

SOURCING FROM CHINA: AUSTRALIAN EXPERIENCE

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ABSTRACT

Australian based companies have increasingly sought to remain competitive by off-shoring and outsourcing parts of their operations to Chinese operations. This study measured the motivations for doing so in 35 companies, the results achieved and whether these outcomes lived up to expectations, and related barriers and operational problems. Most firms that source components or products from China do so because of the cost of supply reductions that were expected. In actuality, significant cost reductions were achieved, however these reductions were on average less than expected. Along with these cost reductions, importing goods or components from China brought some quality problems and delivery delays.

INTRODUCTION

Procurement of goods and services offshore, particularly from China has become an attractive alternative for firms wishing to cope with the need to lower costs and provide a broader global procurement base. As far back as the mid 1980's the potential for outsourcing to China had been recognized, whilst at the same time the requirement for investment in trading partners, and the importance of the relationship developed, had also been identified [6]. During this time direct sourcing of product from mainland China (i.e. as distinct from purchasing through third parties) became more popular. This transition was being driven largely by the need to leverage perceived advantages including cheaper labor costs, bypassing agents prevalent in countries such as Hong Kong and improved control of product quality [5]. During the 1990's a further extension of this model led many North American organizations to set up IPO's (international procurement office) in China to handle the large volumes of components and materials being sourced [8]. More recently this progression has also led to the establishment of e-procurement start-ups in China itself, providing a combination of access to reverse auctions as well as value added services [18]. This growth in foreign demand for goods from China means that the level of activity in Chinese manufacturing has grown to a staggering \$US96 billion per annum (November 2006), with growth in output in the previous 10 months measured at 16.9%. [9]. Although the benefit to the Chinese economy cannot be questioned, there is still mixed evidence as to the nett benefit to foreign organizations operating in China, both in the practitioner [1,2] and academic literature [3,17].

LITERATURE REVIEW

Despite the promise of substantial benefits accruing to firms procuring goods directly from Chinese suppliers, evidence both from theory and empirical studies indicates that the realization of these benefits may not be easy, or be necessarily expected. Transaction Cost Economics (TCE) Theory tells us that the real costs of a firm cannot be limited to the costs of production, but also need to take account of the costs of coordination, or transaction costs [13,14,15]. This simple insight has important implications when firms seek to reduce the costs of production through outsourcing [10], particularly when the supplier may be based in a relatively remote location both politically and geographically [11,12]. In simple terms it may be that although production costs may be reduced (i.e. through lower labor costs access

to capital infrastructure etc.), the costs relating to coordinating activities with foreign trading partners may significantly outweigh these reductions. The net effect may be that the total cost of doing business increases. These choices (hierarchies, markets or inter-organizational / networks) will be informed by the economics of the balance between production and transaction costs [4]. The clear implication (from a TCE perspective) is that benefits accruing from procurement from Chinese suppliers will not be solely determined by (for example) reduced labor costs, but by the total cost of transactions, and the means by which interactions are governed.

Further to this is the fact that many potential supplier entities in China are still state owned, and research evidence suggests that there are substantial differences in capabilities between State Owned Enterprises (SOE's) and those in private control (PCE's) [12]. SOEs have been found to have greater capability in engineering and technology, but are less flexible and responsive than PCEs, and less inclined to encourage customer involvement generally [12]. Firms involved in trading with these suppliers will find it difficult to reduce transaction costs through the development of inter-organizational governance forms [4] unless they can facilitate closer trading relationships with otherwise reluctant partners.

It has also been identified that the cost of doing business with Chinese suppliers cannot be isolated from the cultural context within which they operate. In particular, power structures within firms vary greatly [7], and the ideological basis for collaboration may be substantially different in Chinese firms when compared with their western counterparts [16]. Studies have shown that distribution and structures relating to power in Chinese organizations can vary greatly, partly due to the transitional nature of society, but also as a function of the history of the firm (i.e. SOE vs. PCE) [7]. As well, there is evidence indicating that Chinese firms are more likely to have a collectivist values, and that these will impact on the nature and extent of trust based interactions with trading partners [7].

RESEARCH METHOD

Data was collected from a group of Australian manufacturing firms that have been sourcing their raw materials, components or final products from China. A group of 35 firms were contacted that were reported in the local press as having been involved in these types of activities. Senior managers were interviewed for duration of one to one and half hours. These managers also agreed to complete a questionnaire.

RESULTS AND DISCUSSION

The firms participating in this study were asked to rate on a seven-point Likert scale (strongly disagree – strongly agree) a number of items that are commonly cited as reasons for sourcing from China. Each item was tested for significance using one-sample t-test, with the comparison test score set at 4 (for neutral). Table 1 shows the list of items ordered from highest positive t-score to highest negative t-score. Table 1 shows that overwhelmingly, the most important reason cited by most firms for sourcing from China is to reduce production costs (mean score = 6.36, t-score = 13.131; df = 34; p-value = 0.000). Other factors that rated strongly as contributing to the decision to source from China were expansion of operations to other parts of the world (including China) as part of global strategy, reducing staff and setup costs and focus on core competencies. On the other hand, two reasons that did not form the bases for sourcing from China were 'better' products being available in China (presumably better products could be sourced in Australia) and the 'difficulties' in managing their own operations in Australia. All other factors, whilst sometimes cited as reasons for sourcing from

China, were found to be statistically insignificant factors at p-value cut-off set at 0.05 (two-tailed).

