

## CERTAIN ASPECTS OF BID RIGGING IN BOSNIA AND HERZEGOVINA

**Kanita Imamović-Čizmić, Full Professor**

University of Sarajevo, Faculty of law  
Obala Kulina bana 7, 71000 Sarajevo, Bosnia and Herzegovina  
k.imamovic-cizmic@pfsa.unsa.ba

**Amina Nikolajev, Associate Professor**

University of Sarajevo - Faculty of law  
Obala Kulina bana 7, 71000 Sarajevo, Bosnia and Herzegovina  
a.nikolajev@pfsa.unsa.ba

### **Abstract**

*The public procurement system aims to model the efficient and rational use of budgetary funds to meet public sector needs. Before the adoption of the Public Procurement Law of 2014, which aligns closely with EU acquis, public procurement in Bosnia and Herzegovina was regulated at four levels of government, resulting in a highly complex system. One key principle guaranteed by the Public Procurement Law is fair and active competition, which intersects with the Law on Competition in Bosnia and Herzegovina. The Law on Competition regulates the rules, measures, and methods for protecting market competition and outlines the jurisdiction and operations of the Competition Council, which is responsible for promoting and safeguarding market competition. This law further ensures the application of fair and active competition principles. This paper addresses the regulation of bid-rigging in Bosnia and Herzegovina's public procurement process and investigates whether contracting authorities have encountered bidder behaviors that could indicate bid-rigging, in the context of competition law. To achieve this, the paper is structured into three parts: The first part provides theoretical insights essential for understanding the issue, including international approaches to combating bid-rigging. The second part outlines the regulatory framework for bid-rigging in public procurement within Bosnia and Herzegovina and highlights the significance of public procurement in the country. The third part presents the findings from the research conducted. Based on these findings, the paper offers recommendations for improving the public procurement system in Bosnia and Herzegovina, aiming to eliminate or reduce opportunities for bid-rigging.*

**Key words:** bid rigging, public procurement, competition law, Bosnia and Herzegovina

## 1. INTRODUCTION

Public procurement involves the process by which public authorities, such as government departments or local authorities, acquire work, goods, or services from businesses. When this process is transparent, fair, and based on competition rules, it ensures efficiency and economy in the use of public funds. Public procurement is a critical instrument for developing a market economy. By conducting public procurement, the state directly engages in the market, influencing economic flows broadly. It is crucial for the state to demonstrate adherence to the fundamental principles of the market economy and effectively implement its legally mandated role of ensuring free and fair market competition.

However, bid rigging poses a significant threat to the integrity of this process. Bid rigging refers to illegal activities aimed at manipulating the public procurement process to favor a specific bidder or group of bidders, thereby distorting competition in the public procurement market.

This paper explores bid rigging in public procurement in Bosnia and Herzegovina, examining various aspects of the issue and providing recommendations for improving the public procurement process. Bosnia and Herzegovina, a developing country transitioning from a command economy to a market economy, faces numerous challenges, including meeting EU membership criteria. The Public Procurement Law of 2004 introduced a harmonized procurement system in Bosnia and Herzegovina. However, this law had several shortcomings that led to potential abuses and corruption, including inadequate fines, irregularities in implementation, and insufficient capacity of oversight bodies such as the Public Procurement Agency, the Procurement Review Body, and the Court of Bosnia and Herzegovina.

In response to these issues and the need for further alignment with EU *acquis*, a new Public Procurement Law was adopted in 2014. While this updated law improved upon the initial 2004 legislation, it still requires amendments after a decade of implementation. Effective public procurement procedures should be transparent, efficient, and based on active and fair competition, which can be achieved by adhering to the provisions of the Law on Competition. The Competition Council is responsible for addressing competition violations, including bid rigging, by conducting investigations, determining legal violations, and imposing fines on involved business entities.

This paper focuses on analyzing the regulatory framework for bid rigging in Bosnia and Herzegovina, identifying legal and institutional prerequisites for combating this unacceptable behavior. Detecting bid rigging is challenging for authorities, and various theoretical and practical methods have been developed to address it. Contracting authorities play a crucial role in identifying patterns of behavior that

may indicate bid rigging. The aim of this paper is to investigate whether contracting authorities in Bosnia and Herzegovina have encountered behaviors among bidders that suggest bid rigging, in the context of competition law. To achieve this, the paper is structured into three parts: a theoretical overview, an examination of the regulatory framework for bid rigging in public procurement in Bosnia and Herzegovina, and an analysis of research findings.

## 2. GENERAL NOTES ON BID RIGGING IN PUBLIC PROCUREMENT

Public procurement is a significant form of public expenditure aimed at acquiring works, goods, or services for the procuring entity.<sup>1</sup> According to the OECD, public procurement involves the deliberate purchase of goods, services, and works by governments and state-owned enterprises. Given that public procurement involves substantial taxpayer funds, governments are expected to manage these processes efficiently and uphold high standards of conduct to ensure quality service delivery and protect public interest.<sup>2</sup> The effectiveness of public procurement is measured against the 3E principles: economy, efficiency, and effectiveness. Recently, a fourth E—ethics—has been added to emphasize the importance of integrity in procurement practices. Effective public procurement brings numerous benefits, including economic<sup>3</sup>, social<sup>4</sup>, and environmental<sup>5</sup> advantages.

The importance of purposeful public procurement becomes even more evident during periods of strict public budget constraints and financial crises. It necessitates a well-organized procurement system, which is a focus of international organizations such as the Organization for Economic Cooperation and Development, the World Trade Organization, and the European Union. These organizations advocate for well-structured public procurement systems and competition protec-

---

<sup>1</sup> Curtis, F.; Maines, P., *Closed competitive bidding*, Omega, Vol. 1, No. 5, 1973, pp. 613–619; Rodríguez, M. J. G. et al., *Collusion detection in public procurement auctions with machine learning algorithms*, Automation in Construction, Vol. 133, 2022, p. 1.

<sup>2</sup> OECD, Public procurement, [<https://www.oecd.org/gov/public-procurement/>], Accessed 20 May 2024.

<sup>3</sup> Becker, J.; Niemann, M.; Halsbenning, S., *Contribution to growth: European public procurement delivering economic benefits for citizens and businesses policy: Department for economic, scientific and quality of life policies*, Directorate-General for Internal Policies, 2019, [[https://www.europarl.europa.eu/RegData/etudes/STUD/2018/631048/IPOL\\_STU\(2018\)631048\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/631048/IPOL_STU(2018)631048_EN.pdf)], Accessed 20 May 2024.

<sup>4</sup> Caimi, V.; Sansonetti, S., *The social impact of public procurement - Can the EU do more?*, Policy Department for Economic, Scientific and Quality of Life Policies, Directorate-General for Internal Policies, 2023.

