

AN INVESTIGATION INTO THE IMPACT OF 'LEAN' UPON SMALL BUSINESS SUPPLY TO THE UK PUBLIC SECTOR

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ABSTRACT. The focus of this paper is upon the relationship between public sector procurement and small business. It explores whether the signs that the UK public sector is now becoming more interested in the adoption of lean approaches has particular consequences for small firm suppliers. Evidence from a survey of UK local government procurement officers determines a number of developments that appear to adversely affect smaller suppliers: a smaller supply base, and longer and larger contracts. Whilst these can be associated with lean supply, they alone do not represent a lean approach. However, a more complete and rigorous adoption of lean supply practices by local government may benefit SMEs. However further study both around lean supply and small firm suppliers, and to follow the progress of the UK public sector's adoption of lean is required to ascertain firmer conclusions.

INTRODUCTION

In the UK public sector, procurement has been identified by Government as a vehicle that can be used in pursuit of a number of policies. Whilst its main role is to aid the provision of services in the most cost-effective manner, under the auspices of value for money (HM Treasury / Cabinet Office, 1998; OGC, 2000) there are many other objectives that can influence the procurement decision. For example it can be used to encourage public sector support of small business, the environment, social enterprise and sustainability (NAO, 2004). As its role has developed, procurement has become a more prominent activity and has been subject to numerous developments and initiatives.

There have also been many widely documented developments affecting procurement, and more broadly supply chain management, beyond the public sector. For example the shift from a traditional,

adversarial role to a partnership dominated activity (Parker and Hartley, 1997), and the rise from support function to strategic activity (Cousins et al, 2006). Alongside these changes has been the emergence of the concept known as lean. Whilst the concepts of lean production and the lean enterprise have been a part of supply chain management debate in the private sector for many years (for example see Hines et al, 2004), their association with the public sector has been patchy, but more recently has become of greater interest to a UK Government continually interested in eliminating waste, increasing value and meeting customer expectations.

The focus of this paper is upon the relationship between public sector procurement and small business. Developing prior research, which took a policy based approach to the issue, it begins to explore how the interest in lean by the UK government might impact upon this relationship. The paper considers the implications of a lean approach to procurement upon small firms, firstly by examining previous research evidence which is mainly from the profit making sector. It then presents and examines evidence from the UK public sector, specifically local government. The local government sector has been chosen as it is subject to a common procurement framework, the National Procurement Strategy for Local Government (ODPM, 2003), and because its local economic development role gives it a direct interest in local, frequently small, firms.

UK PUBLIC PROCUREMENT AND SMALL FIRMS

Procurement has become an increasingly significant activity for the UK public sector over recent years (Erridge, 2007; Loader, 2007). Its role is broad and ever more demanding, with a remit to provide savings (Gershon, 2004), improve service delivery (OGC / Cabinet Office Regulatory Impact Unit, 2003) and overall to provide value for money (HM Treasury / Cabinet Office, 1998). Erridge (2007) has determined that procurement attempts to fulfil 3 categories of goals: regulatory, commercial and socio-economic goals. This paper's interest is with an aspect of the latter category, which is explained as "the use of public procurement to support wider government policy" (Erridge, 2007, p1025), here specifically the support of small firms.

Among a plethora of small business support initiatives, government procurement has long been recognised as a means of delivering small business policy (Bannock and Peacock, 1989; Storey, 1994). However, whilst procurement is an attractive means of support, of benefit to small and medium enterprises (SMEs) and economic development (Bovis, 1996) its implementation is not straightforward. The broad range of goals can conflict with each other, often at the expense of the wider policy objectives. Erridge (2007) determined that the predominant emphasis is currently upon the market aspects rather than the socio-economic goals, whilst Loader (2007) found evidence that although public sector procurement officers were sympathetic to the needs of small firms, in practice their use was hard to justify against a requirement to demonstrate value for money.

This paper is keen to explore whether the signs that the UK public sector is now becoming interested in the adoption of lean approaches has further consequences for small firms.