Table 1: Motivations for sourcing from China

Motivation*:	Descriptive statistics			One-sample t-test **		
	valid response	mean	std. dev.	t	df	sig. (2-tailed)
Reduce production costs	35	6.34	1.056	13.131	34	0.000
Expand operation in Australia/China/other countries as part of global strategy	35	5.20	1.346	5.274	34	0.000
Reduce staff/setup costs	35	5.14	1.683	4.018	34	0.000
Focus on core competencies	35	4.77	1.536	2.972	34	0.005
Higher predictability of costs	35	4.40	1.718	1.377	34	0.177
Reduce manufacturing lead time through outsourcing	35	4.31	1.451	1.282	34	0.209
Reduce legal, technology and market risks	35	4.23	1.699	0.796	34	0.432
Greater flexibility	35	4.14	1.517	0.557	34	0.581
Product/vendor flexibility	35	4.09	1.704	0.298	34	0.768
Take advantage of logistics facilities in China	35	3.91	1.314	-0.386	34	0.702
Reduce lead time for product innovation	35	3.83	1.689	-0.601	34	0.552
Minimize inventory	35	3.77	1.573	-0.859	34	0.396
Greater supplier leverage	35	3.77	1.477	-0.916	34	0.366
Take advantage of lower prices in China	34	3.65	1.668	-1.234	33	0.226
Required resources not available in Australia	35	3.57	1.703	-1.489	34	0.146
Own operations in Australia difficult to manage	35	3.09	1.687	-3.207	34	0.003
Better products available in China than Australia	35	2.86	1.458	-4.637	34	0.000

* Question: To what extent do you agree/disagree with the following? Scale: 1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = neutral; 5 = slightly agree; 6 = agree; 7 = strongly agree.

** test score = 4

The respondents were asked to indicate the minimum level of cost savings that was expected from the decision to source from China. The average level indicated was positive 24.25 percent (standard deviation = 11.15 percent). Further, respondents were asked to indicate in general, and specifically, the level of performance along various measures that was actually generated from sourcing from China. As the data in Table 2 shows, the improvement in overall production performance was scored at an average of 5.38 whilst improvement in total production costs was an average of 5.32 (on a seven-point scale). These scores nominally represent actual improvements in the range of one to ten percent. These results suggests that whilst actual outcomes do not meet expectations, nonetheless, they are still better than what they would have been had sourcing still been local. Table 2 also shows that there were no significant improvements in terms of production flexibility, product quality, delivery and innovation as a result of sourcing from China. As all these factors are separate strategic dimensions along which firms can compete, the findings here suggest that sourcing from China is largely resulting in strategic competitive advantage that is one dimensional in nature. This is in the form of enabling significant cost reductions. Indeed, the data in Table 2 shows that sourcing from China has the risk that product quality, delivery and innovation can go backwards (t-scores are negative for these items).

Table 2: Performance relating to sourcing from China

Performance*:	Descriptive statistics			One-sample t-test **		
	valid response	mean	std. dev.	t	df	sig. (2-tailed)
Overall production performance result	34	5.38	.853	9.446	33	0.000
Total production costs	34	5.32	1.590	4.853	33	0.000
Production flexibility	34	4.21	1.274	0.942	33	0.353
Product quality	34	3.97	.969	-0.177	33	0.861
Product delivery	34	3.91	1.138	-0.452	33	0.654
Product innovation	34	3.85	.744	-1.153	33	0.257

* Question: Compared to domestic sourcing, to what extent has sourcing from China affected the following performance measures? Scale: 1 = worse by 25 percent; 2 = worse by 11 to 25 percent; 3 = worse by 1 to 10 percent; 4 = no difference; 5 = better by 1 to 10 percent; 6 = better by 11 to 25 percent; 7 = better by 25 percent. ** test score = 4

Given the below expectation outcomes of the sourcing decision, the respondents were asked to rate a number of items (listed in Table 3) that contributed to the difficulties in sourcing from China. The most strongly rated item was the policies of local and federal governments in China (mean score = 4.91, t-score = 4.115; df = 34; p-value = 0.000). Other significant factors were the unpredictable nature of hidden costs in operating in China, and the loss of commercial secrets and IP to Chinese business partners. Further, the last item in Table 3, 'quality in China do not meet standards,' was worded negative and when reversed, resulted in a positive t-score of +2.472 (p-value of 0.019).

