

Outsourcing service production in the public sector: Are we addressing the right question?

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Outsourcing public service production to private sector companies seems to be a never-ending theme for discussion which is often linked to political considerations about the appropriate size of the public sector as well as the level of taxation. Many organizations including, e.g. the Confederation of Danish Industry and worker organizations like FOA have, of course, a strong interest in the issue. One position argues that public tenders are clearly beneficial and improve quality while lowering costs, while another position argues that evidence regarding the results is mixed while it is probably only possible to achieve minor cost reductions.

The share of public services provided by private companies is slowly increasing and is today around 25 % of the 385 billion DKK spent on public services (Productivity Commission (2014b, p. 148). This is mainly due to public tenders or citizens selecting a private provider for a public service, e.g. elderly care, in areas where it is mandatory for municipalities to offer citizens a choice of service providers. It can be difficult to demonstrate how price and quality are actually influenced by public tenders as it is almost impossible to determine what the price and quality would have been, if the municipality had not issued a call for tenders (c.f. Kristensen 2014). However, it is generally believed (see, e.g. the argument put forward by the Productivity Commission, 2014a) that: (a) effective competition in the area of public services increases productivity as it leads to lower costs, especially when economies-of-scale are prevalent; (b) improved cooperation between the private and public sectors increases innovation and; (c) increased use of specialized firms improves managerial focus, thus leading to more effective service provision. Our aim with this editorial is *not* to argue for more or less outsourcing of public services. Rather we suggest that the decision to engage private companies or not to deliver services should be based on a concrete analysis of the objectives of the outsourcing decision (or more generally the make-or-buy decision in economic theory), a better understanding of how the improvements will be realized and what is expected from the private-public partnership. Specifically, we argue that

more attention should be directed towards understanding the dynamics at work when private companies and the public sector deliver the same services simultaneously. This phenomenon, known as *concurrent sourcing*, is widespread in both the private and public sector, but seems to have been overlooked in discussions about outsourcing service production in the public sector.

From competition to productivity

The benefits resulting from improved competition are frequently mentioned as the main argument for outsourcing public services: The more competitors and the fewer barriers to competition, the higher productivity, the better market forces function and the lower the prices. This basic message of economics 101 has been well supported empirically and, perhaps not surprisingly, also permeates the recommendation of the Productivity Commission (2014b). If market forces are to function, we of course need to have a market; and no market exists without potential for exchange. Thus, it follows that we need private companies to deliver public services in order to reap the benefits of competition.

However, the theory does not tell us exactly how many suppliers are needed, or what share of a specific service should be outsourced to obtain most of the benefits from increased competition. Further, what does outsourcing a certain percentage of services to the private sector imply for the functioning of the market forces? If we assume that no specific share of outsourcing is optimal, it follows that politicians should avoid setting targets for outsourcing. It may be that the “optimal” level of outsourcing depends on how the service delivery system is structured in, e.g. a specific municipality, while factors inherent in the types of service may be important.

The make or buy decision – is it an either-or question?

The question implied by the discussion above is whether an organization should buy specific components or services or whether it should produce them internally? This is a question all public sector organizations have to answer. Private firms face a similar problem. However, the question whether to make *or* buy may be the wrong question.

With the term *concurrent sourcing* researchers have recently focused on an alternative solution. Concurrent sourcing refers to “backward, partial vertical integration of a homogeneous good (or service) by a single firm” (Parmigiani, 2007, p. 285). So concurrent sourcing occurs when a firm or public organization buys a good or service from an external supplier while simultaneously producing the same good or service internally. For example, a Danish municipality engages in concurrent sourcing when it has an internal unit that maintains its roads, while simultaneously contracting a private firm to also conduct road maintenance. Similarly, concurrent sourcing occurs when one or more nursing homes in a municipality are operated by private companies while the remainder of the nursing homes is run by the municipality.

When we focus on the provision of basic welfare services such as care for the elderly, primary schools and various social services as well as hospital services provided at the regional level, it can generally be observed that responsibility for service provision is almost never outsourced to private sector companies. When private hospitals deliver services in specific areas, we almost always see that similar services are being delivered by public hospitals simultaneously. Also, with respect to primary schools, to our knowledge, no municipality has considered relinquishing responsibility for the public school system. Further, most municipalities prefer to have a mixture of social services, some of which are bought from private companies, some from other municipalities while others are produced internally. The question is whether this is a specific public sector phenomenon and how can it be explained?

Research on concurrent sourcing

A brief review of the literature on concurrent sourcing allows us to identify some important conclusions. *First*, concurrent sourcing is a widespread phenomenon. For example, Parmigiani (2007) focuses on the sourcing decisions of metal stamping and powder metal firms for production tooling and services, and she finds that 28% of the outsourcing decisions in her sample resulted in concurrent sourcing. Heide *et al.* (2014) find similar results among clothing manufacturers where 30 % of the firms used concurrent sourcing. In Scandinavia, case studies from the wood product manufacturing industry confirm that concurrent sourcing is widely used (Nordigården *et al.*, 2014). A few studies also show the significant use of concurrent sourcing in the public sector (e.g. Hefetz *et al.*, 2014).

Second, empirical results suggest that concurrent sourcing is a stable, equilibrium sourcing mode (e.g. Parmigiani, 2007; Heide *et al.*, 2014). Thus, concurrent sourcing is not merely a temporary phenomenon that can be observed when firms are in the process of outsourcing or insourcing production. Furthermore, concurrent sourcing is a unique sourcing mode that is empirically different from other sourcing arrangements such as long-term contracts between buyers and suppliers, and it also has attributes which are different from the average attributes of internal production and external suppliers (Parmigiani, 2007). In other words, there may be important synergies between internal production and the use of external suppliers.

