Chapter 3. Intervening to support SMEs in public procurement

In developing SME support policies, OECD countries have implemented approaches that attempt to actively remove the barriers that smaller businesses face when competing in public tenders. These barriers differ according to the size of the company and the sector in which they operate. This chapter discusses how policy approaches might differ accordingly, as well as exploring the differences between policies that attempt to level the playing field, and among those that actively seek to give suppliers groups an advantage in tender procedures.
Governments expend efforts to render public procurement systems conducive to participation of and competition among economic operators of all sizes, including SMEs. While most countries focus on removing barriers for SMEs, the peculiar characteristics of public procurement markets do not allow these barriers to be completely removed.

The fixed costs associated with participation in public procurement markets can disproportionately affect SMEs. Participating is associated with a certain level of investment, in terms of time, financial and human resources, and knowledge. In particular, suppliers commonly cite the effort involved in bidding or undertaking prequalification as a barrier. The bidding processes established and regulated by procurement legislation are typically rigorous and resource intensive (Karjalainen and Kemppainen, 2008[1]). This is even truer for complex public procurement projects.

Where SMEs face barriers to tendering that other firms do not, governments can be considered justified in deciding to intervene by providing SME-targeted support. Research shows that efficient SMEs are at a disadvantage when competing against larger businesses in credit markets because of unequal conditions (Yukins and Piga, 2012[2]). The disproportionate effect of conditions has led some countries to provide specific support for SMEs, such as favouring the bids of smaller firms in government tenders or establishing mechanisms to ensure the early payment of invoices. Yet policy makers must balance the use of these types of support with a desire to maintain open competition through a level playing field for all suppliers, and also with other SME policy areas.

The challenges faced by SMEs differ according to their size and the sector in which they operate. This chapter presents the measures implemented by countries seeking to enhance opportunities for SMEs, and explores the ways in which countries vary that support according to the specificities of the challenges that SMEs face.

3.1. Increasing SMEs’ chances of winning public contracts through preference programmes

The disadvantages that SMEs face when competing in public tenders are well documented. For an SME, participation represents a consumption of resources that is proportionally higher than for larger businesses. However, countries face a dilemma when deciding whether such challenges warrant intervention, particularly where intervening tips the playing field in favour of smaller businesses.

The argument that small businesses face barriers that larger businesses do not could justify implementing measures according them preference (Yukins and Piga, 2012[2]). However, a stronger argument for intervention can be put forward where a market failure is identified. Examples of preferential measures include set-asides and bidding price preferences. Where there are high barriers to entry, such measures could raise the number of competing solutions in the market. At the same time, for many countries this betrays the principle of ensuring a level playing field, and so use of these types of measures is prohibited for being discriminatory. Among these countries are the Member States of the European Union, where such measures are said to represent a restriction of full and open competition. Though notably, the WTO Agreement on Subsidies and Countervailing Measures also prohibits export subsidies and aid contingent on the use of domestic over imported goods, or the granting of special treatment to individual businesses. Indeed, only a few OECD countries have legislative provisions for bid preference (e.g. Korea and Mexico) and set-asides (e.g. Canada, Korea and the United States).
With set-asides, a certain share of government procurement contracts is set aside for a targeted category of bidders that meets the preferential qualification criteria. Under this programme, bidders that qualify to participate in procurement set-asides compete against each other.

Set-asides are sometimes used to correct market failures that have arisen, for instance through the treatment of historically disadvantaged individuals who may have been denied the opportunity to build or fulfil their potential (Asian Development Bank, 2012[3]). Public procurement, in particular through showing a preference for these groups, positively impacts social cohesion and employment by providing opportunities to groups of workers and entrepreneurs that are generally excluded from the labour market (Cravero, 2017[4]).

