

Does Strategic public procurement for SMEs work?

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Abstract

Strategic public procurement increasingly involves programs and approaches directed at SMEs, within the wider growing field of public procurement studies. This review considers whether strategic public procurement for SMEs works in the context of the peer-reviewed scholarly evidence that is available. The article looks at SME definitions and participation in the public sector marketplace, and briefly explores the policy context of Australia and New Zealand. The review identified twenty-two studies that met the inclusion for the review, but also weaves in important articles that support the evidence that may not have met the strict criteria. The review found little evidence in relation to Australia and New Zealand, leading to the first conclusion that that baseline information is sorely lacking while policy continues to evolve. SME-friendly procurement policies are hard to measure although the growing use of targets could begin to ameliorate this. The diversity of SMEs requires more nuanced policy development and public procurement organizations need to continue to work at reducing barriers to market entry through a variety of methods. Procurement policy for SMEs needs to be fully implemented, tracked and reviewed in order to understand its effects in different contexts.

Keywords: public procurement, SMEs, policy for SMEs, barriers

Introduction

With public procurement amounting to approximately one third of government expenditures in most developed or developing countries (OECD, 2017) it is a valuable instrument by which to pursue government policy objectives. Policy makers are showing interest in using public procurement to meet the objectives of the government, beyond purchasing at least cost (Government of New Zealand, 2018a). A recent development is the increasing vigor, in more countries and more contexts, towards supporting SMEs to access public contracts and situating SMEs as a key sector with respect to a diversified economy, stronger labour standards and stewardship of the environment (Hoekman and Taş, 2020).

This review considers whether strategic public procurement for SMEs works in the context of the peer-reviewed scholarly evidence that is available. We approach this problem from a public and public procurement perspective - the starting point is that public contracts are shaped in order to support and increase the participation of SMEs in the economy (Loader, 2018). There tends to be two types of approaches to enhancing the participation of SMEs in public procurement, firstly leveling the playing field by calling for contracts to be split into parts that may be easier to bid for and for contracts to be awarded based on evaluations that go beyond lowest price (Most Economically Advantageous Tender or similar). The second approach involves proactive measures in public legislation and regulation that favour SMEs, through set-asides and price preferences (Hoekman and Taş, 2020).

A preliminary review indicated that while there is a growing literature on this topic, and indeed a large literature on SMEs themselves, it was not clear how much evidence based on empirical studies was available either in the Australian or New Zealand context on the relationship between public procurement and SMEs. Many government reports, industry reports and news stories have been written about the role of SMEs in the economy, based on the idea that public procurement can foster innovation through public contracts, and therefore provide positive external benefits (Australian Government-Australian Small Business and Family Enterprise Ombudsman, 2016; Mazzarol and Clark, 2016; Riley, 2018; Smart, 2017). However, there is no empirical data in the scholarly journals about the relationship between strategic public procurement and SMEs in the Australian and New Zealand context. We can slightly qualify this by referring to the ground-breaking work around social procurement in Australia (Barraket, 2020; Loosemore et al., 2021), that begins to look more deeply at the relationships between procurement, social enterprise and innovation. This literature does not directly answer our question, so it is not included in the final cut of articles but is included in the wider analysis. In New Zealand there is data emerging with respect to the Māori economy which is largely made up of SMEs, but it has yet to be analysed in peer-reviewed journals (*Stats NZ Tatauranga Aotearoa*, 2020).

Where empirical studies exist about the relationship between public procurement and SMEs, the majority of them have been completed in the last decade, suggesting an increased interest in the role of public procurement and its objectives in the post-Global Financial Crisis context. This may be representative of the recovery of developed economies and the subsequent recognition

that governments must use procurement for wider objectives than simply cost savings. Flynn et al. (2015) refer to the series of political initiatives in Europe, the United States and elsewhere directed at SMEs that were focused on strengthening the SME presence in the public sector marketplace. This argument hinges on the idea that public tendering systems privilege larger firms and that there continue to be problems for SMEs to access public contracts.

For Australia and New Zealand, there has been less direct attention to SMEs with public procurement strategies until very recently. The technology industry has been a vocal proponent of governments giving SMEs greater access to public procurement opportunities. This is particularly true in the New Zealand and Australian context with smaller technology companies frustrated at governments' use of large contracts that can only be fulfilled by large multinational technology companies (*NZ Rise*, 2021). An increasing call from industry for the government to ensure SMEs have opportunities and the chance to be successful in business with government emerged in a political climate that may, in some countries like New Zealand, be favourable to regulation and a more active state. Now, in the Covid-19 'era' with recovery and adaptation, there is significant spending directed towards infrastructure, with subsequent implications for procurement (Madow, 2021). For SMEs, the problems may be exacerbated when governments are under pressure to deliver quickly.

The review is structured as follows. The first section defines the terms used in this study and provides data on SME involvement in the public sector marketplace, where available. We then explore aspects of the Australian and New Zealand policy context in terms of public procurement policy and SMEs. A section explaining the method of the review is followed by findings by theme, with Appendix A supporting the implications for policy and practice. A short conclusion finalises the review. For the purposes of this short review, we focus on the narrow range of empirical articles that have gathered data on the relationship between SMEs and public procurement. We do not tackle the growing range of articles on sustainable public procurement nor all the varying forms of methodological treatment of these issues.

Definitions and SME participation in the public sector market

This review involves two key concepts: strategic public procurement and SMEs (Small and Medium-sized Enterprises). First, for the purposes of this review, strategic public procurement means policies and decisions (leading to specific management actions) taken by government and government departments and agencies to purchase goods, services or works, planned with specific outcomes in mind that go beyond purchasing at lowest cost, and more specifically involve elements that relate to SMEs. This means shaping public contracts in such a way that they benefit SMEs directly through price preferences or set-asides, or through a leveling the playing field approach which could include simplifying the bidding process, reducing the amount of financial assets requested, shaping the procurement in some way (such as specifying geographic location), asking for specific elements such as sustainability or local content or splitting the contracts into lots.

Second, definitions of SMEs vary. The Australian Bureau of Statistics (ABS) defines a small business as an actively trading business with 0-19 employees. Micro businesses are small businesses with 0-4 employees. The ABS defines a medium business as an actively trading business with 20-199 employees (Australian Government-Australian Small Business and Family Enterprise Ombudsman, 2016). Over 200 employees is a large business.

New Zealand does not have 'official' definitions of business size categories - definitions are derived for the purpose in which they are being used (Ministry for Small Business, 2018). The Ministry of Business, Innovation and Employment currently uses a definition of small business as being any that has fewer than 20 full-time employees. This is segmented on the following basis:

- Zero; no employees (sole trader)
- Micro; represents businesses with 1-5 employees
- Small; represents business with 0 to 19 employees
- Medium; 20 to 49 employees
- Small and Medium Enterprise (SME); businesses with 0 to 49 employees
- Large; businesses with 50+ employees (*Ministry of Business, Innovation and Employment, 2019a*).

Small businesses make up 97 percent of enterprises in New Zealand, approximately 535,000 small businesses (*Ministry of Business, Innovation and Employment, 2019a*). Of these 388,323 have no employees (71%), 100,662 have 1-5 employees, and 41,316 are considered small with 6-19 employees (*Ministry of Business, Innovation and Employment, 2019b*). By way of comparison in Canada SMEs are defined as business establishments with 1-499 paid employees, in the EU SMEs are defined as having less than 250 persons employed (with annual turnover of up to 50 million EUR) (Ancarani et al., 2019).

The nature of SMEs in Australia and New Zealand differ; by definition SMEs are up to 199 employees in Australia, only up to 49 employees in New Zealand. However, in common discourse both New Zealand and Australia refer to small business as fewer than 20 employees; in Ireland it is fewer than 50 employees and in Denmark 10 to 49 employees (*Ministry of Business, Innovation and Employment, 2019a*)

SME involvement in the Australian and NZ public sector marketplaces

The Australian government has very clearly laid out the 'Estimates of Small and Medium Enterprise (SME) Participation' in the public sector marketplace (*Statistics on Australian Government Procurement Contracts, 2021*). In 2019-20, 85.1% of Federal Government Suppliers were estimated to be SMEs and the estimated value of SME Contract by Percent is 25.2% of total Commonwealth Entity Contracts Awarded. The SME participation trends are increasing from 2016 by value and by contract volume. The government committed to sourcing 10% of all procurement contracts by value from SMEs and 35% by value of contracts up to \$20 million and by all indications it is surpassing those targets. For example, in 2019-2020 for contracts valued up to \$20 million, SMEs were estimated to be awarded \$10.4 billion or 40.5%.

