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EVALUATION OF OPPORTUNITIES FOR SPECIALIST CONTRACTORS IN THE PROCUREMENT/AUCTION OF CONSTRUCTION SERVICES IN WEST KALIMANTAN

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Abstract	Article history: <i>Accepted on November 08, 2022</i> <i>Revised on December 7, 2022</i> <i>Published on December 16, 2022</i>
Globalization of the construction industry, as well as increasing size; novelty; and the complexity of projects, causing the Indonesian construction industry to strive to increase its capacity in order to be competitive. One of the efforts is by strengthening the construction supply chain. Specialist contractors are part of the construction supply chain that affect the performance of the main contractor, and ultimately improve the performance of the Indonesian construction industry. Specialist contractors in a construction supply chain system, can encourage: lower transaction costs; increase flexibility; improve product quality; ease of cost control; delay reduction; to a highly competitive industry. The existence of specialist contractors (contractors who have Specialist SBUs) in Indonesia is not well developed. In order for specialist contractors to develop properly, it is also necessary to develop a market for these specialist contractors. Several regulations in Indonesia have tried to regulate market opportunities for specialist contractors to increase, so this study aims to evaluate market opportunities for specialist contractors in the procurement of goods and services for work packages funded by the government in West Kalimantan Province. The analysis is carried out by separating work packages with specialist contractor opportunities and non specialist contractor opportunities, looking for ratios, then making projections using the linear trend formula. Based on the results of data analysis, the opportunity for specialist contractors is less than 10%, except for Pontianak City, the opportunity for specialist contractors to work reaches more than 20%. The combined projections from the sample areas yield a linear trend equation: $y = 7.9x - 15937$, with this equation projected for the next 5 years from a total of 32 work packages in 2022, to 77 work packages in 2027, or an increase of 140% in 5 years.	Keyword: <i>specialist contractors,</i> <i>opportunity, market, supply chain</i>

1. Introduction

Increasing size; novelty; and the complexity of projects in the globalization era requires the construction industry to increase its capacity in order to be competitive. One effort that can be done is to strengthen the construction supply chain. Specialist contractors are part of the construction supply chain that affect the performance of the main contractor, and ultimately improve the performance of the construction industry in general. Specialist contractors in a construction supply chain system, when done efficiently and in an organized manner, can drive: lower transaction costs; increase flexibility; improve product quality; ease of cost

control; delay reduction; to highly competitive industries (Ohnuma et al., 2000).

The Indonesian construction industry must develop specialist contractors in Indonesia in order to strengthen the construction supply chain in Indonesia. The existence of specialist contractors (contractors who have Specialist SBUs) in Indonesia is currently still very small and has not developed properly. Data on the development of specialist contractors in Indonesia can be seen in table 1.

Tabel 1 Perkembangan jumlah kontraktor spesialis di Indonesia (LPJKN)

Waktu pengambilan data	Jumlah kontraktor spesialis
Oktober 2015	10.090
2016	8.140
April 2018	6.838
september 2018	6.376
November 2021	6.510

For specialist contractors in Indonesia to develop, it is also necessary to develop a market for these specialist contractors, so that specialist contractors can develop properly. Several regulations in Indonesia have attempted to regulate market opportunities for specialist contractors to increase. After the issuance of this regulation, this study aims to evaluate market opportunities for specialist contractors in the procurement of goods and services for work packages funded by the government in West Kalimantan Province.

2. Materials and Methods

The definition of a contractor varies according to research and regulations in different countries. Eccles (1981) states that there are two main characteristics that stand out in the construction industry. First, businesses/companies that have various fields of expertise are known as general contractors (main contractors). Second, companies that are subcontractors of the main contractor (carrying on part of the work) with special expertise are known as specialist contractors. Clough (2015) defines a subcontractor as a construction company that enters into a contract with the main contractor, i.e., has a private contract with the main contractor for the execution of a certain part of the work on a project. Subcontractors are also often referred to as special contractors (specialist contractors). Yik et al. (2006), defines a specialist contractor as a contractor with special knowledge that is not owned by the contractor (main contractor), or it becomes uneconomical for the main contractor to do work that requires this special knowledge. Ansah (2014), defines a specialist contractor as a company that builds specific elements of a building or construction component. The specialist contractor acts as a subcontractor to the main contractor. Enshassi et al. (2008), specialist contractors are the wheels of most projects, because most of the work (even 80% -90% of the work) is carried out by specialist contractors. The performance of specialist contractors influences the performance of the main contractor. Lusiana (2021) defines a specialist contractor as a construction service company (contractor) that builds specific elements of a building or construction component using special knowledge, and or skilled workforce, and or special tools and equipment and processes that general contractors do not have. (main contractor) or become uneconomical if the general contractor/main contractor has the knowledge, skills, tools and equipment.

