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Examination of the Value of Domestic Component Levels and the Weight of Company Benefits in High-Rise Building Projects

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ABSTRACT

In a construction project, various project management activities assist in achieving project goals in planning, procurement, implementation, and control. In the construction sector, the Ministry of Public Works and Public Housing (PUPR) has mandated that at least 30-85% of products used should be domestic, as measured by the Domestic Component Level (TKDN), and the maximum value for the Company Benefit Weight (BMP) should be 15%. When combined, the TKDN and BMP values should be at least 40%. This regulation aims to reduce product imports and boost the purchase of domestic products, which can significantly improve the national economy if consistently implemented. This study employs a quantitative analysis method using data such as material specifications, material/tool prices, worker wages, Work Unit Price Analysis (AHSP), and Cost Budget Plans (RAB). The calculation shows that the total value for the project is 81.85%, comprising 73.381% for TKDN and 8.43% for BMP. Therefore, it can be confirmed that the construction project of ITS Tower 2 Building in Surabaya complies with the Presidential Regulation of the Republic of Indonesia Number 12 of 2021 mandates meeting the minimum threshold of 40%.

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1. Introduction

A construction project involves undertaking tasks to transform an initial concept into a tangible structure or infrastructure. To achieve the project's objectives, various resources are utilized, including labor, construction machinery, both permanent and temporary materials, supplies and facilities, financial resources, technology or methods, and time [1]. The phases of a construction project encompass planning, procurement, execution, and monitoring, which together form an interconnected framework known as project management [2]. The presence of project management in construction projects aids in accurately and efficiently determining project costs, quality, and execution time [3]. Moreover, in the book "Construction Project Management," Clough et al. state that construction management goes beyond merely overseeing the construction and managing a company; it involves coordinating all the components within it [4].

In project management, particularly in Indonesia, specific elements serve as a guideline for incorporating

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domestic products into construction projects, including both goods and services [5]. Utilizing domestic products is anticipated to decrease the need for importing goods or services, as the current use of local products in the construction industry remains quite limited [6]. The current situation shows that many foreign products and investments entering developing countries are subject to a policy known as Local Content Requirements (LCR), which is designed to safeguard the domestic industry [7]. In Indonesia, the policy can be assessed in terms of value by determining the Domestic Component Level (TKDN), as outlined in Presidential Regulation Number 12 of 2021 concerning Government Procurement of Goods/Services article 66, clause 2 specifies that the requirement to use domestic products applies to goods and services where the TKDN value, combined with the minimum Company Benefit Weight (BMP), must be at least 40% [8]. Among the two assessment indicators, each has a specified minimum value. For the TKDN value, it must adhere to the decision outlined in Ministry of Public Works and Public Housing Regulation No. 602/KPTS/M/2023, which sets the minimum TKDN value for construction services in the Cipta Karya sector at 30-85% [9]. For the BMP value, the guidelines outlined in the Regulation of the Minister of Industry of the Republic of Indonesia Number 30/M-IND/PER/6/2006 specify that the maximum allowable Company Benefit Weight (BMP) is 15%. This BMP value is based on four indicators, including aspects such as business empowerment [10].

To support the calculation of TKDN values, it is essential to use secondary data, such as technical specifications, to minimize unnecessary waste and avoid rework caused by material standard failures and irregular work. This helps prevent confusion between contract creators, unit prices of materials, and wages. The Work Unit Price Analysis (AHSP) is employed to accurately forecast construction costs by summing the unit prices of materials, tools, and labor. Additionally, The Cost Budget Plan (RAB) serves as a guideline for financial planning and management, aiding in decision-making, performance monitoring, and work schedule oversight [11-13].

Therefore, to enhance the use of domestic products in Indonesia, it is hoped that this will foster national pride, enable the production of goods with quality on par with international standards, and achieve competitive pricing compared to foreign products [14]. In this endeavor, it is anticipated that The government will take a primary role in advancing and disseminating information about the use of Domestic Products (PDN) [15]

2. Research Objectives

To determine the TKDN value and assess the BMP value for the Tower 2 Building Construction project at Institut Teknologi Sepuluh Nopember Surabaya, the focus will be on the main building structure work, ranging from the foundation to the roof floor, excluding architectural work and Mechanical, Electrical, and Plumbing (MEP) systems