The data by state in Australia is nested within reports and documents on procurement policy. For example, the Government of Western Australia - Department of Jobs, Tourism, Science and Innovation published the Western Australia Industry Link Annual Report 2019-20 - indicating that sourcing *within the state* amounted to 88% of contract value between 1 October 2018 and 30 June 2020. There is no direct data on SME participation in the public marketplace, but there is considerable policy support in terms of funds for and capability building for SMEs, which is also found for Queensland and New South Wales (*Guidelines for working with SMEs*, 2021, *NSW buy.nsw*, 2021)

In New Zealand, the data is presented quite differently. The New Zealand Government within the Ministry of Business, Innovation and Employment undertakes an annual business survey to understand suppliers' and community service providers' experiences of government procurement. The Procurement Business Survey 2019 showed that 16% of very small businesses (less than 5 FTEs) replied that 90% or more of their turnover comes from supplying to the government compared to 11-12% for larger businesses (50 or more FTEs). Forty-three per cent of respondents in 2019 stated that government business was extremely important to them - compared to 29% in 2016. The New Zealand government has recently made commitments through its Progressive Procurement Policy to support Māori enterprise with a target of 5% of procurement contracts going to Māori through mandated agencies. There is excellent data emerging from Stats New Zealand Tatauranga Aotearoa that is beginning to provide a picture of the growing indigenous economy (*Stats NZ Tatauranga Aotearoa*, 2020). Data by region or by local government is not obvious but may be available through the published award notices in the MBIE New Zealand Government Procurement and Property statistics.

The Policy context

The policy activity in the 'procurement and SME' space in New Zealand and Australia is unprecedented and follows years of dynamic efforts in Europe and elsewhere that has variably altered policy settings for SMEs.

The OECD's (2018) position is that: "SMEs can play a pivotal role in helping governments ensure that the benefits of globalisation, open markets and digitalisation are broadly shared across societies." The importance of SMEs in economies is regularly emphasised in these arguments, "SMEs account for more than half of employment globally and, on average, 50% to 60% of national GDP in OECD countries, while being strongly connected to local economies' (OECD, 2018). SMEs are seen as "agents of social cohesion and integration"(OECD, 2018).

Yet we know very little about whether targeted policies can lead to the outcomes that have been set. There is a lack of tangible, credible evidence as to whether the development of SMEs is impacted where policies have been put in place (OECD, 2017) and whether wider outcomes are being met. It can be difficult to obtain reliable statistics on the involvement of SMEs in public contracts. Many have called for further studies on the impacts of strategic procurement policies with respect to SMEs (Murray, 2014; Onur et al., 2012) but little empirical evidence based on

research studies has actually been undertaken. Qiao et al. (2009) note the range of preferential procurement programs but the lack of empirical evidence that could provide guidance to policy makers. Governments have done a poor job at being able to explain how good procurement is also best-value procurement, and that spending a bit more, for important outcomes, is a palatable result. Tremblay and Boyle (2019) discuss these contradictions in some depth and consider that vested interests prevent the researching of claims of effectiveness or ineffectiveness, and many important cost and benefit questions are ignored.

Changing the procurement landscape has been on the Australian Government radar for a few years - for example, in 2017 procurement was identified as an important element of Innovation and Science Australia's plan - Australia 2030 - the plan for Australia to thrive in the global innovation race. Within this broad goal, strategic opportunity 3.4 set out that 'national innovation can be stimulated by using government procurement as a strategic lever' (Australia 2030: Prosperity through innovation – A plan for Australia to thrive in the global innovation race - strategic opportunity 3.4: 'National innovation can be stimulated by using government procurement as a strategic lever', n.d.). The policy direction with regards to procurement has shifted towards an emphasis on sourcing from local SMEs, in an attempt to increase the volume of contracts won by smaller enterprises, bring in new and innovative services, and notionally to reduce the reliance on large multinationals. There was also the intention to reduce the number of IT panels within the procurement process at the federal level in Australia so smaller enterprises would more easily supply services, and to actively encourage innovative individuals and organisations to sell their ideas to government. Based on the recommendations of a federal ICT Procurement Taskforce, in mid-August 2017, Australian government IT contracts were capped at a maximum value of \$100 million, or three years duration, in an attempt to open up the opportunities for SMEs to bid for smaller parts of large projects (Reforms to IT procurement inject \$650 million into small businesses, Ministers Media Centre, n.d.). This translated to a target of an increase of 10% of an annual \$6.5 billion IT spend to smaller companies. Exacerbating the challenges for SME involvement, technology procurement often suffers from vendor lock-in. Procurement systems need both the capability to negotiate with large companies as they will continue to be important in terms of hosting major software platforms, at the same time agility is required to ensure that smaller organisations have access and that government can benefit from innovation occurring in rising companies.

Other organisations such as the Digital Transformation Agency have numerous arrangements with multi-national providers across a range of elements but announced the wish to allocate 10% of the \$9 billion annual tech budget toward small players in the market (Smart, 2017). We can see politics playing out - not long after these changes took place, the Minister of Human Services announced a \$1 billion whole-of-government arrangement with IBM over a five-year period that avoided the \$100 million/3 year cap by splitting up the contracts (Riley, 2018).

The Australian Commonwealth Procurement Framework - the 'Rules' - provides the overarching guidelines and requires that all potential suppliers are treated equitably based on their commercial, legal, technical and financial abilities and that they are not discriminated against due to their size. From March of 2017, the Rules shifted to a 'value for money' approach,

focusing on the economic benefit to the Australian economy, for procurements valued above \$4 million for non-construction services and \$7.5 million for construction services. A Supplier Pay on Time Policy came into effect 1 January 2020 to facilitate efficient and timely payment. In 2019-2020, 90.9% of invoices were paid within 20 days compared to 61.7% in 2018-19 (*Statistics on Australian Government Procurement Contracts*, 2021). A number of changes were made in 2020 to the Rules, showing a commitment to sustainable procurement practices and a new exemption which allows for the direct engagement of SMEs for procurements valued up to \$200,000 providing 'value for money' can be demonstrated.

Other policies that have emerged to support SMEs participating in the government procurement market include the Australian Commonwealth Indigenous Procurement Policy. This initiative grew from earlier experiments with the federal government's Equal Opportunity for Women in the Workplace Contract Compliance Policy, and the Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects. Denny-Smith and Loosemore (2017) concluded that these strategies largely failed in terms of addressing indigenous disadvantage. The new policy has attempted to respond to this problem by introducing mandatory set-asides for indigenous procurement and by introducing targets that are to result in new domestic contracts being awarded to indigenous businesses, thereby increasing commercial opportunities and employment possibilities for indigenous people. The intermediary Supply Nation was created to provide a database of verified Indigenous businesses and a study by Barraket (2020) looked at the process of intermediation.

The issue as to whether policies directed towards SMEs and preferences for local content and labour are discriminatory and problematic in terms of trade agreements has long been discussed. Bosworth (2017) examines government procurement arrangements across the Tasman and reviews the effect of preferential trade agreements on government procurement arrangements. He suggests that preferential policies have just replaced straightforward price preferences, with costly and discretionary measures such as requirements for local content. And yet, broad exemptions for local and regional development and welfare services have been put in place (Esteves et al., 2010). In their report on procuring from SMEs in local communities for the Australian mining, oil and gas sectors, Esteves et al. (2010) explain that the Australian Trade Practices Act (1974), the International Free Trade Agreements, the Racial Discrimination Act (1975) and the Australian Industry Participation National Framework (Australian Industry Participation Framework, 2001) all either do not prevent, or in fact promote SME participation. Linarelli (2011) suggests that contrary to the standard argument that SME procurement policies are trade protectionist, there are cases in which they enhance competition and reduce procurement costs, though the conditions for these benefits are narrow and depend on proper institutional design. He argues that the World Trade Organization regime on government procurement should more explicitly accommodate policies for SMEs to respect societies' needs to embed social justice and human rights.

As extensively outlined by Allen (2021) New Zealand had taken a very pragmatic and, in some ways, 'purist' approach to the public procurement rules. Under the Procurement Rules in 2013, agencies were instructed to "Make balanced decisions - consider the possible social,

environmental, economic effects and cultural outcomes that should be achieved”. While trade agreements and the efforts to become a member of the WTO - Agreement on Government Procurement shaped the overarching direction that was very much in the competitive, non-discriminatory fashion, there was room to adapt procurement for specific purposes. It rarely was however. There were no set-asides or price preferences (other than in very narrow ways such as for timber with the New Zealand Timber and Wood Products Procurement Policy) and there was little appetite for such measures. There has been increasing attention being paid to capability building in government agencies and increasing efforts to deal with pressures on SMEs such as grant funded programs to help businesses raise their game (Allen et al., forthcoming).

