

## Public Procurement System in Service for Strengthening the Market Economy in Bosnia and Herzegovina

**Merim Kasumovic**

University of Tuzla, Bosnia and Herzegovina  
*merim78@hotmail.com*

**Sanela Meholjic-Kalajdzic**

Foundation for Sustainable Development  
Bosnia and Herzegovina  
*s.meholjic@hotmail.com*

**Harun Meholjic**

Elektroprivreda BiH, Bosnia and Herzegovina  
*harunmeholjic@hotmail.com*

**Abstract:** *Public procurement system in Bosnia and Herzegovina (BH) is defined by various laws and regulations and is often identified with the legal profession. However, it is actually more significant and relevant for economists and public officials. One of the key challenges remains the application of transparency to the system of public procurement in the context of strengthening market competition in BH, as well as the market economy in general. The research methods applied reveal the market strength of the contracting authorities (buyers) and market competition among suppliers (sellers) in the public procurement market in BH, as measured by their market shares. Based on the research, the connection between the market strength of contracting authorities and the level of development of competition on the public procurement market in BH in the period from 2010 to 2012 was examined in terms of choosing more or less transparent procurement procedures.*

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## Introduction

Public procurement market represents one of the key areas for financial interaction of public and private sector. Public procurement regulations are a novelty in domestic legislation. The public procurement system in Bosnia and Herzegovina (BH) is a new system of awarding contracts in public procurement procedures, and it is based on the Act of Public Procurement of BH<sup>i</sup> (Act), which establishes the rights and obligations of participants in the procurement process as well as the control of public procurement. According to Rička et al. (2008) the purpose of this law is to ensure: (1) the most effective way of using public funds with regard to the purpose and object of the procurement; (2) procurement execution and awarding a public procurement contract that is carried out by contracting authorities in accordance with the procedures established by this act, and (3) contracting authorities will take all necessary measures to ensure fair and active competition among the potential suppliers, by applying equality of treatment, non-discrimination and transparency.

The public procurement system in BH has both its theoretical and practical dimensions. While the theoretical dimension is determined by the external environment such as legal, political and economic environment, its practical aspects lie in the accomplishment of various economic goals. – This is important to all countries, especially for countries in development and transition like BH. Just like there is no system that can accomplish all goals, there is no country that can expect that goals of its system will always remain the same. The current objectives of the single public procurement system in BH (Public Procurement Agency, 2010) are: continuous execution of procedures of public procurement and transparent public procurement contract awarding, equality treatment for all participants in procedures of public procurement, encouragement of sustainable market and economic growth and ensuring legal protection at the same time.

The European Commission reported that public procurement of goods, services and works, in the European Union in 2010 was estimated at 2.406 billion euros, that is 19.7% from total GDP. The public procurement stake in developing countries was even bigger and ranged from 25% to 30% from total GDP (Knežević, 2007). Therefore, public procurement is considered to be a source of economic growth stimulation, strengthening the private sector and the market economy in general (Rička et al., 2008). Countries in transition accomplish their objectives within different political and economic environments, but their common goal is to establish

an efficient bureaucracy that will support creating politics and manage realization of public procurement in an economical manner, without abuse of power. Economic transition requires that a transparent and efficient system of public procurement has to be placed as a priority, so it can support demonopolisation and privatization (European Commission, 2007). Therefore, we can state that a public procurement system, based on transparency, can be in service of strengthening market competition and private sector development. However, in countries in transition, like Bosnia and Herzegovina, at the beginning stages of a market economy, there are great dangers. Bribes and similar tampering threaten real competition and may discourage and repel domestic and foreign investors, which results in a decrease of growth rate in such countries.

Considering the importance and purpose of the public procurement system in BH, the question emerges, how the existing procurement system in BH is applied, and what are its effects in economic terms. That is, whether more transparent procedures for public procurement that strengthen fair market competition are applied, contributing thereby to the strengthening of the market economy in BH, and what are further restrictions on public procurement system which stand in the way of achieving a functioning market economy in Bosnia and Herzegovina? In an effort to find answers to these questions, the subject of research has been defined, and it is reflected in the assessment of theoretical and practical aspects of applying the transparency of public procurement in the context of strengthening the market economy in BH. The overall objective of this paper is to explain the importance of the principle of transparency in the public procurement system, in the context of the creation and growth of a functioning market economy. This is one of the main preconditions for the existence of market competition.

### **Transparency System of Public Procurement in Bosnia and Herzegovina (BH)**

Public procurement is defined as purchasing goods, services and works by contracting parties in accordance with the rules and regulations of public procurement. They are administrative bodies and enterprises that are subjected to the Law and have to carry out the procedures for public procurement, prior to the conclusion of the public procurement of goods, services and works. Procedures of public procurement and conditions for its execution are also defined by the act, where final decision is made by the contracting authority, depending on the fulfillment of conditions defined by the act. Contract value is estimated by the contracting authority in the beginning of the procedure of public procurement, and

that value represents the so called value class on the basis of which the types of public procurement procedure to be applied is determined. In the act, there are two categories of value classes:

- primary i.e. domestic value classes – when the contract value is equal or greater than 50.000,00 KM in case of procurement of goods or services, and equal or greater than 80.000,00 KM in case of procurement of works; and
- international value classes – when contract value is equal or greater than 500.000,00 KM for state authorities or 700.000,00 KM for local authorities and public entities in case of procurement of goods and services, and equal or greater than 2.000.000,00 KM in case of procurement of works.

