

FINAL PROJECT

**ANALYSIS OF DECENT CONSTRUCTION
WORKFORCE WAGES AND PRODUCTIVITY BASED
ON INDONESIA LAW (UU)**

**Submitted to the Yogyakarta Islamic University of Indonesia to fulfill the
requirements for obtaining a Bachelor's Degree in Civil Engineering**



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YOGYAKARTA
2025**

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Has been accepted as one of the requirements
for obtaining a Bachelor's degree in Civil Engineering

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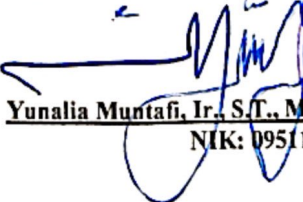
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ABSTRACT

One of the key industries driving economic expansion in Indonesia is the building industry. A growth hub that keeps expanding, has a big need for construction personnel, particularly bricklayers. However, the un-decent wages of construction workforce's which is out of proportion to their workload and productivity is one of the main issues that is frequently encountered. It is believed that the goal of this study would serve as a guide for contractors, local governments, and other relevant parties as they create improved wages rules. Generally speaking, paying workforce's a fair wages can raise their level of living, which benefits society all around and for productivity rise up to 30 m2 per day, which will assist contractors greatly by cutting down on project completion time and maximizing resource use.

This research use a number of techniques that facilitate data collection and processing. A number of techniques are used to examine the connection between bricklayer workforce wages and the ensuing productivity. Following that, be able to draft suggestions for a fair wage structure that take into account the intricacy of the work, the output of the work, and the necessity for an acceptable standard of living.

This research highlights is crucial to the creation of more equitable and effective wage regulations, particularly for construction workforce's. The productivity of bricklayer workforce has emerged as a critical component in promoting project smoothness and cost effectiveness due to the growing need for housing construction and infrastructure.

Keyword : Productivity, Construction Workforce Wages, Wages, Decent construction workforce wages, Stakeholder, Developer, Contraction Company, Construction Workforce, Law (UU/PP/Perbup).

FOREWORD

Praise and appreciation to Allah SWT, the All-powerful God, for all His endowments that this Final Project Report with the title *Analysis Of Decent Construction Workforce Wages Based On Law (UU)* can be compiled to completion. We moreover don't disregard to specific our appreciation for the help from those who have contributed by contributing both fabric and considerations. The creator does not disregard to say shalawat and welcome to the extraordinary prophet Muhammad SAW.

Based on the Educational modules of the Respectful Designing Ponder Program, Faculty of Civil Engineering and Planning, Islamic University of Indonesia, Yogyakarta, This Final Project Report is one of the academic requirements for completing the Bachelor's Degree. Every understudy is required to carry out work hones on a specific extend. Subsequently, this Final Project Report is ready as a necessity to require the undergrad instruction Bachelor level.

Earlier to compiling the specialized Final Project Report, The completion of this paper cannot be isolated from the help of different parties who are specifically or by implication related. Due to constrained information and involvement, we accept there are still numerous inadequacies in this paper. Subsequently, we truly trust for useful feedback and recommendations from perusers for the flawlessness of this paper. In this regards, the author would like to express his deepest gratitude to :

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4. Ir. Tri Nugroho Sulistyantoro, S.T., M.T. as the Examiner 2.

Finally, the author hopes that this Final Project Report can be useful for various parties and provide many benefits for various people who read it.

Yogyakarta, 09 April 2025

Researcher,



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CHAPTER I

INTRODUCTION

1.1 BACKGROUND

The construction industry is currently a sector of the economy that is expanding quickly in the nation. In a few significant Indonesian cities, the planned development has been remarkably developed. The government's strategy for obtaining budget in various characteristics and for reducing building accumulation in Indonesia resulted in the construction being built according to several models. Budgeting is a crucial component of growing a successful construction company since it ensures that the construction process can be completed successfully and profitably. Each level of expenditures and each function of the scope are explicitly forth in the budget, because it requires a lot of machinery and equipment, construction projects are expensive. It's important to take other costs and maintenance costs into account simultaneously. The budgeting procedure is quite beneficial for concentrating the budget and making it more effective. Apart from the things mentioned above, in the budgeting process there are also important points which if not maintained properly, can cause large losses for construction companies. The important point is workforce. The availability and productivity of construction workforce greatly influences the work process, especially budgeting for construction project.

Therefore, construction workforce also has an important role in the economic development process, along with infrastructure and governance, that it can accelerate the rise and fall of an economy's competitiveness. In the world of work there are bound to be several issue, work problems in the future will continue to develop until they become more complex and require more serious handling. Some of province in Java and Bali Island, construction workforce wages are a major issue right now. Wages are one of the criteria by which a nation is classified

as developed and the wages that are being paid right now are completely unworthy. Based on UU No 2 Tahun 2017 Pasal 73 Ayat (1),” Every construction workforce who has a work competency certificate is entitled to decent compensation for the services provided.” and based on UU No 2 Tahun 2017 Pasal 73 Ayat (2),” Decent compensation as intended in Ayat (1) is given in the form of wages in accordance with the provisions of statutory regulations.” Indirectly, workforce wages play a significant role in the welfare and rights of Indonesian workforce’s. In order to guarantee that wages are paid fairly and in line with applicable legal standards, the Indonesian government and businesses are expected to abide by the relevant laws and regulations. The following is a list of Provincial Minimum Wages (UMP) for 2024 in 38 Indonesian Provinces, which have been regulated and determined by the current government. The 2024 Provincial Minimum Wage (UMP) in 38 Indonesian provinces can be ranked from highest to lowest as follows :

**Table 1.1 The Average Provincial Minimum Wage (UMP) 2024
in 38 Indonesian Provinces**

No	LEVEL	Provinces	UMP (2024)
1	High	DKI Jakarta	Rp. 5.067.381,00
2	Intermediate	North Papua	Rp. 4.024.270,00
3	Intermediate	South Papua	Rp. 4.024.270,00
4	Low	North Maluku	Rp. 3.200.000,00
5	Low	Jambi	Rp. 3.037.121,00
6	Low	Gorontalo	Rp. 3.025.100,00
7	Low	DIY	Rp. 2.125.897,00
8	Low	West Java	Rp. 2.057.495,00
9	Low	Central Java	Rp. 2.036.947,00
		Total of 38 Provinces	Rp. 118.074.720,00
		Average of 38 Provinces	Rp. 3.107.493,00

Source : CNN INDONESIA

From the table above, the average wages of 38 Provinces in Indonesia are Rp. 3.107.493,00. Based on the table above, some Province and Regency in Java and Bali Island, the Average Provincial Minimum (UMP) 2024 are low. This is a situation that cannot be taken lightly, because wages are one of the supports for workforce's needs, especially construction workforce's. Therefore the government and companies are obliged to pay attention to the wages of their workforce's, where companies must pay wages in accordance with applicable regulations. The 2024 Regency Minimum Wage (UMK) in 6 Regency's can be ranked from highest to lowest as follows :

**Table 1.2 The Average Regency Minimum Wage (UMK) 2024
in 6 Regency's**

No	LEVEL	Provinces	UMP (2024)
1	Low	Malang Regency	Rp. 3.368.275,00
2	Low	Badung Regency	Rp. 3.318.628,06
3	Low	Denpasar City	Rp. 3.096.823,00
4	Low	Yogyakarta City	Rp. 2.492.997,00
5	Low	Tulungagung Regency	Rp. 2.320.000,00
6	Low	Sleman Regency	Rp. 2.315.976,39
		Total of 6 Regency's	Rp. 16.912.699,04
		Average of 6 Regency's	Rp. 2.818.783,00

Source : KOMPAS.com

From the table above, the Average Regency Minimum Wage (UMK) 2024 of 6 Regency's in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are Rp. 2.818.783,00. The average wages categorized are low and this wage value is one of the factor that are used as a reference or comparison in calculating decent living wages and productivity of workforce's, especially construction workforce's. The conclusion is these wages are still far from decent as regulated in the law on Decent Living Needs (KHL). Based on UU Tahun 1945

Pasal 27 Ayat 2 states that "Every citizen has the right to work and a living worthy of humanity". The laws and regulations that have been conveyed regarding wages. Based on UU No 13 Tahun 2003 Pasal 88 Ayat 1 stated that "Every workforce has the right to earn an wage that fulfills a life worthy of humanity". Therefore, the purpose of this study is also an analysis process of the regulations that determine decent living standards with the implementation process in the field that has been stipulated in the law. In this case, the government also needs to pay close attention and review that the wages currently set are far from the provisions in accordance with the law.

For construction workforce, the wages they make is crucial to their families survival. The amount of wages earned has a big impact on both work productivity, passion and enthusiasm. Productivity growth is impacted by wage increases. It's important to remember that the wellbeing of the workforce and society at large depends on efforts to evaluate and establish fair and sustainable wages, even in light of the limitations of decent wage research. Research needs to be done carefully and consistently to make sure that the wages paid stay in line with changes in Indonesia workforce market, social conditions, and economic situation. To find a fair amount, we have to recalculate the aspect until the wages are set. The methods that used for collecting the data on this observation is by making questioner and interview the object. I got that data by making with Microsoft Excel Program, Microsoft Word Program, Regulation Law (UU), Observation, Interview, Questioner, and Calculating Methods.

1.2 PROBLEM STATEMENT

Based on the explanation above, workforce wages are a crucial factor in construction projects. Therefore, there are some several problems that must be solved. The problem we faced such as :

- 1) How much the average of decent wages workforce based on the needs?

- 2) How much the average of productivity of the workforce comparable with average decent wages?

1.3 RESEARCH OBJECTIVES

Extensively, the goal of decent wages is to provide people and the workforce who support development with earnings that support a decent life as stated in the constitution. Therefore, in this case, the research objectives are :

- 1) To calculate an average of decent wages estimation for workforce based on the needs and the field conditions.
- 2) To calculate the workforce average productivity based on the decent wages.

1.4 SIGNIFICANT OF RESEARCH

Research on decent construction workforces wages to provide a number of benefits or advantages for various parties and can have a significant positive impact on the economy, society and the construction industry as a whole. The benefit is :

- 1) This is an important step in creating a fair and sustainable work environment for workforce.
- 2) As a reference for standard minimum skilled construction workforce's (bricklayer in this case) wages to increase workforce prosperity and productivity.
- 3) To create fair compensation in order to aid construction companies in adhering to workforce laws and regulations.

1.5 RESEARCH LIMITATION

For this case and research it should has limitation, thats to make sure the data is not out of the topic and meaningless for the information what should to share. The limitations is such as :

1) Java and Bali Island will be the site of the research (conducted). For the data collected in Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency, and Tulungagung Regency.

2) Skilled construction workforce (bricklayer in this case) qualifications are search after or studied.

3) Data was collected through observations, document analysis, and interviewing are to determine a variable's values.

4) The standard wage system that applies in Indonesia is something that can be learned from the document. The document are :

1. UU No 2 Tahun 2017, about construction services.
2. UU No 13 Tahun 2003, about profession.
3. UU No 24 Tahun 2011, about Social Security Administrator (BPJS)
4. UU No 11 Tahun 2020, about Omnibus Law.
5. UU No 23 Tahun 2014, about local government.
6. PP No 36 Tahun 2021, about wage policy.
7. PP No 78 Tahun 2015, about wage review.
8. PP No 44 Tahun 2015, about work accident and death guarantee program.
9. PP No 64 Tahun 2020, about health insurance.
10. PP No 86 Tahun 2013, about imposing administrative sanctions.
11. PP No 76 Tahun 2020, about the type of PNPB that applies.
12. Permen PUPR No 8 Tahun 2023, about guidelines of public work/housing.
13. ILO K138 Tahun 1973, about minimum age to be allowed to work.
14. ILO K95 Tahun 1949, about wage protection.
15. Permenaker No 13 Tahun 2012, about component of KHL.
16. Permenaker No 5 Tahun 2021, about implementation of work accident.
17. Permenaker No. 18 Tahun 2022, about resolve of minimum wage in 2023.
18. Permenaker No 21 Tahun 2016, about Decent Living Needs (KHL).
19. Permendikbud No 50 Tahun 2022, about school uniforms for students.
20. Permendikbud No 8 Tahun 2017, about school funds (BOS).

21. Permendikbud No 14 Tahun 2022, about guidelines for PIP funds.

5) In order to identify the decent wage variables and productivity, interviews with experts were conducted. Interviews with experts and representatives from the government are used for validation.

6) Based on Law (Peraturan Menteri PUPR No 8 Tahun 2023) code 1.02, Those who are called construction workforce are :

1. Skilled construction workforce
2. Bricklayer
3. Carpenter
4. Vulcan
5. Painter
6. Plumber
7. Gabian weaver
8. Slasher
9. Welder
10. Electrician
11. Aluminium workforce
12. Planter
13. Garden maintenance workforce.

On this final project will be explained only for skilled construction workforce (bricklayer in this case).

7) Based on the preceding, other construction workforce qualifications are ready to be calculated.

CHAPTER II LITERATURE REVIEW

2.1 General

A literature review is a critical evaluation of the body of knowledge regarding a particular subject or research question. It entails assessing, condensing, and synthesizing the existing body of knowledge on a given topic, pointing out any gaps or disagreements, and laying the groundwork for future studies. In this chapter, it is explained how the structure and focus of a literature review can vary based on the purpose and context of the review as follows.

2.1.1 Productivity of Construction Workforce

An essential component of a construction project's success is productivity. Higher quality, shorter lead times, less expenses, and better outcomes all stem from greater production. The productivity of construction project workforces is significantly impacted by all of the variables that have been observed, including age, work experience, education level, decent's of wages, number of family dependents, workforce health, relationships between workforces, and managerial and work group composition. From this, "relationships between workforces" is the most significant variable and has a major impact on workforce productivity for this project.

2.1.2 Wages and Work Safety Risk in Construction

Common safety hazards in construction activities include working underground, at heights, in tight spaces, near hazardous materials, and in environments with noise, dust, equipment use, and fire. The purpose of this study is to examine the wages structure used by construction businesses in areas with different levels of safety risk. It was discovered that businesses used two primary strategies : piece

based pay, which bases compensation on the quantity of work performed, and time based pay, which pays workforce a set rate per unit of time without taking output into account. The findings provide insight into wage practices in the construction sector and how safety concerns are included into the wage structure by demonstrating that the degree of danger on the building site has no discernible impact on the choice of payment method.

2.1.3 Productivity in Plastering Work

Because high worker productivity, particularly in construction projects, has a substantial impact on project results, qualified workforce is necessary to accomplish desired results. One of the tasks that calls for productive workforce's is plastering, including wall plastering. Finding the plastering productivity coefficient and comparing it to SNI 2837-2008 is the goal of this study. Direct observation was used to conduct this study in the field. In order to determine the productivity of the plastering work done on the MIBAS Mosque construction project, this observation was made in order to gather primary data.

2.1.4 Daily and Piecework Contract Wages

One of the key areas in the endeavor to develop the Indonesian people as a whole is housing and settlements. Provide sufficient and reasonably priced housing in a safe, healthy, peaceful, and sustainable residential setting in order to facilitate the achievement of a genuine, self sufficient, productive society and environment for every individual or family. Whether or not the contractor profits, the contractor must be cautious while paying the workforce's to ensure that the work is completed within the allotted time. The contractor will undoubtedly lose money if the journeyman's work hours are reduced or even ineffective because the ensuing productivity will be low while the wages would be high.

2.1.5 Workforce Productivity Based on Project Time and Cost

The workforce's productivity level must be known in order to control or manage the practical use of human resources in a building project. The time schedule and cost budget plan serve as guidelines and instruments to manage the project's workforce and tool implementation productivity, expenses, and duration. The Sorong City KIR Building construction project will be the subject of a time and cost analysis based on workforce productivity in this study. Primary data, derived from field observations, is utilized in the form of daily reports. According to research findings, field workforce productivity is 60% higher than planned workforce productivity.

2.1.6 Productivity and Individual Behavior

Human resources play a crucial role in building projects since skilled workforce's will help the project reach its goals. The actions of individual workforce's, who must be highly motivated to finish their work, are one approach to accomplish this goal. Workforce's who are motivated may be more productive. The purpose of this study is to determine the extent to which individual behavior can improve construction productivity on the Summarecon Mall project in Bandung. TOPSIS analysis (Technique for Order Preference by Similarity to Ideal Solution) is the methodology used in this study. The five factors self actualization, esteem, social, safety, and physiological were analyzed using Maslow's Hierarchy.

2.1.7 Wages and Living Needs

It can be inferred from an analysis of wage levels for the living needs of construction workforce's in Nagari Pauh Kamar, Nan Sabaris District, that because the workforce's do not work daily or seasonally, their wages are currently insufficient to cover their living expenses. This is evident from the monthly costs that construction workforce's spend to cover their living expenses. Construction workforce's try to make ends meet in a number of ways, such as letting their

spouses or other family members work, cutting back on household expenses, or borrowing money from friends or neighbors. All of these construction workforce's efforts are focused on surviving and providing for their families.

2.1.8 Productivity in The Construction

One of the elements that affects the quality and cost of building work is the availability of human resources. The workforce's abilities and the accessibility of high quality resources are the two main factors that determine a work quality. As a result, workforce becomes a key component in completing tasks to get the best results. Regulations as a guide for work implementation are one of the associated domains that require thorough and effective preparation while executing development. Analyzing workforce productivity is necessary to ensure that planned and anticipated activities are completed. According to the literature review, a realistic, effective, and efficient work approach can be explored or established by looking at motion studies that have been or are now being conducted.

2.1.9 Wages and Regulation

One of the most prevalent types of work done in the construction business is contract work. In contract work, workforce are used to finish building projects within a predetermined budget and time limit. Nonetheless, there are frequently instances where contract workforce encounter postponements or delays in compensation payment. The purpose of the study is to examine the legal safeguards for contract workforce in the construction sector with regard to unpaid wages. The rights and responsibilities of workforce, including wage payments, are governed by workforce laws in Indonesia. Workforce have the right to report the infraction to the authorities or pursue a lawsuit if wage payments are delayed. Using a qualitative research approach, this study collects information from multiple sources and analyzes data. For it to protect workforce, legal protection is

essential. Working agreements, which allow workforce to sign into contracts with company that safeguard their rights, are among the key legal functions.

2.1.10 Productivity in Bricklayer

Numerous elements affect a building project's productivity level. age, work experience, and educational attainment are some of the variables that affect productivity levels. It can perform a successful unit price analysis of work if company aware of these factors. According to the comparison of the coefficient or index based on SNI 6897-2008 and Peraturan Menteri Pekerja Umum dan Perumahan Rakyat (PUPR) No.28/PRT/2016, the observed index or coefficient is higher for masonry work. More research is needed to determine how productive it is to install red brick walls of different thicknesses and with different workforce compositions.

2.2 Research Differences

This difference between every research limited information regarding construction workforce have quite significant. This research differences limitation result are explain on this table 2.1 below.