Canada has a set-aside programme for Aboriginal businesses, which are mostly SMEs, within the Federal Framework for Aboriginal Economic Development. This programme aims to ensure that First Nations, Inuit and Métis have every opportunity to share in the country’s economic opportunities and prosperity. The programme includes mandatory set-asides for all procurements over CAD 5 000 for which Aboriginal populations are the primary recipients, and voluntary set-asides that can be used by federal departments and agencies in procuring goods, services, or construction where Aboriginal capacity exists (Indigenous and Northern Affairs Canada, n.d.[5]).

The United States has established different types of set-asides targeting different supplier categories. The US set-asides also establish goals for specific categories of small businesses – including women-owned small businesses, small disadvantaged businesses, service-disabled veteran-owned small businesses and businesses from historically underutilised business zones (Box 3.1).
Box 3.1. Small business set-aside – United States

Set-asides are a powerful tool for helping small businesses compete for and win federal contracts. Every year, the US federal government purchases approximately USD 400 billion in goods and services from the private sector. When market research concludes that small businesses are available and able to perform the work or provide the products being procured by the government, those opportunities are “set aside” exclusively for small business concerns.

There are many different types of set-asides. Some are open to all small businesses; others are open only to small businesses with certain designations.

**Contract value**

A set-aside is based in part on the value of the goods or services that the government is looking to purchase.

- **USD 3 500 - USD 150 000**

Every federal government purchase with an anticipated value above the micro-purchase threshold of USD 3 500 and up to the Simplified Acquisition Threshold (SAT) of USD 150 000 is required to be automatically and exclusively set aside for small businesses. There must be at least two or more (Rule of Two) responsible small business concerns that are competitive in terms of market prices, quality and delivery for an automatic set-aside to take place.

- **Above USD 150 000**

Contract opportunities above the SAT of USD 150 000 shall also be set aside if the Rule of Two is met.

- **Above USD 700 000 or USD 1.5 million for construction**

Contracts opportunities in this category awarded to Other than Small Businesses (OTSBs) must have small business subcontracting plans to the extent that there are subcontracting opportunities. A small business subcontracting plan establishes subcontracting goals for small businesses, small disadvantaged businesses, HUBZone (Historically Underutilized Business Zones), veteran-owned, service-disabled veteran-owned and women-owned small businesses.

**Prime contract goals**

The Federal government has specified annual prime contracting goals for designated small businesses. The current, government-wide procurement goal stipulates that at least 23% of all federal government contracting dollars should be awarded to small businesses. In addition, targeted goals are established for the following small business categories:

- women-owned small business – 5%
- small disadvantaged business – 5%
- service-disabled veteran-owned small business – 3%
- HUBZone – 3%
### Set-aside and sole-source programmes

Government contracts can be set aside for small businesses in the following certification programmes and socio-economic categories:

- 8(a) Business Development, targeted for economically and socially disadvantaged according to Title 13, Part 124 of the Code of Federal Regulations
- HUBZone Programme
- Women Owned Small Business (WOSB) Program (includes Economically Disadvantaged Women-Owned Small Business [EDWOSB] concerns)
- Service-Disabled Veteran-Owned Program

In addition, there are sole-source development opportunities under the 8(a) programme and sole-source conditional opportunities under the HUBZone, Service-Disabled Veteran-Owned Small Businesses, and WOSB programmes.


Set-asides and preference programmes can also be directed at SMEs in general, in order to increase their share of the public procurement market. In these cases, governments intervene more directly to ensure that SMEs are awarded public funds through public procurement. The development of public procurement policies in support of SMEs in China is an illustration (see Box 3.2).
Box 3.2. Encouraging SME participation in public procurement in China

The Chinese Government has recognised the impact of public procurement on SMEs since the beginning of its efforts to reform procurement. The first comprehensive government procurement code, Government Procurement Law 2002 (GPL), provides in Article 9 that “government procurement shall be conducted in such a manner as to facilitate achievement of the economic and social development policy goals of the State, including but not limited to environmental protection, assistance of underdeveloped or ethnic minority regions, and development of small and medium-sized enterprises”.