3. Data Analysis

The data analysis section outlines the steps the author will undertake in this study after acquiring both primary and secondary data from the implementing contractor, PT. Wijaya Karya (Persero) Tbk. The following describes the process for analyzing the data:

a. Identify the Domestic Component Level (TKDN) Value on each Component

Identify the TKDN value for each component, including materials, work tools, and labor for specific tasks. To determine these values, consult the official website provided by the Ministry of Industry of the Republic of Indonesia at https://tkdn.kemenperin.go.id/. If certain items are not listed on the site, assume their TKDN value is 0%. Additionally, analyze the Work Unit Price (HSP) to assess its impact on TKDN costs.

b. Analyzing the Price of Work Units (HSP) as a Determinant of TKDN Costs

Work Unit Price Analysis (HSP) is needed in the data calculation process; to find out the unit price of each job based on TKDN, the first step is to determine the amount of price of materials, tools, and labor obtained from the multiplication between the unit price and the coefficient. The second step, after the price amount is obtained, then enter the TKDN value of each item from material components, tools, and labor. For the final step, Additionally, multiply the price of each item by its TKDN value to determine the unit price of the work according to TKDN standards. After that, the sum of each price according to the contract and the amount of price based on the TKDN value is carried out.

c. Recapitulation of TKDN Values in Structural Work

The process of recapitulating the TKDN value in structural work requires Cost Budget Plan (RAB) data as a reference for work sub-items in determining the amount of price according to the contract and the amount of price based on the TKDN value and the number of TKDN value weights. The sub-items of structural work to be reviewed consist of:

- Earthworks
- Foundation work
- 1st to 11th floor work

- Roofing floor work
- Staircase structure work from the 1st floor to the roof floor

d. Identification of the Value of Company Benefit Weights (BMP) in Construction Services

Under the Minister of Industry of the Republic of Indonesia Number 16 of 2011, Company Benefit Weight (BMP) is awarded to companies based on several criteria. This involves providing support to micro and small businesses, including small cooperatives, through partnerships, as well as emphasizing occupational health & safety and environmental management certificates; promoting environmental sustainability; and providing after-sales service facilities.

e. Calculation of the Company's Benefit Weight Value (BMP)

The calculation of the BMP value also adheres to the Regulation issued by the Minister of Industry of the Republic of Indonesia Number 16 of 2011. BMP is computed by multiplying the accumulated weight of the determining factors by the maximum weight, with the total value not exceeding 15%.

f. Results of Combining TKDN Values with BMP

In the final step, the TKDN and BMP values will be combined to determine the extent to which domestic products are utilized in construction services

4. Result and Discussion

4.1. Determination of the Domestic Component Level (TKDN) Value

Under Government Regulation of the Republic of Indonesia No. 29 of 2018, Article 61 Paragraphs 1 and 2, domestic products (DN) must have a minimum TKDN value of 25%. To calculate the Domestic Component Level (TKDN), it is essential to consider project resources, including materials, tools, and labor.

a. Calculation of Domestic Component Level (TKDN) of Materials

To calculate the TKDN value for materials, the initial step is to identify the materials used in the structural work of the ITS Tower 2 Construction project in Surabaya, based on the project's technical specifications. These specifications also provide information about the brands used, which helps determine the TKDN value listed on the official website of the Ministry of Industry of the Republic of Indonesia, https://tkdn.kemenperin.go.id/ .

Table 1.
Calculation Example of Domestic Component Level (TKDN) of Materials

Materials	Brand	TKDN (%)
Meranti Formwork Wood	local	100,00%
Dolken Wood, 8-10 cm	local	100,00%
12 mm thick plywood (Phenolic Film)	Source of Graha Sejahtera	82,53%
Semen PC 40 Kg	Semen Gresik	84,41%
Spun pile with a diameter of 60 cm and K-600 grade	Wika Beton	71,47%
Spun pile with a diameter of 30 cm and K-600 grade	Wika Beton	71,47%
Sand Tide	Local	100,00%
Ready Mix Concrete K-400	Merak Jaya	94,20%
Ready Mix Concrete K-350		94,20%

Table 2.
Calculation Example of Domestic Component Level (TKDN) of Work Tools

Work Tools	Made (LN/DN)	Owned (LN/DN)	TKDN (%)	Unit
Rent a stress pile tool	LN	DN	75%	H
3-ton forklift rental - min. 8 hours	LN	DN	75%	H
Crane rental 30 tons - min. 8 hours	LN	DN	75%	H
Hydraulic piling rental - min. 8 hours (including mob/de)	LN	DN	75%	H
Concrete pump rental - min. 3 hours	LN	DN	75%	H
Welding equipment rental	LN	DN	75%	H
Compressor rental	LN	DN	75%	H
Welding set rental (min. 5 hours, etc.)	LN	DN	75%	H
Cost a dump truck 5-ton	LN	DN	75%	D

An example of this calculation is illustrated in Table 1.