The act establishes five primary procedures for the award of contracts in public procurement, which are equal to or above the primary value class and for international competition (described in Chapter II of the act), as follows: (1) open procedure; (2) restricted procedure with prequalification; (3) negotiated procedure with publication of procurement notice; (4) negotiated procedure without publication of procurement notice; (5) a design contest project. The act provides for the application of two more procedures (as described in Chapter III of the act), as follows: (1) a direct agreement, and (2) the competitive request of quotations, which are applicable to public procurement procedures below the primary value class, or governing contracts of lesser value.

The basic principles on which the Act of Public Procurement in BH (Act) is based on, and the EU Directives on public procurement, which the contracting authorities must respect throughout the procurement process are the principles: equal treatment (non-discrimination), transparency, fair and open competition, economy and legality (Rička et al., 2008). The principle of transparency in public procurement procedures demands availability of relevant information to all interested parties, consistent and in a timely manner, via accessible and prevailing medium, at no or at reasonable cost (Public Procurement Agency, 2009). Respect for the principle of transparency is guaranteed by the regulations which are presented in Table 1.

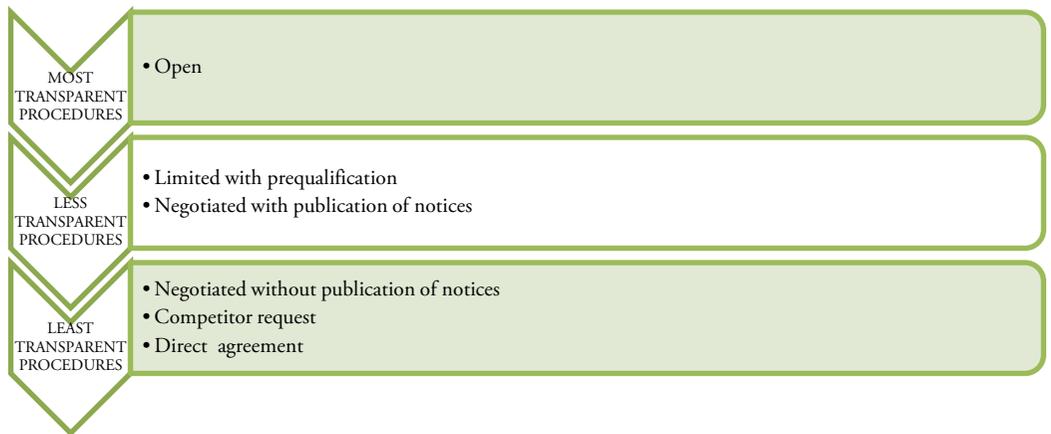
**Table 1:** Legal regulations that implement transparency requirements

LEGAL REGULATIONS	TRANSPARENCY REQUESTS
Article 11.	Rules of selection of the public procurement procedures, and in accordance with them, basic and preferential procurement procedure is an open procedure.
Article 13.	Contracting authority has the obligation to prepare tender documentation which contains a collection of information on the procurement.
Article 18.	Give the tender documentation to interested suppliers.
Article 19.-20.	Publication of public procurement notices.
Article 38.	Requesting for informing the candidates and tenderers of the decisions made during the procurement procedure.
Article 40.	Requesting for the publication of contract award notices.
Article 41.	Report about procurement procedure.
Article 42.	Archiving documents of the given procurement procedure by the contracting authority.

*Source: adapted in accordance to EUPPP Manual (European Commission, 2007)*

However, depending on whether the act established the obligation to perform certain operations or left it as a choice to the contracting authority, public procurement procedures prescribed by the act can be viewed as more or less transparent compared with each other. Pursuant to the provisions of the Act, authors themselves carry out a qualitative analysis of the transparency assessment of public procurement procedures, according to following criteria: whether it is obligatory or not to publish procurement notice and tender documentation, whether it is obligatory or not to publicly display the offers, whether it is obligatory or not, to have a minimum deadline for offer acceptance and minimum number of offers and bidders, and whether the tender documentation is free or not. Authors classified all procedures in three groups: most transparent procedures, less transparent procedures, and least transparent procedures, as it is show on the Figure 1.<sup>ii</sup>

**Figure 1:** Public procurement procedure in BH - transparency assessment



The transparency of the public procurement system is not an end in itself; it is a mechanism that is used to accomplish a certain goal. Trepte (2006) states that the transparency of the public procurement system is primarily used as a mean to protect economic efficiency, and ensure control by regulator (national or international), of the whole procurement system. Economic efficiency, as a natural result of free market, is based on establishing perfect competition. Therefore, imposition of transparent procedures, defining conditions and specifications in advance and publishing the criteria for selection and awarding the contract, are mechanisms that are used to avoid direct discriminations that could endanger desired competition.

### **Methodological Framework of the Research**

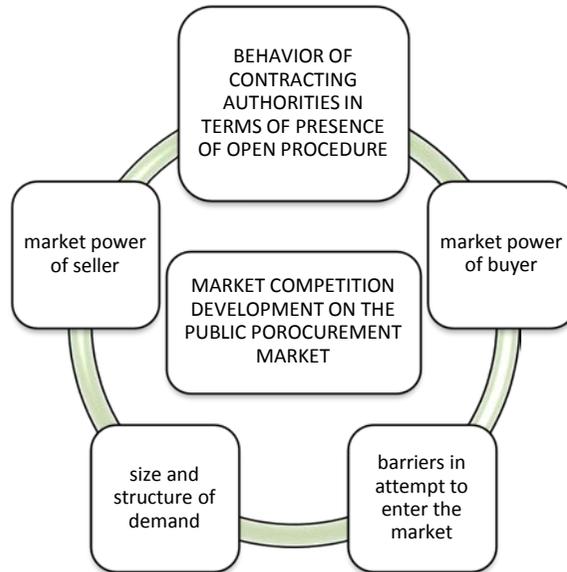
The empirical part of the research covered dynamic analysis of two research areas: (1) the existing public procurement system in BH, its framework and limitations considering transparency principle; (2) the public procurement market in BH in determining market power of contracting authorities and suppliers by measuring their individual and collective market shares in period from year 2010. to 2012.