From 2017, the coalition Labour-led government indicated it would move in the direction of a more activist procurement policy. The ‘Broader Outcomes’ approach is a ‘coordinated and targeted approach to leveraging additional outcomes from government contracts’ and is particularly concerned with how government procurement policy supports New Zealand businesses (Government of New Zealand, 2018b). The four priority outcomes include: increase New Zealand businesses’ access to government procurement; increase the size and skill level of the domestic construction sector workforce and provide employment opportunities to targeted groups; improve conditions for workers and future-proof the ability of New Zealand business to trade; and support the transition to a net zero emissions economy and assist the government meet its goal of significant reduction in waste by 2020 (Government of New Zealand, 2018b). Alongside this, the Department of Internal Affairs’ new Marketplace holds much potential in connecting small suppliers with government purchasers across a range of (largely technology related) products.

A ‘Progressive Procurement’ approach focused on Māori business has been designed in Te Puni Kōkiri, the Ministry of Māori Development. The main objectives are to encourage social procurement, supplier diversity, indigenous procurement and wellbeing measures (*Te Puni Kōkiri Ministry of Maori Development*, 2021). Alongside this a procurement intermediary - Amotai, was established to “promote the growth of Māori and Pasifika entrepreneurship through smarter use of procurement and supply chains” (*Amotai*, 2021).

At the local government level, Auckland City Council (New Zealand’s largest city and local authority) has refreshed its procurement policies in 2021 and set some ambitious targets in terms of SMEs accessing the public market. The Controller and Auditor-General of New Zealand, provides an independent view of how public organisations are operating and is a key ‘watch-dog’ institution; it instigated a program of work on public procurement in 2018. One of the elements reported on local government procurement pointing out weaknesses in the systems including conflicts of interest, contract management and lack of capability and capacity in some areas. Many councils reported to the Controller that they were starting to see a decrease in the number of suppliers bidding for contracts, especially for construction projects (*Controller and Auditor-General - Tumuaki o te Mana Arotake*, 2020).

The Australian and New Zealand policy environments are undergoing significant change in terms of activating procurement policy. They intend to meet new outcomes that relate to growing businesses, encouraging innovation that is believed to exist in the private and social enterprise sector, and pursuing forms of social justice through diversity in suppliers, stewardship, and sustainability of the supply chain. The evidence base for these decisions is critical with respect to knowing whether any of these decisions will meet their objectives.

Methods

The review set out to explore available and relevant evidence in terms of original data that tested the impact of procurement policies on SMEs and whether they resulted in learning about whether policies directed at SMEs positively (or negatively) affect SMEs and their ability to participate in the public sector marketplace. We adopted the review procedures described by Tranfield et al.(2003) which uses the stages of planning, conducting, and reporting the review. We do not claim to have been exhaustive of the evidence across all journals in all years.

Beginning with the research objective, 'Does strategic public procurement for SMEs work?', search terms were constructed around combinations of terms relating SMEs and public procurement. The search terms included: Public Procurement and Small Medium Enterprises; Public Procurement Policy and Small Medium Enterprises; Small and Medium Enterprises and Innovation; Public Procurement and Innovation; Procurement Policies and Innovation; Small and Medium Enterprises and Innovation; and Innovation Policy and Small Medium Business. We also searched on variants of all the search terms with the inclusion of 'New Zealand' and 'Australia'.

Strategic public procurement and SMEs does not fit neatly into a single discipline or subject area and a number of fields of study are relevant, such as Public Management, Business, Public Policy, Economics and Politics. The search strategy took this approach and used the Victoria University of Wellington library databases from these fields as a starting point - for example covering, *GALE*, the Centre for Economic Policy Research (CEPR) and the National Bureau of Economic Research from the Business, Economics and Theory Collection; ABI/INFORM Global, APEC Literature Database, and Business Source Complete from the Business and Marketing Collection. The primary list of sources focusing on empirical work was expanded through citations and related articles, to create a more comprehensive and wide-ranging list of sources. We also looked at specific theme-based journals well known in the field such as *The Journal of Public Procurement*, *International Journal of Purchasing and Supply Management*, and *Supply Chain Management: An International Journal*. The search was re-run in 2021 as the initial search had taken place two years earlier.

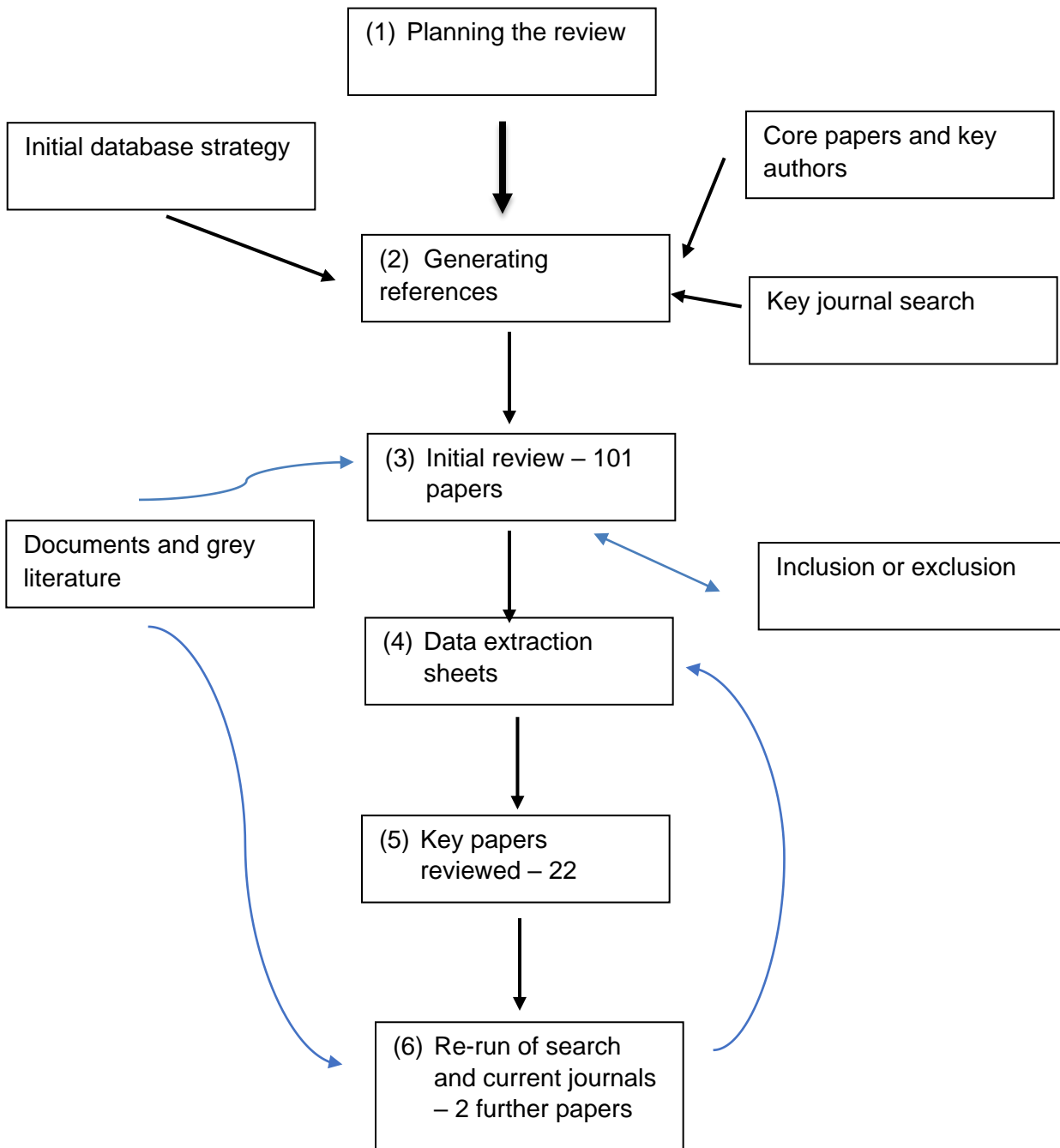
Specific evidence-based studies published in peer-reviewed journals from Australia and New Zealand are essentially non-existent. The print media and other sources of material indicate there is interest in the issue and it is clear that wide-ranging empirical studies are required to support the significant activity underway that link public procurement and SMEs. Much of the empirical evidence on SMEs and Public Procurement policy comes from the European Union,

which has well-established support policies for SMEs in public procurement. Given that procurement rules and trade agreements have experienced a form of policy transfer between countries with many similarities (especially the UK, Australia, and New Zealand) the research is relevant.

