumption*, vol. 7, pp. 94 – 105.

Harland, C, Knight, L, Lamming, R & Walker, H 2005, 'Outsourcing: assessing the risks and benefits for organisations, sectors and nations', *International Journal of Operations & Production Management*, vol. 25, no. 9, pp. 831–850.

Kamminga, PE & Van derMeer-Kooistra, J 2007, 'Management control patterns in joint venture relationships: A model and an exploratory study', *Accounting, Organizations, and Society*, vol. 32, pp. 131–154.

Kennedy, G & Clark, D 2006, 'Outsourcing to China – risks and benefits', *Computer law* & security report, vol. 22, pp. 250–253.

Lam, T & Han, MX 2005, 'A study of outsourcing strategy: a case involving the hotel industry in Shanghai, China', *International Journal of Hospitality Management*, vol. 24, pp. 41–56.

Lancaster, G 2005, 'Research Method in Management, A concise introduction to research in management and business consultancy', Oxford, London.

Leavy, B 2004, 'Outsourcing strategies: opportunities and risks', *Strategy & Leadership*, vol. 32, no. 6, pp. 20–25.

Lei, D 2007, 'Outsourcing and China's rising economic power', *Elsevier*, Foreign Policy Research Institute, pp. 21–39.

Li, Y, Liu, Y, Li, M & Wu, H 2007, 'Transformational offshore outsourcing: Empirical evidence from alliances in China', *Journal of Operations Management*, doi: 10.1016/j.jom.2007.011. pp. 1–18.

Liu, RF & Brookfield, F 2006, 'Japanese subcontracting in Mainland China: a study of Toyota and Shanghai Koito', *Supply Chain Management: An International Journal*, vol. 11/2, pp. 99–103.

Metters, R 2007, 'A typology of offshoring and outsourcing in electronically transmitted services', *Journal of Operations Management*, doi:10.1016/j.jom02.00, pp. 1–14.

MoosaviRad, SH, Kara, S & Hauschild, MZ 2014, 'Long Term impacts of international outsourcing of manufacturing on sustainability', *CIRP Annals – Manufacturing Technology*, vol. 63, pp 41 – 44.

Nassimbeni, G & Sartor, M 2006, 'Sourcing in China, strategies, methods and experiences', 1<sup>st</sup> edition, Palgrave Macmillan, New York.

Quelin, B & Duhamel, F 2003, 'Bringing together strategic outsourcing and corporate strategy: outsourcing motives and risks', *European Management Journal*, vol. 21, no. 5, pp. 647–661.

Schoenherr, T, Narayanan, S & Narasimhan, R 2015, 'Trust formation in outsourcing relationships: A social exchange theoretic perspective', *International Journal Production Economics*, vol. 169, pp. 401 – 412.

Schoenherr, T, Tummala, VMR & Harrison, TP 2008, 'Assessing supply chain risks with the analytic hierarchy process: Providing decision support for the offshoring decision by a US manufacturing company', *Journal of Purchasing & Supply Management*, doi: 10.1016/j.pursup, pp. 1–12.

Song, N, Platts, K & Bance, D 2007, 'Total acquisition cost of overseas outsourcing/sourcing: a framework and a case study', *Journal of Manufacturing Technology Management*, vol. 18, no 7, pp 858–875.

Ting, A 2004, 'Outsourcing in China', Industrial Engineer, vol. 36, no. 12, pp. 46-50.

Wadhwa, V & Ravindran, AR 2007, 'Vendor selection in outsourcing', *Computer & Operations Research*, vol. 34, pp. 3725–3737.

Yin, R 2003, 'Applications of case study research', 2<sup>nd</sup> edition, SAGE Publications, Thousand Oaks.