In addition, the Law on Promotion of Small and Medium-sized Enterprises 2002, which was adopted by the National People’s Congress on the same day as for GPL, states in Article 34 that “in government procurement, preference shall be arranged to goods or services originated from small and medium-sized enterprises”. In addition, the 2011 Interim Measure on Facilitating the Development of SMEs in Government Procurement adopted jointly by the Ministry of Finance (MOF) and Ministry of Industry and Information Technology (MIIT) provides that 30% of the government procurement budget shall be set aside to purchase goods and services from SMEs and 60% of these reserved contracts shall be awarded to small or micro enterprises. Furthermore, small and micro enterprises participating in procurement not reserved for SMEs shall be granted a price preference in the range of 6-10% with the exact margin to be determined by the relevant procuring entity or its agent. The Interim Measure also encourages big companies to use SMEs as subcontractors and to form consortia with them, and encourages financial institutions to provide credits/guarantees for SMEs to pay deposits and perform the contract.

Finally, it is compulsory for procuring entities to report on the implementation of the measure and the data gathered shall be published on the official government procurement media (website: www.ccgp.gov.cn; newspaper: Chinese Finance and Economy; and magazines: Chinese Government Procurement, China State Finance).

Source: (OECD, n.d.[6]).

Some contracting authorities also support development of national and local suppliers in their public procurement activities. For instance, PEMEX (Petróles Mexicanos), the Mexican state-owned petroleum company, launched a regional development project in the state of Tabasco in 2013 to increase public purchases in the oil sector from domestic suppliers. This was done by creating a single corporate procurement and supply management department; cataloguing projected demand for goods and services; identifying items whose purchase can be shifted from foreign to local suppliers; creating a list of SMEs with the potential to deliver the good or service; offering SMEs a free consultation and advising on the areas needing to be scaled up; and providing a letter of assessment to ease SMEs’ access to bank loans to invest in relevant assets (OECD, 2017[7]).

There are serious concerns over the adverse effects of preference programmes on competition in the public procurement market. In the case of PEMEX, competition could suffer from the following adverse outcomes and risks: the loss of cost efficiency through paying higher unit prices; the damage done to local suppliers that risk becoming inefficient and uncompetitive; increasing inequality by requiring taxpayers to subsidise business owners; and mutually damaging retaliatory action from countries whose exporters lose out. Identifying the impact on procurement outcomes is difficult because the counterfactual is
not clear. However, economic models are clear that preference policies reduce the value obtained by the contracting authority, except where they show preference to non-incumbents rather than large or local firms (Jehiel and Lamy, 2015 [8]). Regarding the issue of inefficiency, some empirical evidence from auction data also suggests that these programmes shifting the awardees to the favoured category of bidder can raise costs and reduce quality for the contracting authority, especially through increasing the rate of contract cancellation (Marion, 2007 [9]) (Krasnokutskaya and Seim, 2011 [10]) (De Silva et al., 2012 [11]). Procurement professionals at the Institute for Public Procurement argue that local preference policies are in conflict with the fundamental public procurement principles of impartiality and full and open competition. Therefore, they do not support the use of local preference policies as an appropriate tool for improving local economies (The Institute for Public Procurement, 2015 [12]).

Some academic studies suggest that – assuming there is no retaliatory action by other countries on behalf of their exporting firms – if the contracting authority wants to increase the profits of the SME firms that it is protecting, then the use of local bid preference policies will help it achieve that goal. However, little evidence exists on the effects of those policies on a wider scale, including on the overall dynamic of the economy. This makes it challenging to decide on an optimal policy mix to support SMEs in public procurement. Academic studies also call for more exploration of the impact of these policies on SME development (Murray, 2014 [13]) (Flynn, Mckevitt and Davis, 2015 [14]).

3.2. Tailoring tools and mechanisms to SMEs’ needs

Governments have implemented measures to address SMEs’ relatively low level of administrative, financial and technical capacity, as described in Chapter 2. Some governments have taken further steps to tailor these measures to SMEs’ needs – for instance, through making large enterprises more aware of the opportunities to add value to their bids by subcontracting to efficient SMEs with a strong record of delivery.