Third, economic models suggest that the total cost of sourcing may be lower when internal production is combined with external suppliers, and that the cost depends on the relative quantities produced internally and sourced from external suppliers (e.g. Puranam *et al.*, 2013). Therefore, firms and public organizations should ask the question: how much of a certain good or service should we produce ourselves and how much should we purchase?

Can theory explain practice?

The decision to produce internally or to purchase from external suppliers depends on the relative transaction and production costs of the two solutions and there are several theoretical perspectives that attempt to explain this choice. Three of the most prominent theoretical perspectives are transaction cost theory, resource-based theory, and neoclassical economics.

Neoclassical economics explains the choice between to produce or to purchase by the ability of a firm to operate internally at efficient production scales. If a firm is able to produce efficiently in-house, then the solution is to produce in-house. However, if small scale production makes in-house production inefficient, then the firm should use external suppliers. External suppliers can supply more customers thereby exploiting economies of scale in the form of lower production costs.

Transaction cost theory assumes that production costs are lower when a firm uses external suppliers. However, the use of external suppliers may result in lower product and service quality, while they may refuse to adapt, or may raise prices or in other ways act opportunistically when they have the power to do so. This leads to higher transaction costs. In order to avoid opportunistic suppliers, firms choose long-term contracts with external suppliers or they internalize production.

Resource-based theory does not assume that production costs are lower when firms use external suppliers. Instead, the theory suggests that the choice between internal production and external suppliers depends on who possesses superior production capabilities and resources. If the external supplier has superior production capabilities and hence low production costs, then the firm in question should source from the external supplier. On the other hand, superior internal resources and capabilities make in-house production efficient.

However, these three perspectives do not immediately explain concurrent sourcing. They answer the produce-or-purchase question, but do not consider concurrent sourcing and the decision regarding how much to purchase and how much to produce. Therefore, the perspectives need to be supplemented by economic explanations for concurrent sourcing.

Towards new theories

There may be several reasons why concurrent sourcing has lower total costs than in-house production or external suppliers (cf. Nordigården et al., 2014). With concurrent sourcing it is possible to use information from in-house production to evaluate and control external suppliers and vice versa. A small in-house production also demonstrates the ability to further integrate and hence replace external suppliers with in-house production. This positive effect of concurrent sourcing has been empirically supported by Heide *et al.* (2014) who find that, in a concurrent sourcing context, supplier opportunism towards purchasers is reduced when purchasers monitor suppliers, whereas monitoring in a singular sourcing context is less effective.

In-house production also increases a purchaser's ability to transfer knowledge to and receive knowledge from the external suppliers. Therefore, concurrent sourcing makes it easier for the buyer and supplier to learn from each other and thereby take advantage of both internal and external resources and capabilities. Since a firm facing technological uncertainty often needs a broad technological knowledge base, it is more likely to use both internal and external sources to maintain and develop this knowledge base. Therefore, technological uncertainty increases the likelihood of concurrent sourcing (Parmigiani, 2007).

Finally, with unpredictable demand, firms sometimes face demand that exceeds their internal production capacity. In such cases, they may choose to expand capacity or use existing capacity more intensively. However, both solutions raise production costs and may not be technologically feasible in the short term. With external suppliers willing to satisfy varying demand, concurrent sourcing can be used if a firm has too little internal capacity, while internal excess capacity may be avoided.

Is concurrent sourcing the solution?

Concurrent sourcing has many advantages, but these advantages do not come without cost. For example, it can be costly to set up and manage both in-house production and external suppliers. The division of production among internal and external production facilities may make it impossible to operate at an efficient scale, while the addition of in-house production may damage relations with an external supplier.

It is difficult to determine exactly when public organizations and firms should use concurrent sourcing. The literature has identified a number of advantages and disadvantages of concurrent sourcing compared with alternative sourcing modes. Some of the key benefits of concurrent sourcing include an improved ability to monitor suppliers due to reduced information asymmetries, increased learning due to the combination of knowledge gained from in-house production and more diverse knowledge from external sources as well as protection against supplier opportunism (cf. Parmigiani 2007) – especially in the presence of performance uncertainty (Dutta *et al.*, 1995), and information asymmetries (Heide, 2003).

Such insights give us an idea as to when the synergies and other advantages connected with concurrent sourcing make it more efficient than alternative sourcing modes. If we, for instance, compare home care according to the Act on Social Services (Serviceloven, §83) with more complex rehabilitation services, both performance uncertainty and informational asymmetries are larger in the latter case as is the learning potential from combining general knowledge with deep tacit domain-specific knowledge, thereby increasing the likelihood that the benefits of concurrent sourcing outweigh, e.g. economics of scale and a higher degree of outsourcing.

However, this does not provide managers with concrete guidance about when to choose concurrent sourcing, and the choice is further complicated by the many possible types of concurrent sourcing that exist. Besides deciding how much to buy and how much to make, firms also have to decide what kind of contract and relationship to develop with the external supplier. Without understanding the dynamics of and synergies between in-house production and external suppliers in a specific service area, it may be impossible to answer whether public or private firms should produce public services. Consequently, we propose that more effort should be put in understanding the many alternative sourcing modes theoretically as well as practically. Additional reports which survey the use or otherwise of private suppliers, or which calculate potential based on more or less unrealistic assumptions will probably not be able to answer how the production of public services is best organized.

In light of the fact that concurrent sourcing is widely adopted, it is surprising that we seem to have little knowledge about the advantages of different types of concurrent sourcing, and thus why concurrent sourcing may be more efficient than alternative modes of sourcing. Hopefully, greater insight into this phenomenon will be obtained as more studies focus on explaining the advantages and disadvantages of alternative sourcing arrangements in the public sector.

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