<sup>5</sup> Lundberg, S. et al., *Using public procurement to implement environmental policy: an empirical analysis*, Environmental Economics and Policy Studies, Vol. 17, 2015, pp. 487–520, [<https://link.springer.com/article/10.1007/s10018-015-0102-9>], Accessed 20 May 2024.

tion regimes as essential for fostering economic prosperity and social well-being. One crucial aspect of ensuring adherence to the 4E principle is achieving active and fair competition in the public procurement process. This involves encouraging competition among bidders in the relevant public procurement market.

However, bid rigging—an illegal form of coordination among business entities (bidders)—poses a serious threat to competition. Bid rigging, often referred to as cartels, involves coordination among participants to manipulate the bidding process.<sup>6</sup> This collusion aims to eliminate competition, leading to higher prices for public procurement items than would result from a fairly competitive process. As a result, the cost burden falls on budget funds or taxpayers' assets.

The literature identifies two primary models of illegal behavior that violate competition in the public procurement process:<sup>7</sup>

1. Collusion between the contracting authority and one or more bidders occurs when they work together to manipulate the tender process. This typically involves creating tender conditions and criteria that favor certain bidders, reducing or excluding competition. The result is often an unfair advantage for the colluding bidder(s), undermining the integrity of the procurement process.
2. Mutual agreements among bidders occur when bidders coordinate their actions in the procurement process to ensure a particular outcome. This behavior is a form of cartel, where bidders collaborate to control the results, often limiting competition and undermining the fairness of the process.

Bid rigging can manifest in various forms, including:<sup>8</sup>

1. Cover bidding: Bidders agree to submit offers that are either higher than the pre-agreed winning bid, unreasonably high, or include conditions that are known to be unacceptable, creating a false appearance of competition.
2. Bid suppression: Bidders agree not to submit a bid or to withdraw an already submitted bid, allowing a predetermined bidder to win the contract.
3. Bid rotation: Participants agree to take turns winning contracts. They continue to participate in the bidding process but rotate the winning bid among themselves.
4. Market allocation: Bidders divide the market among themselves, agreeing to avoid competing for specific contracts or areas.

<sup>6</sup> Coleman, M., *Bid rigging*, Global Dictionary of Competition Law, Concurrences, Art. N° 12291, [<https://www.concurrences.com/en/dictionary/bid-rigging>], Accessed 20 May 2024.

<sup>7</sup> Danković Stepanović, S., *Protection of competition in public procurement procedures*, Justinianus Primus Law Review, Vol. 5, No. 1, 2014, p. 5.

<sup>8</sup> Commission for the Protection of Competition, *Instructions for the discovery of "fixed" offers in relation to the public procurement procedure*, Republic of Serbia, Commission for the Protection of Competition, Belgrade, 2022, p. 5.

Bid rigging in public procurement leads to several negative effects:<sup>9</sup>

1. Unrealistic price increases: When competitive bids are eliminated, prices are artificially inflated, leading to higher costs for consumers and significant financial losses for both the government and taxpayers. For example, research by Robert Clark, Decio Coviello, and Art Shneyerov highlighted substantial cost increases in Canadian public procurement due to bid rigging.<sup>10</sup>
2. Reduction in innovation: Bid rigging hinders innovation by discouraging businesses from investing in research and development. With less competition, companies have fewer incentives to create new or improved products, leading to stagnation in technological progress and a limited range and quality of offerings.
3. Slowed economic growth: The absence of competition and barriers for new bidders slow down economic growth. Manipulative practices by established players discourage new entrants from participating in public procurement.
4. Negative impacts on public projects: Bid rigging leads to inflated prices and wasteful spending of public funds. It also compromises the quality and efficiency of public projects, resulting in suboptimal outcomes.

Due to the significant negative effects of bid rigging across both developed and developing countries, it receives considerable attention and is often subject to both criminal and competition law regulations. For instance, in 37 Organization for Economic Cooperation and Development jurisdictions, bid rigging is classified as a criminal offense. Additionally, competition legislation in many countries prohibits collusion and cartel behavior. In the European Union, bid rigging is prohibited under Article 101 of the Treaty on the Functioning of the European Union, which aims to maintain the integrity of the internal market. In the United States, bid rigging is considered a *per se* violation of the Sherman Act (1890). China addresses bid rigging through Article 16 of the Anti-Monopoly Law of the People's Republic of China, while India regulates it under Section 3(1) of the Competition Act, 2002. In Japan, bid rigging is covered by Article 3 of the Antimonopoly Act.

Empirical studies demonstrate that the quality of legal regulation in public procurement significantly affects competition and contract profitability. Effective legal frameworks can mitigate the risk of bid rigging and enhance budget efficiency.<sup>11</sup>

<sup>9</sup> FasterCapital, *Bid Rigging: A Common Tactic in Price Fixing Schemes*, 2024, [https://fastercapital.com/topics/the-negative-impact-of-bid-rigging-on-competition-and-consumers.html], Accessed 22 May 2024.

<sup>10</sup> Clark, R.; Coviello, D.; Shneyerov, A., *Bid rigging and entry deterrence in public procurement: evidence from an investigation into collusion and corruption in Quebec*, *The Journal of Law, Economics, and Organization*, Vol. 34, No. 3, 2018, pp. 301–363.

<sup>11</sup> Kamil, B.; Tas, O., *Effect of public procurement regulation on competition and cost-effectiveness*, European University Institute Robert Schuman Centre for Advanced Studies, Fiesole, 2019.

The numerous adverse consequences of bid rigging drive competition authorities to intensify their efforts in detecting and sanctioning such practices. According to Organization for Economic Cooperation and Development data, there has been an increase in cartel decisions globally. In 2021, 39 decisions involved bid rigging, where bidders collude to maximize profits during auctions.<sup>12</sup> Competition authorities in CompStat jurisdictions issued a total of 182 cartel decisions related to bid rigging in 2021, accounting for 34% of all cartel decisions in the CompStat database<sup>13</sup> for that year (537). On average, there were 2.5 bid rigging cases per jurisdiction. The Asia-Pacific region recorded the highest number of bid rigging decisions (63%), while the Middle East and Africa had the lowest (16%). The Americas accounted for 40%, and Europe for 21% of bid rigging decisions.<sup>14</sup>

Detecting bid rigging agreements poses a significant challenge due to their secretive and sophisticated nature. Such agreements often involve coordinated strategies that are difficult to uncover. Moreover, the public procurement process is highly formal and transparent, with contracting authorities frequently using consistent procurement patterns, which can make the process predictable and facilitate bid rigging.<sup>15</sup> The literature highlights various methods for detecting collusion, with differing levels of success. Screening methods<sup>16</sup> involve identifying suspicious pat-

<sup>12</sup> OECD, *OECD Competition trends 2023, OECD CompStats Database [Data set]*, Organisation for economic cooperation and development, 2023, [<https://www.oecd.org/competition/oecd-competitiontrends.htm>], Accessed 8 February 2024.