The search was conducted in phased stages, starting with a broad approach that sought to gather all literature relevant to the topic, before filtering the results of this broad approach to provide the most useful and relevant literature. Initially titles were selected on the basis that they included keywords or phrases relevant to the theme. This process yielded 101 items. Subsequently, more strict criteria were used to ensure that the articles contained peer-reviewed original quantitative or qualitative evidence into public procurement and SMEs. Out of the initial 101 papers reviewed, 22 papers were deemed to meet these criteria. These articles form the core of the evidence base. We held strictly to the requirement that our core articles must represent peer-reviewed empirical evidence involving empirical quantitative or qualitatively focused research. There was an enormous volume of descriptive, theoretical, or guidance-style literature elements of which support this review. Only English language papers were included, and we generally did not look further back than 2005.

The nature of the evidence base has limitations, and we were very aware of the issues in drawing implications for Australia and New Zealand from analysis done elsewhere. We can assume the research is relevant, but we must be careful in applying it directly in the absence of similar studies. As with most areas of specialised academic inquiry, a few authors and groups of authors feature repeatedly. Also, there are always considerations with respect to the methodological soundness of the empirical data and sometimes what seemed like relevant empirical studies were difficult to interpret due to the number of variables involved and the number of policy areas engaged (see Pickernell et al., 2011). There also tends to be a normative bias in studies relating to strategic public procurement and SMEs, most especially related to innovation. Innovation can be context-dependent and the relationship between innovation and performance is controversial (Rosenbusch et al., 2011).

Figure 1: Review Method



Findings by theme

Our consideration of the empirical literature yielded four themes under which we have considered the implications of the evidence. While the main themes have been derived from the scholarly empirical literature, we integrate other literature to provide context and supporting viewpoints.

The main literature is detailed in Appendix A – Findings by theme. The first theme indicates that one of the issues with addressing the relationship between procurement policies and SMEs is the nature of SMEs themselves. The second theme considers the implementation of SME-friendly procurement policy and whether this makes any difference to the engagement of SMEs with public procurement. Third we point to the barriers to entry and market orientation for SMEs in public procurement. Fourth we see some direct connections between public procurement, SMEs, and innovation. We recognise the growing literature relating procurement and innovation, but for the purposes of this review only look specifically at recent articles connecting the three elements.

Finding 1 - Diversity and Range of SMEs

The nature of SMEs themselves emerges as an important theme in this study. McKeivitt and Davis (2013) studied SMEs and specifically microenterprises that were actively competing in public procurement. It was found that small firms are not a homogenous group and that even within this sub-set of SMEs, they use divergent strategies when competing for procurement contracts. Micro-enterprises have limited scope to pick and choose strategies for engagement and have limited influence over procurement processes; therefore, the onus is on the procuring entity to engage in the appropriate way. According to the authors, if the procuring entity takes a broad-brush approach treating all microenterprises as the same, it is likely to lead to poor outcomes. Flynn (2017) looked at SME disadvantage in public procurement and investigated the relationship between firms' size, resources, capabilities and their involvement in public procurement, finding that firm size is positively associated with tendering resource capabilities, and these in turn influence tendering activity and performance. Resources act as enablers when it comes to the number of and value of contracts firms tender for and their capabilities are important for winning contracts. SME's capabilities and the ways in which one-size-fits-all legislation or procurement rules are written emerge as important factors. Intra-SME differences and the variation across size, capability, and industry matter. SME policy largely does not take into account the differences and may then only relate to the larger more capable SMEs.

Looking specifically at the diversity within an SME population and its implications in the context of public sector tendering, Flynn et al. (2015) used data from 4567 SMEs competing for contracts with Irish public sector organisations whereby a number of relationships concerning size and SME tendering were examined. For example, micro, small and medium-sized enterprises were not similarly endowed with resources for tendering; size is found to

significantly influence the frequency of tendering, the value of contracts tendered for, the extent to which feedback is obtained and the percentage of contracts sources online. Further tendering outcomes are not uniform across SME size; size is found to influence the proportion of SME revenue derived from doing business with the public sector.

However, SMEs vary hugely not only in their size, but also in their purpose, capability, and experience. Indeed, this assumption of homogeneity within the category of SMEs is problematic. Pett and Wolff (2012) noted that SME research has either contrasted SMEs (as a group) to large firms with respect to meaningful constructs or has applied constructs developed and tested on samples of large firms to SMEs (as a group). Their data and results suggest that there may be larger differences between small firms and medium-sized firms than those between medium and large firms. Microfirms reflect less of an entrepreneurial orientation than either small or medium sized firms and there are large and significant differences between the size classes of firms in IT competency.

With respect to procurement, such differences will impact SME ability to provide goods and services to the public sector, and will also impact on how the public sector can engage these firms to be involved in public procurement.

Not only are there important granularities in the SME group, an important sub-group seems to be missing entirely here. Social enterprises, or businesses which trade for a social purpose that reinvest or donate over half their profits to further their social or environmental mission - are present in the scholarly literature (note there is a *Journal of Social Entrepreneurship*) but there has been little research making the connections between public procurement, social enterprises, and SMEs. Little data is available with regards to the participation of social enterprises in the public contract marketplace. Social Enterprise UK and Tussell have published some data indicating, for example, that the first quarter of 2018 in the UK was a typical quarter for Community Interest Companies (CICs) in public procurement. They note that 55 different CICs won a total of 69 contracts from the wider public sector, which is just below the average of 72 contracts won by CICs per quarter over the last two years. This represents 0.4% of all contracts in Q1 2018, the buyers being largely local governments (Tussell Social Enterprise UK, 2018) Australian academics Barraket, Keast and Furneaux wrote an important book Social Procurement and the New Public Governance (Barraket et al., 2015) emphasising the opportunity to maximise public spending and social value through the purchase of goods and services with social enterprises.

Implications for Policy/Practice

The findings of these studies suggest that general SME-friendly procurement policies may not be enough to truly impact what is a diverse field of SMEs in any given country or region. Although SME-friendly public procurement policy (led from a central function or central government) may create an environment conducive to SME involvement in public procurement, it is likely that an additional layer of policies and practices, at a more specific level may be needed to target the vast range of SMEs in the appropriate way. To a large extent research on

SMEs has focused on SME disadvantage, and has overlooked and discounted differences in tendering capabilities and behaviours within the SME population. This creates an artificial impression of SME uniformity when it comes to tendering for public sector contracts and potentially an underlying assumption that irrespective of size, sector, ownership structure or growth intentions, SMEs are amenable to the same policy remedies. Much more detailed analyses are needed taking into account a wide range of variables that may support more nuanced procurement policy development and reduce the 'bluntness' of the instrument.

(2) Implementation of SME-friendly Public Procurement Policy

While the instrument might be blunt, governments have increasingly sought to promote SMEs within wider packages that harness the significant size of public procurement to achieve outcomes and benefit from the potential innovativeness of smaller firms. A barrier to the usefulness of these policies is the experience of SMEs with that policy and the degree of implementation and adherence across the public sector. When not fully or properly implemented, the benefits of these policies are likely not realised, and it also makes it difficult to accurately assess the efficacy of SME-friendly policies.

It was established that adoption rates of SME-friendly procurement policies in the EU were low by studies in 2007 (Technopolis, 2007). About ten years later, studies also suggested that implementation was incomplete, and some policies were being implemented more than others. (Flynn and Davis, 2015a) (Flynn and Davis, 2016b). A case study conducted in Ireland indicated the varying degrees to which SME-friendly procurement policies are implemented and pointed to the lack of monitoring on these policy objectives (Davis and Brady, 2015). A significant lack of robust monitoring and managing arrangements in all public departments and agencies was highlighted, and the consequent lack of knowledge of what impact procurement policy is having on SME inclusion and innovation in public procurement practices.

One of the few systematic studies testing SME-friendly policies, hypothesized that frequency of tendering, success rate in contract competitions and commercial orientation towards the public sector would be associated with firms' experience of SME-friendly policy measures. Firm 'experience' was measured as yes or no to the question whether it is their experience that SME-friendly procurement policy is being acted on by public buyers. Survey results from 2,755 SMEs in Ireland in 2014, controlling for firm size, firm age, sector, tendering experience, and human resources for tendering, demonstrated that the experience of SME-friendly procurement policy is linked with success rates in competitions and commercial orientation towards the public sector. There was no association between the policy and tendering frequency. Providing SMEs with maximum practical opportunity to compete increases their likelihood of success. The study suggested that given the chance to compete, SMEs possess the niche skills, customer responsiveness, operational flexibility and ability to offer value for money over the long term to make themselves contenders, even when up against incumbents (Flynn and Davis, 2016a). In an article based on case studies Loader (2007) found that even where there are policies and ideas to support small business, the emphasis on justifying choice through value for money

heavily weighted towards lowest price means that small firms are less likely to succeed in winning contracts. Her findings suggest while procurement officers would like to do business with small firms, they know that large firms are more likely to meet the criteria of value for money including cost and quality.