Some OECD countries have considered ways to enhance SME participation in public procurement as subcontractors (see the example from the United States in Box 3.3 below). In studying these developments in the United States and European countries, Kidalov (2013 [15]) concludes that “mere transparency of projects with subcontracting potential, combined with aspirational subcontracting goals, is not sufficient (for enhancing small business subcontracts in government procurement)”. However, it may be that increasing transparency is effective at increasing the efficient use of sub-contracting.
Box 3.3. Small business subcontracting in the United States

For all contracts that exceed the simplified acquisition threshold (USD 150 000), contractors are expected to provide the maximum practicable opportunity to participate in contract performance to small businesses, veteran-owned small businesses, service-disabled veteran-owned small businesses, Historically Underutilized Business Zone (HUBZone) small businesses, small disadvantaged businesses, and women-owned small businesses.

For contracts or contract modifications expected to exceed USD 650 000 (including options) that contain subcontracting opportunities, the successful supplier is required to submit a detailed subcontracting plan. Failure to submit the plan renders the supplier ineligible for award, and any contractor or subcontractor that fails to comply in good faith with the requirements of the subcontracting plan is considered to be in material breach of its contract. The requirement for a subcontracting plan does not apply to cases where the selected supplier is itself a small business, to personal services contracts, or to contracts performed entirely outside the United States (FAR 19.702).

Each subcontracting plan must include:

1. separate percentage revenue goals to be awarded to small businesses, veteran-owned small businesses, service-disabled veteran-owned small businesses, HUBZone small businesses, small disadvantaged businesses and women-owned small business concerns as subcontractors
2. a statement of the total dollars planned to be subcontracted and the total planned to be subcontracted to the categories of concerns identified in (1)
3. a description of the principal types of supplies and services to be subcontracted, including identification of the types to be subcontracted to the relevant concerns
4. a description of the method used to develop the subcontracting goals
5. a description of the method used to identify potential sources for solicitation purposes
6. a statement as to whether indirect cost considerations were included in the establishment of goals and the estimated share of subcontracts
7. the name of an individual who will administer the subcontracting programme, and a description of that individual’s duties of the individual
8. a description of the efforts the offeror will make to ensure that relevant suppliers have an equitable opportunity to compete for the subcontracts
9. assurances that the offeror will include the clause that mandates the Small Business Subcontracting Programme in all subcontracts that offer further subcontracting opportunities, and require any such subcontracts that exceed USD 650 000 to include their own small business subcontracting plan
10. assurances that the offeror will co-operate in any surveys, studies and reporting requirements necessary
11. a description of the types of records that will be maintained concerning procedures adopted to comply with the requirements and goals in the plan.

Rather than establishing a subcontracting plan for each contract action, contractors may establish a master plan on a plant- or division-wide basis that contains all of the elements necessary except specific goals. For individual contracts, the master plan is then incorporated into the individual subcontracting plan along with the goals for that
contract. Such plans are effective for three years after approval, but it remains the contractor’s responsibility to maintain and update the master plan. Any changes to the master plan must be approved by the contracting officer (FAR 19.704).

In addition to the compliance requirements imposed by the subcontracting plan, the contracting officer may encourage the development of increased subcontracting opportunities in negotiated acquisition by providing monetary incentives in the form of payments based on actual subcontracting achievement or award-fee contracting. Such incentives are only appropriate when the contracting officer ensures that the goals are realistic and that any such incentives are commensurate with efforts the contractor would not have otherwise made to achieve them (FAR 19.705).

Source: (OECD, 2016[16]).

Some countries encourage prime contractors to subcontract with SMEs by including this consideration as part of the evaluation criteria. Mexico for example gives additional points to prime contractors who subcontract with SMEs in accordance with the guidelines of the evaluation criteria.

