

Gender Based Analysis of the Access to Public Procurement in Western Balkan by SMEs

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ABSTRACT

The subject of the research is the access to public procurement in Western Balkan region by SMEs including a gender equality perspective. The research has three key objectives: to identify key barriers that hinder the engagement in public procurement; to determine whether there are differences in the perception of the importance of barriers to access to public procurement between male and female-owned companies; and to check whether there are differences in the perception of the importance of barriers to participate in public procurement between different-sized companies. Main statistical methods used in the research are descriptive statistics and nonparametric techniques for comparing differences between groups. As the most significant barrier in the domain of discriminatory barriers sorted out is *Limitations related to the financial capacity of the company*. At the second place is *Limitations related to the number of employees and their qualifications*. The importance of *Restrictions on production volume or quantity required* and *Meeting quality standards* is somewhat weaker compared to the aforementioned barriers. Generally speaking, discriminatory barriers are of moderate importance for inclusion in the public procurement. Similar results were obtained when non-discriminatory barriers were observed, with the greatest significance in order: *Complicated bidding process*, *Short deadline for preparation of documentation*, *Insufficient and incomplete information in the public procurement invitation*. The results of the applied nonparametric techniques show that there are no significant differences in the perception of the importance of barriers to participate in public procurement between male and female-owned companies, as well as between different-sized companies.

Key words: *public procurement, gender, SMEs, barriers, Western Balkan*

JEL Classification: M10, L26

INTRODUCTION

The public procurement costs represent an average 12% of GDP and account for almost one-third of government expenditure in OECD countries. In the European Union (EU) these costs go to around 14% of GDP. Every year, over 250 000 public authorities in the EU spend around 2 trillion Euros per year on the purchase of services, works and supplies.

Small and medium-sized enterprises (SMEs) make up the largest percentage of enterprises in economies around the world. They are often the main backbones of economic development policies. Comprehensive public procurement strategies implemented by some governments highlight the mutual benefits which can be achieved by closer and greater engagement of small businesses. Although SMEs access to the public procurement market is one of the many demand-

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driven elements necessary for policy implementation, the wide range of efforts that some countries have developed through public procurement reforms can have a beneficial impact on the overall business environment of SMEs as well as other policy areas.

It is estimated that between 2006 and 2008, the proportion of SMEs amongst companies who won public contracts over the European Union thresholds for the whole period was 60%. In the terms of estimated total contract value of the public procurement secured, SMEs accounted for three years was 34%. The relative weight of all three SME categories is smaller here due to their tendency to win contracts with lower values unlike large enterprises (EU, 2010). According to the analysis of the sample notification of TED contracts, about 61% of public contracts were awarded to SMEs from the EU28 in the period 2011-2017. Out of that, 19% of contracts were awarded to micro-sized enterprises, 22% to small ones and 20% of contracts were awarded to medium-sized enterprises. When looking at the total value of the contract, SMEs participated with 33% in the observed seven-year period, which implies that the ratio between the value of the contract and the probability of SMEs winning the contract was inversely proportional. Analyses show that only 5% of the value is assigned to micro-sized enterprises, 13% to small and 14% to medium-sized enterprises. As expected, the largest gap between the share in obtained contracts and the share in the value of contracts was the largest for micro-sized enterprises. This gap gradually narrowed as the size of the company increased (EC, 2019).

The participation of more suppliers often encourages greater competition in the market, which reduces procurement costs. SMEs have lower administrative overheads and management costs compared to larger firms, so depending on the nature of the procurement may result in lower prices. On the other hand, SMEs can provide better quality of service because they have short management chains so they can quickly respond to changing customer requirements. SMEs can also be highly focused on specific markets, which is a benefit to them in relation to changes in those markets. SMEs are often able to more easily tailor products and services to specific customer requirements - and thus develop long-term relationships with their customers. SMEs are more flexible and can respond to limited demand and focus on niche markets and retail. When it comes to innovation, SMEs have some advantages in terms of early exploitation of new technologies and rapid introduction of products or services into new or undeveloped markets, or using innovations to differentiate themselves from existing market players.

Public authorities are the big main buyers in many sectors, such as: energy, transport, waste management, social protection and health provision or education services. Having this in mind public procurement is seen as source of economy growth, investment, jobs and incentive for more innovative economies, resource and energy efficient, and socially inclusive.

Although public procurement has a potential to support the fight against discrimination and promote gender equality and social inclusion of various marginalized social groups, female-owned companies seem to be in even less favourable position than the male-owned ones in accessing public procurements. Although, women-owned businesses - make up more than 40% of the world's micro, small and medium-sized enterprises, only 1% of government procurement tenders are won by women (UNWOMEN;2017). Incorporating gender equality into public procurement contracts is an effective tool that governments can use to promote social change and promote equality, but that is not a case in the vast majority of legislation all around the world.