Investigating this further, work that surveyed 271 public buyers found there was a gap between government policy and the reality in regards to SME-friendly procurement policy (Flynn, 2018) Public buyers were neither acquiescing with SME-friendly policy, nor rejecting it but taking a compromise approach based on institutional conformity and adopting some but not all prescribed practices. Patil (2017) also found uneven performance by public buyers in meeting SME procurement targets. Albano et al. (2015) looked at the extent to which micro and SMEs were successful at winning contracts in an e-marketplace and found that e-markets mirror physical markets meaning that public authorities were more inclined to award more valuable contracts to local firms of bigger size.

One of the key ways in which SME-friendly procurement policy emerges is in promoting SMEs by splitting tenders into lots. This is based on the assumption that SMEs have better chances of winning smaller or more specialized contracts. Herbert and Essig (2018) test this assumption using data from 380 contract award files in a German centralised agency. The findings show that a higher number of lots in a tender does not significantly increase the success rate of SMEs and other factors such as the type of procurement procedure, the number of participating SMEs and the overall tender volume significantly influence SME success. With regards to a set-asides/preferences approach, in a simulation study in Japan, Nakabayahsi (2013) discovered that 40% of SMEs would exit the procurement market if set-asides were removed. Reis and Cabral (2015) found that while preference programs increased participation and the odds of winning and being awarded public contracts, SMEs faced difficulty in fulfilling contractual obligations and were more likely to have contracts terminated due to poor performance. In some interesting research by Stake (2017) in Sweden, using a bidding procedure called MEAT - Most Economically Advantageous Tender - rather than award by lowest price, it was found there was no effect on SME participation in procurement calls for tender.

Implications for Policy/Practice

These findings imply that just setting policy and legislation with respect to SMEs does not result in outcomes that can be linked to the policy itself. Empirical evidence is certainly not conclusive as to the impact of actual implementation or non-implementation of the policies. However, it is certain that without significant implementation strategies, enforcement and useful reporting, there is no way to know if the policies are useful or if they are having impact. Having 'lots' or smaller packages of work has long been held as a way in which to raise the success of SMEs but some evidence seems to indicate this is not the case meaning that SME support policies need to be very cautiously implemented. Firms' experience with SME-friendly policies, meaning where SMEs see the policies actually being acted upon by public buyers does seem to indicate there will be more successes in competitions and more likelihood to engage with the public sector.

(3) Barriers to Entry, Market Orientation for SMEs in Public Procurement

SMEs face a range of barriers to entry in public procurement markets, however, these barriers are faced both internally (or from the supply side) by SMEs, as well as externally (or from the demand side). A range of efforts to minimize the barriers have been implemented, for example simplification of tender processes, breaking up of large contract opportunities, and instigating on-time payment policies. The market orientation of SMEs emerges as an important element.

Loader (2005) conducted a regional survey in the north of England of SMEs (up to 250 employees) that showed at that time an SME perspective on significant barriers, these included lack of awareness of opportunities and difficulties getting on to approved supplier lists, as well as lack of knowledge of the procurement process and complex tendering process. Finnish SMEs were surveyed by Karjalainen and Kempainen (2008) who looked at “implications of perceived resources, electronic systems and enterprise size” as obstacles facing SMEs in accessing public procurement. The authors found that a perceived lack of legal and administrative resources for dealing with tenders is associated with lower SME involvement in both state and municipal procurements. They also found that the size of SMEs is an influencing factor; micro enterprises feel more strongly that they lack the resources, legal expertise, and supply capabilities more than larger SMEs.

Loader (2011) went on to examine the barriers to entry for SMEs in public procurement from the view of examining existing models of public procurement to identify where the issues lie. The work sought to establish what are the most effective, and most damaging, parts of the public sector procurement model to SMEs. The results found that:

- 1) When broader value for money decisions are used, SMEs are more likely to be successful in tendering
- 2) Shorter and smaller-scale contracting makes it easier for SMEs to be successful.
- 3) Suggests that the most significant factor in the success of SMEs is a partnership approach to procurement by public sector entities. However, this approach is often only applied to large significant suppliers.

With regards to Loader’s first finding, broader value for money decisions are generally understood to involve choices that go beyond lowest bid and different evaluation methodologies. In the EU, guidelines that facilitate SME access to public procurement contracts include evaluating the most economically advantageous tender (MEAT) rather than lowest price. In a Swedish study, Stake (2017) found that bid evaluations based on MEAT rather than lowest bid decrease SME’s probability of winning procurement contracts compared with large firms. The evaluation of MEAT positively affects large firms’ participation with firms bidding 60% more on average for MEAT procurements. SMEs show no significant participation effects using the MEAT evaluation criterion. Further he found that micro and SMEs’ probability of winning procurement contracts significantly decreases when MEAT rather than lowest price is used as an evaluation approach.

Further indications of the issues and barriers concerning SMEs arise in Loader (2015) study using the UK government online feedback facility which asked SMEs about their problems with public procurement in order to inform policy discussions on the issue. Overly prescriptive requirements such as health and safety policies as qualification criteria were noted as obstacles and interestingly the SMEs held a poor opinion of public procurement staff, especially the poor preparation of specifications. New problems emerged related to the growing requirement for SMEs to supply via a third party. Supplier rationalization and lengthy contracts did not concern the SMEs, nor did the contract size.

Other evidence emerging from the literature includes:

- SMEs with commercial skills more likely to win public sector contracts (Saastamoinen et al., 2020)
- administration of bidding is not a hindrance but entry costs are, level of capital and resource, characteristics associated with size are determinants of participation (Ancarani et al., 2019)
- public sector structure and legislation has a strong effect on SME involvement (Kivistö and Virolainen, 2017)
- private sector success important before success possible in public sector; capital structure and financial requirement lesser importance (Withey, 2011)

Implications for Policy/Practice

These findings imply that there is still much work to do in creating a public procurement market where SMEs can easily participate. Significant in this is the lowering of barriers from two perspectives; from the procurement process/practices that public procurers use, and from the ability of SMEs to overcome certain constraints. Moreover, it provides scope for a greater exploration and empirical analysis of the significance of certain barriers to SMEs and their participation, a study that could set a prioritisation roadmap for public procurers, and SMEs, to focus on to have the biggest impact. Loader (2015), who studied this topic for many years, noted that policy makers need to question why SMEs continue to report the same barriers and issues, despite them having been acknowledged in UK government reviews with recommendations made and accepted.

If evaluation methodologies that go beyond lowest price do not have positive effects in terms of SME participation, and in fact benefit large firms, then public procurement rule designers need to consider carefully whether the other reasons for having such policies are strong enough. If the reason for this outcome is that it is more difficult for SMEs to invest in the activity required to demonstrate their quality, then much effort needs to be expended by government to help SMEs show how they can fulfill the contract. There may some important differences in definition between Value for Money (VfM) and MEAT (Most Economically Advantageous Tender) that need investigating in order to understand these findings more fully.

(4) SMEs and Innovation

One of the often-presumed benefits of SME involvement in public procurement is that of innovation. That is, SMEs are likely to create innovative products or services if they are given the opportunity to participate successfully; in this theory, public contracts become some kind of 'springboard' of innovation for SMEs. A wide literature has emerged on public procurement of innovation (Edler and Georghiou, 2007; Edquist and Zabala-Iturriagagoitia, 2015; Geroski, 1990; Geroski and Pomroy, 1990; Uyarra et al., 2014) and SMEs are often a significant focus in policy discussions. Recent policy discussions and directions in Australia and New Zealand indicate that these countries are proceeding down the route of promoting public procurement policies that support SMEs with the view that they definitely both encourage and nurture innovation in the economy. In terms of evidence to support these policies, the field is certainly in development.

Douglas and Radicic (2016), using the Innobarometer survey that looks at the innovation trends in EU enterprises, in found that procurement policy related to innovation and SMEs had positive effects on product innovation in services and innovative sales, and this was broadly consistent across SME firm size categories and for both direct and indirect effects. This slightly contradicts earlier evidence that diversity in SMEs requires more specifically focused policies. Innovation related policies may be an exception - it may be the case that public procurement policy that favours innovation actually has a positive effect across the scope of SME diversity. The relationship between public procurement and innovation of SMEs is explored further by Saastamoinen et al. (2018) who find empirical evidence that suggests "higher innovative performance is associated with the demand originating from the public sector." (p.9) Thus public innovation procurement may provide significant incentives for innovating firms, and therefore, be an effective lever for innovation. They go on to say that, "at a more practical level, contracting authorities should recognise the importance of innovative elements in procurement contracts to increase the SMEs' participation rate as this appears to improve the SMEs' participation rate." (p.11) In another Finnish study, the authors found that after controlling for firm size and age, innovativeness and industry - collaborating with the public sector customer in developing new products or services, improving production processes and making improvements in response to customers (as part of the procurement innovation process), is associated with improved competitiveness (Reijonen et al., 2018).