Table 2.1 Research Differences From Previous Research

ASPECT	Lumbangaol, Partahi., Saragi, Yetty., Hariando Purba, Luki. (2024)	Nugroho, Anton., Kirana, Kusuma, Chandra.(2024)	Gama Bagaskara, Ferdatama,. Priyanto, Budi. (2024)	Lisman., Sufrianto., Hakimian., Ilham, Vickky, Anggara. (2024)	Mandela, Wennie., Sitepu, Corazon, Iyar. (2024)
Heading Research	Productivity and Influence Factor of Construction Project Workforce.	Workforce Wages and Work Safety Risk in Construction Company.	Analysis Productivity of Workforce in Plastering Work for MIBAS Mosque Project.	Analysis Wages Daily Comparative with Piecework (Case Study of Lagasa Village Slum Settlement Quality Improvement Project)	Workforce Productivity Analysis Based on Time and Cost in The Sorong City KIR Building Construction Project

Continued Table 2.1 Research Differences From Previous Research

ASPECT	Lumbangaol, Partahi., Saragi, Yetty., Hariando Purba, Luki. (2024)	Nugroho, Anton., Kirana, Kusuma, Chandra.(2024)	Gama Bagaskara, Ferdatama,. Priyanto, Budi. (2024)	Lisman., Sufrianto., Hakimian., Ilham, Vickky, Anggara. (2024)	Mandela, Wennie., Sitepu, Corazon, Iyar. (2024)
Purpose	The purpose of this study is the higher quality, shorter lead times, less expenses, and better outcomes all stem from greater production.	The purpose of this study is to examine the wages structure used by construction businesses in areas with different levels of safety risk.	The purpose of this study is to finding the plastering productivity coefficient and comparing it to SNI 2837-2008.	The purpose of this study is to provide sufficient and reasonably priced housing in a safe, healthy, peaceful, and sustainable residential setting	The purpose of this study is to control or manage the practical use of human resources in a building project.
Output of Research	The output of this study is to understand variable and has a major impact on workforce productivity for this project.	The output of this study is findings provide insight into wage practices in the construction sector and how safety concerns are included into the wage structure.	The output of this study is to determine the productivity of the plastering work.	The output of this study is to cautious while paying the workforce's to ensure that the work is completed within the allotted time.	The output of this study is to understand construction project will be the subject of a time and cost analysis based on workforce productivity.

Source : Research Journal

The differences between previous and current research is about the *Analysis Of Decent Construction Workforce Wages Based On Law (UU)*. The objective on this research is to estimate a decent wage construction workforce based on needs and field conditions. With that all expected to create fair compensation in line with research findings in order to aid construction companies in adhering to workforce laws and regulations.

CHAPTER III

THEORETICAL BASIS

3.1 General

Wages are monetary compensation that workforce's receive in exchange for the time and effort they put into finishing a task. The basic needs as a clothes, food, house, social needs, and the urge to enhance one's quality of life while for a health, education, and savings are all necessities for workforce's. Based on ILO K95 Tahun 1949 Pasal 1,"In this Convention, the term wages means remuneration or income, however determined or calculated, can be in the form of money and determined by mutual agreement or by national laws or regulations, which must be paid based on the working contract written or unwritten by the company to the workforce for the work done or to be done performed or for services rendered or to be rendered." Productivity, on the other hand, measures the amount of production and efficiency that workforce's create over a specific time period. Present circumstances in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, where construction workforce's in this case study determine that their wage is insufficient to cover their living expenses and those of their families. Many construction companies currently pay un-decent wages, where low wage daily or contract workforce's encounter a mismatch between their wage and their Decent Living Needs (KHL), which puts pressure on them and has an economic impact.

Low productivity, un-fulfilled needs, and insufficient wage have a cyclical relationship that is harmful to all parties. Because decent wages enhance the productivity and sustainability of the construction sector overall in addition to benefiting workforce's. A comprehensive strategy including fair wage laws, better working conditions, and skill development for workforce's is needed to address

this issue. Many ways of various economic, social, and legal concepts are used in the basic theoretical explanation for determining decent construction wages and productivity. These concepts take into account the principles of efficiency and justice, as well as basic needs, productivity, and job risks. The concept or relationship chart used to explore the relationship between decent wages, Decent Living Needs (KHL), and productivity will be explained below as follows :

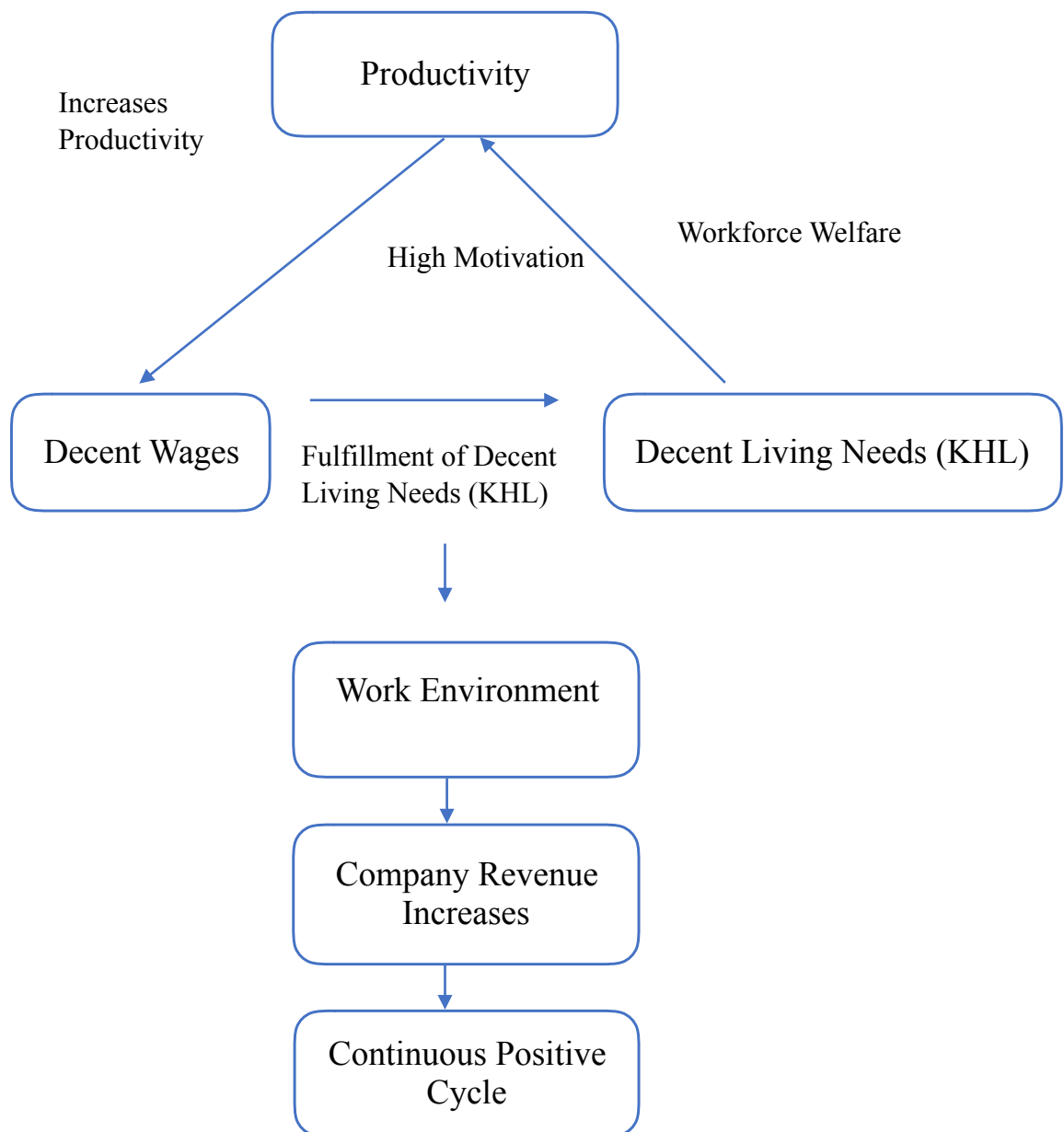


Figure 3.1 The Concept Relation Chart of Decent Living Needs (KHL), Productivity, and Decent Wages for Construction Workforces

Based on the concept relation chart of Decent Living Needs (KHL), productivity, and decent wages for construction workforce above, the conclusion was obtained that workforce's can meet their basic and secondary needs when their wages are rise. A sense of fulfillment and inspiration to work harder and more productively may result from this. When workforce's basic needs are satisfied, their physical and mental well being improves, which boosts productivity. On the other side, the construction company must guarantee that their workforce receive compensation that is decent for their contributions, work risks, and workforce market conditions by putting these theories into practice. Given how reliant on workforce in this industry is, productivity in the building work system is a crucial subject to comprehend. There is a reciprocal relationship between wages and productivity, which is mediated by a number of factors. The following some basic theories underlying the calculation of a decent construction wages and productivity are.

3.2 Decent Workforce Wages

Wages as agreed upon by an workforce and their company, are the wage for workforce in the private sector, for contractual agents in the public sector, and for civil servant job. Based on Pasal 1 Ayat 30 UU No. 13 Tahun 2003, "Wages are the rights of workforce received and expressed in the form of money as compensation from entrepreneurs or company to workforce which are determined and paid according to a work agreement, agreement or statutory regulations, including allowances for workforce and their families for a job or service that has been or will be performed." Hourly, monthly, daily, and other agreements between the company and workforce are just a few of the ways that wages can be paid. Wages can consist of several components, including:

1. Basic Wage: The primary wage component established by an agreement between the employer and workforce.

2. Fixed Benefits: Extra pay that workforce receive on a regular basis, such as food, transportation, and health benefits.

3. Non-Fixed Allowance: Extra compensation that is not set in stone and is granted based on specific criteria, like performance or attendance allowance.

Payment of wages is regulated in UU No. 13 Tahun 2003 Pasal 90 Ayat 1 and Ayat 2, (1)“Company are prohibited from paying wages lower than the minimum wage as intended in Pasal 89”, (2) “For company who cannot afford to pay minimum wages as intended in Pasal 89 suspension can be made”.

Wages have to be paid on schedule and in compliance with the collective bargaining agreement, company policies, or the work agreement. Wages must be paid on a monthly basis at the latest. Every time wages are paid, company are expected to provide pay stubs that include information about wages and deductions received by workforce. They are also required to pay wages that meet local minimum wage requirements. Supervision of the implementation of wage payments is carried out by workforce inspectors from the authorized government. If a violation is found, the supervisor can take action in accordance with applicable legal provisions. Sanctions for violation is regulated on UU No 13 Tahun 2003 Pasal 185 Ayat (1), “Any person who violates the provisions as intended in Pasal 42 Ayat (1) and Ayat (2), Pasal 68, Pasal 69 Ayat (2), Pasal 80, Pasal 82, Pasal 90 Ayat (1), Pasal 143, and Pasal 160 Ayat (4) and Ayat (7), worn the minimum prison sanction is 1 (one) year and the maximum is 4 (four) years and/or a fine of at least IDR 100,000,000.00 (one hundred millions rupiah) and a maximum of IDR 400,000,000.00 (four hundred millions rupiah)”.

Workforce wages in Indonesia are regulated in sufficient detail by law to ensure that workforce receive their rights and fair and decent wages. The importance of setting decent wages for workforce not only reflects justice and respect for workforce, but also affects the performance, productivity, stability of companies and society as a whole. In this below will explain in more detail the

reasons and other factors that encourage changes in the development of living wages, these several factors are as follows.

3.2.1 Minimum Wages Condition in Indonesia

The minimum wage, which is the lowest monthly wage that consists of principal and a fixed allowance set by the governor as a net safety, is what company are legally required to pay their workforce. Formal legal regulation of minimum wages in Indonesia implemented this in 1989 in the form of Permenaker No. 05/Men/1989 on 29 Mei 1989 regarding minimum wages, where a system was put in place based on the cost of living, the workforce market, and the minimum physical needs. To ascertain the amount of basic needs that workforce and their families must meet, a Decent Living Needs (KHL) Survey is conducted as part of the minimum wage determination process. Following the survey's completion, the findings will be discussed and recommendations regarding the minimum wage amount will be made by the Wages Council, which is composed of government representatives, business owners, workforce, and experts. The minimum wage has been legally regulated on PP No. 78 Tahun 2015 Pasal 3 Ayat (1), "Wage policies are directed towards achievement income that provides a decent living for Workforce." and based on PP No. 78 Tahun 2015 Pasal 3 Ayat (2), "Wage policy as referred to in Ayat (1) includes:

- a. Minimum wage;
- b. Overtime pay;
- c. Wages for not coming to work due to absence;
- d. Wages for not coming to work for doing it other activities outside of work;
- e. Wages for exercising the right to rest time work;
- f. Form and method of payment of wages;
- g. Fines and wage deductions;
- h. Things that can be taken into account with wages;
- i. Proportional wage structure and scale;

- j. Wages for severance pay; And
- k. Wages for income tax calculations.”

Meanwhile, the technical rules for implementation are regulated in the Regulation of the Minister of Manpower and Transmigration. In 1994, minimum wages were determined based on cost criteria consumption or Minimum Physical Needs (KFM). Through Permenaker No. KEP-81/MEN/1995, Minimum Physical Needs (KFM) change to Decent Living Needs (KHL) in the year of 2005, KHL was settled with Permenaker No 21 Tahun 2016 about Decent Living Needs, number of types of needs added by the government to 64 components. KHL can be reviewed within a period of 5 (five) years.

When determining the minimum wage, it is crucial to strike a balance, that it is not too low or too high. Regarding workforce wages categorize is arranged on UU No 13 Tahun 2003 Pasal 92 Ayat (1),”Employers prepare pay structures and scales taking into account class, position, length of service, education and competence.” and based on Undang-Undang Nomor 13 Tahun 2003 Pasal 92 Ayat (2),”Employers carry out regular wage reviews by paying attention to company capabilities and productivity.” If an industry is highly susceptible to price fluctuations, not productivity, then real wages tend to decline. As a result the minimum wage, which is used to gauge wage levels for specific target groups is not paid. The need for a physically decent life serves as the foundation for establishing the minimum wage. Because a minimum wage not only shows justice and respect for them, but it also has an impact on business performance, stability, and productivity as well as society at large.

3.2.2 Wages Gap

Differences in wages for construction workforce’s in Indonesia are influenced by various factors related to economic, social, geographical and regulatory conditions. Setting minimum wages has not yet had the best impact on closing

income gaps in Indonesia due to the country's dualistic working structure. Based on Permenaker No. 18 Tahun 2022 Pasal 5 Ayat (1),” Minimum Wage consists of :

- a. Provincial Minimum Wage
- b. Regency/city Minimum Wage.”

Aside from that, a sizable income disparity is another consequence of the decentralization policy, which results in variations in the Provincial Minimum Wage (UMP) established between provinces. This wage difference encourages migration from areas with low UMP to areas with high UMP. However, in regions with high UMPs, this workforce movement has not been accompanied by human resource capacity that can meet the demands of the workforce market. Based on Permenaker No. 18 Tahun 2022 Pasal 5 Ayat (2),” The minimum wage as intended in Ayat (1) is determined based on economic and working conditions.” As a result, low skilled workforce move into the unorganized sector. This circumstance is the reason Indonesia's minimum wage still has little motivation to close income disparities.

The implementation of minimum wages in developed countries is much simpler and more useful because the majority of the population is in the formal sector. Meanwhile, in developing countries, minimum wage policies have a positive effect on increasing wages, both in the formal sector and in the informal sector with a slight negative effect on overall working in the formal sector. Solutions to wages gap, including :

- a. The need for integrated policies
- b. The need for law enforcement
- c. Fiscal discipline
- d. Openness to international trade and poverty alleviation strategies
- e. Increasing monetary and non-monetary dimensions
- f. The need for inclusive growth patterns
- g. The need for private sector involvement in driving the economic transformation process

- h. The need for paying attention to the health and stability of a social contract that can provide guarantees for the poor
- i. Redistribution of resources must be directed at investment to improve people's welfare
- j. The need for the development of information technology.

The aforementioned factors frequently lead to the appreciation or denigration of construction workforce's. The majority of the wage disparity is between construction workforce's, whose occupational risks are quite high, and those in other industries, whose risks are significantly lower. There are currently no quantifiable differences between the two that can account for this.

3.2.3 Income Inequality in Indonesia

Income Inequality may result from variations in each region's natural resources and population. A disproportionate allocation of the nation's total income or a disparity in the wages earned by various groups within a society or organization are examples of income inequality. Since disparities in initial endowment factors between regions lead to inequality, its defined as the standard of living in relation to society. Each region's degree of development varies as a result of these distinctions. As a result, there is a gap or disparity in regional welfare. Thus, there are developed and underdeveloped areas in every region. The inequality in the construction sector in Indonesia can vary greatly depending on various factors, the factors that influence inequality in income distribution are :

1. Differences in Skills and Education.
2. Geographic Location
3. Job Types and Specializations
4. Work experience
5. Project Scale and Type
6. Market Conditions and Workforce Demand
7. Wage Regulations and Policies

8. Gender and Discrimination

In the simplest competitive model the measurement of inequality using parameters with an absolute value is known as absolute inequality. Comparing the amount of money received by an individual or group of individuals in society with the total amount received by society as a whole allows one to measure inequality in income distribution. This is known as relative inequality. Based on UU No 2 Tahun 2017 Pasal 68 Ayat (1),” Construction workforce are classified based on scientific fields related to Construction Services.” And based on UU No 2 Tahun 2017 Pasal 68 Ayat (2),” Construction workforce consist of qualifications in positions:

- A. Operator;
- B. Technician or analyst; and
- C. Expert."

There are notable disparities between the workforce markets of developed and developing nations as a result of Indonesia's minimum wage contribution to income inequality. Given that income inequality is initially very high in Indonesia, raising the minimum wage has a significant impact on lowering it there. Under certain workforce market conditions, such as in more developed nations, raising the minimum wage may have a much smaller impact on inequality and more detrimental effects on workforce. It is necessary to have a thorough understanding of Indonesia's inequality conditions in order to handle cases of inequality based on their unique circumstances.

3.2.4 Workforce Wages Development

The development of construction workforce wages in Indonesia is influenced by various economic dynamics, government regulations, social conditions that influence the construction sector, and workforce market factors. Wages for construction workforce may change over time. Based on PP No 36 Tahun 2021 Pasal 26 Ayat (1),” Minimum Wage Adjustment are Made Every Year.” Given the

state of the Indonesian economy at the moment, particularly in the construction industry, workforce wages show that raising the national minimum wage does not always have the effect of lowering the average level of income distribution in the country. Where a rise in the average national income distribution can have a positive impact on the growth of the national minimum wage. Based on PP No 36 Tahun 2021 Pasal 26 Ayat (2),” The adjustment of the minimum wage value is set at a certain range of values between the upper and lower limits in the relevant minimum wage area.”

On the other hand, the national average minimum wage may also be negatively impacted by the average national income distribution. In order to eventually boost effectiveness, rising wage growth must be balanced with the caliber of work. Based on UU No 11 Tahun 2020 Pasal 2,” Guarantee that every citizen obtains working receives fair, decent compensation and treatment in working relations.” This wage policy continues to develop to adapt to economic conditions, the need for a decent living, as well as changes in regulations that are more flexible, especially after the issuance of the UU Cipta Kerja (Omnibus Law). The purpose of putting these rules into effect is to safeguard workforce and promote a more equitable and sustainable construction sector.

3.3 Decent Living Needs (KHL)

Decent Living Needs (KHL) measures the basic needs of workforce’s, the minimal set of requirements that a workforce and his family must fulfill in order to lead a decent living. That is a crucial resource for figuring out minimum wage, particularly for workforce’s in the construction industry who face significant dangers and demanding physical workforce. Included in the Decent Living Needs (KHL) components for construction workforce’s are as follows :

- a. Food : The need for nutritious food to maintain physical health in hard work.
- b. Clothing : Work clothes that are suitable for field and weather conditions.

- c. Housing : A place to live that is safe, healthy, and close to work locations.
- d. Health : Access to health services, especially to prevent or treat work injuries.
- e. Transportation : Travel costs from residence to work location.
- f. Recreation and Savings : A means of entertainment to maintain mental balance.
- g. Education : Educational costs for workers' children.
- h. Other Needs : Work equipment such as helmets, safety shoes and protective clothing.