<sup>13</sup> The OECD CompStats database is the result of an initiative launched in 2018. The database compiles general statistics relating to competition agencies, including data on enforcement, resources and information on advocacy initiatives. The data is collected annually and currently covers the period from 2015 to 2021. Data are generally presented at an aggregate level, combining data from individual jurisdictions. Data at the aggregate level includes analysis (i) for all participating jurisdictions (“All Jurisdictions”), (ii) a comparison between OECD and non-OECD jurisdictions, and (iii) by geographic region (Americas, Asia-Pacific, Europe and the Middle East and Africa). OECD, *OECD Competition Trends 2023*, [<https://www.oecd-ilibrary.org/docserver/bcd8f8f8-en.pdf?expires=1715156487&id=id&accname=guest&checksum=2B15B6C217C74CE9DDD5289DB5599D7B>], Accessed 8 May 2024.

<sup>14</sup> OECD, *OECD Competition Trends 2023*, [<https://www.oecd-ilibrary.org/docserver/bcd8f8f8-en.pdf?expires=1715156487&id=id&accname=guest&checksum=2B15B6C217C74CE9DDD5289DB5599D7B>], Accessed 8 May 2024.

<sup>15</sup> Anderson, E. J.; Cau, T.D.H., Implicit collusion and individual market power in electricity markets, *European Journal of Operational Research*, Vol. 211, No. 2, 2011, pp. 403-414; Ishii, R., *Favor exchange in collusion: empirical study of repeated procurement auctions in Japan*, *International Journal of Industrial Organization*, Vol. 27, No. 2, 2009, pp. 137-144.

<sup>16</sup> The screening method can refer to: analysis of bids submitted to identify irregularities or anomalies, such as extremely low or high prices, unusually low variability among bids, or inconsistencies with expected costs; analysis of cost structures in order to detect irregularities in costs and margins, which could indicate price collusion; monitoring the participation of business entities in tenders in order to identify unusual patterns of behavior, such as the frequent participation of the same business entities in public procurement procedures or avoidance for certain projects; analysis of geographic and temporal

terns or anomalies in procurement processes that may suggest collusion or cartel behavior. Notably, the use of artificial intelligence in detecting bid rigging is gaining attention. Machine learning, a branch of artificial intelligence, can analyze auction data to identify patterns and anomalies, even with sparse information (e.g., bid values and winning bidders).<sup>17</sup>

In summary, effective prevention and combatting of bid rigging require several key measures: implementing robust legal solutions that classify bid rigging as a criminal offense, strengthening institutional capacity for enforcement, and providing continuous education and training for both public procurement authorities and business entities involved in procurement.

### **3. BID RIGGING IN THE LEGISLATION OF BOSNIA AND HERZEGOVINA**

The Public Procurement Law of Bosnia and Herzegovina, enacted in 2004,<sup>18</sup> marked the first comprehensive attempt at regulating public procurement at the state level. This legislation was part of Bosnia and Herzegovina's effort to align with EU acquis, establishing a decentralized procurement system that defined the rights, duties, responsibilities, and procedures for participants in public procurement, as well as the oversight institutions responsible for monitoring and enforcing the law.

However, after ten years of implementation, the need for further alignment with EU standards and recommendations from the European Commission prompted the adoption of a new Public Procurement Law in 2014.<sup>19</sup> This updated law continued to regulate public procurement procedures and introduced improvements to enhance the system's effectiveness. In addition to the Public Procurement Law, the legal framework for public procurement in Bosnia and Herzegovina includes various sub-legal acts (by-laws) issued by the Council of Ministers and the Public Procurement Agency of Bosnia and Herzegovina.

The 2014 Public Procurement Law establishes rules for public procurement procedures and outlines the rights, duties, responsibilities, and legal protections for

---

patterns in order to determine irregularities in the distribution of jobs or unusual patterns of cooperation among bidders.

<sup>17</sup> Rodríguez, M. J. G., *et al.*, *op. cit.*, note 1.; p. 2.

<sup>18</sup> The Law on Public Procurement of Bosnia and Herzegovina, Official Gazette of Bosnia and Herzegovina, No. 49/2004.

<sup>19</sup> The Law on Public Procurement of Bosnia and Herzegovina, Official Gazette of Bosnia and Herzegovina, No. 39/2014, 59/2022.

participants. It also defines the roles of the Public Procurement Agency of Bosnia and Herzegovina and the Office for Review of Complaints (Appeals) of Bosnia and Herzegovina, which are independent institutions tasked with overseeing the law's implementation.

Article 3 of the Public Procurement Law mandates that contracting authorities ensure transparency, equal treatment, and non-discrimination in the procurement process to promote fair and active competition and efficient use of public funds. While the Public Procurement Law does not explicitly address bid rigging, Article 52, paragraph 12 stipulates that bidders must submit their bids without disrupting market competition through prohibited agreements with other bidders. The Competition Council of Bosnia and Herzegovina is responsible for protecting market competition. If there are grounds to suspect that market competition is being undermined, a request for investigation can be submitted by any affected party, including businesses, chambers of commerce, employer associations, consumer groups, or executive authorities. This provision grants the Competition Council jurisdiction over competition issues in public procurement processes. However, bid rigging itself is not listed as an actionable offense under administrative fines within the Public Procurement Law. Furthermore, in Article 116 the Public Procurement Law provides for administrative fines foresees misdemeanor penalties for contracting authorities, but bid rigging is not listed as an action punishable by administrative fine (misdemeanor penalty).

As previously mentioned, some countries treat bid rigging in public procurement as a criminal offense. In Bosnia and Herzegovina, criminal legislation varies across different jurisdictions. The Criminal Code of Bosnia and Herzegovina<sup>20</sup> and the Criminal Code of the Federation of Bosnia and Herzegovina<sup>21</sup> do not address bid rigging directly. However, the Criminal Code of Republic of Srpska<sup>22</sup> and the Criminal Code of the Brčko District<sup>23</sup> categorize bid rigging under the broader framework of “abuse in public procurement procedures.” This inconsistency complicates efforts to combat bid rigging and highlights the need for legal harmonization.

---

<sup>20</sup> Criminal Law of Bosnia and Herzegovina, Official Gazette of BiH, No. 3/2003, 32/2003 - corrected, 37/2003, 54/2004, 61/2004, 30/2005, 53/2006, 55/2006, 8/2010, 47/2014, 22/2015, 40/2015, 35/2018, 46/2021, 31/2023, 47/2023.

<sup>21</sup> Criminal Law of the Federation of Bosnia and Herzegovina, Official Gazette of FBiH, No. 36/2003, 21/2004 - corrected, 69/2004, 18/2005, 42/2010, 42/2011, 59/2014, 76/2014, 46/2016, 75/2017, 31/2023.

<sup>22</sup> Criminal Code of the Republic of Srpska, Official Gazette of RS, No. 64/2017, 104/2018 - decision US, 15/2021, 89/2021, 73/2023 and Official Gazette of BiH, No. 9/2024 - US BiH decision.

<sup>23</sup> Criminal Law of the Brčko District of Bosnia and Herzegovina, Official Gazette of the Brčko District of Bosnia and Herzegovina, No. 19/2020 - revised text, 3/2024, 14/2024.



