

The Influencing Factors of Smes Participation in Public Procurement

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Abstract

The paper proposes an analysis of the success factors of SMEs in the award of contracts based on public procurement. Research results have shown that SMEs to win contracts through public tenders increases significantly if more attention is paid to tender personnel training and to the digitalisation of key tendering activities. The originality and novelty of the paper lies in the study of the two factors that influence SMEs participation in public procurement procedures. The research findings highlight the fact that the success of a business is directly proportional to the full involvement of the team in the activity, to the company's tendering activity revamping, respectively, through digitalisation. The relevance of the paper lies in the new approach to the tendering process in the public procurement process, with a focus on personnel training and activity digitalisation, in a context where SMEs conclude most public procurement contracts at European level.

Key words: public procurement, SME, training, digitalisation

J.E.L. classification: D44, H57

1. Introduction

The small and medium-sized enterprises (SMEs) face a number of obstacles when attending public procedures, caused on the one hand by insufficient financial resources, the difference in technical equipment between SMEs and large companies, and on the other hand due to the lack of tender trained personnel (Beck and Demirgüç-Kunt, 2006). The performance ensurance of economic operators can be achieved by implementing viable business strategies that take into account the potential of the various departments within the company (Sârbu et al., 2020).

The tendering process is a complex activity, carried out by a multidisciplinary team, also trained in public procurement. The lack of trained personnel leads to tenderers being eliminated from the competition. In its 2019 report, the National Agency for Public Procurement (NAPP) showed that the bids rejection rate was 19% due to non-compliance with the qualification criteria required by contracting authorities. This percentage would have been considerably reduced if economic operators had prepared their bids with specialised personnel, well trained in public procurement (NAPP, 2019). The literature reviews give ample space to the procurement process, without paying special attention to the qualification of the employees in charge of tender preparation. The paper includes a study of the influence that personnel training has on the chances of winning a contract in the public procurement market, and also of the need for company process digitalisation.

The paper contains a literature review on SMEs involvement in public procurement, personnel training and digitalisation of company activities.

Another section covers the research methodology, presenting the study methods that are applied. The research paper continues with sections on results and discussion, where the role of personnel training and process digitalisation in awarding public sector contracts is determined.

The study concludes with the presentation of the findings, which highlight the relevance and originality of the work, the factors that may influence SMEs participation in public procurement, as well as future research topics.

2. Literature review

In recent years, researchers have paid increasing attention to the barriers that SMEs face in concluding public contracts (Flynn and Davis, 2017), to the manners of removing these barriers, and also to the growing opportunities of these enterprises (Hoekman and Tas, 2019). An important source of bibliographic data in this regard is the Web of Science (WOS) bibliometric platform, which most profoundly manages the volume of cited works (Pranckutė, 2021). The issues of personnel training and process digitalisation are also found in papers published in the Clarivate Analytics and Research Gate databases.

The Directive No. 2014/24 on public procurement contains the rules that economic operators must follow when drawing up their tenders. Romania has transposed these rules into Law No. 98/2016 (with implementing rules, approved by GD No. 395/2019). Their compliance depends on the level of trained personnel involved in the tender, and the timely submission of the tender is influenced by the level of company process digitalisation.

The "National Strategy for Public Procurement" (approved by GD no. 901/2015) established, as a specific objective, the professionalisation of civil servants or contracting authority's staff responsible for public procurement (The Romanian Government, 2015). However, the normative act does not concern the economic operators' personnel. Offei, Kissi and Nani (2019) showed that the lack of trained personnel creates a barrier in the process of concluding contracts. Therefore, personnel training is, a key element in tenders awarding (Sarawa and Mas'ud, 2019). Last but not least, it is important to mention that it is digitalisation that creates the prerequisites for the economic growth of SMEs and of society in general (Borowiecki et al., 2021).

3. Research methodology

The research was based on data centralised by EUROSTAT on the number of active SMEs, as well as on data extracted from the Electronic Public Procurement System (EPPS). The information on public procurement contracts concluded by SMEs, the procedures they attended, as well as the bids rejection rate was taken from the annual reports published by NAPP (on its website) for the period 2019-2021.

From the Web of Science (WOS), Clarivate Analytics and Research Gate databases, accessed through institutional accounts, papers dealing with the issue of professionalisation of employees and digitisation of processes were used for documentation purposes. The paper has taken into account information from communications published by the European Commission, European and national legislation. The collected information was processed with the help of tables and presented graphically in order to determine the involvement of SMEs in public procurement, as well as the need for training of procurement specialists and process digitalisation.

4. Findings

4.1 The SMEs attendance to public procurement

At EU level, SMEs accounted for more than 99% of all active non-financial businesses in 2020, about 21 million companies respectively (European Commission, 2021).