Table 1 shows that the materials used have a variable TKDN value, including a spun pile with a diameter of 60 cm K-600 with the brand Wijaya Karya Beton, which has a TKDN value of 71.47%. Meanwhile, meranti formwork wood has a TKDN value of 100% because the material comes from nature.

b. Calculation of Domestic Component Level (TKDN) of Work Tools

The calculation of the TKDN value for work tools is explained through various categories as detailed in the Regulation issued by the Minister of Industry of the Republic of Indonesia Number 16 of 2011. Specifically:

- Tools manufactured in Indonesia (DN) and owned by DN companies are valued at 100% TKDN.
- Tools produced in Indonesia (DN) but owned by foreign (LN) companies are assigned a TKDN value of 75%.
- For tools made in Indonesia (DN) and owned by joint ventures between foreign (LN) and domestic (DN) companies, the TKDN value is 75% plus (25% multiplied by the percentage of DN ownership).
- Tools made abroad (LN) and owned by domestic (DN) companies have a TKDN value of 75%.
- Tools manufactured abroad (LN) and owned by foreign (LN) companies are valued at 0% TKDN.

Table 2 shows that nearly all the tools used in the work are imported but owned by domestic companies, giving them a TKDN value of 75 percent. However, some tools are manufactured domestically and held by domestic companies, resulting in a TKDN value of 100%.

c. Calculation of Domestic Component Level (TKDN) of Labor

When calculating the TKDN value for labor, it is evaluated according to their nationalities. In line with the Regulation issued by the Minister of Industry of the Republic of Indonesia Number 16 of 2011, Indonesian workers are assigned a TKDN value of 100%, while foreign workers are given a value of 0%. An example of this calculation is provided in Table 3.

Table 3.
Calculation Example of Domestic Component Level (TKDN) of Labor

Labor	Citizenship (WNI/WNA)	TKDN (%)
Mandor	WNI	100%
Head masonry	WNI	100%
Blacksmith's head	WNI	100%
Blacksmith's head	WNI	100%
Chief painter	WNI	100%
Head Carpenter	WNI	100%

Table 4.
Calculation of Work Unit Price Analysis (AHSP) Based on Domestic Component Level (TKDN) Value

Description	Cow.	Sat.	Unit Price	Total Price (IDR)	TKDN Value (%)	Total KDN Price (IDR)
a	b	c	d	e = b x d	f	g = e x f
1m3 Concrete Work K - 175 (Ready Mix)						
Tenaga:						
Mandor	0,1000	Day	Rp 100.000	Rp 10.000	100,00%	Rp 10.000
Head Masonry	0,0250	Oh	Rp 90.000	Rp 2.250	100,00%	Rp 2.250
Masonry	0,2500	Oh	Rp 82.000	Rp 20.500	100,00%	Rp 20.500
Unskilled Worker / Laborer	1,0000	Oh	Rp 72.500	Rp 72.500	100,00%	Rp 72.500
			Sum:	Rp 105.250	Number of KDN:	Rp 105.250
Material:						
Ready Mix Concrete K-175	1,0200	m3	Rp 580.000	Rp 591.600	94,20%	Rp 557.287
			Sum:	Rp 591.600	Number of KDN:	Rp 557.287
Equipment:						
Rental of concrete pump – minimum 3 hours	0,1200	Hour	Rp 1.685.000	Rp 202.200	75,00%	Rp 151.650
			Sum:	Rp 202.200	Number of KDN:	Rp 151.650
			Total Price:	Rp 899.050	KDN Price:	Rp 814.187

Table 5.
Calculation Example of The Cost Budget Plan (RAB) Based on The Value of TKDN