Lean and Public Sector Procurement

The primary objective of public sector procurement is value for money: “the optimum combination of whole life costs and quality to meet the customers’ requirements” (HM Treasury, 1995, pp. 2-3). It is therefore understandable that a lean approach, with its emphasis upon waste elimination, value and customer satisfaction (Hines et al, 2004) may be an attractive way forward for the UK public sector. The elimination of waste in order to “reinvest released resources in value creation” (Jones and Mitchell, 2006, p6) echoes the message contained within Gershon’s 2004 report: *Releasing resources to the front line*.

There is growing evidence that lean is featuring more prominently in the public sector, especially within the National Health Service (Radnor and Boaden, 2008), where its use is advocated, and help and advice on lean implementation are provided, by the NHS Institute (NHS Institute, 2008). An evaluation of the applicability of lean to the public sector carried out by Warwick Business School on behalf of the Scottish Executive concluded from their review of literature and their own research that lean can be successfully adopted by the public sector, but “is most suited to organisations with high volume, repeatable tasks that allow greater standardisation and integration, supported by a less hierarchical management structure that allows empowerment and engagement of the workforce” (Radnor et al, 2006, p5). Of more direct

relevance to this study, Erridge and Murray (1998) determined that lean principles could be applied successfully within local government, bringing a number of possible benefits such as reduced inventory, improvements in costs, higher quality products and service, less inspection and improved relationships with suppliers and customers.

What we understand by lean has developed over time, as documented by Hines et al (2004). In their examination of lean developments they identify the evolution of the value stream in the 1990s as providing the link between lean and the supply chain, thus incorporating procurement, or lean supply. Radnor et al (2006) determined that the literature can be distinguished according to its focus, either “focus on the organisation (as in Lean Manufacturing or Lean Service), the supplier (Lean Supply) or customer end (Lean Consumption)” (Radnor et al, 2006, p.88). However, whilst lean supply can be considered as a distinct aspect of lean within the literature, its significance is the contribution it makes as an element of the lean approach, albeit a critical one (Erridge and Murray, 1998). Both Womack et al (1990) and Lamming (1993) considered the characteristics required for lean supply, although Erridge and Murray (1998) raise doubts about the existence of an acceptable definition of the term. Much debate centres upon the nature of the relationship between customer and supplier. Lamming’s framework outlines the need for collaboration but explains the need for a relationship that goes beyond partnership. Womack et al stress the need for a co-operative relationship but one accompanied by “a fundamental shift away from a power-based bargaining relationship” (Womack et al, 1990, p.161). Cox, in attempting to define the lean approach identifies the need to “develop close, collaborative, reciprocal and trusting (win-win) rather than arms-length and adversarial (win-lose), relationships with suppliers” (Cox, 1999, p.167).

It is also advocated that within a lean approach suppliers are selected “on the basis of past relationships and a proven record of performance” (Womack et al, 1990, p146). The public sector traditionally adopted an adversarial arm’s length approach to procurement, which would not be compatible with lean practice (Lamming, 1993; Cox, 1999). However developments have increasingly called for public procurers to embrace greater use of partnerships in their supply relations (HM Treasury, 1995; HM Treasury / Cabinet Office, 1998) which is a move towards lean practice, although as stated, not the same. According to Lamming (1993),

partnership sourcing maintains an unequal relationship, comprising senior and junior partners; lean requires a shift towards striving for equality. Additionally, despite these encouragements towards closer relationships, the public sector purchaser is still constrained by the need to adopt procedures that achieve accountability through demonstrating transparency and probity, Erridge's regulatory goals (Erridge, 2007).

Lean Supply and Small Suppliers

In this section the paper considers in greater detail the possible impact of lean supply practices upon small business suppliers through consideration of previous literature. Whilst there is a literature that examines SMEs and supply chains, there is little attention given to lean and the smaller firm, but especially lean supply. Therefore this review examines the broader coverage of both the lean and small business research literatures.