In 2019, enterprises with fewer than 250 employees accounted for more than 99.8% of all economic operators, and more than 99.68% in Romania, according to EUROSTAT data.

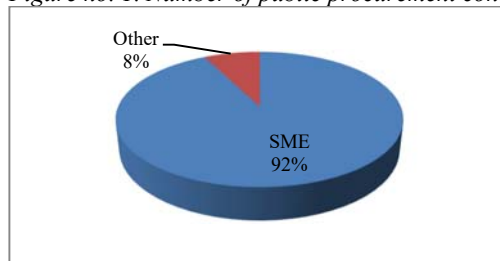
Table no. 1 Economic operators with fewer than 250 employees

Year	No enterprises EU 27		% enterprises < 250 employees	No enterprises RO		% enterprises < 250 employees
	Total EU27	< 250 employees		Total RO	< 250 employees	
2010	N/A	N/A	N/A	447,091	445,594	99.67
2011	20,401,829	20,363,871	99.81	408,951	407,410	99.62
2012	20,643,167	20,605,486	99.82	425,731	424,149	99.63
2013	20,791,808	20,754,106	99.82	436,153	434,615	99.65
2014	21,535,291	21,497,187	99.82	455,852	454,247	99.65
2015	21,559,394	21,520,300	99.82	458,122	456,480	99.64
2016	22,309,822	22,269,533	99.82	465,607	463,951	99.64
2017	22,234,234	22,192,743	99.81	485,215	483,552	99.66
2018	22,710,033	22,670,033	99.82	501,974	500,312	99.67
2019	N/A	N/A	N/A	516,703	515,051	99.68

Source: Authors, by using Eurostat (2022)

SMEs are also to be found in public procurement, with a significant share in the national economy. In 2020, these enterprises concluded 22,221 contracts with state institutions, out of a total of 24,035, 92.45% respectively (the remaining 1,814 were awarded to other categories of economic operators).

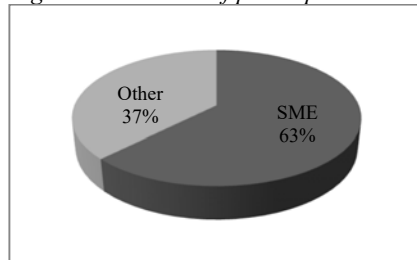
Figure no. 1. Number of public procurement contracts



Source: Authors, by using NAPP (2021)

In terms of value, contracts awarded to SMEs in 2020 amounted to RON 30,873 million out of a total of RON 49,391 million (that is, 62.51%).

Figure no. 2. Value of public procurement contracts



Source: Authors, by using NAPP (2020)

Although SMEs concluded the most contracts (92%), the total contracted value does not follow the same proportion (it being 62.51%). This gap is due, on one hand, to the complexity of public procurement procedures.

In order to increase the SMEs participation in such contracts, the Law No. 98/2016 governing public procurement introduced a number of facilitations: the award of contracts by lots; relaxed qualification criteria (the simplified procedures do not require proof of a certain turnover achievement); the possibility to participate as subcontractors in open tenders; the right to use third party supporters to demonstrate compliance with the qualification requirements (for SMEs, similar experience and turnover represent obstacles to participation in complex procedures).

Another underlying cause of the gap between the number of contracts and the value of contracts derives from the SMEs organisation, namely from insufficient training of the personnel involved in tendering and lack of digitisation of the tendering process. Tendering is a process that requires technical (from the contract's field), legal, economic and procurement knowledge. In the absence of well-trained personnel, of a multidisciplinary team that knows how to react to public authorities' requests, SMEs lose the chance to win contract award procedures. In 2019, the bids rejection rate was 19% of all those submitted (NAPP, 2019).

The digitalisation of the activities that make up the tendering process is a factor that reduces the time needed for tender documents drawing, but also the risk of their erroneous preparation. It also improves collaboration between team members and ensures process traceability.

4.2 The tender personnel training

The small companies, "amateurs" in tendering, believe that their experience gained through concluding contracts with private partners, would be sufficient to win public sector procedures, ignoring the "seriousness" that must be shown to tender preparation. An important element that will tip the balance of the contract award towards a particular operator is both the rigour with which it has drawn up its tender and the way in which it meets the purchaser's requirements. An award procedure is won "on paper" by the operator who bids as requested, who knows how to present himself best, how to sell his goods in the best way through advertising, as it happens in everyday life, with the difference that he has to meet the written rigours of the public buyer - the State.