According to regulations in force in Indonesia, specialist contractors are construction work service

providers who have a business classification other than the building business classification and the civil construction business classification (Regulation of the Minister of PUPR RI Number 7 of 2019 and Appendix III to Regulation of the Minister of PUPR Number 14 of 2020)

Several regulations related to procurement in Indonesia, which were issued in order to encourage specialist contractors to develop in Indonesia, include:

- 1) Article 53 of Law Number 2 of 2017 concerning Construction Services stipulates that the completion of the main work of a construction work can only be given to specialist service sub-providers.
- 2) One part of evaluating general contractor bids is evaluating the support of service sub-providers and supply chains, namely the support of specialist service sub-providers and suppliers of construction resources (article 60 of Government Regulation Number 22 of 2020).
- 3) Service users in preparing documents for selecting service providers, must describe the list of jobs for specialist classification and specialist sub-classification (Article 60 of Government Regulation Number 22 of 2020)
- 4) Service users require service providers for specialist construction work to be carried out by specialist business entity service providers (Article 71 Government Regulation Number 22 of 2020).
- 5) In work packages with a certain ceiling (25 to 50 billion Rupiah) to subcontract some of the main work to specialist service providers. Work packages with a ceiling of more than 50 billion Rupiah, are required to subcontract the main work to a specialist service provider and have nominated the specialist provider in the bid.

2.1 Research significance

This research was conducted considering the importance of subcontracting in the construction world today in order to increase the efficiency of the construction process. Subcontracting with specialist contractors gets many benefits because the specialist contractor's ability to own resources which, if owned by the general contractor, are inefficient. However, the presence of specialist contractors in Indonesia is still very small compared to the number of contractors in Indonesia. Existing market practices in Indonesia are still profitable if a specialist contractor has a general business entity certificate (SBU), not a specialist SBU, because subcontracting practices do not require the use of a specialist SBU, and if you have a specialist SBU, you can only work on special work packages for specialist SBU owners. To encourage the development of specialist contractors in Indonesia, government participation is needed in providing a market through work

packages that require the use of specialist contractors (Lusiana, 2021). Several regulations have regulated tenders by giving opportunity to specialist contractors. Application of regulations to the development of market opportunities for specialist contractors is the aim of this research.

2.2. study area

This study aims to get an overview of job opportunities for specialist contractors from work packages in West Kalimantan Province, so that the study area is West Kalimantan Province, but sampling is carried out in several areas in West Kalimantan only. The areas that were used as samples included: Singkawang City; Ketapang Regency; Sambas Regency; Kubu Raya Regency; Pontianak City; Sintang District; Sanggau Regency; Mempawah District and West Kalimantan Province.

2.3. Data

The method used for data collection is secondary data collection from past records (historical data). The source of the data in this study is a construction service auction website in Indonesia, namely the Electronic Procurement Agency (LPSE). The data collected is auction data for 5 years (years: 2108, 2019, 2020, 2021 and 2022).

The data collected is in the form of the number of work packages funded by the local government in several areas in West Kalimantan, along with information regarding the work ceiling values and the Business Entity Certificate (SBU) required for each work package.

2.4. Analysis Method

Data analysis is carried out by classifying each work package and looking for the ratio of specialist contractor opportunity work packages and nonspecialist contractor opportunity work packages. Based on the opportunity work package data for specialist contractors, a linear trendline equation is formulated. Based on the linear trend formula obtained, it is projected the number of work packages for specialist contractor opportunities for a certain period.

3. Result and Discussion

Based on the data collected, and classified, the opportunity work package data for specialist contractors (KS) and non-KS opportunities are presented in Figure 1 to Figure 9. Based on data in the sample areas, the opportunity for specialist contractors is less than 10%, except in Pontianak

City, the job opportunities specialist contractors account for more than 20%.