#### *Theoretical Concept of Empirical Research*

The research was conducted using secondary research and available statistical data. According to authors' adaptations, the theoretical concept of empirical research is shown in Figure 2, and it states that the most significant factors for competition development in the public procurement market in BH are: scale and structure of

market demand, eventual barriers for entering the market, purchasing power of buyers (contracting authorities), whether or not procedures are transparent and open, and market power of the suppliers.

**Figure 2.** Most significant factors for competition development in public procurement market in BH



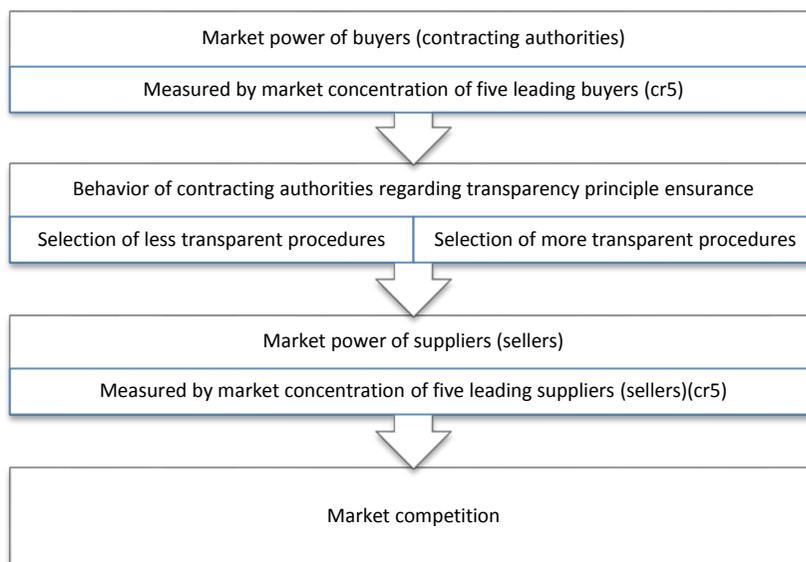
Authors are considering the correlation between the most significant factors for competition development in the public procurement market in BH (Figure 3), in the way that scale and structure of demand, eventual barriers for entering the market and individual shares of contracting authorities in the public procurement market determine their market power. Market power of buyers determines their behavior in regards to selection of certain public procurement. Their choice of more or less transparent procedures contributes to the decrease or increase of competition in the public procurement market in Bosnia and Herzegovina.

In this context, besides the central research hypothesis: increase in transparency of public procurement contributes to the strengthening of market competition in Bosnia and Herzegovina, two backup hypotheses have been established:

H1: In the case that contracting authorities have more market power, they will utilize less transparent procedures.

H2: In the case that contracting authorities have less market power, they will utilize more transparent procedures – open procedures.

**Figure 3:** Correlation between the factors of market competition in the public procurement market in BH



For the assessment of contracting authorities regarding their selection of procedures, authors used the data published by the Public Procurement Agency of BH (Agency). Two hundred of the largest contracts, completed in years 2010, 2011 and 2012, and which refer to: the procurement subject description (goods/services/works), the name of the contracting authority and its supplier for each contract, the type of executed procedure and the contract value. The Agency could not deliver the data for the years 2008 and 2009 because data from those years were not representative. Two hundred of the largest contracts that were completed in 2010 and in 2012 represent more than 50% of the total public procurement market in Bosnia and Herzegovina, and in year 2011, 200 of the largest contracts represented just 34.60% of the total market. In other words, 200 of the largest contracts in the year 2010 constituted 51.57% of the total demand, in the year 2011, 34.60%, and in the year 2012

58.61% of the total demand for goods, works and services in the public procurement market (Table 2).

**Table 2:** Representativeness of samples for examining the market power of participants in the public procurement market

	TOTAL VALUE OF COMPLETED CONTRACTS	TOTAL VALUE OF COMPLETED CONTRACTS IN A SAMPLE	REPRESENTATIVENESS OF THE SAMPLE
<b>2010</b>	3.469.981.667,61	1.789.620.514,48	51,57 %
<b>2011</b>	3.128.833.371,96	1.082.513.780,32	34,60 %
<b>2012</b>	3.560.468.418,94	2.086.767.392,45	58,61 %

*Source: adapted from the Public Procurement Agency of BH data*

#### *Size and Structure of the Public Procurement Market*

Considering that there are more than 2000 contracting authorities that are subjected to the act of public procurement of BH, and that annual value of public procurement is getting close to 4 billion KM (Public Procurement Agency, 2013), we can state that it is large and important market. Based on data published by the Directorate of Economic Planning of BH(2013), the public procurement share in GDP of BH in the year 2012 was 12.95%. Structure of the public procurement market can be analyzed by the subject of procurement: goods, services and works. During all observed years, in total value of completed contracts of public procurement, the market of the public procurement of goods was the largest. In other words, demand for goods was the largest, while the lesser demand was for works and the least for services. In the European Union as opposed to BH, services were the predominating demand, and in the year 2010 it constituted 42% of all public procurement. While 36% was the demand for work, and goods were in last place, constituting only 22% (European Commission, 2012).

Analyzing the sample of 200 of the largest completed procurement of public procurement in BH (Table 3), the major procurement in years 2010 and 2011 was procurement of goods that consisted 54.4% and 74.16% of total public procurements, respectively. In the year 2012, a slightly larger procurement of works was recorded (48.21%) in regard to procurement of goods (40.70%).