No.	Work Items	Unit	Volume	Unit Price (IDR)	Total Price (IDR)	KDN Unit Price (IDR)	Total KDN Price (IDR)
a	b	c	d	e	f = d x e	g	h = d x g
II.3.	1st FLOOR						
1	Concrete Plate Ground Floor, fc' = 24.90 Mpa, tbl=15 cm						
	Working Floor Rebate fc'=14.53 Mpa, tbl=5 cm	m3	60,654	Rp 899.050	Rp 54.531.203	Rp 814.187	Rp 49.383.914
	Ready Mix Concrete fc' = 24.90 Mpa, K-300	m3	200,22	Rp 970.450	Rp 194.303.499	Rp 881.446	Rp 176.483.118
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	181,96	Rp 1.016.350	Rp 184.937.841	Rp 924.684	Rp 168.258.007
	Reinforcement	Kg	28684	Rp 12.958	Rp 371.697.531	Rp 6.148	Rp 176.345.650
2	Concrete Plate Ground floor, fc' = 24.90 Mpa, tbl=20 cm						
	Working Floor Rebate fc'=14.53 Mpa, tbl=5 cm	m3	16,398	Rp 899.050	Rp 14.742.397	Rp 814.187	Rp 13.350.838
	Ready Mix Concrete fc' = 24.90 Mpa, K-300	m3	52,77	Rp 970.450	Rp 51.210.647	Rp 881.446	Rp 46.513.905
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	65,591	Rp 1.016.350	Rp 66.663.413	Rp 924.684	Rp 60.650.935
	Reinforcement	Kg	6409,3	Rp 12.958	Rp 83.052.694	Rp 6.148	Rp 39.402.956
3	Concrete Plate Ramp Ground floor, fc' = 24.90 Mpa, tbl=10 cm						
	Brick collage pair	m2	11,16	Rp 117.661	Rp 1.313.091	Rp 117.661	Rp 1.313.091
	Sand	m3	4,3952	Rp 263.182	Rp 1.156.738	Rp 240.432	Rp 1.056.747
	Ready Mix Concrete fc' = 24.90 Mpa, K-300	m3	-	Rp 970.450	Rp -	Rp 881.446	Rp -
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	8,7904	Rp 1.016.350	Rp 8.934.123	Rp 924.684	Rp 8.128.340
	Reinforcement	Kg	1282,9	Rp 12.958	Rp 16.624.141	Rp 6.148	Rp 7.887.044
	Bekisting plat	m2	87,904	Rp 455.022	Rp 39.998.254	Rp 438.699	Rp 38.563.367
3	Concrete Elevator Wall, fc' = 33.20 Mpa, tbl=15 cm						
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	16,472	Rp 1.016.350	Rp 16.740.809	Rp 924.684	Rp 15.230.929
	Reinforcement	Kg	4057,5	Rp 12.958	Rp 52.577.455	Rp 6.148	Rp 24.944.490
	Formwork dining	m2	219,62	Rp 716.656	Rp 157.391.991	Rp 637.307	Rp 139.965.330

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Table 5.
Calculation Example of The Cost Budget Plan (RAB) Based on The Value of TKDN