Implications for Policy/Practice

Although this is an area that will require more examination for public policy makers, the theory of applying innovation in public procurement, seems like an encouraging strategic lever through which public procurement can encourage SME participation and their innovativeness, and potentially their success in the public procurement market. Moreover, unlike other SME-friendly policies, the early evidence seems to suggest that it is a broad-based mechanism that will work across the diverse nature of the SME supply-base.

Procurement processes that encourage and engage with innovation do seem to be a tool to increase SME participation in public procurement. This continues to be an understudied area - innovation is notoriously difficult to quantify making empirical work difficult. The relationship between innovation in procurement and risk has not been well established but is critical due to the risk factor in contracts and the problem that small suppliers may create more risk for a procuring entity given that a small contractor can generally bear less risk.

Conclusion

Does strategic public procurement for SMEs work? Our first conclusion is clear - given the dearth of data on SME involvement in public procurement, especially in Australia and New Zealand, research needs to be undertaken to provide baseline information on SME share of public contracts, followed by research to understand the effects of policies on SMEs. Poor measurement and data collection needs rectifying; this may be connected to how central government and local government organise their procurement systems and their financial management systems and how these interrelate. Trends towards category management and framework agreements are perhaps at odds with increasing SME involvement in public procurement however we know that frameworks can be designed to accommodate SMEs.

Second, SME-friendly procurement policies are hard to measure and enforce (especially without good data). The problems with understanding procurement policies towards SMEs are highlighted by Nicholas and Fruhmann (2014) who point out the lack of clear policy goals with measurable objectives, and the political nature of broad goals that leads to actions that cannot be clearly evaluated. There are however increasing efforts related to measurement such as the Australian Indigenous Procurement Policy and the New Zealand targets for indigenous businesses; and the US policy goal of 23% of awards by value to SMEs provide at least a minimum benchmark that can be measured (U.S. Small Business Administration, n.d.). The US has a range of set-asides and sole source programs that may not be amenable in the Australian and New Zealand environments although these new target approaches seem to be moving towards different policies for different supplier categories. Given how little we know about the impact of barriers, market orientation and response to procurement for innovation in Australia and New Zealand, further work is needed.

Evidence shows that the diversity of SMEs may require more nuanced policy development with respect to procurement. Innovation related procurement policies seem to be an adaptable policy instrument. Where SME-friendly procurement policies are being implemented, SMEs will be more successful in competitions, although it does not appear to hold conclusively that splitting work into smaller packages has an impact on the success of SMEs. Splitting of work packages and contracts is fundamental to understand because there are many long-standing assumptions about this approach. Barriers to entry for SMEs to public procurement markets continue to persist despite attention to reducing their impact and the fact that these persist indicates that public procurement organizations are still not doing enough to reduce the obstacles. Procurement evaluation methodologies appear to have an impact on the success of SMEs, with

good intentions governments have sought to go beyond the lowest price approach, broadening out the ways in which bids will be considered but this does not appear from the available evidence to have positive effects on SMEs. This has yet to be studied however with respect to social enterprises. This finding requires much more consideration as it may have critical implications for procurement institutions and markets. SME-friendly procurement policies should be doing more good - than harm and yet we know so little from the evidence base. Procurement policy for SMEs needs to be fully implemented, tracked and reviewed in order to understand its effects in different contexts.

References

- Albano GL, Antellini Russo F, Castaldi G, et al. (2015) Evaluating small businesses' performance in public e-procurement: Evidence from the Italian government's e-marketplace. *Journal of Small Business Management* 53. Informa UK Limited: 229–250.
- Allen B (2021) Broader outcomes in procurement policy--a case of New Zealand pragmatism. *Journal of Public Procurement*. Emerald Publishing Limited. Available at: <https://www.emerald.com/insight/content/doi/10.1108/JOPP-04-2021-0025/full/html>.
- Allen, B., Hannant, A., Jackson, B., and Tiernan, M. (Forthcoming 2022) Social innovation for social policy in Australia. In: Baehler K (ed.) *The Oxford Handbook of Public Administration for Social Policy*. Oxford University Press.
- Amotai (2021) Amotai - Supplier Diversity Aotearoa. Available at: <https://amotai.nz/> (accessed August 2021).
- Ancarani A, Di Mauro C, Hartley T, et al. (2019) A Comparative Analysis of SME Friendly Public Procurement: Results from Canada, Hungary and Italy. *International Journal of Public Administration*. Routledge: 1–16.
- Australia 2030: Prosperity through innovation – A plan for Australia to thrive in the global innovation race (strategic opportunity 3.4: 'National innovation can be stimulated by using government procurement as a strategic lever' (n.d.). Available at: <https://www.industry.gov.au/sites/g/files/net3906/f/May%202018/document/pdf/australia-2030-prosperity-through-innovation-full-report.pdf>.
- Australian Government-Australian Small Business and Family Enterprise Ombudsman (2016) *Small Business Counts - Small Business in the Australian Economy*. Available at: https://www.asbfeo.gov.au/sites/default/files/Small_Business_Statistical_Report-Final.pdf.
- Australian Industry Participation Framework (2001). Available at: <https://www.industry.gov.au/sites/default/files/australian-industry-participation-national-framework.pdf>.
- Barraket J (2020) The Role of Intermediaries in Social Innovation: The Case of Social Procurement in Australia. *Journal of Social Entrepreneurship* 11(2). Routledge: 194–214.

- Barraket J, Keast R and Furneaux C (2015) *Social Procurement and New Public Governance*. Routledge.
- Controller and Auditor-General - Tumuaki o te Mana Arotake* (2020) Local government procurement New Zealand. Available at: <https://oag.parliament.nz/2020/local-govt-procurement/docs/local-govt-procurement.pdf> (accessed June 2021).
- Davis P and Brady O (2015) Are government intentions for the inclusion of innovation and small and medium enterprises participation in public procurement being delivered or ignored? An Irish case study. *Innovation: The European Journal of Social Science Research* 28(3). Routledge: 324–343.
- Denny-Smith G and Loosemore M (2017) Integrating Indigenous enterprises into the Australian construction industry. *Engineering Construction and Architectural Management* 24(5): 788–808.
- Douglas D and Radicic D (2016) Effectiveness of public procurement in stimulating innovation in small and medium-sized enterprises (SMEs). In: *Institute for Small Business and Entrepreneurship (ISBE)*, 27 October 2016. Available at: <http://eprints.leedsbeckett.ac.uk/3268/> (accessed 10 September 2018).
- Edler J and Georghiou L (2007) Public procurement and innovation—Resurrecting the demand side. *Research policy* 36(7): 949–963.
- Edquist C and Zabala-Iturriagagoitia JM (2015) Pre-commercial procurement: a demand or supply policy instrument in relation to innovation? *R&D Management* 45(2). Wiley Online Library: 147–160.
- Esteves AM, Brereton D, Samson D, et al. (2010) *Procuring from SMEs in Local Communities: A Good Practice Guide for the Australian Mining, Oil and Gas Sector*. Available at: <http://www.csr.m.uq.edu.au/docs/4361%20CSR%20SME%20Report%20Email%20V2.pdf>.
- Flynn A (2017) Re-thinking SME disadvantage in public procurement. *Journal of Small Business and Enterprise Development* 24(4): 991–1008.
- Flynn A (2018) Investigating the implementation of SME-friendly policy in public procurement. *Policy Studies* 39(4). Routledge: 422–443.
- Flynn A and Davis P (2015a) The rhetoric and reality of SME-friendly procurement. *Public Money & Management* 35(2): 111–118.
- Flynn A and Davis P (2016a) Firms' experience of SME-friendly policy and their participation and success in public procurement. *Journal of Small Business and Enterprise Development* 23(3): 616–635.
- Flynn A and Davis P (2016b) The policy–practice divide and SME-friendly public procurement. *Environment and planning. C, Government & policy* 34(3). SAGE Publications Ltd STM: 559–578.
- Flynn A, McKevitt D and Davis P (2015) The impact of size on small and medium-sized enterprise public sector tendering. *International Small Business Journal* 33(4): 443–461.
- Geroski PA (1990) Innovation, technological opportunity, and market structure. *Oxford*

economic papers 42(3). JSTOR: 586–602.

Geroski PA and Pomroy R (1990) Innovation and the evolution of market structure. *The Journal of industrial economics*. JSTOR. Available at: <https://www.jstor.org/stable/2098500>.

Government of New Zealand (2018a) *Enhancing the effectiveness of government procurement policy*. November. Office of the Minister for Economic Development.

Government of New Zealand (2018b) *Enhancing the effectiveness of government procurement policy*. November. Office of the Minister for Economic Development.