**Table 3:** Structure of demand with regard to the subject of the procurement in observed sample

YEAR	GOODS		SERVICES		WORKS		TOTAL	
	KM	%	KM	%	KM	%	KM	%
2010	973.545.490,04	54,40	213.286.929,33	11,92	602.788.095,11	33,68	1.789.620.514,48	100,00
2011	802.753.121,10	74,16	158.607.096,00	14,65	121.153.563,22	11,19	1.082.513.780,32	100,00
2012	849.231.383,10	40,70	231.599.765,66	11,10	1.005.936.243,69	48,21	2.086.767.392,45	100,00

Source: adapted from Public Procurement Agency of B&H data

*Behavior of contracting authorities in BH – public procurement procedure selection*

All responsibility for adequate implementation of the public procurement system in BH lies with contracting authorities that make the final decision about utilization of a certain procedure (that can be more or less transparent), depending on the fulfillment of the conditions prescribed by law.

Therefore, it was necessary to analyze their behavior in the context of ensuring the transparency principle during the selection of the procedures of public procurement.

Transparency of public procurement is identified as an independent variable in the central research hypothesis. The following indicators for transparency of public procurement in BH are used:

- Presence of certain procedures in total public procurement;
- Variations of open negotiation procedures without notice shares in total public procurement.

While in the EU transparency in public procurement procedures is rising year in and year out according to data reported by European Commission (2012), in BH transparency is dropping gradually. Data analysis of applied procedures in public procurement, represented in Table 4, has shown an apparent decline of transparency in conduction of public procurement in observed period of time. Open (most transparent) procedure in year 2012 had only 37.13% of the share in total public procurement, while in the year 2008 it had even 91.89% of the share in total public procurement. A procedure opposed to negotiation without publication of notification that is, the least transparent procedure in group of procedures from

Chapter II of the Act, in the year 2008 had the share of 3.99% of total public procurement. Until the year 2012 its share increased to 49% of total public procurement. Variation of open and negotiation procedure without notice shares are presented in Figure 4.

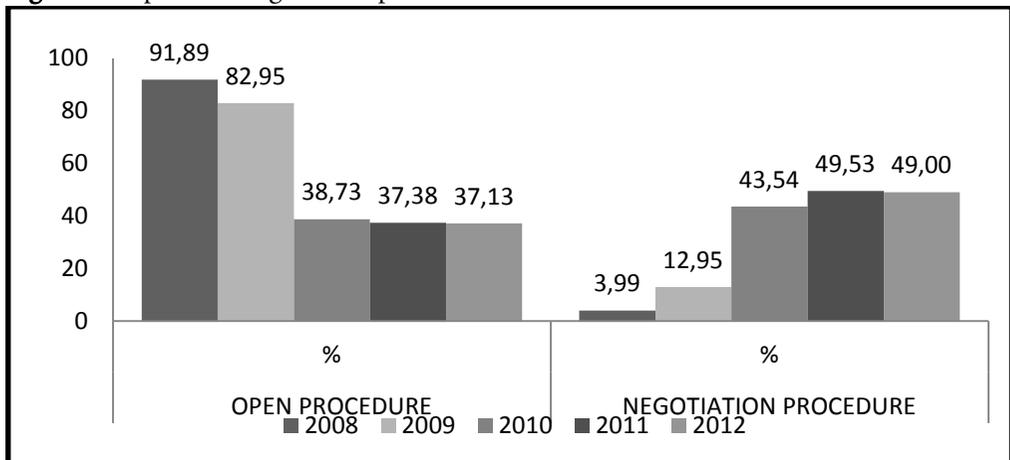
**Table 4:** Public procurement procedures applied in period between 2008. and 2012.

YE AR	Procedures from the Chapter II of the Act						Procedures from the Chapter III of the Act				TOTAL PUBLIC PROCUR EMENT KM
	OPEN PROCEDURE		LIMITED PROCEDURE		NEGOTIATION PROCEDURE <sup>III</sup>		COMPETITIVE REQUEST		DIRECT AGREEMENT		
	KM	%	KM	%			KM	%	KM	%	
20 08	1.598.03 7.250,83	<u>91</u> , <u>89</u>	62.150.50 0,68	3, 15	78.788.985,5 7	<u>3,9</u> <u>9</u>	191.465,3 28,57	9,7 1	41.829.98 1,63	2, 1 2	1.972.330. 047,28
20 09	1.507.30 6.001,68	82, 95	34.806.81 3,94	1, 91	275.141.970, 96	12,9 5	240.465.4 98,04	11, 32	67.093.63 2,79	3, 1 6	2.124.813. 917,41
20 10	1.343.82 1.679,59	38, 73	47.762.31 2,35	1, 38	1.510.857.88 6,84	43,5 4	423.359.6 03,82	12, 2	144.180.1 85,00	4, 1 6	3.469.981. 667,60
20 11	1.169.51 5.441,01	37, 38	18.256.71 0,88	0, 58	1.549.709.73 3,15	49,5 3	*	*	*	*	3.128.833. 371,96
20 12	1.321.88 2.884,64	<u>37</u> , <u>13</u>	60.962.41 3,53	1, 71	1.744.479.03 7,03	<u>49</u> , <u>00</u>	355.389.8 73,35	9,9 8	77.754.21 0,10	2, 1 8	3.560.468. 418,65

*\*data not available because the Agency did not publish the report for year 2011.*

*Source: adapted from Public Procurement Agency annual reports (2008, 2009, 2010 & 2012) and Transparency international BH for year 2011*

**Figure 4:** Open and negotiation procedure -variations of shares



*Source: adapted from Public Procurement Agency annual reports (2008, 2009, 2010 & 2012) and Transparency International BH for the year 2011*

With the fact that the least transparent procedures (competition request, direct agreement, negotiation procedure without notice) reached almost a 70% share of the total contracts signed, we can say that the behavior of contracting authorities in the context of ensuring transparency principle has failed and that it violates fair market competition.