Lack of equal opportunities in procurement and contracts can be caused by a number of factors, including lack of equality in procurement practices and contracting authorities' behaviour (i.e. direct or indirect discrimination on multiple grounds, including gender), as well as neglect to ensure that parties are awarded contracts, loans or other benefits, promote and respect non-discrimination policies. In addition, the lack of gender equality in procurement and public contracts may result from the lack of the equality in society in general.

Women-owned enterprises are mostly micro and small, which often puts them in an outsider position when they compete in public procurement tenders. In addition, a larger number of

these companies have less capacity when it is necessary to certify their technical competencies, financial resources, equipment and other physical guarantees. In the case of younger companies, one of the obstacles could be the management skills, business experience and staff which are not certified by the competent state agencies. Practice in some countries has shown that for all these reasons, women-owned enterprises are losing out on the potential provided by the public procurement contracts: business expansion, volume building and innovation, and entry into new value chains.

The paper consists of five parts. The first part deals with the main characteristics of SMEs in the Western Balkans as well as Public procurement assessment of our sample countries. The second part discusses the characteristics of policies and legal regulations related to gender equality in public procurement in the European Union and Serbia. The third part is an overview of good practices in the EU and other developed countries when it comes to access of women entrepreneurs to public procurement. The fourth part of the paper describes the sample, research questions and statistical methods used to analyse the collected data and the fifth part presents the results of the research.

SMES SECTOR PERFORMANCE AND PUBLIC PROCUREMENT IN WESTERN BALKANS

Regarding monitoring and assessment of the performance of the countries in public procurement, the EU Small business act (SBA) is relevant source for many aspects of entrepreneurship including this issue as well. It aims to improve the approach to entrepreneurship in Europe, simplify the regulatory and policy environment for SMEs, and remove the remaining barriers to their development (EC, 2008).

SBA includes a set of 10 principles to guide the conception and implementation of policies both at EU and Member State level. These principles are essential to bring added value at EU level, create a level playing field for SMEs and improve the legal and administrative environment throughout the EU. Among them, the fifth principle – “Adapt public policy tools to SME needs: facilitate SMEs’ participation in public procurement and better use State Aid possibilities for SMEs” is in the scope of this paper.

Since June 2009, after the Regional Ministerial Conference on the European Charter for Small Enterprises in the Western Balkans, Serbia, as well as other countries in the region, has begun implementing the Small Business Act (Ivković et al., 2012). Implementation and advancements of SBA are of interest not only in countries of implementation, and EU but in other international economic institutions, such as OECD. Regarding that fact, there is evidence about SME sector performance, particularly in the field of public procurement as a dimension of 5b of SBA (OECD/ETF/EU/EBRD, 2019). According to the report, Serbia and Montenegro are performing the best regarding the number of SMEs in 2017. in relation to the number of inhabitants.

Table 1 presents the main statistical data regarding sample countries in this paper (except Croatia).

Table 1. SME sector statistics (2017 or latest year available)

| Bosnia and Herzegovina | Montenegro | Serbia |
|---------------------------------|-------------------|---------------|
| SMEs per 1 000 inhabitants in % | | |
| 8.5 | 48.8 | 50.9 |
| Percentage of enterprises | | |
| 99.12 | 99.84 | 99.85 |
| Value added in % | | |
| 59.81 | 70.48 | 56.66 |
| Share of exports | | |

| Bosnia and Herzegovina | Montenegro | Serbia |
|------------------------|------------|--------|
| 61.24 | 75.33 | 39.25 |
| Employment in % | | |
| 63.92 | 80.09 | 66.0 |

Source: OECD/ETF/EU/EBRD (2019).

Western Balkan economies also implemented some of the rules which are practiced in the EU regarding the public procurement, such as: division of procurement contracts into smaller lots in order to make it more accessible to SMEs, maximum time periods for payments in public procurement, penalties for late payments; minimum time periods for submitting complaints that are in accordance with the relevant EU Remedies Directives.

SMEs in all the WBT countries have the access to some sort of the support offered by public procurement offices, like training in PP issues. All the assessed economies allow or require the use of electronic tools in public procurement.

There is evidence on SME participation in public procurement and information on delayed payments for the few WBT economies (OECD/ETF/EU/EBRD, 2019).

Table 2. Dimension 5b – Public procurement assessment

| | Bosnia and Herzegovina | Montenegro | Serbia |
|--|------------------------|-------------|-------------|
| <i>Policy and regulatory framework</i> | 2.89 | 4.53 | 3.59 |
| <i>Implementation</i> | 4.28 | 3.39 | 3.57 |
| <i>Monitoring and evaluation</i> | 2.85 | 4.16 | 3.39 |
| Weighted average score | 3.57 | 3.87 | 3.52 |

Source: OECD/ETF/EU/EBRD (2019).

