

A Primer in Strategic Outsourcing

a report by

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Defining Strategic Outsourcing

Today, the notion of an organisation's 'strategy' seems to be defined very broadly. If a decision or an action is considered as being 'strategic', this may mean that it involves the selection of an organisation's goals, that it affects the organisation beyond the short run (i.e. it concerns long-term issues), that it is taken rationally, weighing the costs and benefits of various alternatives, or that the rivals' actions and potential reactions are accounted for. Overall, the concept of something being strategic is anything but clear.¹

To be more precise, this article will employ a concept of strategy based on modern game theory. In a game theoretic sense, a decision is strategic if that decision affects other players' decisions or actions and if the decision-maker is aware of this interrelation and takes it into account in the decision process.² Consequently, game theorists distinguish between an action's direct effect and its strategic effect. The direct effect measures the immediate impact an action has on an organisation's performance. Cutting costs, for example, directly increases a company's profits (as long as everything else remains the same). The strategic effect is the impact that an action has on the rivals' decisions and thereby on the organisation's own performance. For example, cost-cutting may not only have a direct effect on one's own profits, but it may also induce price changes, which may encourage rivals to change their prices as well, which then affects one's own profits again. This indirect chain of causation is what is called a 'strategic effect'. *Figure 1* illustrates this idea.

Concerning strategic outsourcing, it is important to consider the direct and the strategic effects of an organisation's outsourcing decision. In this context, it is useful to note that more traditional approaches towards outsourcing have focused solely on the direct effect. More specifically, outsourcing has typically been considered to be profitable if it is cheaper to buy goods or a service over the market than to produce it in-house. To put it quite simply, the traditional approaches suggest that the production of goods or a service should only be outsourced if this helps cutting costs, at least in the long run. Hence, the focus is only on the direct effect of outsourcing. However, outsourcing may also have a strategic effect, as it also affects the rivals' behaviour and thereby one's own profits in turn. If outsourcing decisions affect the rivals' outsourcing decisions, we can speak of strategic outsourcing.

What the Literature Tells Us

The economics literature has approached outsourcing from three different perspectives.

Transaction Cost Analysis

Following Coase (1937), it has often been argued that a company should base its 'make or buy' decisions on a comparison of the costs associated with internal transactions and market transactions, respectively.³ As both the natural incompleteness of contracts and asset specificity complicate the organisation of transactions over the market

1. R P Rumelt, D E Schendel and D J Teece (1994), *Fundamental Issues in Strategy: A Research Agenda*, Harvard Business School Press, Cambridge, MA.
2. M Baye (2003), *Managerial Economics and Business Strategy*, 4th edition, Irwin, Boston.
3. R Coase, "The Nature of the Firm", *Economica*, 4 (1937), pp. 386–405.
4. O Williamson (1985), *The Economic Institutions of Capitalism*, Free Press, New York.
5. S Grossman and O Hart, "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration", *Journal of Political Economy*, 94 (1986), pp. 691–719.
6. O Hart and J Moore, "Property Rights and the Nature of the Firm", *Journal of Political Economy*, 98 (1990), pp. 1,119–1,158.
7. S Grossman and E Helpman, "Integration versus Outsourcing in Industry Equilibrium", *Quarterly Journal of Economics*, 117 (2002), pp. 58–119.
8. B Holmström and J Roberts, "The Boundaries of the Firm Revisited", *Journal of Economic Perspectives*, 12 (1998), pp. 73–97.

considerably, the balance is often tilted towards in-house production and against outsourcing. From this point of view, it is best to outsource standardised goods and services and produce more specific parts in-house. Much of this research, however, has focused exclusively on vertical integration rather than outsourcing or vertical disintegration.⁴⁻⁸

Globalisation

An important aspect of outsourcing is the fragmentation of production processes across national borders. Therefore, one may view outsourcing as a phenomenon pertaining to international trade. In a prominent study, Feenstra and Hanson (1999) show that international outsourcing may affect the factor productivity and factor rewards even in countries with large home markets such as the US.⁹ Connecting globalisation with outsourcing, McLaren (2000) further argues that the increasing international openness of markets ‘thickens’ the markets for outsourcing services, allowing companies to become leaner and less integrated.¹⁰