The previous section highlighted the importance of the customer supplier relationship and the need for co-operation and collaboration. It is useful now to consider how this manifests itself in practice, for example in relation to supplier selection, and contract arrangements, and then to examine the implications for small suppliers.

Selecting suppliers according to past relationships and performance, as advocated by Womack et al (1990) does not ostensibly preclude small firms. However, Arend and Wisner (2005) cast doubt on the ability of small firms to meet these requirements, suggesting that they are less likely to have the background to be able to build a reputation and trust, or the management expertise to deal with complex networks and they also suggest that the lack of a shared culture, with larger partners in particular, will hinder collaborative relationships. Loader (2005) determined that small firms did raise exactly this selection basis, which requires them to demonstrate a good track record, as a barrier to gaining entry and establishing procurement relationships with public sector bodies. However, the development of collaborative relationships within a lean approach can extend to include small firms according to Karlsson and Ahlstrom (1997). They provide evidence of small firms successfully developing and engaging in collaborative networks, where benefits can accrue both to the firm and the network.

Closer relationships may also affect the type of contract arrangements entered into and the number of suppliers that purchasers

engage with. New and Ramsey (1997) claim that, typically, a lean approach would lead to fewer suppliers and longer contracts; a reduced supply base enabling purchasers to develop improved relationships with a small number of supplying companies (Lamming, 1993). It is the consequence of this on the contract in particular that may be relevant. New and Ramsey (1997) determine that longer contracts are necessary, but it is also likely that with fewer suppliers, contracts will be aggregated thus increasing contract scale. Both of these aspects are likely to adversely affect small firms. For longer contracts they are less able to commit the required resources over such a period of time (Arend and Wisner, 2005). Similarly increased contract scale, requiring greater capacity from supplier organisations is difficult for single supplier small firms. Bovis (1996) determined that a majority of SMEs found larger scale public contracts to be an inhibiting factor to supply. Additionally, larger contracts which go out to tender would disadvantage small firms that find this more expensive (Curran and Blackburn, 1994), although this is less likely within a lean approach. Supplier consortia could provide a means for small firms to enhance their capacity. However the evidence suggests that such arrangements prove difficult for small businesses, because of their characteristics and attitudes, especially as a consequence of the dominant nature of the owner-manager role (Quayle, 2002; Morrissey and Pittaway, 2004).

The smaller supply base of the lean approach sees relationships enhanced by the adoption of a supply pyramid whereby suppliers are positioned around a tiered structure, according to the nature of their relationship with the customer (Womack et al, 1990; Lamming, 1993). Typically there would be greater scope for smaller firms in the second tier (Lamming 1993). Whilst this may take the form of direct supply, it is more likely to be supply via a first tier supplier, in effect a form of sub-contracting. The sub-contracting role of the small firm has been examined extensively, and whilst a variety of relationship paradigms have been expounded (for example Rainnie, 1989), the majority view appears to see the small firm as the lesser partner. Curran and Blackburn (1994) recognise that the arrangement provides the benefit of a secure customer but also identify the usual inequitable outcome whereby most of the benefits accrue to the larger partner. Rainnie (1989) however depicts a variety of possible relationships recognising small firms to be diverse in nature and circumstance, thus leading to differing outcomes. 'Dependent' small firms mainly match the traditional sub-contracting

relationship, where the larger customer is dominant; a 'competitive dependent' relationship sees small firms utilise their resources to their maximum to pursue competition against larger rival suppliers; 'old independent' small firms supply niche markets, but characteristically have low margins and so are not attractive to larger suppliers; and finally, the 'new independent supplier', a small firm again in a niche market but normally one that is new and developing and thus potentially attractive to larger suppliers eventually. However these models appear to be more resonant with the partnership approach to procurement, producing Lamming's (1993) unequal relationship, rather than a lean approach where the purchaser and supplier should be working together for mutual benefit, including those relationships between first and second tier suppliers (Womack et al, 1990).