Modern competition law in Bosnia and Herzegovina began with the Law on Competition 2001, which aimed to align with EU regulations.<sup>24</sup> The Law on Competition 2005<sup>25</sup>, which replaced the earlier version, provides rules, measures, and procedures for protecting market competition. It outlines the scope and operation of the Competition Council, the authority responsible for enforcing competition law. Article 4 of the Law on Competition, which is largely aligned with Article 101 of the Treaty on the Functioning of the European Union, addresses prohibited agreements or cartels.

Article 48 of the Law on Competition addresses cartels, or prohibited agreements, as serious violations. It stipulates that an economic entity or natural person involved in such violations may face fines of up to 10% of the total annual revenue (income) from the year preceding the violation. Specifically, the law penalizes those who conclude or participate in prohibited agreements that restrict, limit, or prevent market competition, as outlined in Article 4 of the Law on Competition.

The Competition Council is the primary enforcement body for market competition in Bosnia and Herzegovina, with its jurisdiction and enforcement powers defined by the Law on Competition. The Competition Council is responsible for initiating and conducting proceedings related to prohibited agreements and for imposing fines. Decisions made by the Competition Council can be appealed to the Court of Bosnia and Herzegovina, which serves as the second-instance authority.

Table 1 presents the number of decisions issued by the Competition Council in competition law cases involving prohibited agreements (cartels) from 2012 to 2022. On average, the Competition Council resolved 6.8 cases per year during this period. This number reflects the Competition Council's performance given its available human, material, and financial resources. However, the Annual Reports of the Competition Council do not specify how many of these cases were related to bid rigging.

---

<sup>24</sup> Imamović-Čizmić, K.; Kovačević-Bajtal, E.; Ramić, L., *Competition law in Bosnia and Herzegovina, How ready are we for the challenges of modern times?*, Comparative Law Issues and Challenges Series (ECLIC), Vol. 5, Special Issue - Market Law (In A Pandemic Time): Challenges and Reforms, 2021, p. 183, [<https://doi.org/10.25234/ecllic/18820>], Accessed 8 May 2024.

<sup>25</sup> Law on Competition, Official Gazette of BiH, No. 48/2005, 76/2007, 80/2009.

**Table 1:** Number of Decisions by the Competition Council in Cases of Prohibited Agreements (Cartels) from 2012-2022<sup>26</sup>

<i>Year</i>	<i>Prohibited agreements</i>
2012	10
2013	6
2014	13
2015	7 <sup>27</sup>
2016	5 <sup>28</sup>
2017	5 <sup>29</sup>
2018	5 <sup>30</sup>
2019	-
2020	4 <sup>31</sup>

<sup>26</sup> The data was taken from research conducted by the author while writing a chapter in the book. “Competition Law and Policy in the Western Balkan Countries” Jasminka Pecotic Kaufman, Gentjan Skara, Alexandrm Svetlicinii (eds), Which is under review.

<sup>27</sup> The Competition Council Annual Report 2015 states that in 2015 43 cases were received, final decisions were made for 31 cases. Of the total number of cases received, 16 related to the area of restrictive agreements and abuse of a dominant position, and 7 final decisions were adopted at the meetings of the CC.

<sup>28</sup> The Competition Council (2016) Annual Report 2016 states that in 2016, 34 cases were received, 19 related to prohibited agreements and abuse of a dominant position, and at the sessions, the Council of Competition made 5 final decisions related to prohibited agreements and abuse of a dominant position and one related to determination of individual prohibited agreements. exemptions.

<sup>29</sup> The Competition Council Annual Report 2017 states: “Of the 41 cases received, 14 relate to prohibited agreements and abuse of a dominant position. The Council of Competition adopted 6 final decisions, namely: 2 decisions suspending the procedures for establishing a prohibited agreement, 1 decision dismissed the request for establishing prohibited agreement, 1 decision rejecting the request for establishing a prohibited agreement and 1 decision rejecting the request for establishing an individual exemption from prohibited agreements. The Council of Competition adopted 1 decision rejecting the request for establishing abuse of a dominant position.”

<sup>30</sup> The Competition Council Annual Report 2018 states: “Out of a total of 49 cases received, 14 refer to prohibited competitive activities, namely: 3 cases refer to prohibited agreements and 11 to abuse of a dominant position. The Council of Competition made 6 final decisions: 1 request to establish a prohibited agreement is rejected as unfounded, 1 request to establish a prohibited agreement was dismissed due to lack of jurisdiction, 1 request to establish abuse of a dominant position was dismissed as unfounded, one request was dismissed due to lack of jurisdiction, and 2 proceedings to determine a prohibited agreement were suspended due to withdrawal of the parties.”

<sup>31</sup> The Competition Council Annual Report 2020 states: “Out of a total of 35 cases received in the field of competition in 2020, 16 cases related to prohibited competitive activities, namely: 3 cases related to the area of prohibited agreements and 10 to abuse of a dominant position and another three cases related to prohibited agreements and abuse of a dominant position. At the sessions, the Council of Competition adopted 8 final decisions: 1 request to determine a prohibited agreement was suspended, and 3 requests to determine abuse of a dominant position were suspended, and one request related to

2021	6
2022	2 <sup>32</sup>

To enhance the understanding of the importance of effectively regulating the phenomenon of bid rigging, a comparative analysis may be conducted with the legal framework of the Republic of Croatia. Like Bosnia and Herzegovina, Croatia was a federal unit of the former Socialist Federal Republic of Yugoslavia and shares a common legal heritage in the field of competition law, as well as the legacy of implementing public procurement systems.

The Public Procurement Act of the Republic of Croatia<sup>33</sup>, enacted in 2016 and aligned with the *acquis communautaire* of the European Union, serves as the fundamental legal framework for regulating public procurement procedures. Its entry into force on January 1, 2017, marked a significant step toward the harmonization of Croatian legislation with EU directives, including Directive 2014/24/EU and Directive 2014/25/EU. The purpose of these provisions is to ensure transparency, equality, and competitiveness in procurement processes. The Act underwent amendments in 2022<sup>34</sup>, which further enhanced its application, particularly in the areas of digitalization of procedures and strengthening transparency controls. In addition to defining procurement procedures and the thresholds for their application, the Act explicitly stipulates the rights and obligations of contracting authorities and bidders, standards for the evaluation of bids, and sanctions for potential irregularities, including measures against corruption and anti-competitive practices such as bid rigging. Through these measures, the Public Procurement Act seeks to ensure the efficient use of public funds, enhance confidence in procurement processes, and facilitate equitable access to markets for all economic operators. Its adaptation to contemporary challenges and obligations under EU law underscores its significance in fostering market competition and strengthen-

---

both prohibited competitive activities was suspended. 2 requests to determine the abuse of a dominant position were rejected, and one decision was made that confirms the abuse of a dominant position. The remaining 8 cases are in the process of being resolved.”