No.	Work Items	Unit	Volume	Unit Price (IDR)	Total Price (IDR)	KDN Unit Price (IDR)	Total KDN Price (IDR)
4	Reinforced Concrete Wall (Shearwall), fc' = 33.20 Mpa, tbl=25 cm						
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	49,345	Rp 1.016.350	Rp 50.151.791	Rp 924.684	Rp 45.628.522
	Reinforcement	Kg	7387,6	Rp 12.958	Rp 95.729.875	Rp 6.148	Rp 45.417.431
	Formwork dining	m2	394,76	Rp 716.656	Rp 282.907.123	Rp 637.307	Rp 251.583.251
5	Concrete Columns						
-	K1 90x150 cm						
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	129,09	Rp 1.016.350	Rp 131.197.572	Rp 924.684	Rp 119.364.658
	Reinforcement	Kg	33020	Rp 12.958	Rp 427.873.602	Rp 6.148	Rp 202.997.443
	Column formwork	m2	458,98	Rp 553.723	Rp 254.145.415	Rp 537.399	Rp 246.653.393
-	K2 80x110 cm						
	Ready Mix Concrete fc' = 33.20 Mpa, K-400	m3	36,062	Rp 1.016.350	Rp 36.652.020	Rp 924.684	Rp 33.346.317
	Reinforcement	Kg	11892	Rp 12.958	Rp 154.093.764	Rp 6.148	Rp 73.107.198
	Column formwork	m2	155,72	Rp 553.723	Rp 86.227.909	Rp 537.399	Rp 83.685.973
-	K3 70x90 cm						
	Ready Mix Concrete with a compressive strength of 33.20 MPa, K-400	m3	43,029	Rp 1.016.350	Rp 43.732.524	Rp 924.684	Rp 39.788.219
	Reinforcement	Kg	9970,5	Rp 12.958	Rp 129.199.866	Rp 6.148	Rp 61.296.706
	Column formwork	m2	218,56	Rp 553.723	Rp 121.021.626	Rp 537.399	Rp 117.453.997
-	K4 40x50 cm						
	Ready Mix Concrete with a compressive strength of 33.20 MPa, K-400	m3	25,184	Rp 1.016.350	Rp 25.595.758	Rp 924.684	Rp 23.287.237
	Reinforcement	Kg	7199,9	Rp 12.958	Rp 93.297.180	Rp 6.148	Rp 44.263.280
	Column formwork	m2	226,66	Rp 553.723	Rp 125.504.565	Rp 537.399	Rp 121.804.782
-	K5 50x50 cm						
	Ready Mix Concrete with a compressive strength of 33.20 MPa, K-400	m3	8,5375	Rp 1.016.350	Rp 8.677.088	Rp 924.684	Rp 7.894.488
	Reinforcement	Kg	2991,5	Rp 12.958	Rp 38.764.213	Rp 6.148	Rp 18.391.030
	Column formwork	m2	68,3	Rp 553.723	Rp 37.819.258	Rp 537.399	Rp 36.704.374
-	K6 70x40 cm						

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Table 5.
Calculation Example of The Cost Budget Plan (RAB) Based on The Value of TKDN

No.	Work Items	Unit	Volume	Unit Price (IDR)	Total Price (IDR)	KDN Unit Price (IDR)	Total KDN Price (IDR)
	Ready Mix Concrete with a compressive strength of 33.20 MPa, K-400	m3	15,299	Rp 1.016.350	Rp 15.549.342	Rp 924.684	Rp 14.146.922
	Reinforcement	Kg	6870,2	Rp 12.958	Rp 89.024.556	Rp 6.148	Rp 42.236.205
	Column formwork	m2	120,21	Rp 553.723	Rp 66.561.894	Rp 537.399	Rp 64.599.698
6	Concrete Blocks						
-	Balok Separator 20x30 cm						
	Ready Mix Concrete with a compressive strength of 24.90 MPa, K-300	m3	1,44	Rp 970.450	Rp 1.397.448	Rp 881.446	Rp 1.269.282
	Ready Mix Concrete with a compressive strength of 33.20 MPa, K-400	m3	2,28	Rp 1.016.350	Rp 2.317.278	Rp 924.684	Rp 2.108.279
	Reinforcement	Kg	413,61	Rp 12.958	Rp 5.359.679	Rp 6.148	Rp 2.542.810
	Beam formwork	m2	11,4	Rp 575.723	Rp 6.563.238	Rp 559.399	Rp 6.377.152
7	Steel Column						
	WF Frame 300.150.6,5.9	Kg	1378,7	Rp 30.851	Rp 42.532.749	Rp 14.602	Rp 20.130.750
	Iron Meni Painting	m2	45,12	Rp 34.431	Rp 1.553.513	Rp 25.398	Rp 1.145.952
	Full Plate, tbl=16mm	Kg	71,691	Rp 29.461	Rp 2.112.079	Rp 15.175	Rp 1.087.932
	Plat Rip/stiffener, tbl=10mm	Kg	114,43	Rp 29.461	Rp 3.371.203	Rp 20.238	Rp 2.315.788
	Exactly. armature Ø 16, length 40 cm	bh	32	Rp 69.890	Rp 2.236.480	Rp 46.435	Rp 1.485.917
8	Steel Beam						
	WF Frame 250.125.6.9	Kg	480,73	Rp 30.851	Rp 14.830.828	Rp 14.602	Rp 7.019.431
	Iron Meni Painting	m2	12,19	Rp 34.431	Rp 419.710	Rp 25.398	Rp 309.600
	Connector Plate, tbl=10mm	Kg	9,81	Rp 29.461	Rp 289.012	Rp 20.238	Rp 198.532
	Full Plate, tbl=16mm	Kg	5,65	Rp 29.461	Rp 166.455	Rp 15.175	Rp 85.741
	Plat Rip/stiffener, tbl=10mm	Kg	18,84	Rp 29.461	Rp 555.045	Rp 20.238	Rp 381.279
	Exactly. armature Ø 16, length 40 cm	Pcs	18	Rp 69.890	Rp 1.258.020	Rp 46.435	Rp 835.828
	Mur Builds Ø14	Pcs	24	Rp 17.710	Rp 425.040	Rp 11.465	Rp 275.171
9	Practical column 10x10 cm, fc'=14.53 Mpa	m1	215	Rp 75.268	Rp 16.182.586	Rp 51.707	Rp 11.117.080
10	Beam 10x15 cm, fc'=14.53 Mpa	m1	33,81	Rp 94.319	Rp 3.188.920	Rp 69.845	Rp 2.361.447
11	Concrete Table Plate 10cm thick						