Table 2 shows main statistical data regarding SBA dimension 5a – Public procurement assessment of our sample countries with exception of Croatia which, is considered among the group of EU members, according to other kind of indicators and apparently, is scored very high ranked among EU-28 countries. (https://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm).

The average weighted score for Serbia is 3.52 regarding dimension of PP, which is the lowest score among the Western Balkan countries. However, it should be taken into account that the assessment methodology applied in 2019 is not totally comparable with those in 2016. Also, the new Public Procurement Law (PPL), has been adopted in 2020 and came into force on 1st July 2020 PPO is still the key provider of support to SMEs, enabling access to free of charge advices. SMEs can obtain advice via telephone calls, e-mails or by post. So far, the reports published on the regular basis by PPO contain very limited statistical data about economic operators (in particular SMEs) who were awarded contracts. New PPL launched a full electronic procurement system and electronic functions. The re-launched PP Portal includes gender identification of the bidder at the stage of registration, enabling further monitoring of the gender structure of the awarded tenderer. In 2016, the PPO published its Guidelines for Increasing Participation of SMEs in Public Procurement Procedures (PPOS, 2016). The guidelines present the analysis of the obstacles faced by SMEs in accessing public procurement contracts, while proposing a number of actions and solutions to improve the current situation.

These obstacles are as follows:

1. Contracts of great value and the inability to meet additional conditions relating to the necessary capacity (financial, business, technical and personnel), temporary closure of the market through "framework agreements";

2. Lack of information and insufficient communication with clients;
3. Short deadline for preparation of bids for particularly complex procurements;
4. Lack of necessary knowledge about procedures and experience in participating in public procurement procedures;
5. Giving priority to the lowest offered price in relation to the criterion of the most economically favourable offer;
6. Unnecessary administrative burdens and
7. Late payment or non-payment for work performed.

POLICIES AND LEGAL REGULATIONS RELATED TO GENDER EQUALITY IN PUBLIC PROCUREMENT

European Union

Policies and legal regulations related to gender equality of the European Union are recorded in many official documents as well as projects funded by the European Commission (EC), starting with the basic principles and values of the EU that proclaim equality and non-discrimination. The basic principles are enshrined in the Treaty on the Functioning of the European Union (EC, 2012) and apply to the public procurement contracts and include the following: non-discrimination, equal treatment, transparency, mutual recognition, proportionality, freedom to provide services and freedom of business. The attitude towards companies owned and managed by women in public procurement processes is generally not highlighted; it is visible mainly in the aspects of socially responsible public procurement where female-owned companies are classified among other social categories. Another type of recommendations that women have in mind refers to socially responsible public procurement from bidders who employ a larger number of employees from socially vulnerable categories (ethnic minorities, persons with disabilities, women) (EC, 2010).

In recent years, when it comes to socially responsible business, the focus has increasingly shifted from environmental issues to social issues as a significant factor in sustainable development; social standards are increasingly identified as one of the factors of the growing corporate social responsibility movement (CSR). Among them, the perspective of gender equality (gender mainstreaming) becomes integrated into all phases of institutional policies, processes and practices from creation, monitoring to evaluation.

The Guidelines for Public Procurement for Experts (EC, 2018) emphasize the strategic role of public procurement in the cost-effectiveness of public funds and in guaranteeing the best value for public funds. They also confirm its strategic role in achieving policy objectives, especially in terms of innovation, environmental and social inclusion. Gender equality is not emphasized directly but indirectly through recommendations to contracting authorities that they can consider environmental protection and/or other social factors as criteria for awarding contracts or conditions for contract performance.

Socially responsible public procurement (SRPP) can be achieved by the contracting parties considering various social aspects, such as social inclusion, working conditions, gender equality and ethical trade. It is also recommended to emphasize the standards or labels used in procurement procedures, which usually relate to quality assurance, environmental certification, as well as social requirements such as accessibility for people with disabilities or gender equality.

European Charter on Equality between Women and Men (Charter) at the local level (CEMR, 2006) is the EU document that explicitly deals with gender equality in public procurement. The lack of gender equality in procurement and public contracts can result from the lack of equality in society in general. Public procurement has the potential to support the fight against

discrimination and promote gender equality and social inclusion. The role of public authorities, especially local authorities, in promoting equal opportunities and gender equality in relation to public procurement is recognized by the Charter in Article 12, which recommends the insertion of a gender equality clause in contracts or financial agreements. The insertion of this clause was confirmed by 24% of the signatories of the Charter.