<sup>32</sup> The Competition Council Annual Report 2022 states: “Out of a total of 31 cases received in the field of competition in 2021, 11 cases related to prohibited competitive activities, namely: 7 cases related to the area of prohibited agreements and 4 to abuse of a dominant position, of which one case was closed on both grounds. At the sessions, the Council of Competition adopted 5 final decisions: two requests for the determination of prohibited agreements were rejected, one request for the determination of a dominant position was rejected, the existence of abuse of a dominant position was determined in two cases, in one case it was determined that there was no abuse of a dominant position while in one case the party waived the request. The remaining cases are in the process of being resolved.”

<sup>33</sup> The Public Procurement Act (Official Gazette No. 120/2016) - PPA 2016

<sup>34</sup> The Act on Amendments to the Public Procurement Act (Official Gazette No. 114/2022)

ing the economic stability of the Republic of Croatia. The Act does not explicitly regulate bid rigging, but Article 254, paragraph 4 provides that the contracting authority may exclude an economic operator from the procedure if there are sufficient indications to conclude that the operator has entered into an agreement with other economic operators aimed at distorting market competition. In this case, as in Bosnia and Herzegovina, cooperation between the institutions responsible for the enforcement of competition law and public procurement law is foreseen. The Criminal Code of the Republic of Croatia<sup>35</sup> prescribes criminal offenses related to bid rigging in public procurement. Article 254 specifically provides the following: *(1) Anyone who submits a bid in a public procurement procedure based on a prohibited agreement between economic operators aimed at ensuring the contracting authority accepts a specific bid shall be punished by imprisonment for a term of six months to five years*. Regarding the regulation of bid rigging in competition law, it falls under prohibited agreements, which are regulated by Article 8 of the Competition Act,<sup>36</sup> the enforcement of which is the responsibility of the Croatian Competition Agency.

### 3.1. Share of Public Procurement in GDP and Value of Awarded Contracts

Public procurement constitutes a significant portion of economic activity. In the Organization for Economic Cooperation and Development member countries, it represents approximately 13% of Gross Domestic Product (GDP) and 29% of total government spending. The economic impact of bid rigging in such a large sector can be substantial. The Organization for Economic Cooperation and Development estimates that eliminating bid rigging can potentially reduce procurement prices by 20% or more<sup>37</sup>. Regarding the aim of this research and to underscore the importance of adhering to the general principles outlined in Article 3 of the Public Procurement Law of Bosnia and Herzegovina, and to raise awareness about the detrimental effects of bid rigging, it is essential to examine the share of public procurement in GDP, the value of awarded contracts, and the number of contracting authorities.

Public procurement accounts for 13% of GDP in the Organization for Economic Cooperation and Development countries.<sup>38</sup> In Bosnia and Herzegovina, the share

<sup>35</sup> (Official Gazette No. 125/11, 144/12, 56/15, 61/18, 126/19)

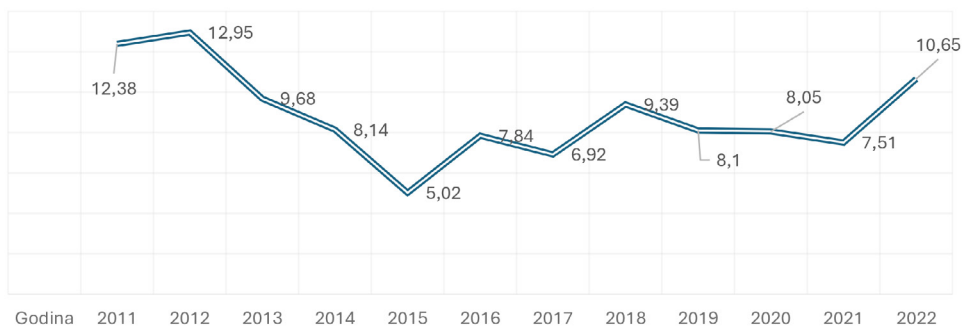
<sup>36</sup> (Official Gazette No. 79/09, 80/13, 41/21, 153/23),

<sup>37</sup> Imhof, D., *Detecting bid-rigging cartels with descriptive statistics*, Journal of Competition Law & Economics, Vol. 15, no. 4, p. 427.

<sup>38</sup> OECD, *Public procurement performance: A framework for measuring efficiency, compliance and strategic goals*, 2023, [<https://www.oecd-ilibrary.org/docserver/0dde73f4-en.pdf?expires=1715166788&id=id&accna>]

of public procurement in nominal GDP for 2022 was 10.65%, reflecting an increase from 7.51% in 2021.<sup>39</sup> According to reports from the Public Procurement Agency of Bosnia and Herzegovina, the highest recorded share in the past 13 years was 12.95% in 2012 (Figure 1). For comparative purposes, the Republic of Croatia reported a public procurement share of 20.59% of GDP for 2022, which represents a 28.21% increase from 16.06% in 2021.<sup>40</sup>

**Figure 1:** Percentage Share of Public Procurement in GDP from 2011 to 2022



Source: Public Procurement Agency of Bosnia and Herzegovina

The intricate state structure of Bosnia and Herzegovina has led to many contracting authorities that must adhere to the Law on Public Procurement. In 2022, there were 2,948 contracting entities registered in the “E-procurement” information system, which are required to follow public procurement procedures. For comparison, in the same year, the Republic of Croatia had 1,509 contracting authorities.<sup>41</sup>

In Bosnia and Herzegovina, the total value of awarded contracts in public procurement procedures for 2022 was 4,410,241,494.50 BAM.<sup>42</sup> The number of awarded contracts reached 216,039, marking the highest number recorded to date according to the statistics from the Public Procurement Agency of Bosnia and Herzegovina (Figure 2). In contrast, the total value of public procurement in Croatia

me=guest&checksum=732064914B7A594EE38181FEF2D0A209], Accessed 8 May 2024.

<sup>39</sup> B&H Public Procurement Agency, *Annual report on concluded contracts in public procurement procedures in 2022, 2023*. [https://www.javnabavke.gov.ba/bs-Latn-BA/reports?page=1&rows=9&searchByTaxonomyValueIds=37], Accessed 8 May 2024.

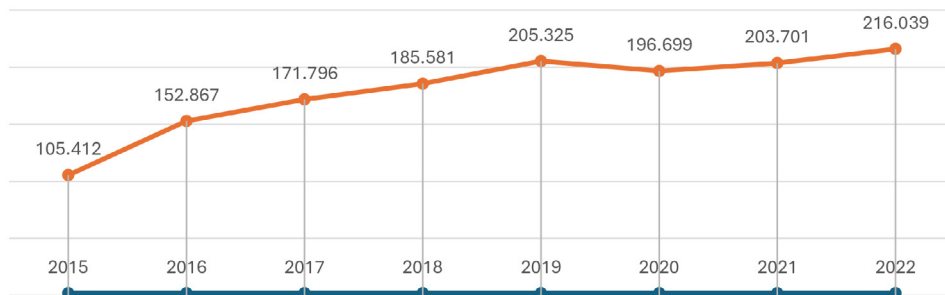
<sup>40</sup> Directorate for Trade and Public Procurement Policy, *Statistical Report on Public Procurement in the Republic of Croatia for 2022, 2023*, p. 24, [http://www.javnabava.hr/userdocsimages/userfiles/file/Statisti%C4%8Dka%20izvje%C5%A1%C4%87a/Godi%C5%A1nja/Statisticko\_izvjesce\_JN\_2022.pdf], Accessed 8 May 2024.