Table 3: Difficulties faced in sourcing from China

Difficulties faced*:	Descriptive statistics			One-sample t-test **		
	valid response	mean	std. dev.	t	df	sig. (2-tailed)
Chinese government policies are a major drawback	35	4.91	1.314	4.115	34	0.000
Hidden costs in China are unpredictable	35	4.94	1.413	3.948	34	0.000
Outsourcing has resulted in loss of secrets	35	4.94	1.552	3.594	34	0.001
Outsourcing has resulted in loss of IP rights	35	4.97	1.671	3.439	34	0.002
Cultural differences are a major drawback	35	4.49	1.560	1.842	34	0.074
Overseas inter-business costs are too high	35	4.49	1.560	1.842	34	0.074
Business partners act opportunistically	35	4.40	1.355	1.747	34	0.090
Monitoring and managing performance of vendors is difficult	35	4.49	2.369	1.213	34	0.233
Too difficult to find reliable/trustworthy suppliers	35	4.20	1.677	0.706	34	0.485
There is lack of information to manage all facets of operations in China	35	4.14	1.309	0.645	34	0.523
Overseas shipments take too long	35	4.11	1.510	0.448	34	0.657
Low supply flexibility due to lack of control of suppliers	35	3.97	1.654	-0.102	34	0.919
Low productivity/skills negate low labor costs in China	34	3.88	1.684	-0.407	33	0.686
Industrial relations system in Australia prevents outsourcing to China	35	3.89	1.530	-0.442	34	0.661
Lock-in costs in China are too high	35	3.77	1.374	-0.984	34	0.332
Business partners lack technology for innovation	35	3.74	1.540	-0.988	34	0.330
Work attitudes in China affect deadlines	35	3.71	1.775	-0.952	34	0.348
Quality in China do not meet standards	35	3.31	1.641	-2.472	34	0.019

* Question: To what extent do you agree/disagree with the following? Scale: 1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = neutral; 5 = slightly agree; 6 = agree; 7 = strongly agree.

** test score = 4

Dealing with the Difficulties in Sourcing from China

To cope with the difficulties in sourcing from China, the literature suggests a range of strategies. Many of these are listed in Table 4. Respondents were asked to rate these items as ways in which they dealt with the problems they faced. Table 4 shows that the companies used many of these approaches, with nine out of the fourteen items being statistically significant. These nine items could be grouped into two general factors: those that deal with greater control, and others that coalesce under improved relationships. Specifically, the use of third parties for quality assurance oversight, conducting careful planning and cost-benefit analysis relate to stronger management control of activities of business partners. These are coupled with improved relationships through understanding local culture, improving levels of trust with business partners, building viable networks, having effective communications with business partners, changing product designs to suit local business partners, and developing stability in their relationships with local partners. Further, it would appear that firms are seeking to move away from relationships governed by control to one that is based more on trust.

Table 4: Dealing with the difficulties faced in sourcing from China

Dealing with the problems*:	Descriptive statistics			One-sample t-test **		
	valid response	mean	std. dev.	t	df	sig. (2-tailed)
Use third parties for QA oversight	35	6.11	0.867	14.431	34	0.000
Conduct careful planning/cost-benefit analysis	35	6.06	0.873	13.948	34	0.000
Build viable business networks	35	5.77	0.843	12.429	34	0.000
Develop effective communication with business partners	34	6.12	1.038	11.900	33	0.000
Change product designs to suit local business partners	34	5.94	0.952	11.895	33	0.000
Understand local culture	35	5.80	1.132	9.404	34	0.000
Improve trust with business partners	34	5.59	1.076	8.604	33	0.000
Develop stability in relationships	35	5.14	1.216	5.560	34	0.000
Change balance between trust and control	35	4.63	1.215	3.061	34	0.004
Exercise strong control over business partners	35	4.29	1.673	1.010	34	0.319
Change business partners within China	35	3.69	1.568	-1.186	34	0.244
Reduce inter-firm costs	35	3.34	1.608	-2.418	34	0.021
Withdraw from China and go elsewhere overseas	35	2.57	1.119	-7.553	34	0.000
Stop all offshore activities and return to in-sourcing in Australia	35	1.97	.857	-14.004	34	0.000

* Question: To what extent do you agree/disagree with the following? Scale: 1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = neutral; 5 = slightly agree; 6 = agree; 7 = strongly agree.

** test score = 4

Despite the difficulties faced in sourcing from China, most firms emphatically reject the idea that they would stop their off-sourcing activities and return to in-sourcing in Australia (mean score = 1.97, t-score = -14.005; df = 34; p-value = 0.000). They also do not plan to withdraw from China and source from elsewhere overseas (mean score = 2.57, t-score = -7.553; df = 34; p-value = 0.000). These suggest that firms are very committed to their sourcing practices from China.

CONCLUSIONS

Despite some problems, for example of quality and of control over delivery performance, many Australian companies continue to benefit from 'offshoring' or outsourcing to China. Most were motivated to do so by the 'promise' of cost reduction, with the business benefits being not just profitability improvement, but survival itself. Many of these firms did indeed

achieve reductions in the cost of the inputs to their processes or products, but in many cases the anticipated cost reductions were not matched by those achieved. Nevertheless any significant cost reductions represent a benefit in terms of competitiveness and most firms remain committed to these activities.

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