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Table 5.
Calculation Example of The Cost Budget Plan (RAB) Based on The Value of TKDN

No.	Work Items	Unit	Volume	Unit Price (IDR)	Total Price (IDR)	KDN Unit Price (IDR)	Total KDN Price (IDR)
	Ready Mix Concrete fc' = 14.53 Mpa, K-175	m3	0,17	Rp 899.050	Rp 152.839	Rp 814.187	Rp 138.412
	Reinforcement	Kg	17,78	Rp 12.958	Rp 230.396	Rp 6.148	Rp 109.307
	Plate formwork	m2	1,7	Rp 455.022	Rp 773.537	Rp 438.699	Rp 745.788
				Total Fee:	Rp3.735.518.823	KDN Fee:	Rp2.723.171.265

Table 3 shows that the workers in the ITS Tower 2 Building Construction project in Surabaya have a TKDN value of 100% because they have a workforce that is entirely Indonesian citizens or from within the country.

4.2. Analysis of Work Unit Pricing (AHSP) Based on the Domestic Component Level (TKDN) Value

In calculating the Work Unit Price Analysis (AHSP), It's important to take into account elements like materials, labor, and work tools. These components have unit prices determined by documents from the implementing contractor and are associated with the TKDN values outlined in the previous section. An example of this calculation is shown in Table 4.

4.3. Calculation of The Cost Budget Plan (RAB) Based on The Value of TKDN

The RAB calculation is conducted following the AHSP calculation. This process involves multiplying the unit price of each task by its corresponding volume. An example of the RAB calculation is provided in Table 5.

4.4. Calculation of the Cost Budget Plan (RAB) According to TKDN Values

The recapitulation is derived from summing the costs of each task related to the main building structure work, as detailed in Table 6.

Table 6.
Calculation of The Cost Budget Plan (RAB) Based on The Value of TKDN

NO	WORK ITEMS	TOTAL FEE (IDR)	TOTAL KDN FEE (IDR)	TKDN VALUE (%)
a	b	c	d	e = d/c
1	Earthworks	Rp 239.546.767	Rp 237.140.317	98,995%
2	Foundation Work	Rp 11.487.408.097	Rp 7.617.294.802	66,310%
3	Ground Floor	Rp 3.735.518.823	Rp 2.723.171.265	72,899%
4	Second Floor	Rp 4.377.157.389	Rp 3.243.016.213	74,090%
5	Third Floor	Rp 3.524.576.254	Rp 2.613.958.969	74,164%
6	Fourth Floor	Rp 3.309.922.404	Rp 2.445.818.446	73,894%
7	Fifth Floor	Rp 2.848.307.620	Rp 2.165.497.377	76,028%
8	Sixth Floor	Rp 2.857.104.151	Rp 2.171.370.045	75,999%
9	Seventh Floor	Rp 2.857.104.151	Rp 2.175.728.136	76,152%
10	Eighth Floor	Rp 2.857.104.151	Rp 2.175.728.136	76,152%
11	Ninth Floor	Rp 2.652.074.662	Rp 1.989.398.726	75,013%
12	Tenth Floor	Rp 2.699.124.290	Rp 2.026.258.456	75,071%

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Table 6.
Calculation of The Cost Budget Plan (RAB) Based on The Value of TKDN