#### *Competition on Public Procurement Market in BH*

Business strategies of firms affect the structure and organization of the market as well as their own functioning (Sharma and Tomić, 2011). There are many factors that affect shaping of competitive relations between participants on the market: number and size of individual participants on offering and/or demanding side, limitations and possibility of new competitors emergence, spatial distribution of customers and suppliers, greater or lesser homogeneity or differentiation of products, elasticity degree of demand for certain products, etc. (Jurin and Šohinger, 1990). Useful basic indicators of participants' market power and the market power of their competitors are determining the market shares and level of market concentration of the observed market (Croatian Competition Agency, 2005). The greater the market share of a concentration participant, the greater the probability that such an entrepreneur has market power as well. Term – market power of an entrepreneur can be defined as a long-term ability to sell its products at a higher price than the market price. On the basis of said we can conclude that entrepreneur has significant market power if he is characterized by a large market share and high financial power that enables him to dictate purchase (market) conditions, and to exclude competitors from the market. His market power is greater if he operates on closed market. The entrepreneur with high market power has the ability to act independent of potential and real competitors, customers' interest, suppliers, and society on the whole.

Market competition is identified as an independent variable. It is also a precondition for strengthening market economy in general. For measurement of market competition on the public procurement market in B&H, based on the observed sample, the following indicators were used:

- The market shares of customers and sellers

- The market concentration ratio of the five largest buyers/sellers on submarkets of goods, services and works procurement.
- The (Non)Existence of buyers/sellers domination on the public procurement market

The Market Concentration ratio (CR) is one of the usual measures of market concentration. It shows the total (joint) market share of a relatively small number of the largest entrepreneurs that operate on the same market. The higher the CR is, the market is more concentrated. Considering a number of entrepreneurs whose market share is observed, the market concentration ratio is denoted with CR2, CR3, CR4, etc. A higher ratio of market concentration indicates that market competition has decreased, and vice versa.

To measure (non)existence of dominant buyer/seller on the public procurement market in B&H, the following criteria, established by provisions of the competition Act,<sup>iv</sup> were used in this paper:

- A buyer/seller is dominant on the market if it has more than 40% of market shares.
- Two or three buyers/sellers are dominant on the market if they, together, have more than 60% of the market shares.
- Four or five buyers/sellers are dominant on the market if they, together, have more than 80% of the market shares.

#### *Market Power of Buyers (contracting authorities)*

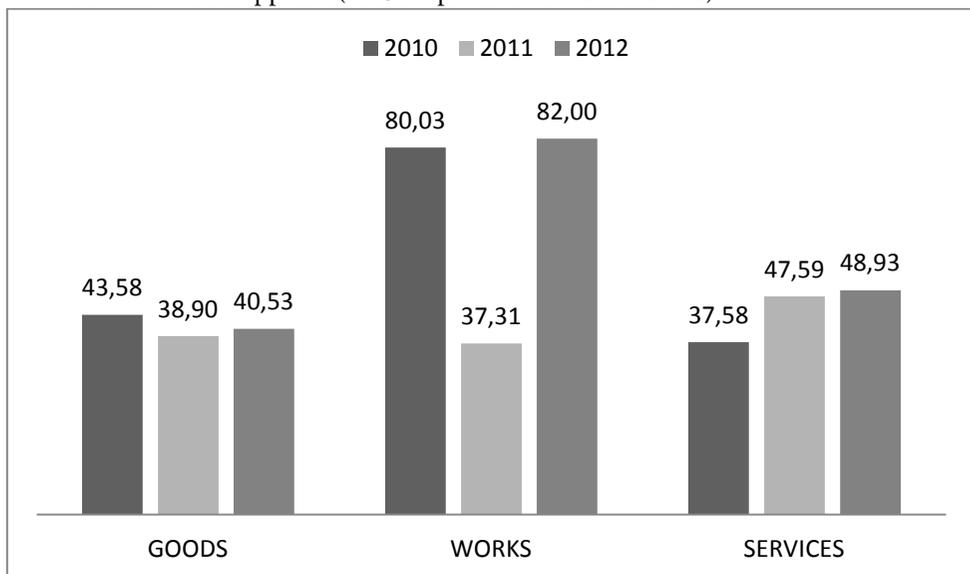
On the procurement of goods, the market concentration ratio of five leading suppliers indicates that they have high market power because their total shares (CR5) ranged from 43.58% in the year 2010, 38.9% in the year 2011 and to 40.53% in the year 2012. They do not have a dominant position but they do have significant power on this market. Three enterprises that emerge in five leading suppliers are: coal mines Kreka Tuzla, brown coal mines Kakanj and brown coal mine Banovići. Their cumulative shares are increasing each year, and in year 2012 they were 32.73%.

On the procurement of works market, it has been recorded that the market concentration of the five leading suppliers was the highest in regards to market of goods and services. CR5 was 80.03% in year 2010, 37.31 in year 2011, and finally it

rose to 82.0% in year 2012. In accordance with set criteria, five leading suppliers are dominant in this market.

On the market of services procurement, CR5 indicates that market concentration of the five leading suppliers is rising with each year, ranging from 37.58%, over 47.59% to 48.93% in the year 2012. There are no enterprises or group of enterprises that are dominant on this market.