The process of contracting with the state (from tender to contract execution) is characterised by diverse, multidisciplinary activities. Many SMEs do not have qualified personnel for public procurement that is trained in tender preparation or in the use of electronic tendering platforms (such as EPPS, in Romania). In addition, economic operators lack experience in the management of government contracts. Employee professionalism plays a crucial role in determining the compliance with public procurement rules (Sarawa and Mas'ud, 2019).

The bids rejection rate, mentioned above, proves the fact that insufficient attention is paid to the qualification of the bidding team. SMEs focus more on the financial objectives (such as, equity growth, financial stability etc.), without paying proper attention to the non-financial objectives, such as performance and employee qualifications by area of interest (Ciobotea and Badea, 2021).

In the tendering process, the person responsible for the execution of the contract (the technical staff) is usually also responsible for preparing the tender documents. However, this person does not have a thorough knowledge of the Public Procurement Law, such as: how to fulfil the qualification criteria (e.g. eligibility criteria or technical and professional capacity), how to fill in the European Single Procurement Document (according to Regulation (EU) 2016/7); which documents must be included in the tender; how to submit the tender guarantee; which costs must be included in the financial proposal; how to relate the costs to the activities described in the technical proposal etc. Furthermore, the technical officer does not have sufficient legal knowledge to analyse the contract clauses. One person cannot "master" all the areas required for the tender, and a team is not just one person.

The tender represents an extensive process, involving the work of a multidisciplinary team, composed of at least: the company's management (who decides on the tender), the technical staff (who will carry out the contract activities), the procurement specialist, the financial officer, the legal advisor. The preparation of the tender documents is a communication process that requires the consultation of all those involved, the presentation of the strategy to approach the tender, the implications and the way of fulfilling the future contract (Florea and Florea, 2010).

The drawing of a competitive tender requires a clear determination of each team member's responsibilities:

- The technical officer: draws up the technical proposal, provides the procurement specialist with the information and documents relating to the fulfilment of the qualification criteria (company certifications and also of the experts to be involved, experience of the company in carrying out the contract, the company's facilities, etc.);
- the financial officer determines, together with the technical staff, the costs of the contract;
- the legal advisor deals with the contractual clauses;
- the procurement specialist prepares the qualification documents, supports the other team members in preparing the tender, uploads the tender to EPPS (together with proof of tender guarantee payment) etc.

The collaboration between team members continues also after the submission of the offer in EPPS, as follows:

- The procurement specialist analyses the clarification requests received from the contracting authority, notifies the company manager of the need to submit a response, within the deadline set by the purchaser, requests specialist support, checks whether the responses do /do not substantially change the offer, uploads the response to EPPS;

- The specialised personnel formulate the response to clarification requests.

Depending on the content of the question/solicitation, all the team members who are in a position to provide clarifying information should take part in formulating a response, as with the preparation of the offer. For example, clarification of the timetable can be provided by the technical manager. However, if additional work is required, the financial officer must show the possible impact on the contract costs, namely on the financial proposal, and the possible addition of labour, which means new salary costs.

A question about the low bid price requires an answer from the technical staff who knows the contract activities, their costs, and the opinion of the financial officer who determined how the price was established.

In addition, the questions concerning additional guarantees granted to a product/work must be answered by:

- The technical officer in order to establish the time of granting, the technical implications of such a guarantee – product replacement/repair, work repairs etc;

- The legal adviser who analyses the contractual clauses relating to the granting of this additional guarantee;

- The financial officer who determines the associated costs;

- The procurement specialist who analyses whether the response substantially changes the technical and financial proposal.

The execution of the contract also requires setting up a management team trained in public procurement too, consisting of at least:

- The contract manager (technical staff) must be familiar with the requirements of the specifications and of the technical proposals;

- The legal advisor intervenes in situations where the contract terms are infringed;

- The financial officer follows up the expenditure foreseen in the financial proposal for the provision of the activities in the technical proposal etc.

The personnel training should also address the development of bidding skills through the EPPS platform. The failure to sign the tender electronically, to upload all documents to EPPS, to enter the price in the system, are all grounds for tender rejection due to unfamiliarity with the operation of this system. A single operating error (such as the failure to upload the technical proposal) can cancel days of work by the team and all the financial and technical effort generated by the tender.

Ogol and Moronge (2017) showed that both personnel training and personnel behaviour are important factors that can increase company performance. The personnel professionalism will be improved by developing personal skills in applying procurement regulations, by familiarising with the procurement process in the workplace, by interacting with experienced staff and last but not least by procurement training (Sandada and Kambarami, 2016).

The improvement of the offer quality, namely the reduction of the rejection rate, can be achieved by qualifying all staff involved in public procurement, from the manager, to the product supplier.