Consideration of engaging SMEs as subcontractors is actively encouraged in large contracts in countries such as Canada and Australia. Canada for instance earmarks certain defence contracts for potential SME participation prior to bid solicitation. The solicitation documents convey to bidders that they will be granted bonus evaluation points for proposing and contractually committing to use SMEs in the performance of contracts. However, in both cases these policies create a serious risk of inflating procurement costs and redistributing taxpayers’ money to the owners of SMEs. A better example of the promotion of SMEs as potential subcontractors in large tenders can be found in Australia, as described in Box 3.4.

Box 3.4. SMEs as subcontractors - Australia

SMEs as potential suppliers in large tenders.

The Australian Industry Participation (AIP) National Framework applies to large Commonwealth tenders (of AUD 20 million or more) and requires successful tenderers or panellists to prepare and implement AIP Plans. An AIP Plan is a document that outlines an organisation’s actions to provide Australian industry with a full, fair and reasonable opportunity to participate in the organisation’s project. An AIP Plan promotes the benefits of engaging Australian SMEs as subcontractors as opposed to relying on established supply chains when buying goods and services for the project.

Source: (Department of Industry, n.d.[17]).

Resource constraints in particular hinder SME participation in public procurement. To ensure that SMEs’ limited access to finance does not impede them from participating in the public procurement market, Korea (for instance) has established a financing mechanism for them (Box 3.5).
Box 3.5. Liquidity support for SMEs in public procurement - Korea

Liquidity support for SMEs in public procurement in Korea comes from a network loan programme. Under this programme, 10 commercial banks have partnered with Public Procurement Service (PPS), the central purchasing body of Korea, to offer terms that allow SMEs to obtain loans for up to 80% of the contract amount solely based on the contract with PPS. This is a valuable means of support for SMEs, who may not otherwise have the financial standing to finance the performance of public procurement contracts.

The programme has been expanded substantially in recent years, providing as many as 13 000 loans of more than USD 400 million (see Table 3.1). Six institutions – including KIBO (Korea Technical Finance Corporation), Korea Federation of SMEs, Industrial Bank of Korea, Sinhan Bank, Hana Bank and Woori Bank – provide even more comprehensive support for SMEs in the form of warranties, loans and enterprise consulting. As of 31 December 2014, 1 223 warranties, loans and consultations were provided under this programme, for a total amount of USD 571 million.

Table 3.1. Network loans made to SMEs, 2012-17

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of loans</th>
<th>Amount (in USD millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>10 048</td>
<td>341.0</td>
</tr>
<tr>
<td>2013</td>
<td>11 472</td>
<td>398.6</td>
</tr>
<tr>
<td>2014</td>
<td>11 419</td>
<td>378.6</td>
</tr>
<tr>
<td>2015</td>
<td>12 412</td>
<td>395.2</td>
</tr>
<tr>
<td>2016</td>
<td>13 857</td>
<td>409.5</td>
</tr>
<tr>
<td>2017</td>
<td>13 385</td>
<td>412.2</td>
</tr>
</tbody>
</table>

Source: Information provided by PPS.

Source: (OECD, 2016[16]).

3.3. SME heterogeneity is not sufficiently taken into account

There are discrepancies in the opportunities afforded to SMEs and their performance according to their size and the sector in which they operate, as well as the age, location and profile of the entrepreneurs and firms. The rationale for implementing SME-specific measures in public procurement often is to address the peculiar challenges presented by public procurement markets, as previously discussed in this chapter. SMEs do not experience these challenges in a uniform way. While most policies address SMEs as one group, this section discusses the characteristics of different subgroups of SMEs and whether developing tailored approaches would be beneficial.