<sup>41</sup> *Ibid.*

<sup>42</sup> B&H Public Procurement Agency, *op. cit.*, note 34, p. 21.

for 2022 was 75,046,541,904 HRK (excluding VAT), approximately equivalent to 19,494,241,348.00 BAM.

**Figure 2:** Number of Awarded Contracts through the Public Procurement System in Bosnia and Herzegovina



Source: Public Procurement Agency of Bosnia and Herzegovina

When considering the share of public procurement in GDP, the value of awarded contracts, and the number of procedures, an important question arises: Is the value paid for goods and services in public procurement reflective of the true market value, or could it be artificially inflated due to undetected bid rigging? Addressing this concern is crucial, as preventing, detecting, and sanctioning bid rigging can help narrow the gap between the paid value and the actual market value of awarded contracts, benefiting taxpayers, the state, and overall economic well-being. A fundamental aspect of preventing bid rigging is educating both contracting authorities—of which Bosnia and Herzegovina has a significant number—and bidders. Awareness and understanding of what constitutes bid rigging and how to recognize it are essential. Contracting authorities and bidders should be encouraged to report any suspicious behaviors or signs of bid rigging to the relevant institutions. These institutions are then responsible for investigating, identifying any violations of the law, and imposing sanctions. Effective law enforcement and the imposition of appropriate penalties act as deterrents against bid rigging. By ensuring that these practices are addressed promptly and efficiently, the integrity of the public procurement process can be maintained, ensuring that contracts are awarded at fair market prices.

#### 4. RESULTS OF THE RESEARCH

Bosnia and Herzegovina lack a long-standing tradition in public procurement, as it is a relatively new system requiring ongoing education. Additionally, the high number of contracting authorities that issue tenders and carry out numerous public procurement procedures raises concerns about the prevalence of bid rigging,

which might be more widespread than the cases currently addressed under Article 4 of the Law on Competition. This assumption is based on the notion that both contracting authorities and economic entities (potential bidders) may not be sufficiently educated to recognize, and report bid rigging. To address this issue, a survey was conducted among contracting authorities in the Federation of Bosnia and Herzegovina. The survey targeted ministries of the Federation Government, ministries from the ten cantons, and budget beneficiaries in the Sarajevo Canton, Zenica-Doboj Canton, Tuzla Canton, and Herzegovina-Neretva Canton.

The purpose of the survey was to assess the level of awareness among contracting authorities about bid rigging and whether they have encountered such practices. The survey was anonymous and included 26 questions, designed to gather information about the respondents' backgrounds, their experience in public procurement, and their knowledge of bid rigging. The questions were formulated based on indicators of suspicious behavior and the Organization for Economic Cooperation and Development Recommendations on Fighting Bid Rigging in Public Procurement.

In the first part of the survey, respondents provided personal data. Out of 97 participants<sup>43</sup>, 58 were female and 39 were male. The age distribution was as follows: 12 respondents were under 34 years old, 45 were between 35 and 44 years old, 30 were between 45 and 54 years old, and 12 were over 54 years old. Regarding educational background, 5 respondents had secondary education, 61 had higher education (college or university), 24 had completed postgraduate studies, and 8 had completed doctoral studies.

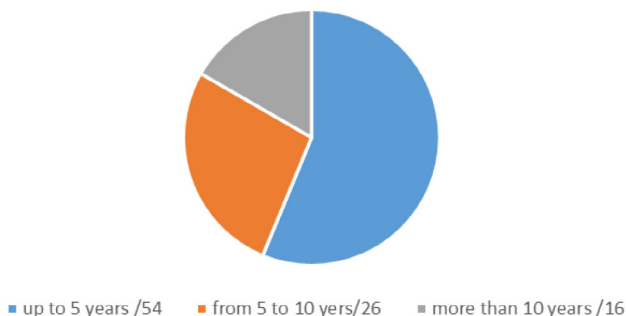
The second part of the survey focused on respondents' experience in public procurement, their awareness of bid rigging, and their understanding of the powers of the Competition Council. The first question in the second part of the survey was, "How many years have you been working in public procurement?" This question aimed to assess the respondents' experience in the field. Years of experience in public procurement can significantly impact the ability to recognize bid rigging for several reasons. Firstly, extensive experience provides a deep understanding of the public procurement process, including legal regulations, procedures, and standards. This knowledge helps in identifying irregularities or anomalies in bids that may indicate bid rigging. Additionally, long-term experience fosters the development of analytical skills crucial for reviewing bids in detail and detecting anomalies. With years of experience, individuals in public procurement roles also

---

<sup>43</sup> The total number of surveys received through the Forms application is 99, with not all respondents providing answers to all questions. Considering that the number of responses to individual questions varies between 94 and 99, this does not significantly affect the research results and conclusions.

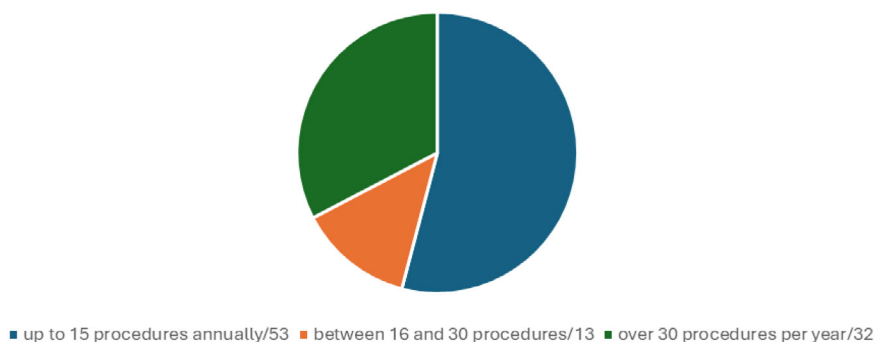
gain a better grasp of market dynamics and the pricing of goods and services. This deeper understanding enables them to evaluate the realism of bids more accurately and recognize unusually low or high prices that could signal irregularities. Among the survey respondents, 54 reported having 5 years of experience, 26 had between 5 and 10 years, and 18 had more than 10 years of experience (Figure 3).

**Figure 3:** Years of experience in public procurement



The next question in the survey was, “What is the average number of public procurement procedures carried out by your institution during one budget year?” The number of public procurement procedures conducted by an employee or contracting authority each year can influence their ability to recognize bid rigging. A higher volume of procedures can enhance their familiarity with common practices, deepen their understanding of the market, and help develop analytical skills. It can also increase their awareness of potential risks. However, a greater number of procedures can also create more opportunities for bid rigging to occur. The responses were as follows: 53 respondents indicated that their institutions conduct up to 15 procedures annually; 13 respondents reported that their institutions handle between 16 and 30 procedures; 32 respondents stated that their institutions manage over 30 procedures per year (Figure 4).