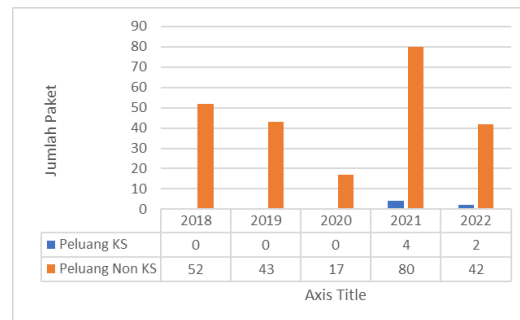


Figure 1 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Singkawang City

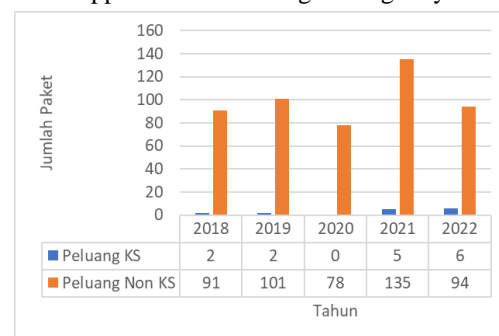


Figure 2 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Ketapang District

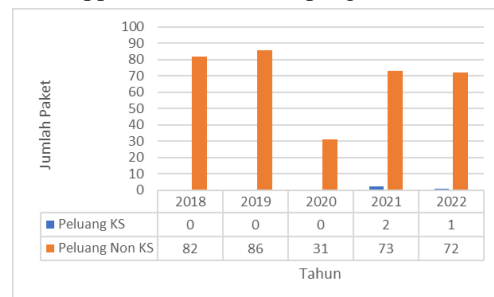


Figure 3 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Sambas District

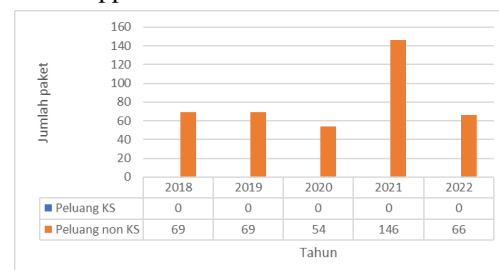


Figure 4 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Kubu Raya District

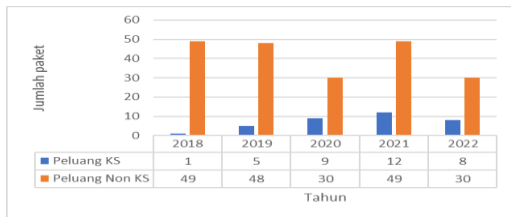


Figure 5 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Pontianak City

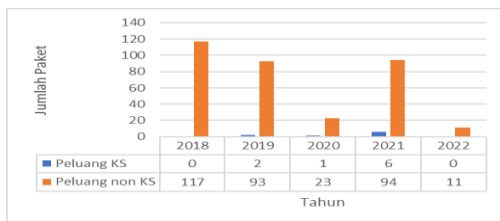


Figure 6 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Sintang District

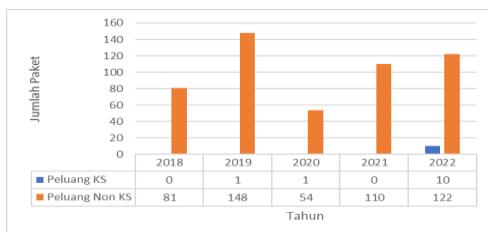


Figure 7 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Sanggau District

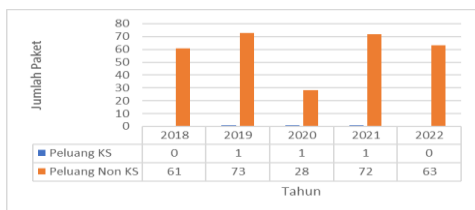


Figure 8 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Mempawah District

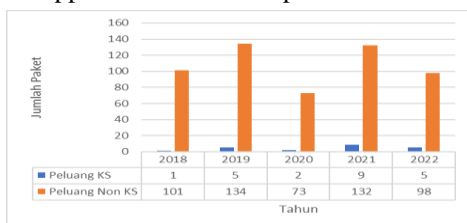


Figure 9 Graph of comparison of the number of work packages for KS opportunities and non-KS opportunities for Kalbar Province

The projection results with a linear trend for each region are presented in table 2 and figure 10. The combined projection of the sample areas is a linear trend equation: $y = 7.9x - 15937$, with this equation projected for the next 5 years from a total of 32 work packages fruit in 2022, to 77 work packages in 2027,

or an increase of 140% in 5 years. The combined projection can be seen in Figure 11.