**Figure 5:** Concentration of public procurement of goods, works and services markets in terms of suppliers (CR5 in period from 2010-2012)



Source: adapted from Public Procurement Agency data

On the overall public procurement market in terms of suppliers, high market concentration has been recorded for the five leading suppliers in year 2012 (CR was 48.12%), which indicates that these five leading buyers have relatively high market power, but not a dominant position. In regards to the market power of the five leading buyers, their market power is significantly lower. Different companies have had the position of the largest supplier in the years 2010, 2011 and 2012: NISKOGRADNJA with a share of 24.27%, Kreka coal mines with a share of 10.36%, and CHV Czech Republic with 33.63% of the share, respectively. Their individual shares are big but these suppliers were not dominant in the overall market.

## Results of Empirical Research of the Public Procurement Transparency Impact on Strengthening Market Competition in BH

Starting from the theoretical concept of empirical research and the relationship between the most significant factors of market competition development, based on the results obtained, it is possible to test the proposed research hypothesis and examine the impact of increasing the transparency of public procurement to strengthen the market competition in BH. Results of the study based on a sample of the 200 largest, completed public procurement contracts in BH in the period from 2010 to 2012 are presented in Table 5, and refer to the information on:

- ✓ size and structure of demands for goods, works and services,
- ✓ market concentration of the five leading buyers on the market of goods, works and services,
- ✓ market concentration of the five leading suppliers on the market of goods, works and services,
- ✓ the amount of open procedures in the total procurement of goods, works and services.

**Table 5:** Research results

INDICATORS	GOODS PROCUREMENT MARKET			WORKS PROCUREMENT MARKET			SERVICES PROCUREMENT MARKET		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
SIZE AND STRUCTURE OF THE DEMAND IN %	54,40	74,16	40,70	33,68	11,19	48,21	11,92	14,65	11,10
MARKET CONCENTRATION OF BUYERS CR5	75,83	64,91	75,16	84,32	42,39	95,66	59,28	62,92	64,56
AMOUNT OF OPEN PROCEDURES IN %	18,45	29,02	18,85	7,98	8,47	14,32	3,57	10,21	2,91
MARKET CONCENTRATION OF SUPPLIERS	43,58	38,90	40,53	80,03	37,31	82,00	37,58	47,59	48,93

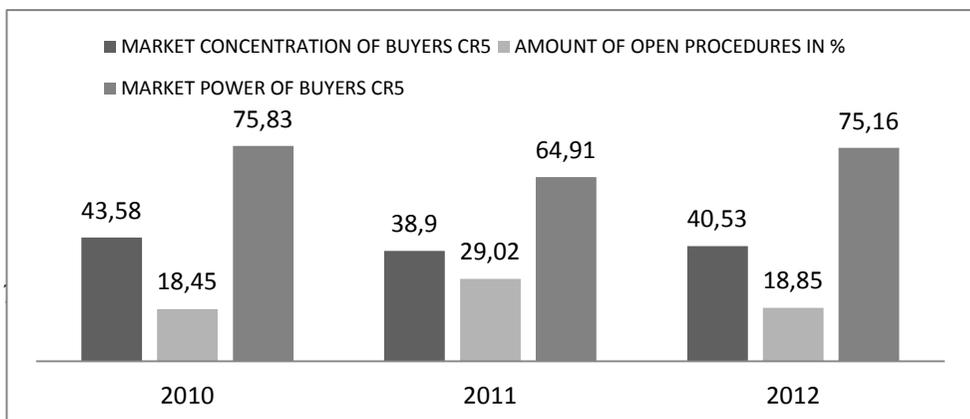
CR5										
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Testing auxiliary hypotheses will be conducted by re-examining the relationship between market power of the largest buyer in the whole public procurement market in BH (Elektroprivreda BiH) and the amount of the open procedures in its procurement, because research shows that the public enterprise "Elektroprivreda BiH" achieved the highest individual share of 26.55%, 38.34% and 55.44% in the period from 2010th to 2012th year

*Research Results on the Market of Procurement of Goods*

In the reporting period, a higher demand for goods than for works and services has been recorded. Considering that a high demand for goods offers possibility to make a profit, many suppliers are present on this market, and therefore larger competition is expected. In the reporting period, the highest reported demand for goods was reported in year 2011 and it amounted to 74.16% from total public procurement in BH. High demand resulted in the decreasing of market concentration of the five leading buyers (CR5 was 64.91%). As a result of the decreased market power of buyers in year 2011, the amount of open procedures was highest (29.02%). This contributed to the increase in competition and in final, decreasing of the market concentration of the five leading suppliers to the smallest level in the reporting period (CR5 was 38.90%). This relationship can be seen in Figure 6. Observing this market in the year 2012, when lower demand was recorded than in the year 2011, the market power of buyers increased again, as they used their higher market power to conclude smaller value contracts with open procedure than in the year 2011. That was the reason why the market concentration of five leading buyers increased, i.e. competition on this market was lower.

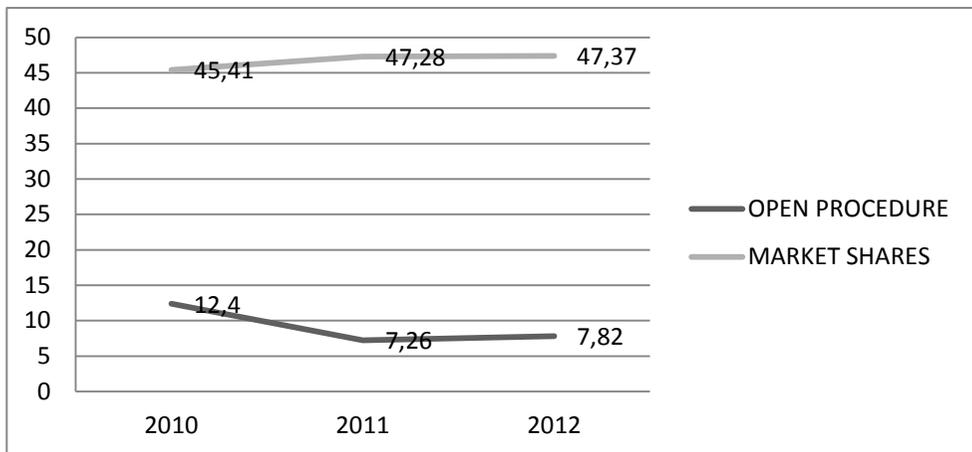
**Figure 6:** Relationship between market concentration of suppliers, amount of open procedures of total public procurement procedures and market concentration of buyers (period from 2010 to 2012) in %



Source: data from Table 5

The largest buyer, JP Elektroprivreda BiH, acted in accordance with its market power. This buyer had a dominant position in all observed years on the market of goods with shares over 40%. As its market power as a buyer increased, the amount of open procedures in the market decreased, which can be seen in Figure 7.