**Figure 4:** Number of public procurement procedures





Understanding the concept of bid rigging is crucial for effectively detecting irregularities in public procurement procedures. Familiarity with bid rigging allows employees to recognize typical patterns of behavior, such as unusually low prices, the withdrawal of bids by the same bidders, identical errors in multiple bids, or inconsistencies in documentation. Employees who are educated about bid rigging can implement appropriate protective measures to prevent or detect such irregularities. These measures might include thorough bid verification, the use of data analysis tools, or collaboration with law enforcement authorities. Being aware of bid rigging also enables quicker responses to suspicious situations or irregularities observed during the public procurement process. To gauge the respondents' awareness, the survey asked: "Are you familiar with the concept of bid rigging in public procurement procedures?" Out of 99 respondents, 57 answered "yes," while 41 answered "no". (Figure 5)

**Figure 5:** Familiarity with bid rigging in public procurement procedures



Understanding various forms of bid rigging is essential for the effective implementation of public procurement procedures. Familiarity with these forms enables individuals to recognize irregularities, apply appropriate checks, prevent misconduct, respond effectively to suspicious situations, and continuously improve practices to maintain high standards of integrity. In line with this, the survey asked respondents: "Do you know what forms of bid rigging exist in the public procurement process?" Out of 99 respondents, 33 answered "yes," indicating familiarity with the forms of bid rigging, while 66 answered "no," showing a lack of knowledge about the different forms of bid rigging. (Figure 6).

**Figure 6:** Familiarity with forms of bid rigging in public procurement procedures



The central part of the survey comprised questions designed based on indicators of “suspicious” behavior that may signal the presence of bid rigging in public procurement. These behaviors serve as signals to contracting authorities to report potential issues to the Competition Council.<sup>44</sup>

**Table 2:** Frequency of Behaviors Indicative of Bid Rigging in Public Procurement (percentage of the total number of responses to a specific question)

<i>Indicators of behavior of participants in bid rigging:</i>	%
1. The same bidder always makes the lowest bid.	51.042
2. Certain bidders participate only in specific geographical areas.	44.898
3. A bidder who regularly participates in public procurement procedures does not submit the bid they expect to submit.	50.00
4. A bidder who regularly participates in public procurement procedures unexpectedly and suddenly withdraws their bid.	22.34
5. Certain bidders always submit bids but never win.	36.735
6. Two or more market participants submit a joint bid even though at least one of them could submit an independent bid.	14.433
7. The winner unexpectedly hires a subcontractor who is one of those who did not win.	13.402
8. Bidders have identical technical errors (typing errors, etc.) in bids submitted by different companies.	14.583
9. Documentation from different bidders was submitted from the same computer or IP address.	5.155

<sup>44</sup> The questions are made based on OECD Recommendation on Fighting Bid Rigging in Public Procurement: <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0396>

10. Offers from different bidders contain a significant number of identical cost sheets or identical computation errors.	10.309
11. Sudden or identical price increases by bidders that cannot be explained by rising costs.	23.958
12. Bid prices remain the same over an extended period.	38.144
13. Big difference in the price of the winning bidder and other bidders.	56.701
14. Significantly reduced price offered by a new bidder or a bidder who rarely participates in public procurement procedures.	38.144
15. Bidders make statements indicating that some companies do not sell in certain areas or to certain consumers.	12.766
16. Bidders make statements that a certain area or consumers belong to another provider.	10.309
17. Use of the same terminology by different bidders when explaining their bids	12.371

According to the data from the table, contracting authorities most frequently encountered the following patterns of behavior related to bid rigging in public procurement procedures:

- Large differences in prices between the winning bidder and other bidders:
- The same bidder consistently offers the lowest bid.
- Certain bidders participate only in specific geographical areas.
- Significantly reduced prices offered by new bidders or bidders who rarely participate in public procurement procedures.
- Regular bidders not submitting bids they are expected to.

The Public Procurement Law allows for the initiation of proceedings before the Competition Council of Bosnia and Herzegovina if there are grounds to suspect a violation of market competition in a public procurement process. Such requests can be submitted by any business or natural person with a legal or economic interest, chambers of commerce, associations of employers or entrepreneurs, consumer associations, and executive authorities.

Given this, it is crucial for contracting authorities to understand that if certain indicators of suspicious bidder behavior are observed, they should report these to the Competition Council. Additionally, they should be aware of the Competition Council's powers in addressing bid rigging.

Two questions were posed in the survey to assess awareness of these issues. On first question "Are you aware of the competencies (powers) of the Competition Council regarding bid rigging in public procurement?" 35 respondents answered "Yes" and 61 respondents answered "No". On second question "Do you have

information that some (one) of the bidders in tenders of the institution where you work have been involved in proceedings before the Competition Council due to suspected bid rigging or violation of Article 4 of the Law on Competition?” 2 respondents answered “Yes” and 95 respondents answered “No”.

These responses highlight a need for increased awareness and education regarding the roles and powers of the Competition Council, as well as the procedures for reporting suspected bid rigging.

## 5. CONCLUDING REMARKS

Based on the results of the research, several key conclusions and recommendations emerge for enhancing the public procurement system in Bosnia and Herzegovina, particularly concerning the prevention of bid rigging:

Bid rigging represents a severe issue that compromises the integrity of the public procurement process. The empirical data highlights the need for greater vigilance in recognizing and preventing such practices. To address this, it is crucial to strengthen the capacities and responsibilities of oversight and enforcement bodies, including the Public Procurement Agency, the Office for Review of Complaints, and the Competition Council of Bosnia and Herzegovina. Enhancing their effectiveness will be key to combating corruption and abuse in the public procurement sector.

Although the Public Procurement Law of 2014 introduced significant advancements, practical experience indicates the need for further amendments to ensure greater transparency, efficiency, and effectiveness in procurement procedures. It is essential to align legislation with international best practices and standards and to strengthen mechanisms for monitoring and addressing irregularities.

The survey results underscore the value of educating and raising awareness among contracting authorities and bidders about the detrimental effects of bid rigging and the importance of adhering to fair competition principles. Mandatory training and seminars for all public procurement participants can play a critical role in recognizing and preventing manipulative practices.

Engaging in international cooperation and exchanging information on best practices and successful anti-bid rigging models can provide significant benefits. Lessons from other countries demonstrate that eliminating bid rigging can lead to substantial savings and improved outcomes in public procurement.

In conclusion, the research indicates that a multifaceted approach—combining legal reforms, enhanced institutional capacities, targeted education, and international collaboration—is essential for effectively combating bid rigging. Implementing these recommendations can foster a more transparent, efficient, and equitable public procurement system in Bosnia and Herzegovina.