Based on UU No 13 Tahun 2003 Pasal 88 Ayat 4,” The government determines the minimum wage as intended in Ayat 3 (A) based on the needs for a Decent Living Needs (KHL) and taking into account productivity and economic growth.” The following is a Decent Living Needs (KHL) implementation that may be applied to construction workforce’s, as follows :

- a. Decent Living Needs (KHL) Component Survey :
 - 1) Measuring the price of goods and services needed by workforce’s.
 - 2) Conduct surveys in representative locations.
 - 3) Supervision from the government that causes and requires the government must ensure the implementation of a minimum wage that is in accordance with the KHL.
- b. Minimum Wage Calculation :
 - 1) Based on the Decent Living Needs (KHL) data obtained.
 - 2) Adjusts for inflation and economic growth.
 - 3) Living wage in accordance with Decent Living Needs (KHL) where it exists adjustment to local standards needs in areas.
 - 4) Adjustments based on productivity are possible to Increase workforce productivity to support wage increases.

As of right now, workforce’s frequently receive wage that do not align with Decent Living Needs (KHL). Even though their high physical workload and

need to meet greater calorie and nutritional requirements. This might result in a decline in production because of low motivation, unfavorable health, and social instability brought on by things like economic disparity between workforce's and business owners or company.

3.4 Productivity

The ability of a workforce to finish a specific amount of work in a specific amount of time with the anticipated degree of quality is referred to as productivity in the context of construction workforce's. In addition to the particular skills of workforce's, productivity is also influenced by outside variables including project management, working conditions, wage, tools, and work procedures. Based on UU No 13 Tahun 2003 Pasal 89 Ayat 2," The minimum wage as intended in Ayat (1) is directed at achieving the needs of a decent living." Stated differently, a construction project that exhibits a harmonious or balanced output to input ratio is considered to have high construction productivity. This ratio seeks to assess how well workforce, supplies, and machinery are used to create a project that is finished on schedule. Based on PP No 36 Tahun 2021 Pasal 34 Ayat (2)," Determination of minimum wages for districts or cities is carried out according to the calculation stages as intended in Pasal 26." This means that in general, work productivity can be the basis for determining an incentive wage system. The following factors that influence the productivity of construction workforce's are as follow :

- a. Workforce Welfare it includes fair wage that is set in line with the Decent Living Needs (KHL), workplace amenities like accessible transportation and health benefits to promote workforce's well being, safe working circumstances, all of which have a significant impact on workforce's spirits and vitality.
- b. Availability of Tools and Technology can be raised by using modern, effective equipment that help expedite tasks and lessen physical tiredness in workforce's. For instance, purchasing machinery and teaching workforce's

how to use items like skilled construction workforce's (bricklayer in this case) tools, concrete mixers, and modular building technology. Utilization of equipment like skilled construction workforce's (bricklayer in this case) tools or mortar sprayers.

c. Working Method productivity can be raised by using effective work practices, such as putting in place a modular work system or creating an ideal work schedule. Educating workforce's on new work practices contributes to higher productivity as well.

d. Work Environment such as work interruptions can be reduced by creating a comfortable working environment, which includes a secure workspace, enough ventilation, and shelter from inclement weather. This element is particularly crucial for construction projects that frequently take place outside. Therefore, it's essential to set up a comfortable and safe workspace as well as offering sufficient workspace, including rest places and personal protective equipment.

e. Project Management to prevent weariness, effectively manage your work and rest periods. Thus, Work efficiency is influenced by proper project management, which includes scheduling, task division, and communication. Good monitoring and supervision guarantee that workforce's stay focused on their work. Constantly available to oversee and keep an eye on workforce's to make sure they continue to be productive.

f. Workforce Abilities and Experience Workforce with the right skills for the job will finish tasks more quickly and accurately. Another important factor in raising construction workforce's skill is training and certification. In order to attract workforce's to participate in construction workforce certification, the conclusion is to offer training to enhance workforce's technical and managerial skills.

The environment, project management, work gear, and workforce welfare all have a significant impact on construction workforce productivity. Consequently, higher productivity helps the building project succeed overall in addition to

benefiting the workforce's. This is a crucial aspect of a project's success that needs to be considered.

3.5 The Relationship Between Decent Workforce Wages and Decent Living Needs (KHL)

The fundamental right of construction workforce's to be paid enough to cover their living expenses in compliance with the Decent Living Needs (KHL) requirements is known as a decent wage. Decent Living Needs (KHL) and living wages are closely related and have an impact on one another, particularly when it comes to construction workforce's. Based on UU No 13 Tahun 2003 Pasal 88 Ayat (1), "Every workforce has the right to obtain decent income a decent life for humanity." A fair wage system includes the relationship between living wages and Decent Living Needs (KHL), which directly affects the productivity and well being of workforce's. All things considered, Decent Living Needs (KHL) compliant wages promote socioeconomic stability, boost productivity, and guarantee workforce wellbeing. Based on UU No 13 Tahun 2003 Pasal 88 Ayat (2), "To create an income that fulfills a decent living for humanity as intended in Ayat (1), the government establish wage policies that protect workforce's." However, low wage hurts workforce's, businesses, and the construction industry overall. Thus, paying Decent Living Needs (KHL) compliant wages is a calculated move toward establishing a more equitable, effective, and sustainable workplace.

Construction work involves a lot of physical workforce, the accompanying explanations are meant to serve as a guide. Where top notch workforce's are drawn to the construction industry by Decent Living Needs (KHL) compliant wages. Given that construction work calls for specialized knowledge and expertise, this is significant. Both businesses and the government must be allowed to modify wage in response to inflation and Decent Living Needs (KHL)

adjustments. In addition, basic wages play a significant role in allowing businesses to offer extra incentives based on performance and productivity.

3.6 The Relationship Between Decent Living Needs (KHL) and Productivity

In the context of construction work, productivity and the demand for a Decent Living Needs (KHL) are strongly associated. Decent Living Needs (KHL) makes sure that workforce can take care of their basic necessities, which directly affects their social, emotional, and physical health. Their productivity at work is subsequently impacted by this. The following example provides a more thorough understanding of this such as, skilled construction workforce's (bricklayer in this case) is one type of construction task that demands a lot of physical activity. Based on Permenaker No 18 Tahun 2022 Pasal 7 Ayat (1),” Determination of adjustments to the value of the minimum wage as intended in Pasal 6 Ayat (1), may not exceed 10% (ten percent).” Sufficient Decent Living Needs (KHL) guarantees that workforce's consume enough food to sustain their physical strength and endurance. Put another way, workforce's who eat a healthy diet will be more productive and able to do tasks faster and with higher quality.

The failure to provide for basic needs frequently results in stress, which lowers productivity. Therefore, workforce's who have their needs addressed are more likely to be attentive, thorough, and productive. Based on Permenaker No 18 Tahun 2022 Pasal 7 Ayat (2),” In the event that the results of the calculation of adjustments to the value of the minimum wage as referred to in Ayat (1) exceed 10% (ten percent), the Governor shall determine the minimum wage with a maximum adjustment of 10% (ten percent).” Having enough Decent Living Needs (KHL) for each team member will boost productivity. The following implementation of a Decent Living Needs (KHL) and productivity that may be applied to construction workforce's, as follows :

a. Determination of Wages Based on Decent Living Needs (KHL), where a Decent Living Needs (KHL) survey is mandatory to be carried out in order to determine the decent standard of living for construction workforce's. The minimum wage must reflect the results of this survey, thereby ensuring workforce's basic needs are met.

b. Training and Productivity Improvement Programs should be prioritized apart from Decent Living Needs (KHL), because job training also supports increasing productivity by providing workforce's with additional skills. By creating a combination of living wages and training, it can create a more productive workforce.

c. Improving Working Conditions, such as supporting work facilities, for example modern work tools and a safe work environment, can increase the productivity of construction workforce's.

d. Providing Productivity based incentives based on the wage system provides additional incentives for workforce's, who are able to exceed work targets, which must still be based on Decent Living Needs (KHL) as the minimum wage.

This means that in general, productivity is one of the bases for determining wage increases. Conversely, workforce's who have unfulfilled needs often feel exhausted and do lower quality work. despite the fact that team productivity in construction is heavily reliant on individual performance.

3.7 The Relationship Between Productivity and Decent Wages

Particularly when it comes to construction workforce's, there is a relationship between productivity and decent wages that both impact and support one another. When workforce's receive a decent wage, they can better meet their basic needs, which enhances their physical and emotional health. Their field production is directly impacted by this. However, raising construction workforce's productivity

also serves as a rationale for paying them more. Based on PP No 36 Tahun 2021 Pasal 23 Ayat (1),” Minimum wage is the lowest monthly wage, namely :

- a. Wages without allowances or
- b. Basic wages and fixed allowances.”

The requirements for a good living, productivity, and economic expansion must all be considered while setting the minimum wage. The government must establish a legislative foundation for incorporating decent wages and productivity into the construction industry's wage structure. It is possible to strike a balance between these two factors with the correct rules, which will benefit both businesses and workforce's. Based on PP No 36 Tahun 2021 Pasal 36 Ayat (2),” Wages in micro and small businesses are determined based on an agreement between leader and workforce's in the company with the following provisions :

- a. At least 50% (fifty percent) of the average public consumption at the provincial level and ;
- b. The agreed wage value is at least 25% (twenty five percent above the provincial poverty line).”

One of the criteria used to assess wage regimes is work productivity. The following factors that influence the relationship between productivity and decent wages of construction workforce's are as follow :

- a. Decent Living Needs (KHL) which accounts for the necessities of workforce's and their families, is frequently used to determine decent wages. When Decent Living Needs (KHL) is fulfilled, workforce's can operate as efficiently as possible without thinking about their everyday demands.
- b. Project Management with effective arrangement, workforce's can work more productively without excessive workload. Productivity growth is frequently cited as a sign that incentives or compensation increases are warranted. A decent wage in good management is an investment for quality work results.

- c. Education and Training enhancing the abilities of construction workforce's through training leads to increased output, and a decent wage encourages workforce's to take part in training. When construction workforce's are paid a decent wage, they are more likely to be productive and want to grow, which boosts production and gives businesses the money they need to raise wages.
- d. Work Method and Technology for workforce can do their tasks more easily when they use contemporary equipment and techniques. Businesses are able to pay more competitively when productivity rises.

3.8 Characteristic Work Environment in Construction

It is important to remember that although decent wage and productivity research may have characteristic, to assess and determine fair and sustainable wages. To guarantee that the wages paid stay in line with shifts in Indonesia's economic, social, and workforce market conditions, research must be conducted meticulously and frequently. Research into decent workforce wages and productivity in Indonesia may have several characteristics, as explained below.

3.8.1 Project Location

Choosing a good construction project location is a crucial step that can influence the success and efficiency of the project. The project location must be easily accessible, this promotes workforce transportation and streamlines the distribution of equipment and building supplies. Enough land must be available to support the project and allow for future development if necessary. For the building's foundation and structure to be supported, the soil must also be suitable. Think about the surrounding environment's features, such as the likelihood of natural disasters, the weather, and other environmental effects. Make an effort to reduce adverse effects and consider environmental preservation.

3.8.2 Basic Infrastructure

Ensure that the project site is equipped with basic infrastructure such as electricity, clean water and sanitation systems. Think about the time and money needed to construct or upgrade basic infrastructure if it doesn't already exist. Locations need to have access to a sufficient number of workforce. Take into account the availability of workforce who possess the necessary training and credentials for the necessary construction tasks. The project site needs to be sufficiently secure. Consider aspects like crime, possible conflict, and workforce safety when assessing security risks.

3.8.3 Permits and Regulations

It is crucial to comprehend the rules and permits that are relevant to the project location. Verify that the project complies with all applicable building, environmental, and construction permit requirements. If the project is related to property or service development, consider market accessibility. A project's appeal to buyers or renters may be influenced by its strategic location. Think about future city planning and regional development plans, long-term advantages can be obtained from sites that are incorporated into city development plans.

3.8.4 Working System

A construction work system is a set of techniques, plans, and protocols used to complete construction projects effectively, safely, and in line with project goals. With this approach, workforce, tools, materials, time, and other resources are managed to produce the best outcomes within a specified time, cost, and quality range. In construction, there is a relationship between productivity and work systems that affects one another. While an ineffective work system might impair performance and efficiency, an effective one can boost workforce productivity.

3.8.5 Investment in Tools and Training

One key tactic to boost construction workforce productivity is to invest in workforce training and the purchase of contemporary construction equipment. Businesses have the right to raise workforce wages due to higher productivity, which benefits both enterprises and workforce's. Based on UU No 13 Tahun 2003 Pasal 12 Ayat (1),” Company are responsible for improvement and/or development competence of workforce's through job training.” Training tries to increase knowledge, abilities, and energy efficiency. Trained personnel are also more thorough, which lowers the possibility of expensive mistakes when performing construction activities. Based on UU No 13 Tahun 2003 Pasal 13 Ayat (1),” Job training is provided by government job training institutions and/or private job training institutions.” Company and the government are required to offer workforce's training to enhance their work abilities and to establish a national job training system that is competency based. The following are the types of training that are relevant and must be implemented, as follows :

- a. Technical Training for Bricklaying, casting and material management techniques and using of modern heavy equipment and tools. Workforce productivity boosts project efficiency by producing more high quality work.
- b. Project Management for Time and workflow efficiency, where businesses use increased productivity as a foundation for paying workforce's more in line with their contributions to the project.
- c. Occupational Safety and Health (K3) to Ensure work is carried out safely to reduce the risk of accidents.
- d. Digital Training are used for construction design software such as AutoCAD or project management tools.

There are some factors that remain crucial to a construction project's success even after training. This highlights the value of spending money on contemporary construction equipment since it can expedite the building process, enhance the caliber of the finished product, and lessen workforce weariness. The following of

the benefits of procuring modern equipment that are relevant and must be implemented, as follows :

- a. Time Efficiency for tools such as masonry saws, bricklaying robots, or automatic mixers speed up construction work. When using modern tools and receiving proper training, workforce's can do tasks up to two or three times faster than they might using more conventional ways.
- b. Increased Work Capacity: Modern tools allow workforce's to complete larger or more complex jobs. Businesses with knowledgeable workforce's and up to date equipment frequently secure large projects, which boost revenue. Workforce's can take on more complicated projects with the help of contemporary instruments, creating potential for higher wage.
- c. Reduction of Physical Load: Work tools help reduce fatigue, maintaining worker stamina to work more productively and this investment increases the competitiveness of the local workforce.
- d. Work Safety: Tools with high safety features reduce the risk of work accidents.

In the construction industry, investments in new equipment and workforce training not only boost productivity but also lay the groundwork for raising decent wages. An essential first step in enhancing workforce welfare, business competitiveness, and construction project efficiency in Indonesia is establishing the legal foundation for this strategy and investment.

3.8.6 Risks Construction Workforce

Risks to health, safety, and working conditions are considerable during construction, necessitating specialized staff and expertise. When deciding on fair wage for construction workforce's and creating plans to boost output, this risk needs to be one of the primary factors taken into account. Giving workforce's fair compensation while taking occupational hazards into consideration will encourage them to be more productive while preserving workplace safety. Based on UU No

13 Tahun 2003 Pasal 86 Ayat (1),” Every workforce has the right to obtain protection on :

- a. Occupational Health and Safety;
- b. Morals and decency; And
- c. Treatment in accordance with human dignity and dignity as well religious values.”

The following of the types of risks in construction work, as follows :

a. Safety Risks

Workplace accidents such as falling from a height, being crushed by material, or slipping, when using of heavy equipment the work of involving heavy equipment like, cranes, scaffolding or excavators has a high potential for accidents. The work in hazardous environments also includes working in confined project areas, close to electrical currents, or in locations with a risk of structural collapse.

b. Health Risks

Exposure to dust and chemicals such as, inhalation of cement dust, asbestos, or construction chemicals. The physical load like, Construction work often requires heavy physical activity, which can cause muscle injuries or long term health problems. For the stress and fatigue has the pressure of project deadlines can lead to mental and physical exhaustion.

c. Social and Economic Risks

Un-guaranteed welfare when the workforce’s who receive un-decent wages tend to have difficulty making ends meet, which can affect their performance and productivity. The job uncertainty also has many construction workforce’s are used on temporary contracts, with no guarantee of continued working.

Based on UU No 13 Tahun 2003 Pasal 87 Ayat (1),” Every company is required to implement a safety management system and occupational health integrated with the company management system.” With these rules, the steps

and recognition for reducing risk and increasing productivity can be explained as follows :

a. Work Safety Training

Regular training increases workforce's awareness of work hazards and how to prevent accidents. Providing decent wages can motivate workforce's to work more productively and focus on completing their tasks.

b. Provision of Personal Protective Equipment (PPE)

The use of PPE such as helmets, safety shoes, glasses and harnesses is mandatory to reduce the risk of injury. Investing in occupational safety training, personal protective equipment (PPE), and modern technology can reduce occupational risks, thereby increasing efficiency and productivity.

c. Improved Technology and Work Tools

The use of modern tools such as safe scaffolding, automatic mixers, or technology based safety devices can reduce work risks. Workforce's who feel safe and valued tend to be more productive because they have supportive working conditions.

d. Working Insurance

Companies are required to provide work accident insurance to protect workforce's if unexpected risks occur. High risk jobs should receive greater compensation to reflect the responsibilities and dangers workforce's face.

A tight association exists between productivity, decent wages, and occupational danger. High risk construction projects must be compensated according to the hazards that workforce's encounter. A productive and effective work environment can be achieved by paying fair wages, making investments in workplace safety, and lowering hazards with contemporary technology.

3.9 Company Revenue Increases

Construction is a sector that relies heavily on a productive and efficient workforce. The relationship between workforce productivity, decent wages,

decent living needs (KHL), and construction company profits is a reciprocal relationship. Wage increases may initially increase costs, but the positive effects of higher productivity and better quality of work will provide significant benefits in the long run. Projects completed faster and more efficiently increase a company's ability to take on more projects. Construction companies that are known to provide decent wages and have a productive workforce will be more sought after by large clients, increasing revenue. Establishing a work environment that benefits both workforce's and businesses depends in large part on the application of relevant laws and regulations.

3.10 Continuous Positive Cycle

When good wage, great productivity, and sufficient living standards all have a durable positive impact on one another, the result is a positive cycle in working relations in the construction industry that benefits workforce's, businesses, and the industry overall. Workforce's with decent wages are able to meet their Decent Living Needs (KHL), creating working conditions that are physically and mentally healthy. With basic needs met, workforce's are more focused, enthusiastic and efficient in completing tasks. High productivity increases project efficiency and quality, which has a positive impact on company profitability. Increased profits allow companies to provide wage increases or bonuses, which again improve workforce welfare. This relationship is a positive cycle that reinforces one another is created by the interaction between raising construction workforce's wages, addressing their basic requirements, and increasing production. Businesses may boost workforce productivity and improve their competitiveness in the construction sector by investing in workforce welfare and decent wage.

CHAPTER IV

RESEARCH METHODS

4.1 General

Data collection, analysis, and interpretation are critical components in ensuring that research is conducted in a methodical, objective, and consistent manner. One approach to solving the existing problem and creating a fair and sustainable working environment for the construction workforce is to calculate and analyze wages. One of the most important factors in a building project is productivity. Productivity levels impact expenses, time, and overall work quality, determining a project's effectiveness and success. In the construction work system, wages and productivity have a reciprocal connection. High productivity enables a business to provide higher wages, while decent wages promote more productivity. Meeting the necessities of a decent living leads to a rise in productivity and raising construction workforce's wages encourages positive synergy by focusing on their welfare through the application of relevant laws or regulations.

The purpose of this study is to determine how wage system, construction workforce wages, and ensuing productivity are related. Therefore the research approach is to offer a thorough understanding in order to make data based and practically applicable policy suggestions. Workforce that encounter a discrepancy between their wage and production are the subject of the study. A prototype study technique chart that can be used to talk about how construction workforce's wage are determined, particularly for skilled construction workforce's and the productivity that results under the Java and Bali Island wage structure is as follows.