Lamming (1993) addressed the idea of unequal partners in considering how suppliers should approach, or position themselves with, purchasers. He set out two model strategies, the key player and the loyal collaborator strategies. He suggests that the latter does allow the lean approach to adopt an unequal collaborative partnership, where the supplier is a loyal and responsive, but unequal partner. The model incorporates a number of features, including: being responsive to customer demands relating to delivery, quality, and price; providing direct supply either as a first-tier or second tier supplier; having a growth strategy; having an international presence in order to assist the purchaser in their global supply; being able to compete on the basis of developing a close relationship; and being able to provide flexibility of supply. Based upon an analysis of the automotive sector, some of the model's features do not have relevance for a public sector purchasing organisation and especially a local authority delivering services at a local level.

However, some of the features just outlined within the loyal collaborator model could be associated with small and medium suppliers, thus providing some scope for small firms to contribute more effectively and so benefit from a lean approach. SMEs are generally recognised as being more flexible than large organisations and so able to respond quickly to customer demands (Beaver and Prince, 2004). This fits in well with current thinking on lean where the customer perspective is now critical to the achievement of value (Jones and Mitchell, 2006). Whilst they may not be able to utilise these attributes across all procurement activity, they may be able to develop niche supply markets and provide value via quality and differentiation, although not on cost (Arend and

Wisner, 2005; Beaver and Prince, 2004). Small firms that operate in a market with low contestation, supplying goods that cannot be perfectly imitated, possess the means, under a resource based model of the firm, to achieve a sustained competitive advantage (Barney, 1991; Cox, 1999). Moreover, Karlsson and Ahlstrom (1997), examining the applicability of lean to smaller firms, determined that SMEs are capable of achieving competitive advantage by focusing upon their own areas of expertise.

As indicated previously, a further aspect of the lean approach is the desire of the collaborating partners to work together to achieve mutual benefit (Womack et al, 1990; New and Ramsay, 1997), although questions exist over the sharing of such benefit. Benefit can be achieved through enhanced co-operation and the sharing of cost information. However Storey and Sykes (1996) call into question whether small firm suppliers can be the recipients of such benefit. They are concerned about the dependency of small suppliers upon one or few large customers, especially where the customer may have required a high level of product specification, but also has an awareness of the (small) sub-contractor's costs. They see this as weakening the bargaining position of the small supplier, resulting in lower profit margins and consequently, an inability to build up retained profits. It is recognised that cost transparency, a requirement for lean supply, does present a challenge to customers and suppliers, whatever their size, but it is seen as fundamental as a means to work together to reduce costs (Lamming, 1993). Cox (1999) states that lean must produce additional value for everyone participating in the supply chain and indeed Erridge and Murray (1998) found that mutual benefit did result, although not necessarily shared equally between purchaser and supplier. In light of the positive outcome claimed for their lean experiments they consider that this unequal but mutual benefit, alongside a noted absence of buyer dominance in the relationship might satisfactorily explain the benefits of lean supply.

The literature has suggested a range of issues of relevance to small suppliers working within a lean environment. Whilst some of the probable outcomes, such as longer and large contracts, appear daunting and disadvantageous, the ability to work closely with procurers in a collaborative relationship is possible. This is likely to be especially fruitful for a lean approach when supply relates to a specialist service or product where the small firm is maximising its strengths.

METHOD

This study examines the relationship between UK public sector procurement and small business. Specifically it attempts to determine whether there are procurement practices in place within UK local government that can be associated with the lean approach, and to explore whether those practices have consequences for SMEs. It was decided that a survey would most effectively provide this type of evidence. Accordingly, each of the 388 local authorities (LAs) in England was invited to participate in the study by completing an emailed survey. One hundred surveys were returned representing 105 authorities out of 388 (two were received from formal procurement partnerships), a response rate of 27%. The survey comprised a mixture of open and closed questions, and attitude statements were used to elicit information about current practice and the views of procurement officers. The content was derived from the body of literature surrounding the lean concept, and sought to determine evidence of characteristics and practice typically associated with lean supply, but with an emphasis on those of especial relevance to small firm suppliers.. The questionnaire did not mention either the focus upon SMEs or lean, until the final section when participants' awareness of the lean concept was sought.