## REFERENCES

### BOOKS AND ARTICLES

1. Anderson, E. J.; Cau, T.D.H., *Implicit collusion and individual market power in electricity markets*, European Journal of Operational Research, Vol. 211, No. 2, 2011, pp. 403–414.
2. Becker, J.; Niemann, M.; Halsbenning, S.; *Contribution to Growth: European Public Procurement Delivering Economic Benefits for Citizens and Businesses Policy: Department for Economic, Scientific and Quality of Life Policies*, Directorate-General for Internal Policies, 2019, [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/631048/IPOL\_STU(2018)631048\_EN.pdf], Accessed 20 May 2024.
3. B&H Public Procurement Agency, *Annual report on concluded contracts in public procurement procedures in 2022*, 2023. [https://www.javnenabavke.gov.ba/bs-Latn-BA/reports?page=1&rows=9&searchByTaxonomyValueIds=37], Accessed 8 May 2024.
4. Caimi, V.; Sansonetti, S., *The social impact of public procurement - Can the EU do more?*, Policy Department for Economic, Scientific and Quality of Life Policies, Directorate-General for Internal Policies, 2023.
5. Clark, R.; Coviello, D.; Shneyerov, A., *Bid Rigging and Entry Deterrence in Public Procurement: Evidence from an Investigation into Collusion and Corruption in Quebec*, The Journal of Law, Economics, and Organization, Vol. 34, No. 3, 2018, pp. 301–363.
6. Commission for the Protection of Competition, *Instructions for the discovery of “fixed” offers in relation to the public procurement procedure*, Republic of Serbia, Commission for the Protection of Competition, Belgrade, 2022.
7. Curtis, F.; Maines, P., *Closed competitive bidding*, Omega, Vol. 1, No. 5, 1973, pp. 613–619. [https://doi.org/10.1016/0305-0483(73)90049-2], Accessed 20 May 2024
8. Danković Stepanović, S., *Protection of competition in public procurement procedures*, Iustinius Primus Law Review, Vol. 5, No. 1, 2014, pp. 1-15.
9. Directorate for Trade and Public Procurement Policy, *Statistical Report on Public Procurement in the Republic of Croatia for 2022*, 2023, p. 24, [http://www.javnanabava.hr/userdocsimages/userfiles/file/Statisti%C4%8Dka%20izvje%C5%A1%C4%87a/Godi%C5%A1nja/Statisticko\_izvjesce\_JN\_2022.pdf], Accessed 8 May 2024.
10. Imamović-Čizmić, K.; Kovačević-Bajtal, E.; Ramić, L., *Competition law in Bosnia and Herzegovina, How ready are we for the challenges of modern times?*, Comparative Law Issues and Challenges Series (ECLIC), Vol. 5, Special Issue - Market Law (In A Pandemic Time): Challenges and Reforms, 2021, p. 183, [https://doi.org/10.25234/ecllic/18820], Accessed 8 May 2024.

11. Imhof, D., *Detecting bid-rigging cartels with descriptive statistics*, Journal of Competition Law & Economics, Vol. 15, no. 4, pp. 427–467.
12. Ishii, R., *Favor exchange in collusion: empirical study of repeated procurement auctions in Japan*, International Journal of Industrial Organization, Vol. 27, No. 2, 2009, pp. 137-144.
13. Kamil, B.; Tas, O., *Effect of public procurement regulation on competition and cost-effectiveness*, European University Institute Robert Schuman Centre for Advanced Studies, Fiesole, 2019.
14. Lundberg, S.; Marklund, P-O.; Strömbäck, E.; Sundström, D., *Using public procurement to implement environmental policy: an empirical analysis*, Environmental Economics and Policy Studies, Vol. 17, 2015, pp. 487–520 [https://link.springer.com/article/10.1007/s10018-015-0102-9], Accessed 20 May 2024
15. Rodríguez, M. J. G.; Rodríguez-Montequín, V.; Ballesteros-Perez, P.; Love, P. E. D.; Signor, R., *Collusion detection in public procurement auctions with machine learning algorithms*, Automation in Construction, Vol. 133, 2022, pp. 1-16. [https://doi.org/10.1016/j.aut-con.2021.104047], Accessed 21 May 2024

## LIST OF NATIONAL REGULATIONS

1. Criminal Code of the Republic of Srpska, Official Gazette of RS, No. 64/2017, 104/2018 - decision US, 15/2021, 89/2021, 73/2023 and Official Gazette of BiH, No. 9/2024 - US BiH decision.
2. Criminal Law of Bosnia and Herzegovina, Official Gazette of BiH, No. 3/2003, 32/2003 - corrected, 37/2003, 54/2004, 61/2004, 30/2005, 53/2006, 55/2006, 8/2010, 47/2014, 22/2015, 40/2015, 35/2018, 46/2021, 31/2023, 47/2023.
3. Criminal Law of the Brčko District of Bosnia and Herzegovina, Official Gazette of the Brčko District of Bosnia and Herzegovina, No. 19/2020 - revised text, 3/2024, 14/2024.
4. Criminal Law of the Federation of Bosnia and Herzegovina, Official Gazette of FBiH, No. 36/2003, 21/2004 - corrected, 69/2004, 18/2005, 42/2010, 42/2011, 59/2014, 76/2014, 46/2016, 75/2017, 31/2023.
5. Law on Competition, Official Gazette of BiH, No. 48/2005, 76/2007, 80/2009.
6. The Law on Public Procurement of Bosnia and Herzegovina, Official Gazette of Bosnia and Herzegovina, No. 49/2004, 39/2014, 59/2022.

## WEBSITE REFERENCES

1. Coleman, M., *Bid rigging*, Global Dictionary of Competition Law, Concurrences, Art. N° 12291, [https://www.concurrences.com/en/dictionary/bid-rigging], Accessed 20 May 2024.
2. FasterCapital, *Bid rigging: a common tactic in price fixing schemes*, 2024, [https://fastercapital.com/topics/the-negative-impact-of-bid-rigging-on-competition-and-consumers.html], Accessed 22 May 2024.
3. OECD, *OECD Competition Trends 2023*, [https://www.oecd-ilibrary.org/docserver/bcd8f8f8-en.pdf?expires=1715156487&id=id&accname=guest&checksum=2B15B6C217C74CE9DDD5289DB5599D7B], Accessed 8 May 2024.

4. OECD, *OECD Competition trends 2023, OECD CompStats Database [Data set]*, Organisation for economic cooperation and development, 2023, [<https://www.oecd.org/competition/oecd-competitiontrends.htm>], Accessed 8 February 2024.
5. OECD, *Public procurement*, [<https://www.oecd.org/gov/public-procurement/>], Accessed 20 May 2024.
6. OECD, *Public procurement performance: A framework for measuring efficiency, compliance and strategic goals*, 2023, [<https://www.oecd-ilibrary.org/docserver/0dde73f4-en.pdf?expires=1715166788&id=id&accname=guest&checksum=732064914B7A594EE38181FEF2D0A209>], Accessed 8 May 2024.
7. OECD, Recommendation of the Council on Fighting Bid Rigging in Public Procurement, <https://www.oecd.org/competition/oecdrecommendationonfightingbidrigginginpublicprocurement.htm>; <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0396> Accessed 8 May 2024.