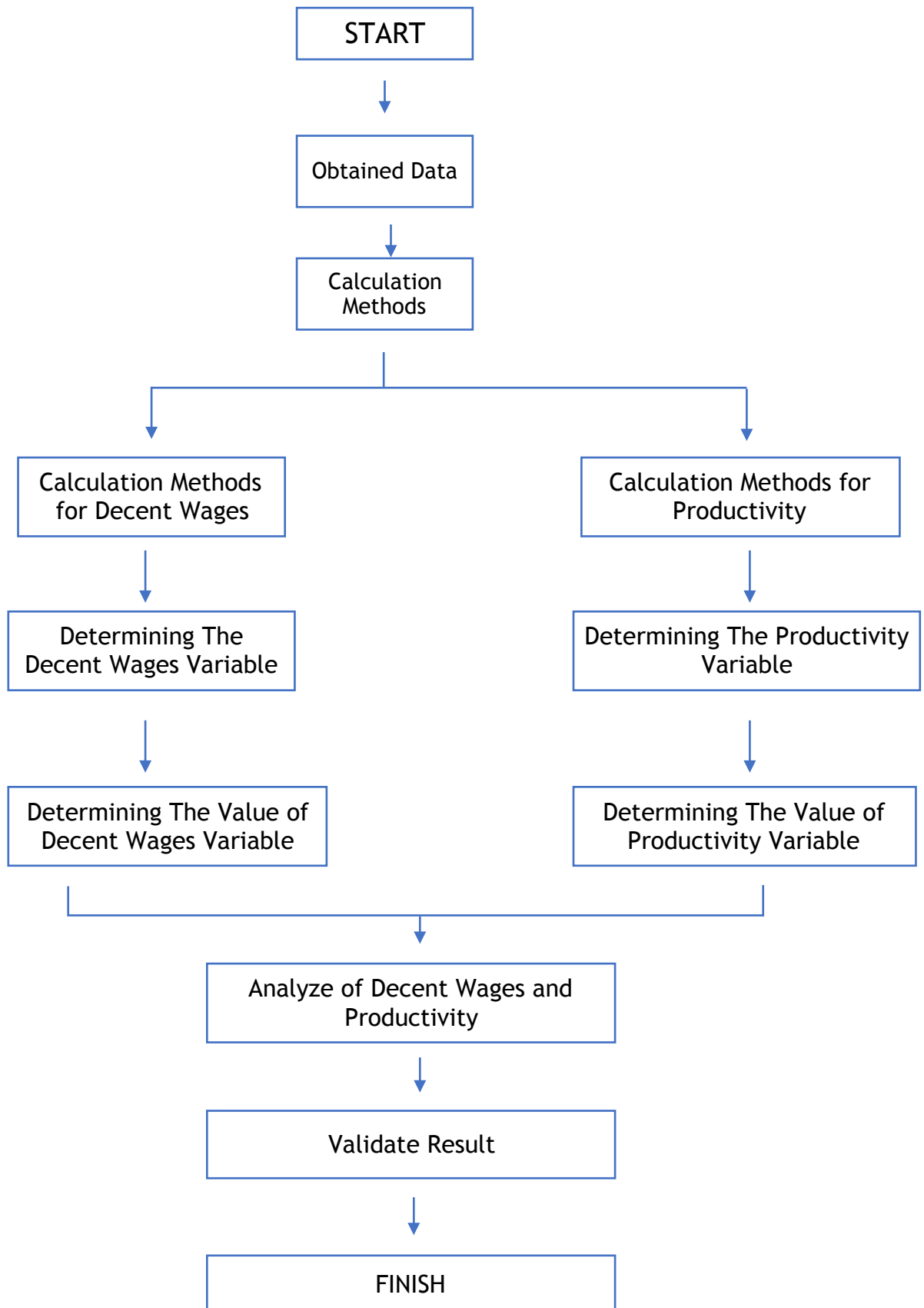


Figure 4.1 The Concept Chart of Calculating Decent Wages and Productivity for Construction Workforces

As a result, wages management needs to be done with a balance between workforce justice and project viability. One crucial component of workforce management is the connection between productivity and wages in the construction industry. The success of a construction project depends on how well workforce are compensated and how productive the project is. The following of some research techniques used to determine what constitutes a fair construction wages and productivity are.

4.2 Data Obtained

The process of gathering pertinent and reliable data in order to evaluate and calculate acceptable wages based on workforce market conditions, productivity standards, and living necessities is the data collection approach used to estimate appropriate compensation for construction workforce. Based on facts and supporting evidence, this approach seeks to generate equitable decisions. The main foundation in the research process this time is accurate data collection, the methods and procedures that will be used to collect data are as follows.

4.2.1 Observation

The purpose of the observation was to get a more complete picture of the phenomenon being studied. In this instance, the observation was conducted by looking through the documents and gathering sample data in order to extrapolate to more comprehensive findings. This can examine specific incidents or cases in a broader context.

4.2.2 Interview

After conducting an observation to gather quantitative data, in-depth interviews were conducted to ascertain the reasons behind the data. Choose the issue or query that needs to be investigated or resolved. The stakeholders involved in the direct dialogue to determine the current state of fair wages to establish a

sustainable and equitable work environment for construction workforce are the pertinent parties to be interviewed. In order to comprehend the data that has been gathered, the interview results are obtained through qualitative analysis.

4.2.3 Questionare

Using the findings of the research analysis, formulate answers and conclusions. by researching a social group or culture in its natural setting. In order to test and analyze the cause and effect relationship between two or more variables using controls to infer cause and effect, that responses are crucial. For example, collecting quantitative data by surveying the workforce.

4.2.4 Document Reference

Document reference are a variety of official, legal, and educational sources that are used to gather pertinent data, information, and guidelines regarding wage systems in order to determine appropriate construction workforce wages. These documents serve as the foundation for making sure that wage calculations are made in compliance with market conditions, legal requirements, and workforce' s reasonable living standards such as UU Ketenagakerjaan or government regulation on wages.

4.3 Calculation Methods

A multidimensional approach that takes into account living needs, productivity, skills, regional minimum standards, and particular work conditions is one of several approaches used to calculate decent construction workforce wages. The calculation technique is essentially a set of steps for actions taken to gather information and analyze an activity, in this case figuring out the decent wages and productivity of construction workforce's. Many other factors are also taken into consideration. The following some common methods used to calculate fair wages and productivity for construction workforce are.

4.4 Calculation Methods for Decent Wages

In order to balance workforce welfare and business sustainability, the calculation method for determining a decent wage for construction workforce's is a methodical approach to figuring out how much money should be paid in accordance with workforce's decent needs, the resulting productivity, and industry standards. Decent Living Needs (KHL), productivity requirements, the nature of the working, the degree of risk, and workforce market conditions are some of the elements that are taken into consideration when determining a decent wage. To provide data based and realistically applicable policy recommendations, this research technique aims to give a thorough understanding of the relationship between wages, productivity to calculate fair wages for construction workforce are.

4.4.1 Determining The Decent Wages Variable

Determining variables to assess a decent wage for construction workforce encompasses a wide range of elements, including living expenses, necessities, workforce market conditions, and workforce competencies. In order to gather the data required to carry out further research on factors that are frequently taken into account when determining a fair wage for construction workforce, activities toward a process or object are observed or perceived with the goal of feeling and then understanding knowledge of wage variables based on previously known knowledge and ideas. The following some variable used to calculate fair wages construction workforce are.

4.4.1.1 Decent Living Needs (KHL)

The workforce and his family's living expenses must be covered by a living wage. This covers necessities like food, housing, transportation, health care, and education. Geographical location may have an impact on the cost of living. Therefore, variations in the cost of living across provinces or regions must be

taken into account when calculating a fair wage. The risks and working conditions in the construction industry should be reflected in a decent wage. Workforce who perform high risk or specialized work may be eligible for greater paying wages.

4.4.1.2 Minimum Wage Regulations (UMR)

Find out if there are laws or rules that set minimum wages for workforce in the construction industry. These laws, which differ from one area to another, may serve as the foundation for figuring out what a decent wage is. More skilled and experienced construction workforce typically earn more money. Setting wage levels may be influenced by the degree of expertise and specialization required for a given position. Wages may be impacted by the degree of competition in the construction workforce market. Wages typically rise when there is a greater demand for workforce than there is supply. Paying fair wages can demonstrate a company's dedication to the well being of its workforce and the community.

4.4.1.3 Economic Conditions

Overall economic conditions can have an impact on wage rate in a number of industries, including construction. Wages tend to increase when the economy is growing, additionally, the rate of inflation must be taken into account. To prevent workforce purchasing power from being diminished, a fair wage must be able to keep up with inflation. It is also necessary to take into account the company's financial capabilities and capacity. It is crucial to develop a comprehensive and long term strategy for figuring out decent wages that considers range of variables to guarantee that workforce are paid according to their needs and contributions.

4.4.1.4 Work Environment

The construction work environment is the physical, social and psychological place or situation where construction workforce carry out their duties. This environment includes aspects such as project location, working

conditions, relations between workforce, and safety, health standards and etc. A good construction work environment reflects a combination of physical, social, and psychological factors that support workforce safety, comfort, and productivity. Continuous improvement efforts are needed to ensure construction workforce can work optimally and are protected from existing risks.

4.4.2 Determine The Value of Decent Wages Variable

Determining variable values for a decent wage for Indonesia's construction workforce entails examining a number of variables that affect acceptable living standards and working conditions in the industry. Food, housing, clothing, education, health care, and transportation expenses are all covered by the basic component known as Decent Living Needs (KHL). Every workforce needs to be able to reach the Decent Living Needs (KHL) minimum.

The workforce's qualifications and the job's degree of difficulty are also crucial. Where the amount of wages is influenced by the degree of responsibility and difficulty of construction work. Additionally, workforce with specialized certifications or more experience typically make more money. It should come as no surprise that wages are influenced by the length of time and the conditions of work. It may differ based on the nature of the work, including weather, working hours, and safety hazards, as well as whether the position is temporary or permanent.

Because urban and rural areas have significantly different cost of living, Regional Considerations modifies weights according to geographic location. Due to the higher cost of living, wages in large cities are typically higher than those in rural or isolated areas. Wages for commercial or large infrastructure projects might be higher than those for straightforward residential projects. The central and regional governments' minimum wage standards, as well as laws pertaining to respectable working conditions in the construction industry, are among the standards and regulations that the government also pays attention to.

This method of computation is crucial for developing a productive and equitable wage system, particularly in the construction industry, which plays a major role in economic growth.

4.5 Calculation Methods for Productivity

Productivity is typically measured in terms of the amount of work done in a certain amount of time, such as the amount of work done in a given day. One crucial instrument for assessing workforce performance in the field is the construction workforce productivity calculation method. The purpose of this measurement is to assess workforce performance and find methods to increase productivity without adding to workload or working longer hours. The efficient use of workforce can be guaranteed by project management through the use of techniques like simple computations, direct observation, or man hour ratio analysis. The following some common methods used to calculate fair productivity for construction workforce are.

4.5.1 Determining the Productivity Variable

The effectiveness of workforce, materials, and other resources in generating a specific result is measured by productivity. Productivity is frequently used as a measurable variable in research settings to examine performance and the impact of different elements like wage, training, or work practices. It can comprehend and examine productivity as a crucial aspect in your thesis research with the help of this explanation. The following some variable used to calculate fair productivity construction workforce are.

4.5.1.1 Calculation of Productivity

This study offers an example of how construction workforce's might become more productive with a fair wage system. By using this method, business owners in the construction industry may create more equitable and effective wage

plans that also support the wellbeing of their workforce's. Finding out how productive construction workforce are currently the goal of this study. Also describing how workforce productivity is calculated following the implementation of a decent wage in order to evaluate the connection between workforce productivity and the wage structure.

4.5.1.2 Analyze of Productivity

The purpose of this method is to examine how wage system, workforce productivity, and workforce welfare are related. In order to determine construction workforce productivity level. It is able to assess how the wage system affects workforce productivity in order to make suggestions for a better compensation structure that will boost workforce welfare and productivity. All things considered, this study shows that raising construction workforce wage to meet their reasonable decent standards benefits not just the workforce's well being but also the overall productivity and efficiency of the project.

4.5.1.3 Increase of Productivity

The estimate of productivity increases brought about by the wage system will be thoroughly examined in this study. That the computation of the rise in construction workforce productivity as a result of higher wages may be examined. Determine the elements that affect productivity in a system of decent wages, allowing it to make recommendations for wage policy that would enhance workforce welfare and the effectiveness of building projects.

4.5.1.4 Working Method to Increase The Productivity

Finding efficient teaching strategies to boost workforce productivity in conjunction with the establishment of a decent wage system is the goal of this study. By figuring out how to improve construction workforce productivity. Conduct an investigation of how putting in place a decent wage system affects

working practices in order to offer suggestions for maximizing the productivity of construction workforce's. It is advised that a productivity based wage structure be put in place, together with technology support and skill development.

4.5.2 Determine The Value of Productivity Variable

Productivity has multiple variables in numerous research. One of them is a dependent variable that is affected by other variables, such workforce wage, where it is commonly believed that raising wages will boost motivation and hence productivity. However productivity may occasionally be an independent variable that affects other outcomes, such as project benefits, where a higher level of productivity speeds up project completion and lowers overall costs. High productivity driven wage rises can serve as a foundation for compensation increases. Intervening Factors Another way to think of productivity as a intermediary variable, for instance, in the connection between raising project quality and workforce training.

4.6 Analyze of Decent Wages and Productivity

Analyzing decent wages for construction workforce in Indonesia requires a comprehensive approach to ensure that wages set can meet the needs of a decent living, are in line with workforce skills, responsibilities, and are fair throughout Indonesia. The purpose of this study is to examine how rising decent wages and construction workforce productivity are related. Pinpoint elements that contribute to higher productivity under a fair wage regime. In order for it to offer suggestions for wage structures that encourage the highest levels of production.

4.6.1 Analysis of Decent Living Needs (KHL)

The first step in this analysis is gathering information on Decent Living Needs (KHL) across different regions. KHL pays for necessities like clothing, food, housing, health care, education, and transportation. Variations in KHL

between provinces and between urban and rural areas must be taken into account in the analysis. For instance, living wages in Jakarta and Yogyakarta will differ due to the higher cost of living in the former. Adjust as necessary to account for inflation and periodic shifts in the cost of necessities.

4.6.2 Evaluation of Regional Minimum Wages (UMR)

Compare the pay for construction workforce to each region's minimum wage. Although the UMR serves as a fundamental benchmark for minimum wages, it might not accurately represent a living wage in the construction industry. examination of construction firms' adherence to the relevant UMR. Wage injustice and inequality may result from noncompliance.

4.6.3 Assessment Based on Job Complexity, Judgment, Experience, and Qualifications.

Sort construction tasks according to their degree of responsibility, risk, and difficulty. For instance, the skills and responsibilities of technicians, supervisors, handymen, and manual workforce vary. Establish a fair wages for each job category by taking into account elements like specialized training, credentials, and prior work experience. The experience level of the workforce should determine the tiers of wages. Workforce with more experience or specialized skills should be paid more.

4.6.4 Analysis Based on Location and Project Type

Wages must be modified to reflect the cost of living at the project location, because of the higher cost of living and logistical challenges, projects in remote locations might need more funding. The type of project can also affect wages (example : small residential projects vs. large infrastructure projects). Greater wages may be available for larger or more complicated projects.

4.6.5 Workforce Market Competition

Examine the workforce market to determine how supply and demand impact construction industry wages. High demand can drive up wages during a period of development boom. Wages are also impacted by workforce migration between areas or industries. For instance, workforce switching from agriculture to construction might be looking for better wage.

4.6.6 Evaluation of Social, Economic Impact and Use of Quantitative and Qualitative Research Methods

Examine how wages affect workforce and their families access to housing, healthcare, and educational opportunities. Good wages can lower absenteeism and workforce turnover while also boosting workforce motivation and productivity. Utilize survey and interview techniques to gather firsthand information from construction workforce regarding their opinions of their wages and whether it covers their basic expenses. Analyze quantitative data about wages, KHL, and other variables using statistical methods.

4.6.7 Consultation With Stakeholders and Implementation Assumptions

Involve the government, workforce associations, and trade unions in the conversation to make sure that everyone involved accepts the findings of the living wage analysis. To make sure the analysis complies with regional and national policies, review the current government regulations pertaining to the wages of construction workforce. Encourage the adoption of recommendations in employment contracts between company and workforce or at the regulatory level.

4.7 Validate Results

Validation of decent construction workforce wages in Indonesia is a crucial step in ensuring that the wages set reflect the living needs of workforce and the state of the workforce market. Numerous techniques and strategies are

used in this validation process, which also involves a number of stakeholders. The wages must be sufficient to cover the workforce and their families decent living needs (KHL). This validation is done by contrasting KHL, which is determined by the cost of necessities in particular locations, with the actual wages that the workforce receives. Wages for construction workforce are sometimes in line with the UMR, but other times particularly in rural areas they are still less than the relevant UMR. This shows a violation of the rules, which needs to be fixed right away.

Workforce who receive fair compensation are more motivated and typically remain with a company longer. Regulations pertaining to wages and working conditions are still not entirely followed by some businesses. Stricter law enforcement and improved oversight by the appropriate authorities are required. Validation of appropriate wages for construction workforce in Indonesia shows that there are still gaps and issues that need to be resolved in spite of efforts to set fair wages. In many places, particularly those with high cost of living, wages still fall short of the KHL. Furthermore, there are notable variations in wage according to job complexity and location.

The conclusion of the research method used in this case study is a systematic method or approach used to collect, analyze and interpret data in order to answer research questions or achieve certain goals. In the computational context of academic research, research methods include a variety of procedures designed to produce valid and reliable findings. The following are the steps used from data collection, calculations to conclusions in compiling this case study. These steps for the final chart are as follows.