Table 2 Projection data with a linear trend in each sample area

Tahun/ Daerah	2018	2019	2020	2021	2022	Persamaan	Gradien (m)	Proyeksi Tahun 2027
Singkawang	0	0	0	4	2	$y = 0.8x - 1614.8$	0,8	8
Ketapang	2	2	0	5	6	$y = 1.1x - 2219$	1,1	11
Sambas	0	0	0	2	1	$y = 0.4x - 807.4$	0,4	4
Kubu Raya	0	0	0	0	0	$y = 0$	0	0
Pontianak	1	5	9	12	8	$y = 2.1x - 4235$	2,1	22
Sintang	0	2	1	6	0	$y = 0.4x - 806.2$	0,4	5
Sanggau	0	1	1	0	10	$y = 1.9x - 2825.6$	1,9	16
Mempawah	0	1	1	1	0	$y = 0.6$	0	1
Provinsi	1	5	2	9	5	$y = 1.2x - 2419.6$	1,2	13

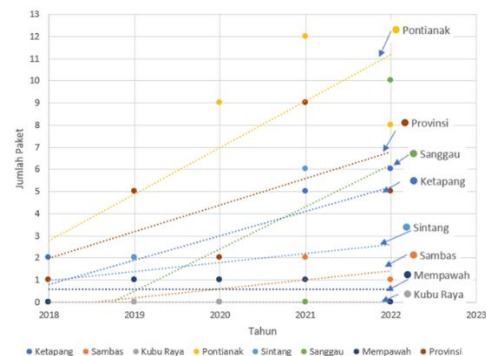


Figure 10 projection with a linear trend in each sample area

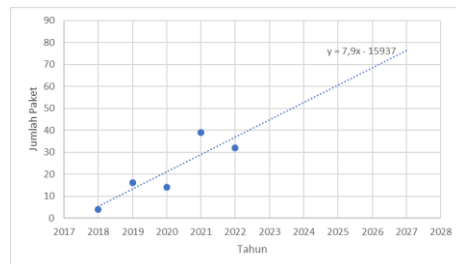


Figure 11 projection with the combined linear trend of all sample areas

Based on the results of data classification on KS opportunities and non-KS opportunities, the chances for specialist contractors to receive work packages in the last five years are very small compared to job opportunities for non-specialized contractors. Chances for specialist contractors to get the job done are less than 10%. However, for the sample areas in the work package funded by the regional government of Pontianak City, the chance for a specialist contractor to get a job reaches 20%.

The projection results with a liner trend in each sample area have a relatively small slope of the trend line, which is still below 1, except for work packages from the following regions: Pontianak City; West Kalimantan Province; Sanggau district and Ketapang district.

Based on the combined projections of specialist contractor job opportunities, the slope value is quite high, namely 7.9. Based on the linear trend equation of the combined data, the opportunity for work packages for specialist contractors for the next 5 years will increase from 32 work packages in 2022

to 77 work packages in 2027, or an increase of 140% in 5 years. This development is good enough for the development of specialist contractors in West Kalimantan.

4. Conclusion

This study aims to see the opportunities for specialist contractors to get jobs in West Kalimantan. Opportunities are obtained from looking at the ratio of work packages with specialist contractor opportunities to specialist non-contractor work packages. The conclusion on this matter, if assessed partially, the dominant sample area has a small ratio, less than 10%, except for Pontianak City. Opportunities to get a job based on a linear trend of combined data, the slope of the line obtained is 7.9 and the projection for the next 5 years of work packages in the province of West Kalimantan is 77 work packages.

5. Acknowledgment (Font 10 pt)

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