Product Market Competition

It is evident that the business environment may also play a crucial role for deciding about a company’s production mode, as Domberger (1998) has pointed out in a number of useful case studies.¹¹ In this line of reasoning, Chen (2002) points towards the role that economies of scale can have in outsourcing decisions.¹² More recently, Shy and Stenbacka (2003) have demonstrated that companies may use their production mode as an instrument of strategic product market competition when they face a trade-off between lower fixed cost and higher variable cost.¹³

This article further pursues the issue of how companies decide strategically about outsourcing, i.e. analysing how outsourcing decisions may affect product market competition and vice versa. A taxonomy of outsourcing strategies can be used to characterise the way companies interact when they decide about outsourcing and compete in the product market.

A Taxonomy of Outsourcing Strategies

Consider a case where two companies, say A and B, sell a final product to their customers. To produce

Figure 1: Direct and Strategic Effect

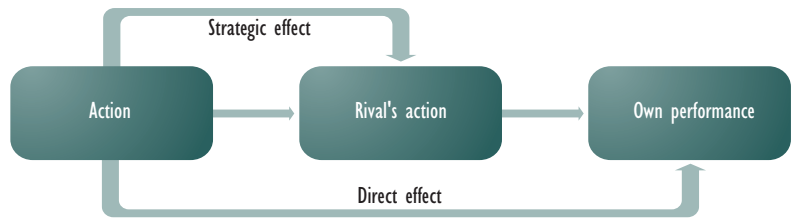


Table 1: Taxonomy of Outsourcing Strategies – Should A Outsource for Strategic Reasons?

Outsourcing by B ...	Outsourcing by A ...	
	... prevents outsourcing by B	... triggers outsourcing by B
... increases A's profits	No 'puppy dog'	Yes 'fat cat'
... decreases A's profits	Yes 'top dog'	No 'lean and hungry look'

the final product (e.g. computers), companies require input goods (e.g. hard drives) that they produce in-house. Now, suppose that, rather than producing in-house, companies may decide to buy the input goods from an input market; more specifically, assume that A decides about outsourcing before B gets to decide. Clearly, when deciding about outsourcing, A will have to consider the effects of its decision on B’s outsourcing decision and how the latter affects its own profits in turn.

These considerations will be simple if B’s decision is not affected by A’s decision; A will then simply have to check whether outsourcing increases its own profits (independent of B’s decision) and choose its production mode accordingly, i.e. the outsourcing decisions of the two companies are non-strategic in nature. In game theoretic language, outsourcing (or not outsourcing, respectively) is a dominant strategy for A, i.e. it is always more profitable (or always less profitable) to outsource production of the input good, irrespective of B’s decision.

If, however, A’s decision affects B’s decision, things become more complicated. To better understand this more complicated case, we use the standard taxonomy of business strategies introduced by Fudenberg and Tirole (1984), as summarised in Table 1.¹⁴ (A more formal treatment is found in Buehler and Haucap (2003).)¹⁵

9. R Feenstra and G Hanson, “The Impact of Outsourcing and High-technology Capital on Wages: Estimates for the United States 1979–1990”, *Quarterly Journal of Economics*, 114 (1999), pp. 907–940.
 10. J McLaren, ““Globalization” and Vertical Structure”, *American Economic Review*, 90 (2000), pp. 1,239–1,254.
 11. S Domberger (1998), *The Contracting Organization: A Strategic Guide to Outsourcing*, Oxford University Press, Oxford.
 12. Y Chen (2002), *Vertical Disintegration*, University of Colorado at Boulder (mimeo).
 13. O Shy and R Stenbacka, “Strategic Outsourcing”, *Journal of Economic Behavior and Organization*, 50 (2003), pp. 203–224.

First, consider the hypothetical case where B will outsource only if A does not, i.e. outsourcing by A would actually prevent outsourcing by B (the left column in the table). In this case, A should not outsource for strategic reasons if outsourcing by B increases its profits, i.e. A should adopt a ‘puppy dog’ strategy. It should abstain from outsourcing (to appear ‘soft’ or inoffensive) and let its rival B outsource. Conversely, if outsourcing by B decreases A’s profits, A should adopt the ‘top dog’ strategy, i.e. it should choose outsourcing so as to look tough or aggressive.