The need for specialising these people is urgent at European level, given the objectives set by the National Recovery and Resilience Plan that cannot be achieved in time without public procurement procedures and, therefore, without competitive tenders.

It is worth bearing in mind that the state institutions cannot carry out their mission for which they were established without buying what is necessary for their work, and the procurement process requires specialists from both the buyer and the seller. The growing demand for specialists in the public procurement field means that they need to be trained right from university. The state has an important role to play in training these people by introducing, at least at university level, specialisations in public procurement. The educational institutions must have a perspective on the labour market in this field, at national and European level, so as to develop the curricular coverage area (Stanciu et al., 2018).

4.3 The digitalisation of the tender process

The significant technical gaps between SMEs and large enterprises also result from the lack of companies' activities digitalisation (The European Parliament, 2020). The use of smart technologies helps the companies to enter the digital economy and thus to become more competitive.

The public procurement process can be considered a critical one for a company (Jahani et al., 2021), especially for SMEs, due to the growth opportunities. At the same time, the public procurement process is a complex one, characterised by the interaction between the entity's departments that have different specializations: management, technical, legal, financial, tendering and public procurement etc. The efficient conduct of the tender process is related to the fluent communication between all the structures of the entity. The large amount of information and documents circulating between them makes it difficult to communicate and carry out activities, often hindering their progress (Chassiakos and Sakellaropoulos, 2008). The documents and information needed for tendering are generated through computers and stored as files that can be made available to those involved through electronic platforms (Prebanić and Vukomanović, 2021).

Since the beginning of the pandemic, the public procurement area has demonstrated that many tasks can be carried out exclusively by electronic manner. The documents standardisation, their distribution, endorsement/approval are activities that can be done through electronic platforms, through document management software. The use of such a platform will reduce working time, the risk of errors, bureaucracy, the quantity of consumables (paper, copier and printer toner, fewer printers/copiers, binders, boxes for physical archiving, etc.), but also the storage space, with the necessary facilities (properly ventilated space, shelving, adequate lighting) and the costs associated with this space (electricity consumption, salary costs for the person in charge with the paper archive integrity, costs of maintaining the space, sometimes even renting it, etc.).

The implementing of an electronic procurement management program is not an easy step, as each change is often viewed with reluctance by the company's employees. And, if the proposal for change, for improving the work, comes from outside the company, the management is circumspect about the proposed solution, especially if it requires additional costs. The company's digitalisation process is rather difficult, both because of mentalities, reluctance to embrace the new, and because of the costs of integrating a tender programme, of purchasing IT equipment (computers, servers, etc.), as well as the costs of training service staff.

The contractors need to look beyond costs towards the digitalisation benefits of the tender preparing process, such as:

- reducing tender preparing time;
- reducing the risk of incorrectly prepared documents;
- knowing, at any time, the status of the documents and the persons responsible for their preparation;
- reduction of approval/endorsement times;
- electronic signature of documents;
- reducing costs for various categories of consumables, printing and distribution;
- easier collaboration between those involved in the tender;
- dynamic coordination of all partners in the tender.

The digitalisation process contributes to the company's activities improvement, but the biggest benefit is precisely the award of the contract. In addition, the existence of an electronic procurement program will empower its users to work from any location, the physical presence in the office not being required (Dobrotă, 2021).

In order to achieve the proposed objectives and to reach the industrial potential, companies must digitalise their activities; look for personnel with digital skills (Nedelcu et al., 2018). Any delay in the implementation of an IT program to manage the tender process (and others), will create losses to SMEs that have already suffered in pandemics precisely because of the lack of effective communication between employees, the impossibility of remote collaboration, the delay of some activities, or will even lead to the failure of a tender due to the dependence on a physical signature, or a paper document.

On the other hand, the circular economy and sustainability requirements, demand a change in traditional practices (Agarwal et al., 2021), with digitalisation being one of the sustainable development objectives.

5. Conclusions

The SMEs will improve their participation in public procurement if they also pay attention to the training of the whole team involved in the tender (from the manager to the supplier) and to the digitalisation of the tendering process, as these factors are part of the company's tendering strategy. In order to increase performance, the economic operators must take these two factors into account in their business strategy.

The training of the tendering team and the company's activities digitalisation must represent priorities for the company's management, but also for the state.

As the objectives of the NRRP represent a major opportunity for SMEs development, these enterprises must increase their speed of response to public procurement requests by investing in personnel training and company digitalisation.

Future research can determine the level of training required for an employee to specialise in tendering or public procurement by establishing such criteria as: the minimum number of training hours and work in the field; the contract-related sections in which the training should be carried out (legal, economic, IT etc.); the appropriateness of introducing the subject "Public and Private Procurement" into the higher education curriculum.

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