Limited progress has been made in the areas of public procurement and contracts (in EU countries), both in terms of obligations towards gender equality policy and in terms of concrete actions to introduce gender into this area of work. Specific gender equality obligations in public procurement and contracts have only been partially adopted and only a few signatories have inserted gender equality clauses in contracts or financial agreements. Articles requiring local authorities to take formal policies are more likely to apply than those requiring specific measures involving the redistribution of resources between women and men or significant changes in the policy cycle process (for example, the introduction of gender analysis at all stages of the process) (European Charter, 2015).

Serbia

Similar to the EU legislation regarding public procurement, in the draft of the new Law on Public Procurement (GRS, 2019), the principles of transparency and equality of bidders are encountered. In the case of non-discrimination, the contracting authority may not determine the conditions that would mean national, territorial, substantive or personal discrimination among bidders, nor discrimination that would arise from the classification of activities performed by the bidder. In the mentioned draft of law to be adopted in 2020, among the criteria for the selection of the bid, there are also social criteria, but they are not stated individually.

In the draft of the Public Procurement Strategy 2020-24 (GRS, 2019a), it is recommended that social criteria that take into account issues such as: employment opportunities for certain categories, compliance with labor and social rights, social inclusion and equal opportunities, respect for accessibility standards - should be increasingly integrated into the implementation of the public procurement procedures for all users.

The National Strategy for Gender Equality for the period from 2016 to 2020 (GRS, 2016) defines possible measures that would refer to the promotion of gender equality in public procurement. Realization of the special goal 2.3., which refers to the improvement of the economic position and status of women in the labor market, lists measures in the field of creating conditions for maximum use of economic potential, creativity and entrepreneurship of women who may have points of contact with the introduction of gender equality in public procurement. These measures are as follows:

Introduction of the principle "Think small first" in the work of the legislative and executive branches when planning, drafting, adopting and implementing laws and mechanisms related to the economy and business.

Conditions for equal access of women entrepreneurs, including members of vulnerable groups, as well as profitable and capital development programs and projects, sources of financing and the market are created.

In Serbia, based on the Law on Budget System, gender responsive budgeting is adopted in 2015 (GRS, 2019c). The connection between public procurement and gender responsive budgeting is unbreakable, and thus the gender-sensitive public procurement should correspond to gender responsive budgeting, which will be organized programmatically. The new provisions of this Law were introduced as an obligation during the planning and execution of the budget which announced its gradual introduction from 2016 to 2021.

We can find very similar practice regarding public procurement legislation in the rest of Western Balkan countries from the sample of this research, including Croatia which is the only country in this region that is a full member of the EU.

THE ACCESS OF WOMEN ENTREPRENEURS TO PUBLIC PROCUREMENT – GOOD PRACTICES IN EU AND BEYOND

The examples of good practice regarding gender equality in public procurement in the countries of the European Union are sporadic, more related to regional, local and / or sectoral experiences. We find such examples in Sweden, Norway and Spain and in the United States of America.

The examples of good practice that can be found in these few countries are mainly in form of guides, pilot projects and case studies. Topics to which the guides are dedicated or the activities that the projects deal with refer to the general topic of gender equality in public procurement through: various types of promotions and instructions intended for municipal authorities as contracting authorities, but also for the general public, i.e. recipients and users of public services.

The methods are different: organizing training to raise awareness, organizing a moderated dialogue with public procurement actors to learn policy, action plans defining steps to achieve goals, defining questionnaires to be applied in municipalities to collect gender disaggregated statistics, defining indicators and rules for monitoring and evaluation, websites for informing and collecting examples of good practice in municipalities.

The case of Sweden

The Swedish Public Procurement Act does not go beyond the general declaration of anti-discrimination and equality. The first useful example of good practice for purposes of our research is the Guide informing about the legal possibilities of imposing gender equality requirements published by Swedish Municipalities and Counties - SKL. The Guide relies on the Charter on Equality between Women and Men at the Local Level (CEMR, 2006). It provides concrete examples of how public procurement requirements can be implemented and aims to encourage local authorities to start using this as an instrument to promote gender equality. The guidelines suggest that indicators and specific evaluation criteria must be included in the study to better assess public procurement from a gender perspective.

The guidelines of the Guide have been applied in practice on the example of the requirements for equality in the procurement of health care by the Stockholm County Council (SCC). A prerequisite for concluding an agreement with the SCC is that the caregiver must follow the SCC equality policy, which includes, among other things, participation in ongoing quality work and focusing on providing equal treatment for women and men in health care. Furthermore, all relevant key data and statistics disaggregated by sex and age should be reported in the evaluation of activities.