EVIDENCE AND DISCUSSION

The study is examining procurement within local government in England which presents a homogenous group in terms of the procurement environment. Within England, local government is structured in one of two ways. It can take the form of a single tier authority, which is responsible for all local authority functions, or can adopt a two tier system whereby responsibilities are divided between district and county levels. The survey was sent to all 388 authorities and replies received from 105. The break down by type is shown in Table 1. The responses reflect closely the split between single and two tier authorities, and apart from London Boroughs being slightly over represented, the split within tiers demonstrates an appropriate range.

TABLE 1
Breakdown of Survey Respondents by Authority Type

Authority Type	Number surveyed, by type		Replies received	
	Number	%	Number	%
Single tier authorities				
Metropolitan Districts	36	9	8	8
London Boroughs	33	9	14	13
English Shire Unitary	47	12	11	10
Sub-total	116	30	33	31
Two tier authorities				
County Councils	34	9	7	7
District	238	61	65	62
Sub-total	272	70	72	69
Total	388	100	105	100

Source: Government Association (2008).

The evidence from the survey determines the existence of some of the issues highlighted in the literature review. This is demonstrated in the responses to a range of attitude statements, where participants were asked to state the extent of their agreement or disagreement, on a 5 point Likert scale.

The responses in Table 2 demonstrate that maximising purchasing power is a dominant influence. This is not surprising given its encouragement by the Office of Government Commerce (OGC, 2003) and HM Treasury (2007). This view is supported in practice by the significant extent to which local authorities adopt methods which contribute to enhanced buying power. The main methods available are to join forces with other organisations for the purposes of acquiring goods and services, or to use the services of a purchasing consortium that buys goods and services on behalf of a wide number of organisations. The consortium can buy in large quantities, at discounted prices, which can be passed down the chain. The survey determined that 90% of respondents make use of purchasing consortia, all collaborate with other local authorities and 72% collaborate with other public sector organisations. This aggregation of spend results in a powerful buying organisation which has implications for the buyer-supplier relationship. This picture fits in well with Cox's view of lean, attributing some of

Toyota's success to its "dominant power relationship with its suppliers" (Cox, 1999, p.170). However, it is not consistent with Erridge and Murray's (1998) reflection that a lack of exercise of buyer power contributed to the success of lean within local government.

TABLE 2
Procurement Officer Attitudes

Statement	Frequencies (%)					Mean
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
It is important that public sector organisations maximize their buying power	64	24	8	2	2	1.55
A wide choice of suppliers is necessary to maintain competitiveness	14	30	34	19	3	2.66
A smaller supply base increases risk of dependency upon the supplier	10	36	31	21	2	2.68
Procurement partnerships reduce supplier switching and transaction costs	16	50	27	6	1	2.26
Aggregation of contracts works better with larger suppliers	13	33	34	19	1	2.61

Also of relevance to this relationship is the number of suppliers used by the purchaser. Table 2 identifies that a majority of respondents agree that a wide choice of suppliers is necessary to maintain competitiveness and to avoid an increased risk of dependency upon the supplier. However, when asked directly about supplier numbers, the responses revealed a trend towards utilising fewer suppliers. Although 19% stated that the number of suppliers is increasing, 50% claimed that the number is decreasing. However there is some doubt as to whether this development is part of a definite strategy, as might be expected by a lean approach (Lamming, 1993), with only 19% of authorities having in place any policy in relation to supply base. A quarter of respondents provided comment in relation to supplier policy. Whilst a small number referred to conditions such as the need "to reduce the number of suppliers overall, without a major impact on local economy" and "at the same time