**Figure 7:** Relationship between the market share of public enterprise “Elektroprivreda BiH” and open procedure on the market



Researching the impact of increasing the transparency of public procurement on strengthening market competition on the commodities market we came to the following conclusions:

- With increase in the market power of buyers, the amount of most transparent procedures decreases i.e. transparency of public procurement decreases.

- With the decrease of public procurement transparency, market concentration of the five leading suppliers increases i.e. market competition decreases.

### *Research Results on the Procurement of Works Market*

The highest demand for works was reported in year 2012, when it amounted to 48.21% of the total public procurement in BH. As opposed to the commodities market where very high demand for works did not result in an increase of competition between suppliers; on the contrary, the largest market concentration of five leading suppliers has been reported. That year, they had very high market power and dominant position (CR5 was 82%), in accordance to research criteria (Figure 8). Causes of such phenomenon can be found in the undeveloped market of works in which operates a small number of construction companies that have had difficulties surviving in periods of economic crisis. If we add to it barriers that occur with entering the market (licenses, the necessary references, business expenses etc.), high market (negotiation) power of the five leading buyers that have dominant positions on this market (CR5 95.66%), then it is not surprising that the level of market competition is at such a low level. The market power of buyers and suppliers has contributed that amount of open procedures from the total public procurement procedures was merely 14.3% in the year 2012, although values of signed contracts were high. Considering indicators recorded in the year 2011, when the lowest demand for works was recorded (11.19%), it is clear that the market power of buyers (CR5 42.39%) and sellers (CR5 37.31%) was at the lowest level in the observed period.

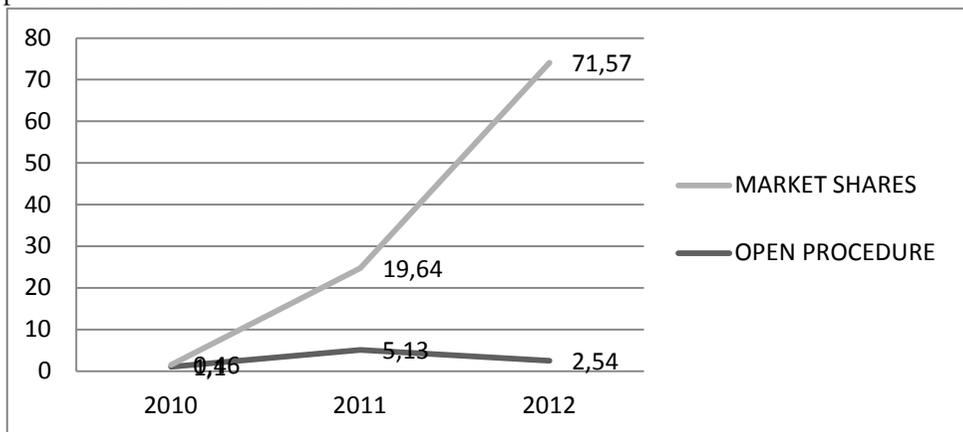
Due to the low presence of open procedure in all the years, especially in 2010 and 2011 when it was about 8%, contracting authorities, applying the least transparent procedures for the award of public works discouraged the entry of new companies into the market and thereby jeopardizing the development of competition and the market economy in general.

**Figure 8:** Ratio of market concentration of suppliers, representation of the open procedure and market concentration of buyers (period from 2010 to 2012)

Source: data from Table 5

Public Enterprise “Elektroprivreda BiH”, which has almost achieved monopoly in the works market in year 2012, with shares of 71.57% in this market acted in accordance with its market power. The lowest level of amount of open procedure (2.54%) in total procurement of this buyer was in year 2012, when their market power was highest (Figure 9).

**Figure 9:** Market share of public enterprise “Elektroprivreda BiH” and open procedure on the works market ratio



Source: Author’s interpretation according to data from Public Procurement Agency of BH

Examining the impact of the increase in public procurement transparency on the strengthening of market competition in works market, the following conclusions were made:

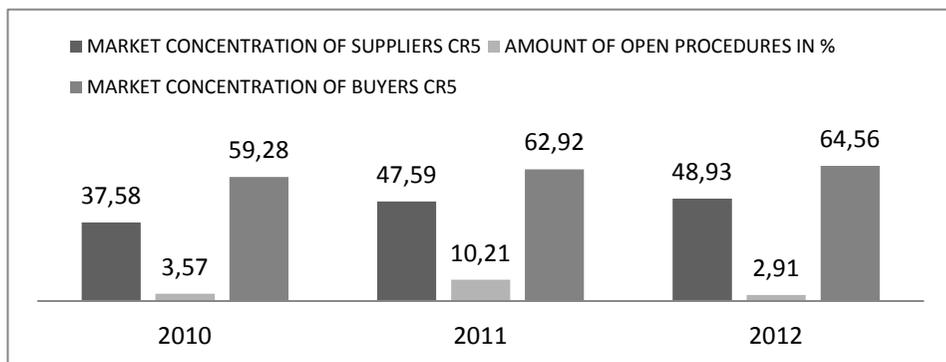
- Market power of buyers and suppliers is very high – the five leading buyers and suppliers have a dominating position on the market.
- Undeveloped market and the existence of real barriers for new companies to enter the market makes the market power of buyers and suppliers even stronger
- The very low level of public procurement transparency on this market is a consequence of very a high market power of buyers i.e. their dominant position.