The third example is the north of Sweden where in one of the municipalities, within the project of health protection at work, the inclusion of the integration of gender equality policy in public procurement in that sector was one of the goals of the project. It has been shown that the general problem is the integration of gender into procurement because it is often considered a qualitative requirement, which is more difficult to address in the procurement process. The results show that since public procurement is a “difficult” management mechanism, it can be used to implement or encourage adaptive or innovative learning among suppliers by aligning them with a particular set of regulations. It has also been shown that innovative learning requires first a willing supplier and second an active client and open access. It is clear that the different types of relationships that a procuring entity may have with a supplier depend on the type of procurement and the extent to which it is perceived as experimental. When gender requirements are qualitative and when the supplier needs to be involved in innovative processes, because solutions do not yet exist, then close contact between the contracting authority and the supplier is inevitable.

The case of Norway

Although Norway is not a member of the EU, Norwegian public procurement legislation is largely based on the implementation of EU directives in line with Norway's obligations under the Agreement on the European Economic Area (EEA). The basic principles of tender procedures are applied: equal treatment, transparency and competition. However, although there is no gender perspective here either, in Norway we find examples of good practice at the local level.

In 2012, the Norwegian government launched a three-year program to promote gender equality in municipalities. A pilot project aimed at improving gender equality at the local level has been implemented in 20 municipalities in Norway. The pilot project was preceded by an analysis to show whether gender-disaggregated statistics are applied in municipalities, whether the forms used for planning, service delivery are gender-disaggregated, whether there is a gender-disaggregated analysis of services and whether they are the same for women and men. However, the topics of the pilot projects were different. One of the main purposes of the program is to encourage municipalities to further include gender equality in the work of service providers, on the one hand, and the executive authorities as procuring entities, on the other. The program underscores the importance of gender mainstreaming in all areas, at all levels and by all municipal employees, both in decision-making processes regarding resource allocation and as part of the day-to-day work of municipal services. A website has been set up to collect examples of good practice from the municipalities involved in the pilot project.

The case of Spain

Gender equality requirements are imposed in the public procurement contracts. The Women's Institute in Baskia, in cooperation with the community of municipalities, has developed a guide on setting conditions that favor gender equality in public contracts and grants. This guide highlights the specific tasks that municipalities can have in this regard and emphasizes the necessity of equality promotion all their activities and policies. Gender mainstreaming as a precondition in public procurement contracts, is an effective instrument that public authorities can use to promote social change and promote equality.

This can practically be achieved either by promoting positive actions or by including gender integration. Positive actions include the establishment of temporary measures to compensate for previous inequalities or discrimination against vulnerable groups. The Guide also identifies possible barriers and difficulties in implementing equality goals, such as an insufficient political will at the local level or fears that private companies could object to.

The case of US

The United States has used public procurement for a long time to promote the increased participation of small businesses and women entrepreneurs in the federal supply chain. The U.S. Small Business Act (SBA) stipulates, among other things, "that, to the greatest extent possible, procurement strategies implemented by a federal department or agency with contracting authority will allow for the maximum participation of small businesses as major contractors, subcontractors, and suppliers." In this regard, the law sets level targets for each fiscal year for SMEs participation of no less than 23 percent of the total value of major contracts awarded by the federal government.

The law also sets a target for the participation of small enterprises "owned and managed by women" of at least 5% of the value of all major contracts (including subcontracts) to be awarded for each fiscal year. The federal government and all its departments and agencies make progress each year in achieving these goals. These goals are part of a much broader range of programs managed by the SBA that help women and small businesses.

With the main purpose to support the women-owned enterprises in sectors in which they are underrepresented, such as hardware manufacturing, in 2000 the United States Congress passed the Fairness in Women Contract Act, authorizing federal contracting authorities to set aside or reserve procurement for competition between women-owned small businesses (WOSBs).

METHODOLOGY

Sample and data collection

The study included SMEs from four Western Balkan countries: Serbia, Bosnia and Herzegovina, Montenegro and Croatia. Empirical research was conducted using a questionnaire that was electronically forwarded to the Chambers of Commerce of the countries involved in the analysis, which then distributed the questionnaire to SMEs in their countries. A total of 130 questionnaires were collected. Of the total number of SMEs, 51% are male-owned, while 49% are female-owned companies. Regarding the distribution of companies by size, 76 are micro-sized companies, 37 are small, and 17 are medium-sized companies. 31% of companies operate between 11 and 20 years, and 32% for more than 20 years, while a total of 37% operate for less than 10 years.

The main part of the questionnaire consists of 7 items related to the barriers to the participation of SMEs in the public procurement. Four items refer to discriminatory barriers, and three items to non-discriminatory barriers. These items were created according to the Guidelines for Increasing Participation of SMEs in the Public Procurement Procedures (PPOS, 2016). Respondents were given the task to rate the importance of each of the barriers to involvement in public procurement on a scale of 1 to 5, with a score of 1 indicating a low importance of the barrier and a score of 5 indicating a high importance of the barrier. Also, the questionnaire contains items related to the demographic characteristics of companies, as described in the previous paragraph.