3.3.1. SME heterogeneity in relation to their size

The participation and performance of subgroups of SMEs according to their size – notably micro, small and medium-sized enterprises – varies widely in public procurement. As suggested in previous chapters, SMEs’ resource and capacity constraints disproportionately affect their capabilities. Their disadvantages are not, however, uniform: micro-enterprises and small enterprises are more affected by these constraints than medium-sized enterprises, and micro-enterprises even more so than small enterprises. Furthermore, micro-enterprises are more vulnerable to the constraints that could be imposed by public procurement frameworks, such as the administrative burden of procedures and late payments (Nicholas and Fruhmann, 2014[18]).
Equally, the likelihood of an efficient micro, small and medium business winning a procurement will differ according to the sector in which they operate. For example, an IT start-up firm (classified as “micro” in size) may have a greater opportunity of succeeding in a national tender for IT services than a medium-sized manufacturing business in a regional tender. This emphasises the need for countries to consider how introducing policies to increase the bidding capability of SMEs and raise the visibility of their capability may be particularly valuable in certain sectors (see section 3.3.2 below).

While the contributions of micro- and small enterprises to employment (Figure 1.3) and to value-added (Figure 1.4) are significant, their participation and performance in public procurement do not match their market share. This was for example, the finding of a study of the EU public procurement market, that medium-sized enterprises are well represented in relation to their market share as opposed to small and micro-enterprises (see Figure 3.1) (PwC, ICF GHK and Ecorys, 2014[19]).

Figure 3.1. Difference between the share of SMEs in public procurement and their role in the economy, 2009-11 average, EU-27

Indeed, analysis based on a survey of firms in Finland suggested that the size of SMEs is an influencing factor on their participation in public procurement markets. In particular, the lack of administrative resources, legal expertise and supply capabilities posed more problems for micro-enterprises than their small or medium-sized counterparts (Karjalainen and Kemppainen, 2008[1]). Another study, of Irish SMEs competing for public contracts, also concludes that SME size also corresponds with tendering experience, the number of persons involved in tendering, and propensity to participate in tender-related training, all of which in turn impact a SMEs’ capacity to tender (Flynn, Mckevitt and Davis, 2015[14]).

The SME enablement programmes adopted across OECD countries do not differentiate between SMEs in terms of size, instead describing SMEs as one group. However, such a dichotomy between large enterprises and SMEs could underestimate the heterogeneity of SMEs.
Taking into account the diversity of SMEs, often regarded as their most important characteristic, could raise additional concerns. While public policy designs that take into account heterogeneity could be more effective in responding to the specific needs of their subgroups, the additional layer of complexity of institutions and conditions – especially in defining each subgroup and categorising the SME population – could negatively affect the SMEs that lack administrative and knowledge capacity (Nooeboom, 1993[20]). In the absence of a broad and comprehensive impact study, evidence of the effects of different policies on sub-groups of the SME population is mainly anecdotal at this point. The lack of evidence means that amending policies to provide differentiated capacity-building support would be “premature and speculative” (Flynn, Mckevitt and Davis, 2015[14]). In addition, the differences even in defining SMEs across countries further complicate cross-country analysis and evaluation of the effectiveness of SME-targeted support policies outside of a specific country’s context.

3.3.2. Sector heterogeneity

The heterogeneity of SMEs is also observed in different industries. Due to differences in economies of scale, entry costs and the capital intensity of manufacturing sectors, more SMEs are located in the services and construction sectors, categories that include many self-employed workers (OECD, 2016[21]). Furthermore, SMEs’ performance, especially their contribution to employment and value added, differ widely across sectors as well. In the services sector, SMEs account for 60% or more of total employment and value added in nearly all countries. In manufacturing on the other hand, large firms – while relatively few in number – provide a disproportionate contribution to employment and value added, mainly reflecting increasing returns to scale from more capital-intensive production, as well as entry barriers related to investment (OECD, 2017[7]).