Guidelines for working with SMEs (2021) Queensland Government. Available at: <https://www.forgov.qld.gov.au/finance-and-procurement/procurement/buy-for-queensland-government/buying-categories/ict-products-and-services/guidelines-for-working-with-smes> (accessed August 2021).

Herbert GA and Essig M (2018) Factors that influence the success of small and medium-sized suppliers in public procurement: evidence from a centralized agency in Germany. *Supply Chain Management: An International Journal* 23(1): 65–78.

Hoekman B and Taş BKO (2020) Procurement policy and SME participation in public purchasing. *Small Business Economics*. Springer. DOI: 10.1007/s11187-020-00414-z.

Karjalainen K and Kempainen K (2008) The involvement of small- and medium-sized enterprises in public procurement: Impact of resource perceptions, electronic systems and enterprise size. *Journal of Purchasing and Supply Management* 14(4): 230–240.

Kivistö T and Virolainen VM (2017) Analyzing Local and SME Participation in Public Procurement—Evidence From Seven Finnish Municipalities. *Global Public Procurement Theories and Practices*. DOI: 10.1007/978-3-319-49280-3_5.

Linarelli J (2011) The Limited Case for Permitting SME Procurement Preferences in the WTO Agreement on Government Procurement. In: Arrowsmith S and Anderson R (eds) *The WTO Regime on Government Procurement: Challenge and Reform*. Cambridge University Press.

Loader K (2005) Supporting SMEs through Government Purchasing Activity. *The International Journal of Entrepreneurship and Innovation* 6(1). SAGE Publications: 17–26.

Loader K (2007) The Challenge of Competitive Procurement: Value for Money Versus Small Business Support. *Public Money & Management* 27(5). Routledge: 307–314.

Loader K (2011) Are public sector procurement models and practices hindering small and medium suppliers? *Public Money & Management* 31(4). Routledge: 287–294.

Loader K (2015) SME suppliers and the challenge of public procurement: Evidence revealed by a UK government online feedback facility. *Journal of Purchasing and Supply Management* 21(2): 103–112.

Loader K (2018) Small- and medium-sized enterprises and public procurement: A review of the UK coalition government's policies and their impact. *Environment and Planning C: Politics and Space* 36(1). SAGE Publications Ltd STM: 47–66.

- Loosemore M, Alkilani SZ and Murphy R (2021) The institutional drivers of social procurement implementation in Australian construction projects. *International Journal of Project Management*. Elsevier. DOI: 10.1016/j.ijproman.2021.07.002.
- Mandow N (2021) Opaque, inefficient, unfair: Govt's \$42b procurement regime report card. Available at: <https://www.newsroom.co.nz/govts-opaque-42b-procurement> (accessed August 2021).
- Mazzarol T and Clark D (2016) The evolution of small business policy in Australia and New Zealand. *Small Enterprise Research* 23(3). Routledge: 239–261.
- McKevitt D and Davis P (2013) Microenterprises: how they interact with public procurement processes. *International Journal of Public Sector Management* 26(6): 469–480.
- Ministry for Small Business (2018) *New Zealand's Support for Small Business*. May. Available at: <https://www.mbie.govt.nz/business-and-employment/business/support-for-business/small-business/>.
- Ministry of Business, Innovation and Employment (2019a) Small Business Council NZ Defining Small Business. Available at: <https://www.mbie.govt.nz/assets/defining-small-business.pdf> (accessed April 2021).
- Ministry of Business, Innovation and Employment (2019b) Small businesses in 2019. Available at: <https://www.mbie.govt.nz/assets/small-business-factsheet-2020.pdf> (accessed April 2021).
- Murray JG (2014) Debate: Public procurement needs outcome evaluations. *Public Money & Management* 34(2). Routledge: 141–143.
- Nakabayashi J (2013) Small business set-asides in procurement auctions: An empirical analysis. *Journal of public economics* 100. Elsevier: 28–44.
- Nicholas C and Fruhmann M (2014) Small and medium-sized enterprises policies in public procurement: Time for a rethink?1. *Journal of Public Procurement* 14(3): 328–360.
- NSW buy.nsw (2021) Small and Medium Enterprise and Regional Procurement Policy. Available at: <https://buy.nsw.gov.au/policy-library/policies/sme-and-regional-procurement-policy> (accessed August 2021).
- NZ Rise (2021) Call for Transparency in Government Procurement. Available at: <https://nzrise.org.nz/call-for-improved-transparency-in-government-procurement/>.
- OECD (2017) *Enhancing the Contributions of SMEs in a Global and Digitalised Economy*. Available at: <https://www.oecd.org/mcm/documents/C-MIN-2017-8-EN.pdf>.
- OECD (2018) *OECD SMEs in Public Procurement*. Available at: <http://www.oecd.org/publications/smes-in-public-procurement-9789264307476-en.htm>.
- Onur İ, Özcan R and Taş BKO (2012) Public Procurement Auctions and Competition in Turkey. *Review of Industrial Organization* 40(3): 207–223.
- Patil K (2017) Public procurement policy for small and medium enterprises in developing countries: Evidence from India. *International Journal of Public Sector Management* 30(4).

Emerald Publishing Limited: 391–410.

Pett T and Wolff J (2012) SME identity and homogeneity – are there meaningful differences between micro, small and medium-sized enterprises. *Journal of Marketing Development and Competitiveness* 6(2): 48–59.

Pickernell D, Kay A, Packham G, et al. (2011) Competing Agendas in Public Procurement: An Empirical Analysis of Opportunities and Limits in the UK for SMEs. *Environment and Planning, C, Government & policy* 29(4): 641–658.

Qiao Y, Thai KV and Cummings G (2009) State and local procurement preferences: a survey. *Journal of Public Procurement*. emeraldinsight.com. Available at: <https://www.emeraldinsight.com/doi/abs/10.1108/JOPP-09-03-04-2009-B003>.

Reforms to IT procurement inject \$650mill into small businesses | Ministers Media Centre (n.d.). Available at: <https://ministers.pmc.gov.au/taylor/2017/reforms-it-procurement-inject-650mill-small-businesses> (accessed 8 November 2018).

Reijonen H, Saastamoinen J, Tammi T, et al. (2018) Does collaboration with public and private sector actors in public procurement of innovations improve SME competitiveness? *Geography, Open Innovation and Entrepreneurship*. Edward Elgar Publishing: 43.

Reis PRC and Cabral S (2015) Public procurement strategy: the impacts of a preference program for small and micro businesses. *Public Money & Management* 35(2). Routledge: 103–110.

Riley J (2018) IBM deal is an absolute shocker. Available at: <https://www.innovationaus.com/2018/07/IBM-deal-is-an-absolute-shocker> (accessed 10 September 2018).

Rosenbusch N, Brinckmann J and Bausch A (2011) Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing* 26(4): 441–457.

Saastamoinen J, Reijonen H and Tammi T (2018) Should SMEs pursue public procurement to improve innovative performance? *Technovation* 69: 2–14.

Saastamoinen J, Reijonen H and Tammi T (2020) SMEs' market orientation toward public sector customers in public procurement. *International Journal of Public Sector Management* 34(1). Emerald Publishing Limited: 1–16.

Smart S (2017) Angus Taylor: more tech procurement from small business. *The Mandarin*, 21 March. Available at: <https://www.themandarin.com.au/77019-angus-taylor-tech-procurement-small-business/> (accessed 8 November 2018).

Stake J (2017) Evaluating quality or lowest price: consequences for small and medium-sized enterprises in public procurement. *The Journal of technology transfer* 42(5): 1143–1169.

Statistics on Australian Government Procurement Contracts (2021) Australian Government Department of Finance. Available at: <https://www.finance.gov.au/government/procurement/statistics-australian-government-procurement-contracts->.

Stats NZ *Tatauranga Aotearoa* (2020) *Tatauranga umanga Māori - Statistics on Māori businesses: 2020*. Available at: <https://www.stats.govt.nz/information-releases/tatauranga-umanga-maori-statistics-on-maori-businesses-2020-english>.

Technopolis GHK (2007) *Evaluation of SMEs' Access to Public Procurement Markets in the EU*. Brussels: European Commission.

Te Puni Kokiri Ministry of Maori Development (2021) *Progressive Procurement*. Available at: <https://www.tpk.govt.nz/en/a-matou-kaupapa/maori-economic-resilience/progressive-procurement> (accessed August 2021).

Tranfield D, Denyer D and Smart P (2003) Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management* 14(3). Wiley: 207–222.

Tremblay A and Boyle T (2019) *Public Procurement and Regional Development Literary Review: Summary of Key Themes*. Regional Australia Institute.

Tussell Social Enterprise UK (2018) *Tussell -Social Enterprise UK Index-Community Interest Companies (CICs) in Public Procurement Q1 2018*. Available at: <https://www.socialenterprise.org.uk/press-releases/social-enterprises-winning-public-sector-contracts-falls-to-lowest-level-for-two-years-finds-new-research/> (accessed September 2021).