Research questions

The subject of research is access by SMEs to public procurement in Western Balkan region including a gender equality perspective. Research has three key objectives: to identify key barriers that hinder the engagement in the public procurement; to determine whether there are differences in the perception of the importance of barriers to inclusion in public procurement between male and female-owned companies; and check whether there are differences in the perception of the importance of barriers to inclusion in public procurement between different-sized companies.

Based on the determined subject and goals of the research, the main task of this paper is to answer the following research questions:

RQ1: What are the key barriers to involvement in public procurement in the Western Balkan?

RQ2: Are there differences between male and female-owned companies according to the perception of the importance of barriers to participation in public procurement?

RQ3: Are there differences between different-sized companies in terms of perception of the importance of barriers to participation in public procurement?

Statistical methods

To provide answers to the defined research questions, the appropriate methods of statistical analysis were applied.

For the needs of **RQ1**, the descriptive statistics were applied, i.e. the arithmetic means (λ) of the estimates of discriminatory and non-discriminatory barriers were calculated. Before we

decided on certain tests that would help us answer the questions **RQ2** and **RQ3**, appropriate normality tests were conducted. As the results showed that the available data were not characterized by a normal distribution (Appendix I), a decision was made to apply nonparametric tests to compare groups. In the case of **RQ2**, Mann-Whitney U test, suitable for comparing two groups, would be applied, and for the needs of **RQ3**, Kruskal-Wallis H test, because it was suitable for comparing three or more groups.

RESULTS

Assessment of the importance of barriers to access the public procurement

As the most significant barrier in the domain of discriminatory barriers (Figure 1), the respondents single out Limitations related to the financial capacity of the company ($\lambda=3.2$) and *Limitations related to the number of employees and their qualifications* ($\lambda=3.09$). The importance of *Restrictions on production volume or quantity required* ($\lambda=2.79$) and *Meeting quality standards* ($\lambda=2.54$) is somewhat weaker compared to the aforementioned barriers. Generally, discriminatory barriers are of moderate importance for inclusion in the public procurement.

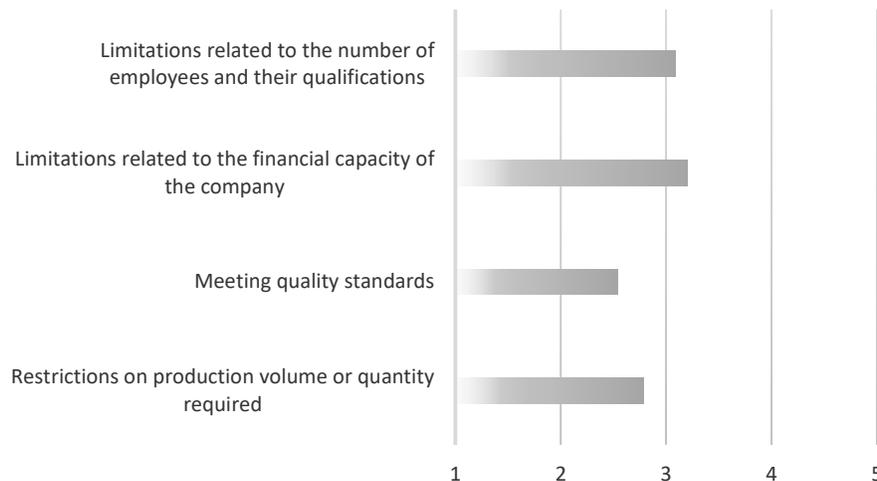


Figure 1. Importance of discriminatory barriers

Source: Authors

Regarding the non-discriminatory barriers (Figure 2), it can be said that their importance for participation in public procurement is slightly above moderate. All three types of the non-discriminatory barriers have approximately the same significance for the respondents, with the greatest significance in order: *Complicated bidding process* ($\lambda=3.41$), *Short deadline for preparation of documentation* ($\lambda=3.3$), *Insufficient and incomplete information in the public procurement invitation* ($\lambda=3.26$).