NO	WORK ITEMS	TOTAL FEE (IDR)	TOTAL KDN FEE (IDR)	TKDN VALUE (%)
13	Eleventh Floor	Rp 3.223.131.244	Rp 2.431.229.001	75,431%
14	Roofing Floor	Rp 4.344.676.876	Rp 3.422.288.158	78,770%
15	Str. Work. Stairs 1 To 2nd Floor	Rp 140.051.114	Rp 90.672.113	64,742%
16	Str. Work. Stairs 2nd To 3rd Floor	Rp 78.634.821	Rp 58.401.696	74,270%
17	Str. Work. Stairs From 3rd To 4th Floor	Rp 63.198.654	Rp 46.937.514	74,270%
18	Str. Work. Stairs 4th Floor To Fifth Floor	Rp 61.363.362	Rp 45.696.530	74,469%
19	Str. Work. 5th Floor To 6th Floor Stairs	Rp 61.363.362	Rp 45.696.530	74,469%
20	Str. Work. Stairs 6th Floor To 7th Floor	Rp 61.363.362	Rp 45.696.530	74,469%
21	Str. Work. 7th Floor To Eighth Floor Stairs	Rp 61.363.362	Rp 45.696.530	74,469%
22	Str. Work. Stairs From 8th Floor To 9th Floor	Rp 61.363.362	Rp 45.696.530	74,469%
23	Str. Work. Stairs 9th Floor To 10th Floor	Rp 61.363.362	Rp 45.696.530	74,469%
24	Str. Work. Stairs 10th Floor To 11th Floor	Rp 61.363.362	Rp 45.696.530	74,469%
25	Str. Work. Stairs To Roof 11	Rp 100.303.926	Rp 75.638.651	75,409%
	TOTAL	Rp 51.824.488.927	Rp 38.029.423.731	73,381%

Table 7.
Recapitulation of the Company's Benefit Weight Value (BMP)

No.	Types of Activities	Weight	BMP Value (%)
1	Empowerment of Small Businesses including Small Cooperatives through Partnerships	28,09%	4,21%
2	Certificate Ownership		
-	Occupational Health and Safety (SMK3/OHSAS 18000)	6%	3%
-	Environmental Management (ISO 14000)	14%	
3	Community Development	8,13%	1,22%
4.	After-sales Service Facilities	0%	0%
	TOTAL	56,22%	8,43%

The results of the calculation from Table 6 that the structural work of the main building of Tower 2 ITS Surabaya has a total construction cost of IDR 51,824,488,927 with a total cost based on the TKDN value

of IDR 38,029,423,731. Meanwhile, for the total construction cost and total cost based on the TKDN value, the percentage of TKDN value for the structure of the ITS Tower 2 Building Surabaya was 73.381%. The percentage of TKDN value is obtained from the following calculation:

% TKDN = (KDN Cost/Total Cost) x 100%
= (IDR 38,029,423,731 / IDR 51,824,488,927) x 100%
= 73,381%

4.5. Summary of the Company's Benefit Weight (BMP) Value

The outcomes of the company's contributions to Environmental Responsibility and Social Responsibility (CSR), based on data collected from interviews with relevant parties, are displayed in Table 7.

From the results of the recapitulation of the BMP value in Table 7, it can be concluded that the total weight obtained from the four factors is 56.22% and the total percentage of BMP value is 8.43% from the following calculations:

Total BMP value (%) = 56.22% x 15% = 8.43%

4.6. Results of the Percentage of TKDN Value and BMP Value in the ITS Tower 2 Building Construction Project Surabaya

In line with Presidential Regulation Number 12 of 2021 concerning Government Procurement of Goods/Services, Article 66, Clause 2 stipulates that the requirement to use domestic products includes goods and services with a Domestic Component Level (TKDN) value combined with a minimum Company Benefit Weight (BMP) value of 40%. For the main building structure of the ITS Tower 2 Construction project in Surabaya, the TKDN value is 73.381% and the BMP value is 8.43%. Thus, the total value, combining TKDN and BMP, is 81.85%. This result indicates that the structural work for the main building of the ITS Surabaya Tower 2 meets the established requirements.

5. Conclusions

Based on the research conducted on the ITS Surabaya Tower 2 Building Construction project, the following conclusions can be drawn:

a. The TKDN value for the main building structure work in the ITS Surabaya Tower 2 project is 73.381%.
b. The BMP value for the implementing contractor in this project is 8.43%.
c. Combining the TKDN value of 73.381% with the BMP value of 8.43% results in a total value of 81.85%.

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