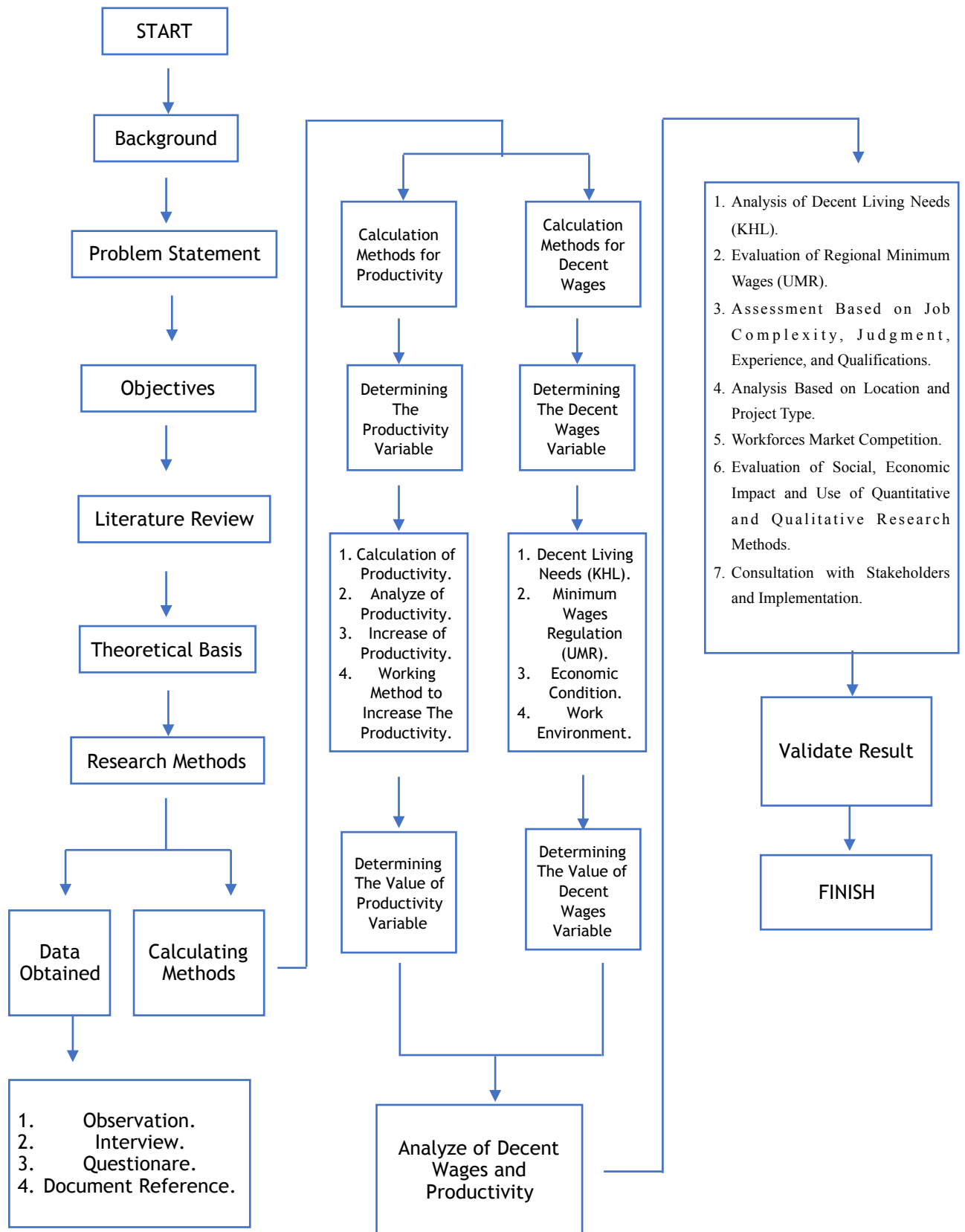


Figure 4.2 The Concept Chart of Final Step Calculating Decent Wages and Productivity for Construction Workforces

CHAPTER V

RESULT AND DISCUSSION

5.1 General

Wage levels in a number of industries, including construction, can be impacted by general economic conditions. Wages tend to increase when the economy is growing. It is also necessary to consider the rate of inflation. A fair wages must be sufficient to cover the living expenditures of the workforce and their families in order to keep inflation from decreasing the workforces purchasing power. A decent wage ought to take into account the dangers and working conditions present in the construction sector. Workforce who engage in specialized or high risk profession may be eligible for higher compensation.

Particularly when it comes to workforce wages, the connection between productivity and wages in the construction work system is a significant factor that frequently garners attention. In addition to being crucial for workforce welfare, the wage productivity connection in construction also plays a role in project success and business viability. Because workforce feel valued for their contributions, wage increases typically boost workforce motivation. Workforce may be inspired to perform harder and more productively as a result. In the meanwhile, the link between wages and productivity may be impacted by wage disparity in the construction industry. Morale can be affected by low wage workforces feeling unfairly contrasted to their higher paid workforces. This happens when wages are not linked to output or productivity, workforce' s motivation can decrease because they do not see a direct connection between their efforts and financial rewards.

However, the company's financial ability and competencies must also be considered. Good wages must be in line with the company's financial capabilities in order to guarantee business sustainability. Involving the workforce and unions

in the process of defining living wages can lead to more responsible and equitable decisions. Now, the following comparison list of Regency Minimum Wages (UMK) and construction workforce for 2024 in 6 Indonesian Regency's, which have been regulated and determined by the current government are mentioned on the picture below.

Table 5.1 The Comparison List of Regency Minimum Wages (UMK) and Minimum Wage of Construction Workforce

No	Provinces	UMK (2024)	Productivity	Minimum Wage of Construction Workforce's 2024	Productivity
1	Malang Regency	Rp. 3.368.275,00	6 m2	Rp. 4.000.000,00	8 m2
2	Badung Regency	Rp. 3.318.628,06	6 m2	Rp. 5.250.000,00	12 m2
3	Denpasar City	Rp. 3.096.823,00	6 m2	Rp. 4.725.000,00	10 m2
4	Yogyakarta City	Rp. 2.492.997,00	< 6m2	Rp. 3.850.000,00	8 m2
5	Tulungagung Regency	Rp. 2.320.000,00	< 6m2	Rp. 3.150.000,00	6 m2
6	Sleman Regency	Rp. 2.315.976,39	< 6m2	Rp. 3.500.000,00	8 m2
	Total of 6 Regency's	Rp. 16.912.699,04		Rp. 24.475.000,00	52 m2
	Average of 6 Regency's	Rp. 2.818.783,00		Rp. 4.079.167,00	8.67 m2
	Average of 25 Data Sample			Rp. 3.946.000,00	8.32 m2

Source : artikel.rumah123.com

What is the basis for selecting these 6 Regency's as areas for collecting observation data? The selection of observation areas in data collection is based on several considerations such as, Relevant problem in the region where the region has real problems that are in accordance with the focus of data collection and availability of the data accessibility or experience of researcher proximity to location, where researchers have easy access to data or field information from the area and researchers already understand the social, economic, and construction conditions in the area. **Where do productivity figures come from?** Differences

in productivity figures for workforce in each area can be caused by many factors such as, level of skill and experience of the workforce, where more skilled and experienced workforce's tend to be faster and neater in their work. The applicable wage system and project supervision management also have an effect where projects with neat management, clear work schedules, and routine supervision tend to have high workforce productivity. While without supervision, workforce's can work as they please and inefficiently.

Based on the data on the table above, the average wage for 25 skilled construction workforce's from the 6 sample Regency's (Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency) is Rp. 3.946.000,00. From that condition, only 3 (50%) of the 6 sample Regency's meet or are greater than the average standard wage for the 6 Regency's. It can be concluded that the standard wages for workforce in Indonesia are currently still far from decent, while the work risks are categorized as very high. This problem is a very important factor and this is the root of the source of construction project success, namely is the construction workforce. The government and companies must work together to create justice for construction workforce's.

Why use the average wage value from 25 samples instead of 6 Regency's? because the average wage value from 6 Regency's with a sample of 25 construction workforce's is determined based on the number of samples, not the number of regency. The average is calculated as the total amount of wages obtained from all samples divided by the number of samples taken. In this case, the data collected comes from individual workforce's, not from the regency as the main unit of analysis. Each regency also has a different sample size. Using the number of regency as a divisor will not reflect the actual average value because it does not consider the distribution of sample numbers from each district. Therefore, **is there a law or regulation to determine or establishes a minimum wage for construction workforce?** Laws and regulations related to construction

workforce wages have an important role in creating a balance between workforce's rights, company interests, and the stability of the construction sector. These guidelines may vary according on the area and can be used as a basis for determining a decent wages. Construction workforce with greater training and experience make higher money. The level of experience and specialty needed for a particular role may have an impact on wage setting. The level of competition in the workforce market for construction may have an effect on wages. When there is a higher demand for workforce's than there is supply, wages usually increase. Maintaining sustainability and corporate social responsibility (CSR) may be considered. A business can show its commitment to the welfare of its workforce and the community by paying fair wages.

5.2. Obtaining Example of The Case Data

The obtaining data method based on the personal observation and calculation. This approach to data collecting guarantees that judgments regarding the wages of construction workforce are backed by factual information and analysis rather than merely conjecture. By using that's method, you can make sure that the wages of construction workforce are more accurately analyzed and pertinent to the working environment. The following techniques and protocols will be used to gather data are.

5.2.1 Observation Sample of The Case Data

Primary data on the comparison of construction workforce wages and opinions on the Java and Bali Island wage structure were gathered through the observation method. Direct observation of job activities, productivity, and wage trends are all part of this observation process. The explanation of the observation method that can be applied are fully explained in the following :

a. The Purpose of The Observation

- 1) Being aware of the real wages and working conditions for Java and Bali Island construction workforce.
- 2) Examine the connection between workforce productivity and wage levels.
- 3) Determining the elements that affect in Java and Bali Island for construction workforce' s wages structure and productivity.

b. Observational Scope

- 1) Location : Construction workforce working on a construction project in Java and Bali Island.
- 2) The subjects of the observation : Construction workforce.

This observation method can see data directly from the field and provide a real picture also making it possible to see a direct relationship between wages and productivity. Be a strong basis to support the conclusions of this case regarding wages for construction workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency.

5.2.2 Interview Example of The Case Data

The interview method was used as the primary strategy to gather thorough and pertinent data about the wages comparison for construction workforce in Java and Bali Island. This approach enables researchers to gather detailed data and obtain firsthand accounts from different stakeholders in the construction wage system. A detailed explanation of the interview based data gathering approach is provided below :

a. The Purpose of The Interview

- 1) Recognize, how developers, contractors, and construction workforce view the current wages structure.
- 2) Determine the elements that affect wages disparities.
- 3) Analyze, how wages increases affect workforce productivity.

- 4) Gather suggestions from relevant parties to enhance Java and Bali Island for wages structure and productivity.
- 5) Analyze the relation of increasing wages and productivity based on economic point of view.
- 6) Analyze the relation of increasing wages and productivity based on law point of view.

b. Interview Informant

- 1) Construction Workforce
- 2) Workforce with various levels of experience (beginner to expert) or workforce who work on small to large scale construction projects.

- 3) Contractor, Developer or Project Owner

Contractor or project manager responsible for payroll, the party responsible for the budget and management of the construction project.

- 4) Local government

Representatives from the Manpower and Transmigration Service (Dinas Tenaga Kerja dan Transmigrasi), who have data and policies on minimum wages and working conditions.

- 5) Construction Observer or Expert

Academics or practitioners who have in depth insight into the wage system in the construction sector.

- 6) Economic Observer or Expert

Academics or practitioners who have in depth insight into the wage system based on economic point of view.

- 7) Law Observer or Expert

Academics or practitioners who have in depth insight into the wage system based on law point of view.

This method is to ensure that decisions about construction workforce wages are not simply based on assumptions, but are supported by objective facts and analysis. Expected are to provide in depth insight to support the conclusions

of this case and provide practical solutions for stakeholders in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency.

5.2.3 Questionnaire Example of The Case Data

To support research on un-decent construction workforces wages in Java and Bali Island, the data collection method using a questionnaire are to obtain valid and comprehensive information from various related parties. The following purpose of the data collection method via questionnaire are :

- a. Obtain direct perception data from construction workforces, contractors, and project owners regarding the wage system.
- b. Identify factors that influence wage and productivity gaps.
- c. Collect quantitative data to compare actual wages with decent wages.
- d. Assess the impact of wage changes on construction workforce productivity.

This method provides many respondents in a relatively short time, with respondents who can easily give honest answers without pressure. These results can be used for quantitative and qualitative analysis as a comprehensive view of wage comparisons, perceptions of the workforce, and their relevance to Decent Living Needs (KHL) and work productivity in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency.

5.2.4 Document Reference of The Case Data

Data collection through reference documents are to support research regarding wages for construction workforce in Java and Bali Island. This method relies on secondary data originating from official documents (UU, PP, ILO, Permenaker, Permendikbud, Permen PUPR, Perbup), research reports and relevant literature. The purpose of following data collection methods through reference documents are :

- a. Understand the wage policies that apply in Java and Bali Island.
- b. Comparing construction workforce wages with local minimum wages.
- c. Assess the relevance of the proposed wage with Decent Living Needs (KHL).
- d. Identifying the influence of the wage system on workforce productivity.

This method helps provide a comprehensive picture of the comparative wages of construction workforce in Java and Bali Island and supports analysis of wage systems that are relevant to current developments. The data comes from official and trusted documents does not require direct interaction with respondents, it is more efficient. with this method it is also possible to use historical analysis for policies in the wage system.

Based on the explanation above, data obtained is the first and most important step in the research process, regardless of the type of research being conducted. Data obtained involves collecting, measuring, and analyzing information about a particular subject and is used by businesses to make informed decisions. Meanwhile, the obtaining data on this research is taking from 25 construction workforce who is working in difference Regency in Java and Bali Island. **Why taking many examples?** Because, for a study or survey to produce accurate, representative, and trustworthy data. The more data the more stable the average calculation, the less the impact of extremes or outliers, and the smaller the margin of error. Several samples must be taken more likely it is that the research results will accurately reflect the characteristics, because it is not restricted to certain conditions. The precise data obtaining will serve as the primary pillar of the research process. Now, the average Decent Living Needs (KHL) from observation based on the condition in the field already taken. Sample of the data collected are taking from Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency. The table of result for personal observation Decent Living Needs (KHL) for construction workforce's are mentioned in the picture below.

Table 5.2 The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation

The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation																			
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week)	Cloths (per week)	Housing (per week)	Education (per week)	Health (per week)	Transportation (per week)	Recreation and Saving (per week)	Needs (per month)	Real Wage (IDR)	Average Real Wage (IDR)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 105.000	IDR 350.000	IDR 6.000	IDR 105.000	IDR 125.000	IDR 45.000	IDR 1.086.000	IDR 4.725.000	10 m2
2	Ahmad Sodikin	38	7	SD	Sieman	YES	1	2	Bricklayer	IDR 350.000	IDR 60.000	IDR 200.000	IDR 9.500	IDR 50.000	IDR 120.000	IDR 15.000	IDR 804.500	IDR 3.500.000	8 m2
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3	Bricklayer	IDR 400.000	IDR 50.000	IDR 255.000	IDR 10.000	IDR 50.000	IDR 100.000	IDR 20.000	IDR 885.000	IDR 3.850.000	8 m2
4	Supriyanto	44	10	SD	Sieman	YES	1	3	Bricklayer	IDR 350.000	IDR 60.000	IDR 200.000	IDR 12.000	IDR 65.000	IDR 100.000	IDR 17.500	IDR 804.500	IDR 3.500.000	8 m2
5	Ketut Anawa	36	5	SMK	Denpasar	NO	1,35	-	Bricklayer	IDR 250.000	IDR 68.000	IDR 200.000	IDR 3.000	IDR 75.000	IDR 450.000	IDR 40.000	IDR 1.086.000	IDR 4.725.000	10 m2
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2	Bricklayer	IDR 400.000	IDR 64.000	IDR 350.000	IDR 7.000	IDR 100.000	IDR 130.000	IDR 35.000	IDR 1.086.000	IDR 4.725.000	10 m2
7	Pitu Astika	28	6	SMK	Badung	NO	1,5	-	Bricklayer	IDR 300.000	IDR 100.000	IDR 200.000	IDR 6.500	IDR 55.000	IDR 450.000	IDR 95.000	IDR 1.206.500	IDR 5.250.000	12 m2
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3	Bricklayer	IDR 450.000	IDR 104.500	IDR 350.000	IDR 12.000	IDR 100.000	IDR 155.000	IDR 35.000	IDR 5.248.275	IDR 5.250.000	12 m2
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2	Bricklayer	IDR 350.000	IDR 57.000	IDR 250.000	IDR 8.000	IDR 100.000	IDR 100.000	IDR 20.000	IDR 885.000	IDR 3.850.000	8 m2
10	Agus Haryadi	31	6	SMP	Sieman	YES	1	1	Bricklayer	IDR 300.000	IDR 50.000	IDR 275.000	IDR 7.000	IDR 50.000	IDR 100.000	IDR 22.000	IDR 804.000	IDR 3.500.000	8 m2
11	Eko Setiawan	43	9	SD	Sieman	YES	1	4	Bricklayer	IDR 350.000	IDR 50.000	IDR 200.000	IDR 13.000	IDR 50.000	IDR 125.000	IDR 16.500	IDR 804.500	IDR 3.500.000	8 m2
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-	Bricklayer	IDR 150.000	IDR 50.000	IDR 150.000	IDR 4.000	IDR 50.000	IDR 300.000	IDR 20.000	IDR 724.000	IDR 3.150.000	6 m2
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2	Bricklayer	IDR 400.000	IDR 105.000	IDR 230.000	IDR 8.500	IDR 55.000	IDR 100.000	IDR 21.000	IDR 919.500	IDR 4.000.000	8 m2
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1	Bricklayer	IDR 275.000	IDR 60.000	IDR 205.000	IDR 4.000	IDR 65.000	IDR 100.000	IDR 15.000	IDR 724.000	IDR 3.150.000	6 m2
15	Muliadi	29	6	SMP	Sieman	NO	1	-	Bricklayer	IDR 200.000	IDR 46.000	IDR 130.000	IDR 3.500	IDR 45.000	IDR 350.000	IDR 30.000	IDR 804.500	IDR 3.500.000	8 m2
16	Ahmad Lailu	32	9	SMP	Sieman	YES	1	-	Bricklayer	IDR 200.000	IDR 52.000	IDR 175.000	IDR 5.000	IDR 52.000	IDR 300.000	IDR 20.000	IDR 804.000	IDR 3.500.000	8 m2
17	Samsul Bamadan	25	7	SMA	Tulungagung	NO	0,9	-	Bricklayer	IDR 150.000	IDR 55.000	IDR 170.000	IDR 3.000	IDR 60.000	IDR 350.000	IDR 36.000	IDR 724.000	IDR 3.150.000	6 m2
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1	Bricklayer	IDR 200.000	IDR 50.000	IDR 135.000	IDR 4.000	IDR 60.000	IDR 250.000	IDR 25.000	IDR 724.000	IDR 3.150.000	6 m2
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4	Bricklayer	IDR 275.000	IDR 50.000	IDR 200.000	IDR 12.000	IDR 50.000	IDR 125.000	IDR 12.000	IDR 724.000	IDR 3.150.000	6 m2
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-	Bricklayer	IDR 200.000	IDR 80.000	IDR 450.000	IDR 3.000	IDR 58.500	IDR 110.000	IDR 18.000	IDR 919.500	IDR 4.000.000	8 m2
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3	Bricklayer	IDR 285.000	IDR 55.000	IDR 203.000	IDR 10.500	IDR 60.000	IDR 100.000	IDR 10.500	IDR 724.000	IDR 3.150.000	6 m2
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-	Bricklayer	IDR 150.000	IDR 50.000	IDR 170.000	IDR 4.000	IDR 50.000	IDR 255.000	IDR 45.000	IDR 724.000	IDR 3.150.000	6 m2
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2	Bricklayer	IDR 350.000	IDR 110.000	IDR 350.000	IDR 7.000	IDR 100.000	IDR 145.000	IDR 24.000	IDR 1.086.000	IDR 4.725.000	10 m2
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3	Bricklayer	IDR 450.000	IDR 115.000	IDR 305.000	IDR 11.500	IDR 100.000	IDR 205.000	IDR 20.000	IDR 1.206.500	IDR 5.250.000	12 m2
25	Made Arya	23	5	SMK	Badung	NO	1,5	-	Bricklayer	IDR 250.000	IDR 90.000	IDR 280.000	IDR 4.500	IDR 80.000	IDR 450.000	IDR 52.000	IDR 1.206.500	IDR 5.250.000	12 m2
				AVERAGE COST						IDR 295.400	IDR 69.460	IDR 239.320	IDR 7.140	IDR 67.420	IDR 199.800	IDR 28.380	IDR 906.920	IDR 3.945.102	8.32 m2

N = estimation of price in that area, that is for comparing the price between the other area in Indonesia
The range value of the coefficient are 0.9 < 1.5
0.9 = Value is lower than Sieman Regency
1.0 = Value same as the Sieman Regency
1.5 = Value are higher than sieman regency

Source : Observation

From the figure above, of the 25 construction workforce's who were sampled, it can be concluded that the 25 workforce's have very low wages with less than decent lives. The data show the workforce's are unable to meet the decent needs of themselves and their families based on the Decent Living Needs (KHL) guidelines. However, there are 9 workforce's who are able to meet their current decent needs. This can happen because the 9 workforce's are not having child yet, 6 of them is not married yet, which means it can be said, they don't have family responsibilities. This condition can't be used as a reference to determining factor for workforce's decent wages, because workforce's decent wages must meet the Decent Living Needs (KHL) of workforces and their families.