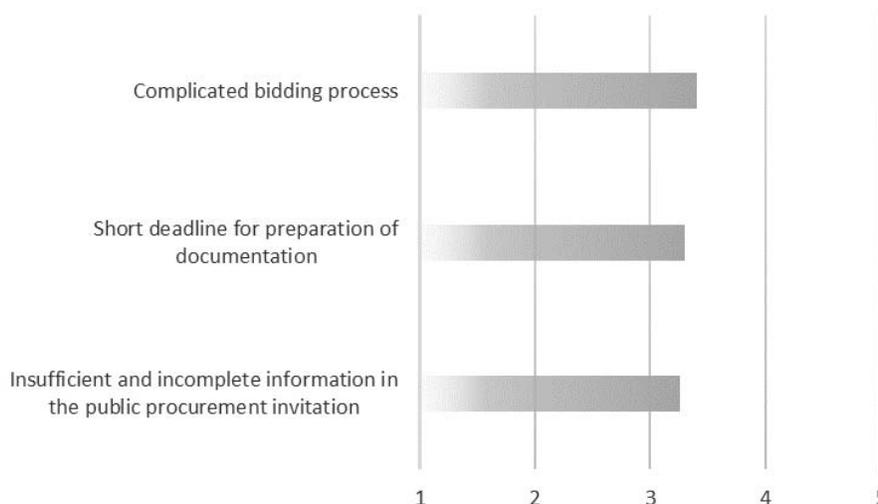


Figure 2. Importance of non-discriminatory barriers

Source: Authors

When discriminatory and non-discriminatory barriers are compared, respondents seem to perceive the latter as somewhat more important for participation in public procurement ($d_{discriminatory}=2.91 < d_{non-discriminatory}=3.32$).

Gender analysis of barriers to access to public procurement

It can be clearly seen from the Table 3a that there are no significant differences between male-owned and female-owned companies in terms of perceptions of the importance of discriminatory barriers to inclusion in public procurement. In all cases Asymptotic Sig > 0.05 indicates the absence of significant differences between male-owned and female-owned companies. Also, the effect size indicator is less than 0.3, which implies that the gender difference of the company owner explains a rather small part of the perception of importance of discriminatory barriers to participation in public procurement. In the case of *Limitations related to the number of employees and their qualifications* there is a 7% probability that the differences between men-owned and women-owned companies are the result of random variations. However, even with this barrier the effect size is just below 0.3, which also indicates a small difference. Precisely, only 6% of the variance in differences in the perception of the strength of barriers to participation in public procurement is explained by differences in company size.

Similar results were obtained when non-discriminatory barriers were observed (Table 3b). Asymptotic Sig is greater than 0.05 in all cases and effect size is lesser than 0.3, which implies that an extremely small part of the perception of importance of non-discriminatory barriers is explained by differences in gender of the company main owner.

Table 3. Barriers for participation in public procurement – gender perspective

| a. Discriminatory barriers | | | | | | |
|---|--------|-----------|--------|--------------------|------|--------------------|
| Type of barrier | Gender | Mean rank | Z | Asymptotic Sig (%) | r | r ² (%) |
| <i>Restrictions on production volume or quantity required</i> | Male | 25.77 | -1.451 | 15 | 0.19 | 4 |
| | Female | 31.88 | | | | |
| <i>Meeting quality standards</i> | Male | 27.11 | -0.217 | 83 | 0.03 | 0.1 |
| | Female | 28.02 | | | | |
| <i>Limitations related to the financial capacity of the company</i> | Male | 25.84 | -1.176 | 24 | 0.16 | 3 |
| | Female | 30.79 | | | | |
| <i>Limitations related to the number of employees and their qualifications</i> | Male | 25.13 | -1.836 | 7 | 0.25 | 6 |
| | Female | 33.00 | | | | |
| b. Non-discriminatory barriers | | | | | | |
| Type of barrier | Gender | Mean rank | Z | Asymptotic Sig (%) | r | r ² (%) |
| <i>Insufficient and incomplete information in the Public Procurement Invitation</i> | Male | 27.61 | -0.740 | 46 | 0.1 | 1 |
| | Female | 30.78 | | | | |
| <i>Short deadline for preparation of documentation</i> | Male | 27.59 | -0.493 | 62 | 0.07 | 0.5 |
| | Female | 29.71 | | | | |
| <i>Complicated bidding process</i> | Male | 28.34 | -0.085 | 93 | 0.01 | 0.01 |
| | Female | 28.70 | | | | |

Note: *r* is a biased measure of effect size and according to Cohen (1988) criterion it can have the following values: 0.1 – small; 0.3 – medium; 0.5 – large.

T test of independent samples is also applied, because it is a pretty robust to non-normal variables.

The results obtained using the t tests are almost identical to the results of the Mann-Whitney U test.

Source: Authors

Barriers to access to public procurement – company size perspective

Considering the perceptions of discriminatory barriers by different-sized companies the situation is similar to the results of gender analysis. There is a 92% chance that the perceptions of importance of Limitations related to the financial capacity of the company given by different-sized companies really are different. Effect size is equal to 0.1 indicating moderate difference between micro companies, on the one side, and small and medium-sized companies, on the other side. In all other cases, different-sized companies have the similar perceptions of importance of discriminatory barriers for participation in public procurement (Table 4a).