- The lower the level of public procurement transparency is, the greater is the market concentration of suppliers i.e. lower is the market competition.

*Results of the Research on Services Procurement Market*

On the services market, continual growth of the market power of buyers and sellers has been recorded, as well as the percentage of open procedures on observed submarkets (3% - 10%). The market power of the five leading buyers is growing each year because of low demand for services, specific procurement cases and real barriers for new companies to enter this market. The very small percentage of open procedure on this market contributes to the ever growing concentration of the five leading suppliers i.e. weakening market competition.

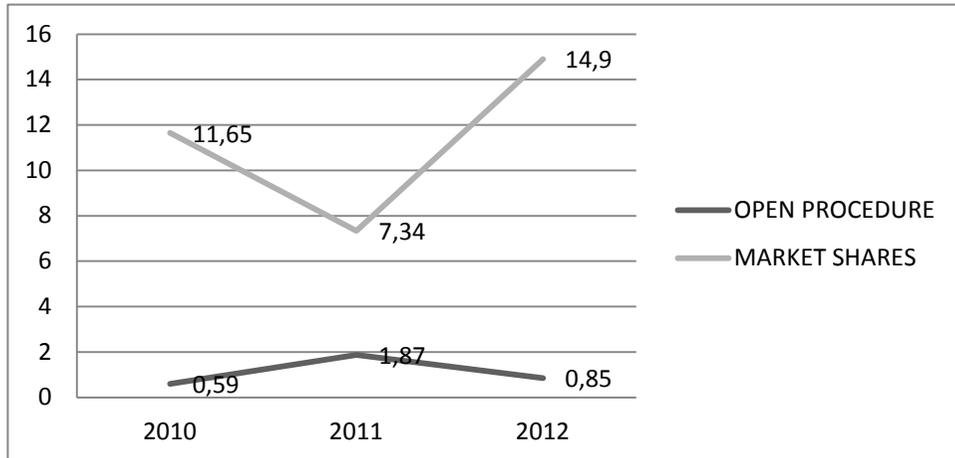
**Figure 10:** Market concentration of suppliers, percentage of open procedure and market concentration of buyers ratio (period 2010 to 2012)



Source: Data from Table 5

The classic example of the market power of buyers and the amount of open procedures ratio is the case of largest buyer on the services market, Public Enterprise "Elektroprivreda BiH". The higher the market share of the buyer was, the smaller the amount of open procedures and vice versa. When the market share of this buyer was at its lowest level (7.34%) the highest percentage of open procedure was recorded (1.87%), which can be seen in Figure 11.

**Figure 11:** Market share of “Elektroprivreda BiH” and open procedure percentage ratio on services market



**Source:** Authors' interpretation according to data received from public procurement agency of BH

In examining the impact of increased public procurement transparency on strengthening market competition on the services market, following the conclusions can be stated:

- Higher market power of buyers and suppliers is continually increasing each year.
- Undeveloped market and the existence of real barriers for new companies to enter the market additionally strengthens the market power of buyers and sellers.
- Very low level of public procurement transparency on this market is a consequence for the high market power of buyers.
- The lower the level of public procurement transparency, the higher the market concentration of suppliers i.e. market competition is weaker.

## Conclusion

Insights into the public procurement system, the market power of contracting authorities and suppliers, measured by their individual and cumulative market shares, as well as insights into their behavior in the context of ensuring transparency principles in public procurement have contributed in drawing one general

conclusion: the public procurement system in BH can be used as an instrument for strengthening the market economy altogether with the transparency mechanism by contributing to strengthening (free) market competition, because market competition represents foundation of functional market economy.

By the scientific research method, it has been determined that there is a high market concentration of five leading buyers and five leading suppliers on the market. That means a lower level of market competition. It has also been determined that public procurement transparency is decreasing. Based on quantitative evidence about the size of market competition on the public procurement market, and quantitative analysis of the transparency system impact on market competition, we can conclude that the research hypothesis has been confirmed and that: *increase of public procurement transparency contributes strengthening market competition in Bosnia and Herzegovina.*

The results of the research give us one more insight: *behavior of contracting authorities in terms of ensuring the transparency principle is determined by their market power i.e. higher their market power, measured in market shares the lower the percentage of open procedures in public procurement.*“

Intentionally or not, contracting authorities negatively affect the development of market competition and therefore functional economy in BH, by not preferring most transparent procedure - open procedure. Theoretical, methodical and empirical insights on the impact of the public procurement system's transparency on market competition and the market economy in general, represent an argument for urgent reform of the existing public procurement system that enables contracting authorities to weaken the development of market competition and the market economy in Bosnia and Herzegovina.

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<sup>i</sup> “Official Journal B&H”, number 49/04, 19/05, 52/05, 94/05, 8/06, 24/06, 70/06, 12/09, 60/10 & 87/13.

<sup>ii</sup>Design contest project as one of the possible procedures was excluded from the analysis due to his specific application.

<sup>iii</sup>The Public Procurement Agency in the Annual reports does not publish data of the value of concluded contracts by negotiated procedure with publication of procurement notice and negotiated procedure without publication of procurement notice separately.

<sup>iv</sup>Criteria have been established based on the provisions of Act of Public Procurement of Bosnia and Herzegovina