The heterogeneous characteristics of SMEs could also imply sector-specific challenges in the public procurement market. The results of a survey of Canadian SMEs echo this perception: Table 3.2 displays the results of a survey on the barriers faced by SMEs in Canada when selling to government. SMEs in different industries have different perceptions of constraints related to the public procurement market. The results demonstrate that certain sectors are significantly more affected by specific type of barriers than the others.
### Table 3.2. Obstacles when selling to the federal government, Canada

2014 Survey on Financing and Growth of Small and Medium Enterprises (in percentage of the responses)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Complexity of contracting process</th>
<th>Difficulties in finding contracting opportunities</th>
<th>High costs of the contracting process</th>
<th>Long delays in receiving payment</th>
<th>Difficulty meeting contracting requirements</th>
<th>Difficulty providing all services required</th>
</tr>
</thead>
<tbody>
<tr>
<td>All SMEs</td>
<td>41.3</td>
<td>30.8</td>
<td>28.8</td>
<td>23.8</td>
<td>20.3</td>
<td>14.9</td>
</tr>
<tr>
<td>SME suppliers</td>
<td>43.2</td>
<td>25.9</td>
<td>26.5</td>
<td>21.7</td>
<td>19.6</td>
<td>14.0</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>51.2</td>
<td>43.9</td>
<td>35.5</td>
<td>19.6</td>
<td>24.8</td>
<td>14.3</td>
</tr>
<tr>
<td>Information and Communication Technologies (ICT)</td>
<td>50.0</td>
<td><strong>52.2</strong></td>
<td><strong>39.1</strong></td>
<td>21.7</td>
<td><strong>37.0</strong></td>
<td>13.0</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>48.1</td>
<td>28.0</td>
<td>30.4</td>
<td>21.3</td>
<td>18.6</td>
<td>22.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>46.9</td>
<td>36.0</td>
<td>22.9</td>
<td>19.7</td>
<td>24.7</td>
<td>20.1</td>
</tr>
<tr>
<td>Construction</td>
<td>42.8</td>
<td>26.5</td>
<td>31.0</td>
<td><strong>30.7</strong></td>
<td>22.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Other Services</td>
<td>40.6</td>
<td>32.5</td>
<td>9.0</td>
<td>15.9</td>
<td>17.4</td>
<td>13.5</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>34.9</td>
<td>38.7</td>
<td>31.2</td>
<td>29.0</td>
<td><strong>10.1</strong></td>
<td>13.1</td>
</tr>
<tr>
<td>Knowledge-based Industries</td>
<td>34.8</td>
<td>30.0</td>
<td>23.1</td>
<td>26.4</td>
<td>19.8</td>
<td>15.6</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>33.7</td>
<td>29.0</td>
<td>22.1</td>
<td><strong>16.0</strong></td>
<td>18.9</td>
<td><strong>22.2</strong></td>
</tr>
<tr>
<td>Information/Cultural Industries, etc.</td>
<td>33.6</td>
<td>23.5</td>
<td>33.3</td>
<td>26.8</td>
<td>17.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Tourism</td>
<td>32.4</td>
<td>19.6</td>
<td>24.9</td>
<td>24.9</td>
<td>12.7</td>
<td><strong>3.6</strong></td>
</tr>
<tr>
<td>Agriculture/Forestry/ Fishing/Hunting Industries and Mining/Oil/Gas</td>
<td>32.2</td>
<td>37.2</td>
<td>28.6</td>
<td>27.3</td>
<td>16.9</td>
<td>18.4</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td><strong>29.1</strong></td>
<td><strong>15.5</strong></td>
<td>7.7</td>
<td>20.5</td>
<td>18.0</td>
<td>8.2</td>
</tr>
</tbody>
</table>

*Note:* The percentages in bold are the maximum and minimum value in each obstacle category.  
*Source:* (Liao, Orser and Riding, 2017[22]).

A thorough understanding of the heterogeneous characteristics of the SME population in public procurement could help governments identify the subgroups that are more vulnerable to barriers in the system, and consider more targeted approaches. Academics have also highlighted the need for more refined research on SME characteristics and how they influence tendering (Flynn, McKevitt and Davis, 2015[14]). However, as highlighted previously, given the lack of evidence regarding the policy impact on SME participation and on broader economic and social objectives, hasty policy reactions could burden SMEs with added complexity.
References


PwC, ICF GHK and Ecorys (2014), SMEs' access to public procurement markets and aggregation of demand in the EU.