U.S. Small Business Administration (n.d.) *About the SBA*. Available at: <https://www.sba.gov/about-sba/sba-newsroom/press-releases-media-advisories/federal-government-achieves-small-business-contracting-goal-fifth-consecutive-year-record-breaking> (accessed 3 January 2019).

Uyerra E, Edler J, Garcia-Estevez J, et al. (2014) Barriers to innovation through public procurement: A supplier perspective. *Technovation* 34(10): 631–645.

Withey JJ (2011) Small manufacturing businesses: their interest in securing contracts from public agencies. *Journal of Public Procurement* 11(3). Emerald Publishing Limited: 388–402.

Appendix A: Findings by theme

Study	Country	Focus of paper	Methods used	Findings	Implications
Finding 1: Diversity and Range of SMEs					
McKevitt & Davis (2013)	Ireland	Microenterprises interaction with public procurement	Survey	Microenterprises limited ability to choose strategies for engaging with procurement processes	Small firms not homogenous group. Different policy and strategies required.
Flynn (2017)	Ireland	SME disadvantage in public procurement	Survey and model	Firm size positively associated with tendering resource capacities	One size fits all SME policy not sensitive to intra-SME differences
Flynn, McKevitt & Davis (2015)	Ireland	Relationship between firm size and public sector tendering	Survey	Size significantly influences tendering resources, behaviour and success of SMEs; SMEs do not all behave the same way in tendering for public sector contracts	SMEs are not amenable to the same policy approaches; should not be treated the same
Finding 2 – Implementation of SME-friendly public procurement policy					
Flynn & Davis (2016a)	Ireland	Procurement approaches directed at SMEs	Survey	Experience of SME-friendly measures is not associated with increased frequency of tendering activity, but is associated with superior success rates in contract competitions and a greater commercial orientation towards the public sector. Importantly, exposure to SME-friendly measures is more powerful than organisation characteristics, including firm size, sector and tendering experience, in accounting for variance in success rates.	SME friendly policies create conditions that are conducive to the success of SMEs in public procurement
Flynn (2018)	Ireland	Implementation of SME-friendly procurement policy	Survey	Gap between government policy and reality; some but not all practices adopted	Policy without enforcement and useful reporting does not lead to learning; makes it impossible to rule harmful impact
Herbert & Essig (2018)	Germany	Factors influencing success of SMEs in public procurement	Statistical testing of hypotheses	Higher number of lots in a tender does not significantly increase the success rate of SMEs	SME competitiveness is more relevant to their success in public marketplace than support policies
Nakabayahsi (2013)	Japan	Set-asides and	Simulation study;	Demonstrate 40% of SMEs would exit	Set-asides improves equity

Study	Country	Focus of paper	Methods used	Findings	Implications
		cost	theoretical modelling	procurement market if set-asides removed; resulting lack of competition would increase government procurement costs more than it would offset the production cost inefficiency	between firms, reduces govt procurement costs
Patel (2017)	India	Performance of SME policy	Interviews	Uneven performance in meeting SME procurement targets, plus barriers arising from capacity	Need for leadership and institutional strengthening; training
Reis & Cabral (2015)	Brazil	How procurement preferences for SMEs affect contracting prices and public contracts	Statistical work on reverse auctions	Preference programs increased participation and odds of winning and being awarded public contracts; SMEs more likely to have contracts terminated due to poor performance	SMEs may face difficulty in fulfilling contractual obligations
Stake (2017)	Sweden	Effect of MEAT rather than lowest price	Statistical	No effect on SME participation in procurement calls for tender as a result of MEAT in firm evaluations	Using MEAT has been seen as advantageous to SMEs because they are viewed as sources of innovation, however author finds no effect on SME participation using MEAT, large firms increase their participation; if author correct that micro and SMEs probability of winning contracts decreases rather than using lowest price; SME policy may be incorrect
Albano, Russo, Castaldi & Zampino (2015)	Italy	Extent to which micro and SMEs successful winning contracts in e-marketplaces	Statistical work on marketplace purchases	E-markets mirror physical markets; public authorities more inclined to award more valuable contracts to local firms of bigger size	E-solutions not panacea for opening up public procurement markets; soften capacity constraints with networks of firms
Finding 3: Barriers to Entry, Market Orientation for SMEs in Public Procurement					
Loader (2005)	UK	Supporting SMEs through government purchasing	Survey	Barriers included lack of awareness of opportunities, difficulty getting on to approved lists, lack of knowledge of procurement process	Policy conflicts need resolving, resource demands impactful
Loader (2011)	UK	Local authority procurement practices, impact on their ability to	Survey research representing 105 public sector authorities	When broader VFM decisions are used SMEs are more likely to be successful. Shorter and smaller-scale contracting makes it easier for SMEs to be	evidence of effective procurement methods for engaging SMEs. more work needs to be

Study	Country	Focus of paper	Methods used	Findings	Implications
		successfully procure from SMEs		successful. Suggests that the most significant factor in the success of SMEs is a partnership approach to procurement by public sector entities	done to “determine where the scope for SME suppliers exists” in the public procurement market. (Finding 2)
Loader (2015)	UK	Supplier views of challenges with UK public procurement	Content analysis of feedback facility	Wide range of obstacles including overly prescriptive requirements, requirement to supply via 3 rd party, poor specifications	Supplying via 3 rd party newer issue and potentially problematic re competition
Karjalainen & Kempainen (2008)	Finland	Involvement of SMEs in public procurement; impact of key variable	Survey	Lack of legal and admin resources associated with lower SME involvement; size of SMEs a factor; use of e-systems influences SME involvement	Identification of pain-points for SMEs breaking in to public procurement markets, provides factors to mitigate
Sasstamoinen, Reijonen and Tammi (2020)	Finland	SME market orientation	Test of survey construct	Customer and competitor orientation, positive predictors of participating and winning public sector contracts	SMEs with commercial skills more likely to win public sector contracts
Ancarani, De Mauro, Hartely & Tátrai (2019)	Canada, Hungary, Italy	Comparing SME friendly procurement	Survey	Administration of bidding not a hindrance but entry costs are, characteristics associated with size are determinants of participation	Level of capital and resource continue to be problematic for firms to participate in public procurement bidding
Kivisto & Virolainen (2017)	Finland	Analyse local and SME access to public procurement in 7 municipalities	Statistical analysis of invoice data	Public sector structure and legislation strong effect on SME involvement	Active procurement strategy will enable local enterprises to obtain a greater share of public contracts
Withey (2011)	United States	Small manufacturers interest in public contracts	Survey	Attitude prevailing that private sector success important before success possible in public sector; consulting assistance necessary in order to get on agency bidder lists; capital structure and financial requirements lesser importance	Perceptions of SMEs useful for public procurers; understanding what is important and problematic to them
Finding 4: SMEs and Innovation					
Saastamoinen et al. (2018)	Finland	Innovation performance through procurement contracts	Survey	Higher innovative performance of SMEs is associated with demand from public sector	Emphasis on innovation in procurement contracts appears to improve SME participation rate
Douglas & Radici (2016)	EU	Public procurement and stimulating	Use of Survey	Direct and indirect effects from policy on product innovation in services and innovative sales; broadly consistent	Strong effect on SMEs through efforts in reducing barriers to SME

Study	Country	Focus of paper	Methods used	Findings	Implications
		innovation		across SME firm size categories	participation
Reijonen et al. (2018)	Finland	Collaboration and SME competitiveness	Survey	Collaboration between SMEs and customers in developing new products/services, improving production processes -> improved competitiveness in public marketplace	Improve communication between public sector customers and prospective suppliers; contribute to regional entrepreneurial ecosystem
Other supporting work					
Davis & Brady (2015)	Ireland	Government intentions for SMEs being delivered?	Case study through interviews	Variability of implementation of procurement policies for SMEs. Lack of monitoring.	Policies without effective monitoring reduces potential impact.
Kidalov & Snider (2011)	US and Europe	Progress towards meeting SME participation goals	Qualitative comparison	Progress has been slow. There are similarities and differences in the way policy approached and implemented.	Lack of consensus about how to best aid SMEs – prevalence of structural policies instead of allocative ones; promote/push/incentivize rather than mandate; lack of enforcement and administrative discretion means we do not know the best way
Selviaridis & Spring (2021)	UK	Innovation in supply chain	Qualitative	Public agencies promote SME supplier enabled innovation through institutional change and mitigation	Intervention of policy actors influence the SME supply chain
Akenroye, Owens, Elbas & Durowoju (2020)	N/A	How dynamic capabilities theory can improve SME participation	Systematic Literature review	7 propositions for future research.	Identification of barriers and capabilities to overcome