Different-sized companies similarly perceive the importance of non-discriminatory barriers to participation in public procurement (Table 4b). Asymptotic Sig is larger than 5%, and ϵ^2 is lesser than 0.08, which excludes the possibility of at least moderate differences in the perception of non-discriminatory barriers between different-sized companies.

Table 4. Barriers for participation in public procurement – company size perspective

| a. Discriminatory barriers | | | | | |
|---|-------------|------------------|----------------------------|---------------------------|--------------------------------|
| Type of barrier | Size | Mean rank | χ^2 | Asymptotic Sig (%) | ϵ^2 |
| <i>Restrictions on production volume or quantity required</i> | Micro | 29.59 | 1.508 | 47 | 0.03 |
| | Small | 27.53 | | | |
| | Medium | 21.79 | | | |
| <i>Meeting quality standards</i> | Micro | 28.66 | 1.084 | 58 | 0.02 |
| | Small | 25.53 | | | |
| | Medium | 22.79 | | | |
| <i>Limitations related to the financial capacity of the company</i> | Micro | 31.31 | 5.079 | 8 | 0.1 |
| | Small | 22.77 | | | |
| | Medium | 20.21 | | | |
| <i>Limitations related to the number of employees and their qualifications</i> | Micro | 31.39 | 3.359 | 19 | 0.06 |
| | Small | 23.82 | | | |
| | Medium | 23.14 | | | |
| b. Non-discriminatory barriers | | | | | |
| Type of barrier | Size | Mean rank | χ^2 | Asymptotic Sig (%) | ϵ^2 |
| <i>Insufficient and incomplete information in the Public Procurement Invitation</i> | Micro | 28.70 | 0.013 | 99 | 2.36e ⁻⁴ |
| | Small | 28.18 | | | |
| | Medium | 28.36 | | | |
| <i>Short deadline for preparation of documentation</i> | Micro | 28.82 | 0.263 | 88 | 0.01 |
| | Small | 26.41 | | | |
| | Medium | 28.21 | | | |
| <i>Complicated bidding process</i> | Micro | 27.77 | 0.056 | 97 | 0.001 |
| | Small | 28.71 | | | |
| | Medium | 27.25 | | | |

Note: **Epsilon squared (ϵ^2)** is unbiased measure of effect size and it can have the following values: 0.01 – small; 0.08 – medium; 0.26 – large (Mangiafico, n.d.).

Source: Authors

CONCLUSION

The literature highlights several of barriers that may have an impact on SMEs bidding for public procurement contracts. These include a lack of knowledge or awareness of procurement opportunities, lack of the capacity to deliver requested amount of the products or to produce products/services in the requested range of quality standards. However, female companies are facing even higher barriers to access public procurements which are the reasons why stakeholders in some countries are launching gender sensitive (responsive) public procurement programs, initiatives and measures. The role of public authorities, especially local authorities, in promoting equal opportunities and gender equality in relation to public procurement is

recognized by the European Charter on Equality between Women and Men in Article 12, which recommends the insertion of a gender equality clause in contracts or financial agreements. Still, gender sensitive public procurements are not the mainstream, there is a lack of gender-disaggregated data and it is limited to a few good examples worldwide. As to the Western Balkan countries, gender-responsive public procurements are also limited to certain initiatives which promote better positioning of female companies in the public procurement. The research indicates that there are not significant differences in the perception of the importance of barriers to participation in public procurement between male-owned and female-owned firms. However, it does not mean that the access to public procurement is equal to men and women but only that their perceptions on the importance of barriers are almost the same. Also, different-sized companies have a similar perception of the importance of barriers to participation in public procurement. Therefore, it is recommended to continue research on access to the public procurement for SMEs including gender aspect in greater depth and in the bigger sample.

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APPENDIX I**Normality tests**

| Variables | Kolmogorov-Smirnov | | Shapiro-Wilk | |
|---|--------------------|------|--------------|------|
| | Statistic | Sig. | Statistic | Sig. |
| <i>Restrictions on production volume or quantity required</i> | .200 | .000 | .887 | .000 |
| <i>Meeting quality standards</i> | .188 | .000 | .878 | .000 |
| <i>Limitations related to the financial capacity of the company</i> | .206 | .000 | .880 | .000 |
| <i>Limitations related to the number of employees and their qualifications</i> | .159 | .003 | .910 | .001 |
| <i>Insufficient and incomplete information in the Public Procurement Invitation</i> | .189 | .000 | .901 | .001 |
| <i>Short deadline for preparation of documentation</i> | .151 | .006 | .894 | .000 |
| <i>Complicated bidding process</i> | .184 | .000 | .884 | .000 |

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