However, in some cases, especially in calculating the decent wage in this case, to determine the value, workforce's who are married and have a family only can't be used in determining the decent wage. It is necessary to combine decent wage calculations with a sample of workforce's who are married and unmarried or have a family. By combining this data, a balanced value will be created, where this value will show results that are neither too high nor too low. The value obtained will be quite fair and serve as a safety net that should be able to support married and unmarried workforce's or those with a family. The government and companies must review the minimum wages for workforce's that have been set, because construction is a high risk job, which needs to be taken into account for the welfare of the workforce's. Therefore, based on the observations that have been made, the wages that workforces currently receive must at least be able to meet the needs of workforce's and their families.

Now, the diagram result of average Decent Living Needs (KHL) for construction workforce's from observation based on the condition in the field at Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are mentioned on the picture below.

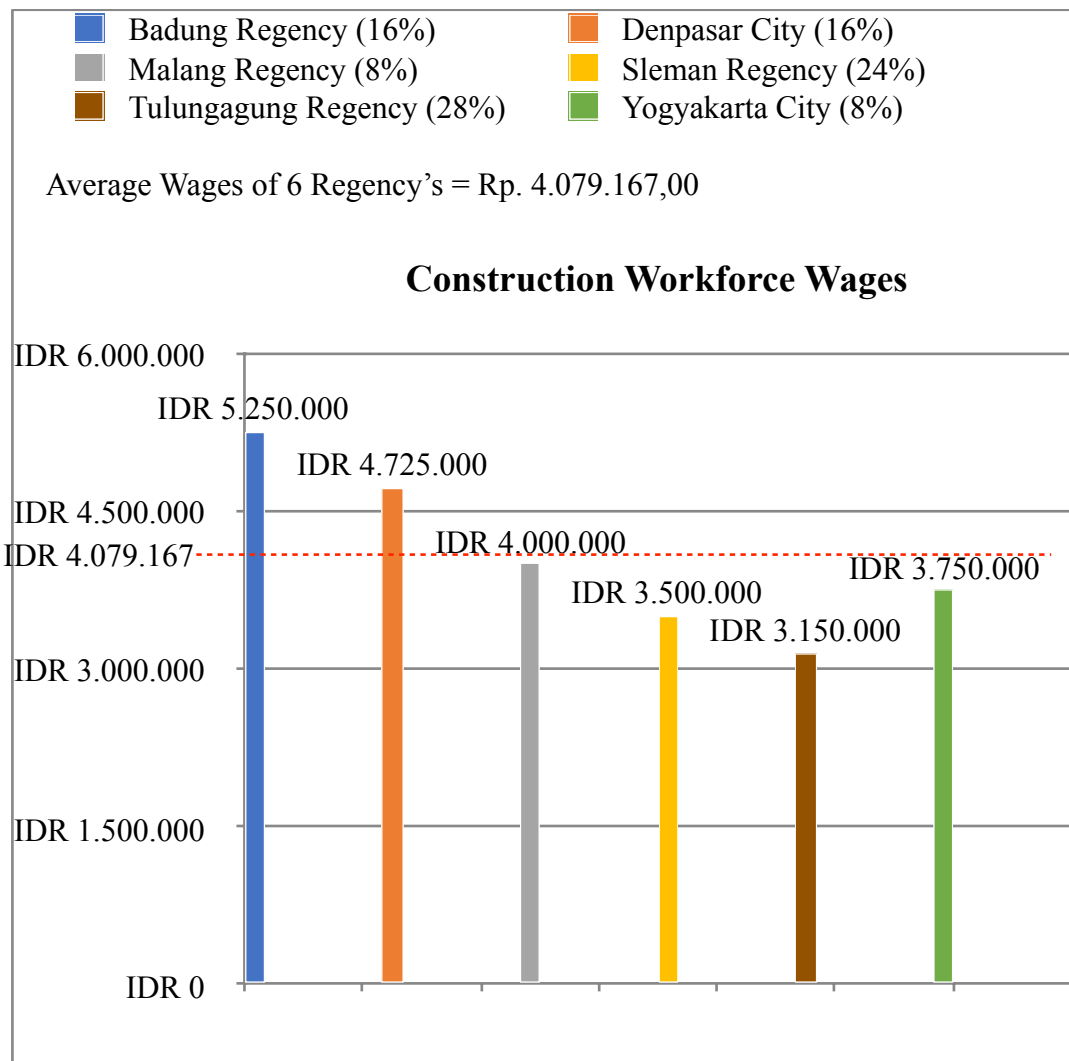


Figure 5.1 The Diagram Result of Average Decent Living Needs (KHL) for Construction Workforce's From Observation

Based on the diagram above, the 25 construction workforce's who were sampled, only 2 of the 6 sample Regency's meet or are greater than the average standard wage for the 6 Regency's. The Regency's are Badung Regency (16%) and Denpasar City (16%) with the total only 8 construction workforce's of 25 workforce's sample data. In fact, this condition only bigger than the average standard wage for the 6 Regency's, but still not meet Decent Living Needs (KHL). In fact, the other 4 Regency's are worst. The Regency's are Malang Regency (8%), Yogyakarta City (8%), Sleman Regency (24%), Tulungagung Regency

(28%) with the total 17 construction workforce's of 25 workforce's sample data are in worse condition. It can be concluded that the 25 workforce's have un-decent wages and un-able to meet the decent needs of themselves and their families based on the Decent Living Needs (KHL) guidelines.

The final data is not only obtained data, but also calculating data using some several factor that impact construction wages. The calculation of the sample data will be explain by calculated Decent Living Needs (KHL), work environment and productivity relations. The final result of data is will be from personal observation and calculation. **Why bricklayer's is the best option for the example?** Before that, please pay attention to how to ensure that construction workforce is the most decent example to discuss in this case. The reason and the calculation of construction workforce for Decent Living Needs (KHL) will be explain on this chapter.

5.3 Case Study 1 and 2

1) How much the average decent wages of construction workforce bricklayer in Java and Bali Island especially in Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency as a site of the research based on the needs?

2) How much the average productivity of the construction workforce bricklayer comparable with average decent wages?

Lets take the example of construction workforce bricklayer. Why the workforce who has a family with 1 wife as a housewife and 3 children's as a students, 1 in Elementary School (SD), 1 in Junior High School (SMP), and 1 in Senior High School (SMA) is the best option to be used as a calculation example? Based on CNNIndonesia,"In the last 50 years, the average birth rate in Indonesia has fallen by more than half. In 1971, Indonesia's Total Fertility Rate (TFR) was still at 5.61, meaning that on average each woman gave birth to around five to six children throughout her lifetime. However, in 2020, this figure dropped

drastically to 2.18. This decline reflects significant social and economic changes. Factors such as increased access to education, changing mindsets regarding family planning, and economic growth that drives urbanization are the main of this trend. Population aging can trigger some serious challenges, with fewer young people being born, in the next 20-30 years, Indonesia could have a shortage of productive workforce's." Overall of the illustrates above, the average value of population stability in Indonesia, if the family, a husband and wife only have 1 child, then it could be said that is less stable, because the value of population stability in Indonesia is decreasing. Meanwhile, if the family, the husband and wife has 2 children's, it can be concluded that this is less stable, because 2 also represents a decline in population stability in Indonesia. In fact, the stable sustainable value birth rate (TFR) in Indonesia is 2.18. The example of a family that can be said to be in accordance with the value of a stable birth rate in Indonesia is a family consisting of a husband and wife and 3 children's. where each child receives a decent education and is more accurate if placed at a different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD).

5.4 Calculating Methods of Case Study 1

How much the average decent wages of construction workforce bricklayer in Java and Bali Island especially in Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency as a site of the research based on the needs?

Based on the observation, the average of bricklayer working in one of the private construction companies in Java and Bali Island. Workforce who had family with a wife as a housewife, already doing marriage life for more than 3 years. With that marriage, some of them are having more than 2 children's. The children are still students, some of them study in Senior High School (SMA), Junior High School (SMP) and Elementary School (SD). That condition is the

best option as an example for the decent wages calculation, because the resulting value will be closer to and in accordance with the Decent Living Needs (KHL) guidelines, where education is one of the important factors in the Decent Living Needs (KHL) which states that they live a decent life.

Most of construction workforce has work for construction project for around more than 3 years and start working when their age are more than 18 years old. Based on ILO K138 Pasal 2 Ayat 3, "The minimum age has been determined in accordance with the provisions of Ayat 1 This article cannot be less than the mandatory school completion age and at most must not be less than 15 years old". And based on ILO K138 Pasal 3 Ayat 1, "Minimum age to be allowed to work for each type of job or work, which is due to its nature or due to environmental conditions where the work must be done may be dangerous the health, safety or morals of young people, should not be lacking from 18 years". Profession is everything related to workforce before, during and after the work period. Workforce are in the age group 15 - 64 years, while non workforce's are aged less than 15 years and more than 64 years.

Before became skilled construction workforce bricklayer, the workforce must became a beginner construction workforce for 1 - 2 years, then upgrade from beginner construction workforce to intermediate construction workforce. The 1 - 2 years time work at field in construction site is not wasted, must be learn and study to improve the skill. After 2 - 5 years working as a intermediate construction workforce at construction project site, now the workforce can become a skilled construction workforce bricklayer. The workforce upgrade from intermediate construction workforce to skilled construction workforce bricklayer. The average workforce after around 5 - 10 years total working time in construction project and still working in construction workforce site as a skilled construction workforce bricklayer, the workforce still need to improving, still has a chance to upgrade to higher position as a foreman/supervisor. Beside that benefit, the other benefit the workforce received when working for longtime in construction project site, the

workforce can become an expert, the workforce skill is improved and had a lot of experience the workforce had been faced off at field of construction project.

Why is it better to take the case at the age above 30 years old? Because, generally for this case, the construction workforce career path are created around (17 years - 60 years). The age of 30 years old is in the middle or mature age, sometimes at the beginning, when the age at 17 - 22 years old, the average workforce are still categorized in the world of work as a beginner. For the age at 23 - 30 years old, the workforce are categorized as a intermediate, the workforce are still raw and needed help to improved a lot. Finally, when the age at above 30 years old, the workforce is in the middle phase between the beginning and the end, the workforce had quite a lot of experience in the world of work or can be said to be in the middle or perfect phase. In this stage, many workforce have gone through a phase of emotional and financial stability in their lives. But, not always older is better, because when the workforce are 50 years old, it can be said the workforce had lot of experience in the world of work, but in this period many of them have also entered the retirement phase, which mean that is at the end of their working lives.

From the explanation above, it can be concluded that the age of 30 years old and over is the right age to be used as an example to calculate, whether or not the wages they have received are decent to meet their decent needs. If talk about life all can live, because even homeless people can still live even if they have to live in conditions that are far from decent and the reality of life is bitter. **Meanwhile, here trying to write down an estimate of what is a decent wage for construction workforce?** decent wage for construction workforce are influenced by skill and classification level. Therefore, a clear classification level is needed to determine the decent wages of construction workforce. More information of construction workforce classification is mentioned in table below:

Table 5.3 Construction Workforce Classification

Level	N	Average of Age	Work Experience Time (year)	Position
4	1.5	> 30	> 10	Foreman/Supervisor
3	1	26 - 30	> 5	Senior/Skilled Construction Workforce
2	0.75	21 - 25	2 - 5	Intermediate Construction Workforce
1	0.5	18 - 20	< 2	Beginner Construction Workforce

Source : Permen PUPR No 4 Tahun 2024 Pasal 4

Most of the skilled construction workforce bricklayer at the data sample, the age are above 30 years old, which mean the example taken is good and mostly happens in Indonesia, especially in Java and Bali Island (Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency as a site of the research). Those at the age above 30 years old, have been married for more than 3 years, where most of them have an average of 2 - 4 children's. That condition is perfect as a sample, because most of the workforce who had family with 3 or more children's, the educational levels of the children's is perfect, first child study at Senior High School (SMA), second child study at Junior High School (SMP) and the last child is study at Elementary School (SD) and go on. It would be better, if this was widely implemented that it would be possible to calculate an estimate of the maximum cost burden that each family would receive. The calculation of decent construction workforce wages and productivity will be explained below.

5.4.1 Calculation of Decent Living Needs (KHL)

To determine the value of Decent Living Needs (KHL), numerous fundamental elements that represent the bare necessities of a single workforce in a month must be calculated. The Decent Living Needs (KHL) serves as the foundation for establishing the local minimum wage. It is obvious that different people have different standards for what constitutes a decent living. Nonetheless,

a patent standard covering 60 different types of needs and seven fundamental components is based on the Minister of Manpower and Transmigration Regulation (Permenaker) regarding Decent Living Needs (KHL). This figure is based on workforce typically need to live comfortably for a month.

5.4.1.1 Calculation of Food Category in Decent Living Needs (KHL)

Nutritional fulfillment starts in the womb and lasts the rest of a person's life by adhering to the guidelines of a varied diet, regular exercise, and healthy living to promote physical well being. The detail of Decent Living Needs (KHL) table for the food category is mentioned below.

Table 5.4 Decent Living Needs (KHL) Table Food Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/kg)
Rice	Medium	10 Kg	Rp. 14.000,00
Meat	Medium	0.75 Kg	Rp. 34.000,00
Fish	Good	1.2 Kg	Rp. 43.000,00
Egg	Purebred	1 Kg	Rp. 27.000,00
Peanuts : Tofu/Tempe	Good	4.5 Kg	Rp. 15.500,00
Milk Powder	Medium	0.9 Kg	Rp. 54.500,00
Sugar	Medium	3 Kg	Rp. 19.000,00
Cooking Oil	Bulk	2 Kg	Rp. 16.250,00
Vegetables	Good	7.2 Kg	Rp. 21.000,00
Fruit : Banana/Papaya	Good	7.5 Kg	Rp. 18.000,00
Wheat	Medium	3 Kg	Rp. 13.000,00
Coffee/Tea	Sachet	2 Box 25 pcs or 75 gram	Rp. 10.500,00
Spices	Scale 1-10	15%	Rp. 65.000,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for

the workforce to lead a respectable life, the Decent Living Needs (KHL) standards mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average food cost for construction workforce who had family around 1 - 3 persons. The detail calculation of cost spend on food will be explained below.

A. Regular Average Cost

The detail of average food cost for 1 - 3 persons/month :

Rice	= Rp. 14.000,00 x 10 kg	= Rp. 140.000,00
Meat	= Rp. 34.000,00 x 0.75 kg	= Rp. 25.500,00
Fish	= Rp. 43.000,00 x 1.2 kg	= Rp. 51.600,00
Egg	= Rp. 27.000,00 x 1 kg	= Rp. 27.000,00
Peanuts (Tofu/Tempeh)	= Rp. 15.500,00 x 4.5 kg	= Rp. 69.750,00
Milk Powder	= Rp. 55.000,00 x 0.9 kg	= Rp. 49.500,00
Sugar	= Rp. 19.000,00 x 3 kg	= Rp. 57.000,00
Cooking Oil	= Rp. 16.250 x 2 kg	= Rp. 32.500,00
Vegetables	= Rp. 21.000 x 7.2 kg	= Rp 151.200,00
Fruit (Banana/Papaya)	= Rp. 18.000 x 7.5 kg	= Rp. 135.000,00
Wheat	= Rp. 13.000,00 x 3 kg	= Rp. 39.000,00
Coffee/Tea	= Rp. 10.500,00 x 2 box	= Rp. 21.000,00
Spices	= Rp. 65.000,00 x 1 pack	= Rp. 65.000,00

From the calculation above, the total of average food cost for construction workforce need is around **Rp. 864.050,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. Remember this cost is only for construction workforce who had family around 1 - 3 persons, look at the case above, most of the construction workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High

School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation of skilled construction workforce bricklayer who had family around 4 - 6 people will be different and the cost for food will be higher. **How much is different?** Now, the assumption of differences average food cost for construction workforce will be :

Assumption :

$$\begin{aligned} \text{KHL Detail} &= 1 - 3 \text{ persons} \\ 1 - 3 \text{ persons} &= a \\ 4 - 6 \text{ people} &= (1 - 3 \text{ persons}) \times 2 \\ &= a \times 2 \\ &= 2a \end{aligned}$$

From the equation above, the assumption of average food cost for construction workforce who had family around 4 - 6 people/month is twice bigger than average food cost for construction workforce who had family around 1 - 3 persons/month. The detail calculation of average cost spend on food will be explained below.

The detail of average food cost for 4 - 6 people/month :

Rice	= Rp. 14.000,00 x 20 kg	= Rp. 280.000,00
Meat	= Rp. 34.000,00 x 1.5 kg	= Rp. 51.000,00
Fish	= Rp. 43.000,00 x 2.5 kg	= Rp. 107.500,00
Egg	= Rp. 27.000,00 x 2 kg	= Rp. 54.000,00
Peanuts (Tofu/Tempeh)	= Rp. 15.500,00 x 9 kg	= Rp. 139.500,00
Milk Powder	= Rp. 55.000,00 x 2 kg	= Rp. 110.000,00
Sugar	= Rp. 19.000,00 x 6 kg	= Rp. 114.000,00
Cooking Oil	= Rp. 16.250 x 4 kg	= Rp. 65.000,00
Vegetables	= Rp. 21.000 x 15 kg	= Rp. 315.000,00
Fruit (Banana/Papaya)	= Rp. 18.000 x 15 kg	= Rp. 270.000,00
Wheat	= Rp. 13.000,00 x 6 kg	= Rp. 78.000,00
Coffee/Tea	= Rp. 10.500,00 x 4 box	= Rp. 42.000,00

Spices = Rp. 65.000,00 x 2 pack = Rp. 130.000,00

From the calculation above, the total of average food cost for 4 - 6 people need is around **Rp. 1.756.000,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of food for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.5 The Data About Decent Living Needs Cost Comparison of Food for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Food for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week) Real	Food (per month) Real	Food (per week) Adjust	Food (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 250.000	IDR 1.087.500	IDR 544.966	IDR 2.370.600	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 400.000	IDR 1.740.000	IDR 544.966	IDR 2.370.600	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 300.000	IDR 1.305.000	IDR 605.517	IDR 2.634.000	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 350.000	IDR 1.522.500	IDR 444.046	IDR 1.931.600	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 300.000	IDR 1.305.000	IDR 403.678	IDR 1.756.000	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 200.000	IDR 870.000	IDR 363.310	IDR 1.580.400	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 200.000	IDR 870.000	IDR 444.046	IDR 1.931.600	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 285.000	IDR 1.239.750	IDR 363.310	IDR 1.580.400	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 250.000	IDR 1.087.500	IDR 605.517	IDR 2.634.000	
AVERAGE COST										IDR 295.400	IDR 1.284.990	IDR 453.734	IDR 1.973.744	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as food prices. The final results of these calculations are definitely different. The total of average food cost for construction workforce who had family around 4 - 6 people need before is around **Rp. 1.756.000,00/month** and

after the calculation based on the difference location, difference food price in each location, and with the 25 workforce's as the sample, the final result of the total of average food cost for construction workforce who had family around 4 - 6 people need is around **Rp. 1.973.744,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

$$= \text{Rp. 1.973.744,00/month} - \text{Rp. 1.756.000,00/month}$$

$$= \text{Rp. 217.744,00/month} \text{ (This difference cost can be used as additional cost)}$$

The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life.