encouraging the economic development of the region” which might provide some encouragement and comfort for local, small firms, the majority simply outlined a need to reduce, or ‘rationalise’, the supply base, summed up by one authority’s intention “to aggregate spend and reduce the number of suppliers to improve leverage and simplify management”. Therefore a picture is emerging of an increasingly powerful buying organisation procuring from fewer suppliers. This may produce benefit in the form of reduced transaction costs, as both the volume and complexity of contract communications are reduced (New and Ramsay, 1997), a view held by the majority of respondents (Table 2). However, New and Ramsay (1997) voice the concern that supplier concentration may lead to a reduced number of suppliers, and raised entry barriers for new firms attempting to enter the supply market. It is likely that this will disproportionately affect small firms.

In a situation where purchasing power is being maximised, and many local authorities are using fewer suppliers, then it can be anticipated that contract terms will also change. The survey asked about the trends in the length and scale of contracts. The responses are provided in Table 3.

TABLE 3
Public Sector Contract Characteristics

	Contract Length % response	Contract Scale % response
Decreasing	3	2
Static	46	29
Increasing	45	60
Varies	3	0
Not known	3	9

The responses clearly identify a trend towards larger scale contracts and, for about half, the use of longer term contracts. Whilst the latter may be more difficult for small businesses, requiring a long term commitment which might be at odds with the desire to provide a flexible and responsive service, it is the increasing size of contracts that most adversely affects the small firm’s ability to meet contract requirements directly. Again the view of procurement officers emphasise this concern

with only 20% disagreeing with the statement: 'Aggregation of contracts works better with larger suppliers' (See Table 2).

Although the paper is seeking to determine the existence of lean influences and practices that might affect small firms, the survey also asked directly about the existence of barriers. Almost three quarters of the respondents (73) felt that developments in procurement were changing the entry barriers for suppliers. These participants were then invited to state, using a 5 point Likert scale, whether the barriers were increasing or decreasing for up to five organisation types: small, local, large, social enterprises and specialist. The first four categories are referred to within a document familiar to local authority procurement officers: The Small Business Friendly Concordat: Good Practice Guidance (ODPM, 2005). This aims to encourage the use of small firm suppliers either directly or as sub-contractors. It defines small suppliers according to employee numbers, where small firms include the small and medium categories (1 to 249), with large firms therefore employing 250 plus. It also emphasises the inclusion of social enterprises within the scope of the guidance, defined as businesses "with primarily social objectives whose surpluses are principally reinvested in the business or in the community, rather than being driven by the need to maximise profit for shareholders and owners" (ODPM, 2005). The guidance recognises that small firms are very often local, although not necessarily so, and explicitly calls for local authorities not to ignore regional or national small firms. Previous research found that public sector procurement officers frequently referred to small and local suppliers interchangeably, although again, there was recognition that they are not necessarily the same (Loader, 2007). The fifth category, specialist firms, was included based upon small firm literature which frequently outlines the benefits to small firms of developing specialist or niche markets (Hong and Jeong, 2006). The responses are shown in Table 4.

TABLE 4
Entry Barriers by Organisation Type

	Total responses (from 73)	Frequency of response (%)				
		Significant increase	Increase	No change	Decrease	Significant decrease
Small	70	12.9	48.6	10.0	22.9	5.7
Local	70	10.0	44.3	12.9	30.0	2.9
Large	65	4.6	9.2	58.5	26.2	1.5
Special	63	6.3	15.9	55.6	22.2	0
Soc Ent	65	7.7	18.5	36.9	30.8	6.2

The responses demonstrate a range of views but it is clear that a majority recognise an increase in barriers for small companies. Whilst local companies are also adversely affected by public sector procurement developments, this is to a lesser extent. The situation for large companies and specialist suppliers is mainly considered neutral or to be improving. Social enterprises have attracted the highest percentage response indicating a decrease in barriers, although overall opinion is still divided.