Second, consider the case where B will outsource if, and only if, A has already outsourced, i.e. outsourcing by A triggers outsourcing by B (the right column in the table). In this case, A should outsource for strategic reasons if outsourcing by B increases its profits, i.e. A should adopt a ‘fat cat’ strategy. It should choose outsourcing (to appear soft or inoffensive) so as to trigger outsourcing by B. Finally, if outsourcing by B decreases its profits, A should adopt the ‘lean and hungry look’ strategy, i.e. it should not outsource (to look tough or aggressive) so as to avoid B’s outsourcing.

Applying the Taxonomy

On this level of generality, A may adopt each of the four strategies outlined previously. However, if there is more structure to this simple model, it becomes clear that A will typically not adopt the top dog strategy. To see this, assume that a company’s decision to outsource production has the following two effects suggested by Shy and Stenbacka (2003):¹³

- it eliminates the fixed cost of the input’s in-house production; but
- the market price for the goods is higher than the goods’ unit cost if produced in-house.

In this case, an outsourcing company typically becomes a softer competitor, which generally increases its rivals’ profits. Under these circumstances, a situation where B’s outsourcing decreases A’s profits – given that A has not outsourced, and input prices increase – is very unlikely. As a result, if A has not outsourced, it is better to stick to this decision for strategic reasons, as outsourcing by A would prevent B from outsourcing, which is undesirable from A’s point of view (since it benefits from B’s outsourcing). Therefore, the puppy dog strategy should be considered; A will adopt it so as not to prevent outsourcing by B, which will then become a less aggressive competitor. Intuitively, if A does not outsource, B will do so and increase its own unit cost, i.e. there is an element of raising rivals’ cost

to this strategy,¹⁶ even though the cost increase of B is self-inflicted. This will typically be the case if B would not outsource if A also outsources because of significant input price increases, and if the fixed cost that A would save by sourcing out is lower than the benefit that results from B’s self-inflicted increase in variable costs.

The fat cat strategy, in turn, has a collusive element to it. In this case, A’s outsourcing triggers further outsourcing by B, giving rise to an outsourcing ‘wave’. However, A will only be willing to trigger an outsourcing wave if the mutual increase in unit cost sufficiently softens competition in the product market such that, overall, its profits are higher in spite of higher unit costs. This may be the case if the input price increase is not too steep. Finally, the lean and hungry look strategy is the reverse of the fat cat strategy. It is A’s strategy to avoid an outsourcing wave if it does not sufficiently soften competition in the product market so as to compensate for the higher unit cost. This is likely to happen if the additional demand for inputs would lead to significant input price increases.

Conclusion

It has been argued here that outsourcing decisions should not only be based on the direct effect that outsourcing has on an organisation’s profits, but also on the strategic effects that affect these profits indirectly. When strategic effects are taken into account, three outsourcing strategies may emerge.

- If additional demand in input markets generates mild input price increases, and the fixed cost savings from outsourcing are lower than the benefit that results from rivals sourcing out, a company should adopt a puppy dog strategy and not outsource so as to benefit from its rivals’ outsourcing.
- Even if input price increases are significant, outsourcing will be profitable if the increase in input prices softens competition in the product market considerably. In this case, a company may adopt a fat cat strategy and outsource so as to trigger further outsourcing by rival organisations, giving rise to an outsourcing wave.
- Finally, if the input price increase due to outsourcing is substantial, a company may adopt a lean and hungry look strategy to avoid an outsourcing wave. This will be the case if outsourcing does not sufficiently soften competition in the product market so as to compensate for the higher unit costs. ■

14. D Fudenberg and J Tirole, “The Fat-Cat Effect, the Puppy-Dog Ploy and the Lean and Hungry Look”, *American Economic Review*, 74 (1984), pp. 361–368.

15. S Buehler and J Haucap (2003), “Strategic Outsourcing Revisited”, *SOI Working Paper 0305*, University of Zurich.

16. S C Salop and D T Scheffman, “Cost Raising Strategies”, *Journal of Industrial Economics*, 36 (1987), pp. 19–34.