B. Additional Average Cost

The detail of extra food cost for 4 - 6 people/month :

Allowance for (Head of Family, Bricklayer)	= Rp. 117.744,00
Allowance for (House Wife, Emergency Fund)	= Rp. 100.000,00
Allowance for (1st child, Senior High School)	= Rp. 000.00,00
Allowance for (2nd child, Junior High School)	= Rp. 000.00,00
Allowance for (3rd child, Elementary School)	= Rp. 000.00,00
Total	= Rp. 217.744,00

From the calculation above, the total of additional average food cost for construction workforce who had family around 4 - 6 people need is around **Rp. 217.744,00/month**.

Total average food cost of skilled construction workforce bricklayer who had family around 4 - 6 persons/month will be :

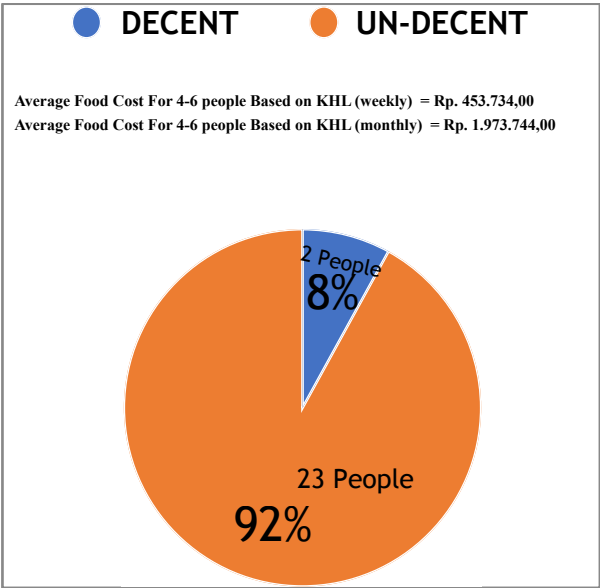
$$= \text{Regular average cost} + \text{additional average cost}$$

$$= \text{Rp. 1.756.000,00} + \text{Rp. 217.744,00}$$

$$= \text{Rp. 1.973.744,00}$$

At the end, after the calculation finished, the total average food cost for skilled construction workforce bricklayer who had family around 4 - 6 people need in 1 month is around **Rp. 1.973.744,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life.

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of food for construction workforce who had family around 4 - 6 people which is around **Rp. 295.400,00 per week** or **Rp. 1.284.990,00 per month**. This value is quite low when compared to the average cost value of food for construction workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around **Rp. 453.734,00 per week** or **Rp. 1.973.744,00 per month**. For further and specific illustration, it will be explained in the diagram figure below.



Source : Observation and Calculation

Figure 5.2 The Diagram Result of Food Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 skilled construction workforce bricklayer who were sampled, only 2 workforce's or 8% of the 25 sample workforce's meet than the average food cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 2 workforce's of the sample that has bigger value that average cost is still un-decent. **Why?** even from the table and diagram above, it's clearly that the 2 workforce's able to cover the cost for food but, **how about the other sector ?** With the average wages received every month right now, the amount of the wages gap isn't much with the other 23 workforce's. That's mean is the 2 workforce's are still not enough to cover the cost in the other sector, such as education, health, clothes, housing, transport, and saving/recreation. It is true that each person's needs are different, but overall the wages received by skilled construction workforce bricklayer right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.2 Calculation of Clothes Category in Decent Living Needs (KHL)

One of the most important needs is clothing that is functional. Since clothing serves as a hygienic barrier, protects the body from sunburn and cold temperatures, keeps toxins out of the body, and reduces the spread of germs, it falls under this category and include some private information. The detail of Decent Living Needs (KHL) table for the clothing category is mentioned below.

Table 5.6 Decent Living Needs (KHL) Table Clothes Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
Trousers/Skirts	Cotton/Medium	6/12 pieces	Rp. 55.000,00
Shorts	Cotton/Medium	2/12 pieces	Rp. 35.000,00

Continued of Table 5.6 Decent Living Needs (KHL) Table Clothes Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
Belt	Synthetic, Leather, Plain, Unbranded	1/12 pcs	Rp. 15.000,00
Short-sleeved shirt or Blouse.	Cotton Equivalent	6/12 pieces	Rp. 35.000,00
T-shirt or Bra	Currently	6/12 pieces	Rp. 25.000,00
Panties	Medium	6/12 pieces	Rp. 7.000,00
Sarong or Long cloth	Currently	1/12 strands	Rp. 25.000,00
Shoes	Leather Synthetic	2/12 pairs	Rp. 150.000,00
Socks	Cotton, Polyester, Plain, Medium	4/12 pairs	Rp. 7.000,00
Shoe Cleaning Supplies			
a. Shoe Polish	Medium	6/12 pcs	Rp. 12.000,00
b. Shoe Brush	Medium	1/12 pcs	Rp. 23.000,00
Flip-Flops	Rubber	2/12 pairs	Rp. 12.000,00
Bath Towel	100 x 60 cm	2/12 pieces	Rp. 35.000,00
Worship Equipment			
a. Prayer Mat	Medium	1/12 piece	Rp. 30.000,00
b. Mukena	Medium	1/12 piece	Rp. 20.000,00
c. Cap	Currently	1/12 piece	Rp. 15.000,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for the workforce to lead a decent life. The Decent Living Needs (KHL) standards mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average clothes cost per person. The detail calculation of cost spend on clothes will be explained below.

A. Regular Average Cost

The detail of average clothes cost for 1 person/12 months :

Trousers/Skirts	= Rp. 55.000,00 x 6 pcs	= Rp. 330.000,00
Shorts	= Rp. 35.000,00 x 2 pcs	= Rp. 70.000,00
Belt	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00
Short-sleeved shirt or Blouse	= Rp. 35.000,00 x 6 pcs	= Rp. 210.000,00
T-shirt or Bra	= Rp. 25.000,00 x 6 pcs	= Rp. 150.000,00
Panties	= Rp. 7.000,00 x 6 pcs	= Rp. 42.000,00
Sarong or Long cloth	= Rp. 25.000,00 x 1 pc	= Rp. 25.000,00
Shoes	= Rp. 150.000 x 2 pcs	= Rp. 300.000,00
Socks	= Rp. 7.000 x 4 pcs	= Rp. 28.000,00
Shoe Polish	= Rp. 12.000 x 6 pcs	= Rp. 72.000,00
Shoe Brush	= Rp. 23.000,00 x 1 pc	= Rp. 23.000,00
Flip-Flops	= Rp. 12.000,00 x 2 pcs	= Rp. 24.000,00
Bath Towel	= Rp. 35.000,00 x 2 pcs	= Rp. 70.000,00
Prayer Mat	= Rp. 30.000,00 x 1 pc	= Rp. 30.000,00
Mukena	= Rp. 20.000,00 x 1 pc	= Rp. 20.000,00
Cap	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00

From the calculation above, the total of average clothes cost for skilled construction workforce's bricklayer need is around **Rp. 1.424.000,00/12 months or Rp. 118.667,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. Before continued to the next case, **why the needs for the clothes category need more than 1 pc? For example is shoes, why each person need more than 1 pc shoes every year?** Based on Safety Sign Indonesia," Having at least two pairs of shoes a year is a recommendation based on comfort, foot health, and shoe durability. Wearing the same shoes every day can cause faster wear, especially on the sole and shoe structure. Wearing the same shoes continuously can cause a decrease in shoe support and cushioning, which risks increasing discomfort and foot injuries. By rotating shoes, the feet get optimal support and reduce the risk of injury. For workforce in certain industries, such as construction or manufacturing,

the use of appropriate safety shoes is very important. Safety shoes should be replaced regularly, usually annually, to ensure maximum protection against the risk of injury.”

Remember this cost is only for 1 person, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation only for 5 people, because its the perfect amount of family member as an example of Decent Living Needs (KHL) cost calculation. The cost will be different, where the cost for clothes will be higher. How much is different? Now, the assumption of differences average clothes cost for 5 people/month will be :

Assumption :

KHL Detail	= 1 person
1 person	= a
5 people	= 1 person x 5
	= a x 5
	= 5a

From the equation above, the assumption of average clothes cost for construction workforce who had family around 5 people/month is fifth time bigger than average clothes cost for workforce/month. The detail calculation of average cost spend on clothes will be explained below.

The detail of average clothes cost for 5 people/12 months :

Trousers/Skirts	= (Rp. 55.000,00 x 6 pcs) x 5 = Rp. 1.650.000,00
Shorts	= (Rp. 35.000,00 x 2 pcs) x 5 = Rp. 350.000,00
Belt	= (Rp. 15.000,00 x 1 pc) x 5 = Rp. 75.000,00
Short-sleeved shirt or Blouse	= (Rp. 35.000,00 x 6 pcs) x 5 = Rp. 1.050.000,00

T-shirt or Bra	= (Rp. 25.000,00 x 6 pcs) x 5 = Rp. 750.000,00
Panties	= (Rp. 7.000,00 x 6 pcs) x 5 = Rp. 210.000,00
Sarong or Long cloth	= (Rp. 25.000,00 x 1 pc) x 5 = Rp. 125.000,00
Shoes	= (Rp. 150.000 x 2 pcs) x 5 = Rp. 1.500.000,00
Socks	= (Rp. 7.000 x 4 pcs) x 5 = Rp. 140.000,00
Shoe Polish	= (Rp. 12.000 x 6 pcs) x 5 = Rp. 360.000,00
Shoe Brush	= (Rp. 23.000,00 x 1 pc) x 5 = Rp. 115.000,00
Flip-Flops	= (Rp. 12.000,00 x 2 pcs) x 5 = Rp. 120.000,00
Bath Towel	= (Rp. 25.000,00 x 2 pcs) x 5 = Rp. 350.000,00
Prayer Mat	= (Rp. 30.000,00 x 1 pc) x 5 = Rp. 150.000,00
Mukena	= (Rp. 20.000,00 x 1 pc) x 3 = Rp. 60.000,00
Cap	= (Rp. 15.000,00 x 1 pc) x 3 = Rp. 45.000,00

From the calculation above, the total of average clothes cost for 5 people need is around **Rp. 7.050.000,00/12 months or Rp. 587.500,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life.

B. Additional Average Cost

Based on Permendikbud No 50 Tahun 2022 Pasal 12 Ayat 2, "Central Government, Regional Government in accordance with authority, the school and the community can help procure school uniforms and traditional clothing for students with priority Students who are economically disadvantaged." That is the condition for the workforce and the family right now, because the wages the workforce received every month is un-decent. But, its totally different if the adjust wages is approved and implemented. The uniform clothes is one of the cost must be calculated and provided for the every member who is working or studying as an indicator of a decent life. Based on Permendikbud No 50 Tahun 2022 Pasal 12 Ayat 1, "Procurement of school uniforms is your responsibility answer the student's parent or guardian." With this regulation, the government requires the

provision of uniforms to students parent as one of the factors supporting the teaching and learning process in schools for those who can afford it. The detail of Decent Living Needs (KHL) table for the clothing category is mentioned below.

Table 5.7 Additional Item Table Clothes Category

NAME	COMPONENT	QUANTITY	AVERAGE PRICE (/pcs)
Elementary School Uniform	This package usually includes daily uniforms, scout uniforms, sports uniforms, and additional attributes such as hats, ties, socks, and belts.	6 pcs, along with other equipment.	Rp. 1.500.000,00
Junior High School Uniform	This package usually includes white and blue uniforms, scout uniforms, batik uniforms and sports uniforms.	4 pcs, along with other equipment.	Rp. 1.300.000,00
Senior High School Uniform	This package usually includes daily uniforms, scout uniforms, batik uniforms, sports uniforms, and additional attributes such as hats, ties, socks, and belts.	6 pcs, along with other equipment.	Rp. 1.800.000,00

Source : Kompas.id

Now, the detail of extra clothes cost for 5 people/month will be :

Uniform for (Head of Family, Bricklayer) = Free from company

Uniform for (House Wife, Emergency Fund) = No needed Not working

Uniform for (1st Child, Senior High School) = Rp. 1.800.000,00

Uniform for (2nd Child, Junior High School) = Rp. 1.300.000,00

Uniform for (3rd child, Elementary School) = Rp. 1.500.000,00

Total = Rp. 4.600.000,00

From the calculation above, the total of additional average clothes cost for skilled construction workforce bricklayer who had family around 5 people need is **Rp. 4.600.000,00/12 months or Rp. 383.334,00**. Total average clothes cost 5 people/ month :

= Regular average cost + additional average cost

= Rp. 587.500,00 + Rp. 383.334,00

= Rp. 970.834,00

After the calculation finished, the total average clothes cost for skilled construction workforce bricklayer who had family around 5 people need in 1

month is around **Rp. 970.834,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of clothes for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.8 The Data About Decent Living Needs Cost Comparison of Clothes for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Clothes for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Cloths (per week) Real	Cloths (per month) Real	Cloths (per week) Adjust	Cloths (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 105.000	IDR 456.750	IDR 301.293	IDR 1.310.626	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 60.000	IDR 261.000	IDR 223.180	IDR 970.834	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 50.000	IDR 217.500	IDR 245.498	IDR 1.067.917	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 60.000	IDR 261.000	IDR 223.180	IDR 970.834	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 68.000	IDR 295.800	IDR 301.293	IDR 1.310.626	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 64.000	IDR 278.400	IDR 301.293	IDR 1.310.626	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 100.000	IDR 435.000	IDR 334.770	IDR 1.456.251	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 104.500	IDR 454.575	IDR 334.770	IDR 1.456.251	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 57.000	IDR 247.950	IDR 245.498	IDR 1.067.917	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 50.000	IDR 217.500	IDR 223.180	IDR 970.834	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 50.000	IDR 217.500	IDR 223.180	IDR 970.834	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 50.000	IDR 217.500	IDR 200.862	IDR 873.751	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 105.000	IDR 456.750	IDR 245.498	IDR 1.067.917	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 60.000	IDR 261.000	IDR 200.862	IDR 873.751	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 46.000	IDR 200.100	IDR 223.180	IDR 970.834	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 52.000	IDR 226.200	IDR 223.180	IDR 970.834	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 55.000	IDR 239.250	IDR 200.862	IDR 873.751	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 50.000	IDR 217.500	IDR 200.862	IDR 873.751	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 50.000	IDR 217.500	IDR 200.862	IDR 873.751	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 80.000	IDR 348.000	IDR 245.498	IDR 1.067.917	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 55.000	IDR 239.250	IDR 200.862	IDR 873.751	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 50.000	IDR 217.500	IDR 200.862	IDR 873.751	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 110.000	IDR 478.500	IDR 301.293	IDR 1.310.626	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 115.000	IDR 500.250	IDR 334.770	IDR 1.456.251	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 90.000	IDR 391.500	IDR 334.770	IDR 1.456.251	
AVERAGE COST										IDR 69.460	IDR 302.151	IDR 250.855	IDR 1.091.217	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

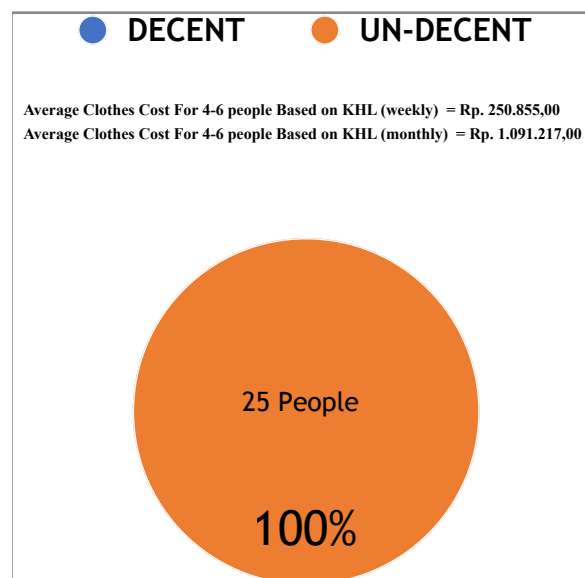
From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as clothes prices. The final results of these calculations are definitely different. The total of average clothes cost for workforce who had family around 4 - 6 people need before is around **Rp. 970.834,00/month** and after the calculation based on the difference location, difference clothes price in each location, and with the 25 workforce's as the sample, the final result of the total of average clothes cost for workforce who had family around 4 - 6 people need is around **Rp. 1.091.217,00/month**. A difference in value causes a difference in value. The

results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

$$= \text{Rp. 1.091.217,00/month} - \text{Rp. 970.834,00/month}$$

$$= \text{Rp. 120.383,00/month} \text{ (This difference cost can be used as additional cost)}$$

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of clothes for workforce who had family around 4 - 6 people which is around Rp. 69.460,00 per week or Rp. 302.151,00 per month. This value is quite low when compared to the average cost value of clothes for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 250.855,00 per week or Rp. 1.091.217,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.3 The Diagram Result of Clothes Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 skilled construction workforce bricklayer who were sampled, all of the 25 sample workforce's (100%) doesn't meet than the average clothes cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 25 workforce's of the sample has low value than average cost or un-decent. With the average wages received every month right now, the amount of the wages gap isn't much with the other workforce's. That's mean is the 25 workforce's are still not enough to cover the cost in the other sector also, such as education, health, food, housing, transport, and saving/recreation. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.3 Calculation of House Category in Decent Living Needs (KHL)

Every person's life and means of subsistence are organized in a house, which is regarded as a basic necessity that serves as a family's foundation and a home that serves a variety of purposes as a respectable place for human life and must be able to meet the fundamental physical and spiritual needs of people. The Decent Living Needs (KHL) table for the house category is mentioned below.

Table 5.9 Decent Living Needs (KHL) Table House Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
a. Foam Mattress	Foam	1/48 pcs	Rp. 520.000,00
a. Foam Pillow	Foam	2/36 pieces	Rp. 25.000,00
Bed Sheets and Pillowcases	Cotton	2/12 sets	Rp. 45.000,00
Table and Chairs	1 table/4 Chairs	1/48 set	Rp. 1.000.000,00
Wardrobe	Medium Wood	1/48 piece	Rp. 500.000,00
Broom	Palm Fibers	2/12 pieces	Rp. 15.000,00

Continued of Table 5.9 Decent Living Needs (KHL) Table House Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
Dinnerware			
a. Dinner Plates	Plain	3/12 pieces	Rp. 6.000,00
b . D r i n k i n g Glasses	Plain	3/12 pieces	Rp. 4.000,00
c. Cutlery	Medium	3/12 pair	Rp. 5.000,00
Aluminum Kettles	Size 25 cm	1/24 pieces	Rp. 150.000,00
Aluminum Frying Pan	Size 32 cm	1/24 piece	Rp. 50.000,00
Room rental	Can load other types of KHL for 1 month		Rp. 750.000,00
Cot/Bed	No. 3 plain	1/48 piece	Rp. 350.000,00
S l e e p i n g Equipment			
Aluminum Pan	Size 32 cm	2/12 pieces	Rp. 120.000,00
Cooking Spoon	Aluminum	1/12 piece	Rp. 15.000,00
Rice Cooker (½ liter)	350 watts	1/48 piece	Rp. 200.000,00
S t o v e a n d Equipment			
a. Stove (with 1 stove)	SNI	1/24 piece	Rp. 230.000,00
b . H o s e a n d Regulator	SNI	10 liter	Rp. 75.000,00
c . 3 k g G a s Cylinder	Pertamina	1/60 piece	Rp. 165.000,00
LPG Gas	3 kg	2 cylinders	Rp. 25.000,00
Plastic Bucket	20 liter	2/12 pieces	Rp. 45.000,00
Plastic Scoop	Medium	1/12 piece	Rp. 10.000,00
E l e c t r i c i t y (Maximum)	900 watt	1 month	Rp. 392.040,00
Energy Saving Light Bulbs	14 watt	3/12 pieces	Rp. 30.000,00
Clean Water	PAM Standard	2 m cubic	Rp. 5.250,00
Laundry Soap	Cream/detergent	1.5 kg	Rp. 35.000,00
Dish Washing Soap (dabble)	500 grams	1 piece	Rp. 12.000,00

Continued of Table 5.9 Decent Living Needs (KHL) Table House Category

Iron	250 watt	1/48 pc	Rp. 105.000,00
Plastic Portable Shelf	Medium	1/24 piece	Rp. 65.000,00
Kitchen Knife	Medium	1/36 piece	Rp. 15.000,00
Mirror	30 x 50 cm	1/36 pc	Rp. 75.000,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for the workforce to lead a decent life. The Decent Living Needs (KHL) standards mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average house cost for skilled construction workforce bricklayer who had family around 1 - 3 persons. The detail calculation of cost spend on house will be explained below.