Over a quarter of respondents provided further comment in relation to barriers, from which a number of themes emerged. The impact of e-procurement was frequently cited as a problem for small businesses, although many also stressed that effort was being made to provide support and help, both in the area of e-business and more generally with tendering. E-procurement has been a major driver of recent public sector procurement practice in the UK (Loader, 2007). Although it can be associated with lean procurement practice, as a means of eliminating waste, its significance to the local authority sector is its role as part of the government's e-government agenda. Nonetheless implications for small business remain. Although some small firms are well advanced in their ability to trade electronically, there is considerable variation in capability (Wagner, B.A., Fillis, I. and Johansson, 2003).

The impact of large contracts and the importance of sub-contracting was also raised. In particular there was recognition of the consequence that direct contracting by small suppliers will be hindered. As we have seen, this is a pattern to be expected within a lean approach seeking to reduce the size of the supplier base. Various approaches can be adopted

to achieve this, one being that first tier suppliers will act as co-ordinators of supplies from lower tier, minor suppliers (Lamming, 1993). However expectations were voiced that main contractors would need to demonstrate small supplier engagement with their supply chain and their use of local labour forces and sub-contractors, in order to help local authorities meet their local economic development obligations. However as we have seen, there are various observations and concerns about the nature of the relationship in sub-contracting arrangements and the subsequent impact upon small firms (Rainnie, 1989; Storey and Sykes, 1996).

The evidence has determined that trends in UK local government procurement practice demonstrate a high level of collaboration between purchasers resulting in aggregation of spend and greater concentration of buyer power, a tendency to use fewer suppliers, and contracts which are increasing in scale and length. The literature suggests that these developments are likely to disadvantage smaller firms and so, perhaps unsurprisingly, a majority of respondents believe that barriers are rising for small suppliers. However, whilst some of these trends do resonate with lean practices, they do not represent a lean approach. They would appear to be more representative of a partnership approach, where the public sector is adopting the role of the senior, dominant partner. Small firms, under these conditions, are most likely to be successful in supplying the public sector from the situation of sub-contractor, with the associated concerns previously raised. However, if local authority procurement was to develop lean practices more fully then smaller suppliers may see their position shift from the traditional sub-contractor to that of a second (or lower) tier supplier, bringing with it the benefits of closer, co-operative working. The survey determined that of the 59% of respondents aware of the lean concept, 86% would view favourably its application within local government.

CONCLUSION

The study has considered the impact that the adoption of lean approaches to procurement may have upon small and medium sized suppliers. It has examined these issues in the specific context of UK local authority procurement, which has a role to support smaller firms whilst at the same time achieving value for money for the taxpayer. The study is exploratory, having been conducted at a time when the UK public sector

is becoming increasingly interested in the adoption of lean approaches, but has not fully or consistently adopted the approach.

The literature review suggested that lean supply would produce a variety of consequences mainly relating to the supply base, supplier selection, supplier relations and contract terms. Whilst evidence suggests that some of these are likely to adversely affect smaller firms, there is some scope for small firms to contribute to and gain from added value in a lean supply chain, especially as second tier suppliers.

Within the UK, local government has not formally adopted lean principles, and thus lean supply has not been fully embraced to date. Some features associated with a lean approach do exist; for example smaller supply bases, and longer and larger contracts are currently in place. However these, together with an evidenced dominant buyer role are more representative of partnership sourcing. By themselves these are likely to disadvantage SMEs and in fact the views of procurement officers confirm a belief that barriers exist. Perhaps by developing the current partnership approach to procurement and more fully embracing lean supply practice, the situation for SMEs may improve.

The exploratory nature of the study has produced only tentative observations and raises the need for further work in a number of areas. The literature review highlights a need for greater explicit consideration of how lean supply impacts upon small firm suppliers, in order to better understand their role and the value they can both contribute to and gain from such an approach. Also, as the interest in lean by the UK public sector is still in its infancy, there is a need to follow its progress, both in broad terms and also with a focus on lean supply. It may then be possible to reach firmer conclusions on what lean supply means for small business supply to the UK public sector.

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