A. Regular Average Cost

In this calculation, the group division method is used based on the number of items and length of service life. The detail of average house cost for workforce who had family around 1 - 3 person/month are,

Monthly cost for 1 - 3 persons :

Room rental = Rp. 750.000,00 x 1 room = Rp. 750.000,00

LPG Gas = Rp. 25.000,00 x 3 cylinder = Rp. 75.000,00

To calculate the average electricity usage, its required to look at the price reference and other information from PLN, for further explanation will be explained in the figure below.

PENETAPAN PENYESUAIAN TARIF TENAGA LISTRIK (TARIFF ADJUSTMENT) JULI - SEPTEMBER 2024					
NO.	GOL. TARIF	BATAS DAYA	REGULER		PRA BAYAR (Rp/kWh)
			BIAYA BEBAN (Rp/kVA/bulan)	BIAYA PEMAKAIAN (Rp/kWh) DAN BIAYA kVAh (Rp/kVAh)	
1.	R-1/TR	900 VA-RTM	*)	1.352,00	1.352,00
2.	R-1/TR	1.300 VA	*)	1.444,70	1.444,70
3.	R-1/TR	2.200 VA	*)	1.444,70	1.444,70
4.	R-2/TR	3.600 VA s.d. 5.500 VA	*)	1.699,53	1.699,53
5.	R-3/TR	6.600 VA ke atas	*)	1.699,53	1.699,53
6.	B-2/TR	6.600 VA s.d. 200 kVA	*)	1.444,70	1.444,70
7.	B-3/TM	di atas 200 kVA	**))	Blok WBP = K x 1.035,78 Blok LWBP = 1.035,78 kVAh = 1.114,74 ****)	-
8.	I-3/TM	di atas 200 kVA	**))	Blok WBP = K x 1.035,78 Blok LWBP = 1.035,78 kVAh = 1.114,74 ****)	-
9.	I-4/TT	30.000 kVA ke atas	***)	Blok WBP dan Blok LWBP = 996,74 kVAh = 996,74 ****)	-
10.	P-1/TR	6.600 VA s.d. 200 kVA	*)	1.699,53	1.699,53
11.	P-2/TM	di atas 200 kVA	**))	Blok WBP = K x 1.415,01 Blok LWBP = 1.415,01 kVAh = 1.522,88 ****)	-
12.	P-3/TR		*)	1.699,53	1.699,53
13.	L/TR, TM, TT		-	1.644,52	-

Catatan :

*) Diterapkan Rekening Minimum (RM):
RM1 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian.

**) Diterapkan Rekening Minimum (RM):
RM2 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian LWBP.
Jam nyala : kWh per bulan dibagi dengan kVA tersambung.

***) Diterapkan Rekening Minimum (RM):
RM3 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian WBP dan LWBP.
Jam nyala : kWh per bulan dibagi dengan kVA tersambung.

****) Biaya kelebihan pemakaian daya reaktif (kVAh) dikenakan dalam hal faktor daya rata-rata setiap bulan kurang dari 0,85 (delapan puluh lima per seratus).

K : Faktor perbandingan antara harga WBP dan LWBP sesuai dengan karakteristik beban sistem kelistrikan setempat (1,4 ≤ K ≤ 2), ditetapkan oleh Direksi Perusahaan Perseroan (Persero) PT Perusahaan Listrik Negara.

WBP : Waktu Beban Puncak.
LWBP : Luar Waktu Beban Puncak.

Source : web.pln.co.id

Figure 5.4 Average Rates of PLN

Based on the picture above, the average detail calculation of used electricity (PLN) will be :

$$\text{Electricity} = \text{Rp. } 292.032,00 \times 1 \text{ month} = \text{Rp. } 292.032,00$$

(Assumption : In the latest 2024 basic electricity tariff list, subsidized 900 VA power household customers are Rp. 1.352,00/kWh.

$$\text{Max electricity usage 900 VA} = 648 \text{ kWh}$$

$$n = \text{Person } (1 - 3 = 1/3 \quad 4 - 6 = 1/2)$$

Calculation the total average of using electricity in Indonesia are :

$$= (\text{Max electricity usage 900 VA} \times \text{minimum unit price}) / n$$

$$= (648 \text{ kWh} \times \text{Rp. } 1.352,00) \times 1/3$$

$$= \text{Rp. } 876.096,00 \times 1/3 = \text{Rp. } 292.032,00$$

From the calculation above, the total of average electricity cost for workforce who had family around 1 - 3 persons need monthly is around **Rp. 292.032,00/month**.

To calculate the average clean water usage, its required to look at the price reference and other information from PDAM, for further explanation will be explained in the table below.

Table 5.10 Average Rates of PDAM

CATEGORY	0 - 3 m3	3 - 10 m3	10 - 20 m3	> 20 m3
Class 1	Rp 1.050,00	Rp 1.050,00	Rp 1.050,00	Rp 1.050,00
Class 2	Rp 1.050,00	Rp 1.050,00	Rp. 7.450,00	Rp. 7.450,00
Class 3A	Rp. 3.550,00	Rp. 3.550,00	Rp. 4.700,00	Rp. 5.500,00
Class 3B	Rp. 4.900,00	Rp. 4.900,00	Rp. 6.000,00	Rp. 7.450,00
Class 4A	Rp. 6.825,00	Rp. 6.825,00	Rp. 8.150,00	Rp. 9.800,00
Class 4B	Rp. 12.550,00	Rp. 12.550,00	Rp. 12.550,00	Rp. 12.550,00
Specific Class 5	Rp. 12.550,00	Rp. 35.000,00	Rp. 39.000,00	Rp. 39.000,00

Source : pamjaya.co.id

Based on the picture above, the average detail calculation of used clean water (PDAM) will be :

$$\text{Clean Water (PDAM)} = \text{Rp. 3.982,00} \times 16 \text{ m3} = \text{Rp. 63.700,00}$$

(Assumption : The average household water usage in urban Indonesia is 169,11 L/person/day. If the persons are 1 - 3, the cost calculation will be :

n = Person. 1 - 3 (choose the maximum for the assumption calculation, because the result will be the safest cost value)

t = time (day, month or year)

Average household water usage = 169,11 L/person/day

Average water cost in 2024 for household group A3 (Customers who have a road in front of their house with a width including sewers and berms up to 0 - 3.99 meters) :

$$0 - 3 \text{ m3} = \text{Rp. 3.550,00}$$

3 - 10 m³ = Rp. 3.550,00

10 - 20 m³ = Rp. 4.700,00

> 20 m³ = Rp. 5.500,00

Calculation :

The total of clean water (PDAM) average usage :

= The average household water usage x n x t

= 169,11 L/person/ day x 3 x 30 days

= 15.219,9 L/ 3 persons/ month or 16 m³/ 3 persons/ month.

The total of clean water (PDAM) average cost estimation :

= The total of clean water (PDAM) average usage x Average water cost in
2024 for household group A3

= 16 m³/ 3 persons/ month.

= 0 - 3 m³ = 3 m³ x Rp. 3.550,00 = Rp. 10.650,00

= 3 - 10 m³ = 7 m³ x Rp. 3.550,00 = Rp. 24.850,00

= 10 - 20 m³ = 6 m³ x Rp. 4.700,00 = Rp. 28.200,00

Total = Rp. 63.700,00

From the calculation above, the total of average clean water (PDAM) cost for workforce who had family around 1 - 3 persons need monthly is around **Rp. 63.700,00/month.**

Laundry Soap = Rp. 35.000,00 x 3 kg = Rp. 105.000,00

Dish Washing Soap (dabble) = Rp. 12.000,00 x 2 pc = Rp. 24.000,00

The Total Cost/month = Rp. 1.309.732,00

From the calculation above, the total of average house cost skilled construction workforce bricklayer who had family around 1 - 3 persons need monthly is around **Rp. 1.309.732,00/month**

Yearly cost for 1 - 3 persons :

Bed Sheets and Pillowcases = Rp. 45.000,00 x 6 set = Rp. 105.000,00

Broom = Rp. 15.000 x 2 pcs = Rp. 30.000,00

Dinner Plates = Rp. 6.000 x 9 pcs = Rp. 54.000,00

Drinking Glasses	= Rp. 4.000 x 9 pcs	= Rp. 36.000,00
Cutlery	= Rp. 5.000,00 x 9 pairs	= Rp. 45.000,00
Aluminum Pan	= Rp. 120.000,00 x 2 pcs	= Rp. 240.000,00
Cooking Spoon	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00
Plastic Bucket	= Rp. 45.000,00 x 2 pcs	= Rp. 90.000,00
Plastic Scoop	= Rp. 10.000,00 x 1 pc	= Rp. 10.000,00
Energy Saving Light Bulbs	= Rp. 30.000,00 x 3 pcs	= Rp. 90.000,00
The Total Cost/year	= Rp. 715.000,00	
The Total Cost/month	= The Total Cost/year / 12 months	
	= Rp.715.000,00/12	
	= Rp. 59.584,00	

From the calculation above, the total of average house cost for workforce who had family around 1 - 3 persons need yearly is around **Rp. 715.000,00/year** or **Rp. 59.584,00/month**.

2 Years cost for 1 - 3 persons :

Aluminum Kettles	= Rp. 150.000,00 x 1 pc	= Rp. 150.000,00
Aluminum Frying Pan	= Rp. 50.000,00 x 1 pc	= Rp. 50.000,00
Stove (with 1 stove) SNI	= Rp. 230.000,00 x 1 pc	= Rp. 230.000,00
Plastic Portable Shelf	= Rp. 65.000,00 x 1 pc	= Rp. 65.000,00
Hose and Regulator SNI	= Rp. 75.000,00 x 1 pcs	= Rp. 75.000,00
The Total Cost/2 years	= Rp. 570.000,00	
The Total Cost/month	= The Total Cost/2 years / 24 months	
	= Rp.570.000,00/24	
	= Rp. 23.750,00	

From the calculation above, the total of average house cost for workforce who had family around 1 - 3 persons need in 2 years is around **Rp. 570.000,00/2 years** or **Rp. 23.750,00/month**.

3 Years cost for 1 - 3 persons :

Foam Pillow	= Rp. 25.000,00 x 6 sets	= Rp. 150.000,00
-------------	--------------------------	------------------

Kitchen Knife	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00
Mirror	= Rp. 75.000,00 x 1 pc	= Rp. 75.000,00
The Total Cost/3 years	= Rp. 240.000,00	
The Total Cost/month	= The Total Cost/2 years / 36 months	
	= Rp.240.000,00/36	
	= Rp. 6.667,00	

From the calculation above, the total of average house cost for workforce who had family around 1 - 3 persons need in 3 years is around **Rp. 240.000,00/3 years** or **Rp. 6.667,00/month**.

4 Years cost for 1 - 3 persons :

Cot/Bed	= Rp. 350.000,00 x 1 pc	= Rp. 350.000,00
Foam Mattress	= Rp. 520.000,00 x 1 pc	= Rp. 520.000,00
Table and Chairs	= Rp. 750.000,00 x 1 set	= Rp. 750.000,00
Wardrobe	= Rp. 500.000,00 x 1 pcs	= Rp. 500.000,00
Rice Cooker (½ liter)	= Rp. 200.000,00 x 1 pc	= Rp. 200.000,00
Iron	= Rp. 105.000,00 x 1 pc	= Rp. 105.000,00
The Total Cost/4 years	= Rp. 2.425.000,00	
The Total Cost/month	= The Total Cost/4 years /48 months	
	= Rp.2.425.000,00/48	
	= Rp. 50.520,00	

From the calculation above, the total of average house cost for workforce who had family around 1 - 3 persons need in 4 years is around **Rp. 2.425.000,00/4 years** or **Rp. 50.520,00/month**.

5 Years cost for 1 - 3 persons :

3 kg Gas Cylinder	= Rp. 165.000,00 x 1 pc	= Rp. 165.000,00
The Total Cost/5 years	= Rp. 165.000,00	
The Total Cost/month	= The Total Cost/5 years / 60 months	
	= Rp.165.000,00/60	
	= Rp. 2.750,00	

From the calculation above, the total of average house cost for skilled construction workforce bricklayer who had family around 1 - 3 persons need in 5 years is around **Rp. 165.000,00/5 years** or **Rp. 2.750,00/month**

But, the total of average house cost every month for 1 - 3 persons will be :

Monthly = Rp. 1.309.732,00/month

Yearly = Rp. 59.584,00/month

2 Years = Rp. 23.750,00/month

3 Years = Rp. 6.667,00/month

4 Years = Rp. 50.520,00/month

5 Years = Rp. 2.750,00/month

Total = Rp. 1.453.003,00/month

From the calculation above, the total of average house cost for skilled construction workforce bricklayer who had family around 1 - 3 persons need is around **Rp. 1.453.003,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life. Remember this cost is only for workforce who had family around 1 - 3 persons, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation of 4 - 6 people will be different and the cost for house will be higher. How much is different? Now, the assumption of differences average house cost for 4 - 6 people/month will be :

Assumption :

KHL Detail = 1 - 3 persons

1 - 3 persons = a

4 - 6 persons = (1 - 3 persons) x 2

= a x 2

$$= 2a$$

From the equation above, the assumption of average house cost for workforce who had family around 4 - 6 persons/month is twice bigger than average house cost for workforce who had family around 1 - 3 persons/month. The detail calculation of average cost spend on house will be explained below :

Monthly cost for 4 - 6 persons :

Room rental = Rp. 750.000,00 x 2 room = Rp. 1.500.000,00

LPG Gas = Rp. 25.000,00 x 5 cylinder = Rp. 125.000,00

Electricity = Rp. 438.048,00 x 1 month = Rp. 438.048,00

(Assumption : In the latest 2024 basic electricity tariff list, subsidized 900 VA power household customers are Rp. 1.352,00/kWh.

Max electricity usage 900 VA = 648 kWh

n = Person (1 - 3 = 1/3 4 - 6 = 1/2)

Calculation :

The total of electricity average usage are :

= (Max electricity usage 900 VA x minimum unit price) / n

= (648 kWh x Rp. 1.352,00) x 1/ 2

= Rp. 876.092,00 x 1/ 2

= Rp. 438.048,00

From the calculation above, the total of average electricity cost for workforce who had family around 4 - 6 people need monthly is around **Rp. 438.048,00/month.**

Clean Water (PDAM) = Rp. 4.330,00 x 31 m3 = Rp. 134.200,00

(Assumption : The average household water usage in urban Indonesia is 169,11 L/person/day. If the people are 4 - 6, the cost calculation will be :

n = Person. 4 - 6 (choose the maximum for the assumption calculation, because the result will be the safest cost value).

t = time (day, month or year)

Average household water usage = 169,11 L/person/day

Average water cost in 2024 for household group A3 (Customers who have a road in front of their house with a width including sewers and berms up to 0-3.99 meters) :

0 - 3 m ³	= Rp. 3.550,00
3 - 10 m ³	= Rp. 3.550,00
10 - 20 m ³	= Rp. 4.700,00
> 20 m ³	= Rp. 5.500,00

Calculation :

The total of clean water (PDAM) average usage are :

$$\begin{aligned}
 &= \text{The average household water usage} \times n \times t \\
 &= 169,11 \text{ L/person/ day} \times 6 \times 30 \text{ days} \\
 &= 30.439,8 \text{ L/ 6 persons/ month} = 31 \text{ m}^3/ 6 \text{ persons/ month.}
 \end{aligned}$$

The total of clean water (PDAM) average cost estimation will be :

$$\begin{aligned}
 &= \text{The total of clean water (PDAM) average usage} \times \text{Average water cost in} \\
 &\quad \text{2024 for household group A3} \\
 &= 31 \text{ m}^3/ 6 \text{ persons/ month.}
 \end{aligned}$$

= 0 - 3 m ³	= 3 m ³ x Rp. 3.550,00	= Rp. 10.650,00
= 3 - 10 m ³	= 7 m ³ x Rp. 3.550,00	= Rp. 24.850,00
= 10 - 20 m ³	= 10 m ³ x Rp. 4.700,00	= Rp. 47.000,00
= > 20 m ³	= 11 m ³ x Rp. 4.700,00	= Rp. 51.700,00
Total		= Rp. 134.200,00

From the calculation above, the total of average clean water (PDAM) cost for workforce who had family around 4 - 6 people need monthly is around **Rp. 134.200,00/month.**

Laundry Soap	= Rp. 35.000,00 x 5 kg	= Rp. 175.000,00
Dish Washing Soap (dabble)	= Rp. 12.000,00 x 3 pc	= Rp. 36.000,00
The Total Cost/month	= Rp. 1.715.360,00	

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need monthly is around **Rp. 2.408.248,00/month**

Yearly cost for 4 - 6 persons :

Bed Sheets and Pillowcases	= Rp. 45.000,00 x 10 set	= Rp. 135.000,00
Broom	= Rp. 15.000 x 2 pcs	= Rp. 30.000,00
Dinner Plates	= Rp. 6.000 x 12 pcs	= Rp 72.000,00
Drinking Glasses	= Rp. 4.000 x 12 pcs	= Rp. 48.000,00
Cutlery	= Rp. 5.000,00 x 12 pairs	= Rp. 60.000,00
Aluminum Pan	= Rp. 120.000,00 x 2 pcs	= Rp. 240.000,00
Cooking Spoon	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00
Plastic Bucket	= Rp. 45.000,00 x 2 pcs	= Rp. 90.000,00
Plastic Scoop	= Rp. 10.000,00 x 1 pc	= Rp. 10.000,00
Energy Saving Light Bulbs	= Rp. 30.000,00 x 6 pcs	= Rp. 180.000,00
The Total Cost/year	= Rp. 880.000,00	
The Total Cost/month	= The Total Cost/year / 12 months	
	= Rp.880.000,00/12	
	= Rp. 73.334,00	

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need yearly is around **Rp. 880.000,00/year** or **Rp. 73.334,00/month.**

2 Years cost for 4 - 6 persons :

Aluminum Kettles	= Rp. 150.000,00 x 1 pc	= Rp. 150.000,00
Aluminum Frying Pan	= Rp. 50.000,00 x 1 pc	= Rp. 50.000,00
Stove (with 1 stove) SNI	= Rp. 230.000,00 x 1 pc	= Rp. 230.000,00
Plastic Portable Shelf	= Rp. 65.000,00 x 1 pc	= Rp. 65.000,00
Hose and Regulator SNI	= Rp. 75.000,00 x 1 pcs	= Rp. 75.000,00
The Total Cost/2 years	= Rp. 570.000,00	
The Total Cost/month	= The Total Cost/2 years / 24 months	
	= Rp.570.000,00/24	
	= Rp. 23.750,00	

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need in 2 years is around **Rp. 570.000,00/2 years** or **Rp. 23.750,00/month.**

3 Years cost for 4 - 6 persons :

Foam Pillow	= Rp. 25.000,00 x 10 sets	= Rp. 250.000,00
Kitchen Knife	= Rp. 15.000,00 x 1 pc	= Rp. 15.000,00
Mirror	= Rp. 75.000,00 x 2 pcs	= Rp. 150.000,00
The Total Cost/3 years	= Rp. 415.000,00	
The Total Cost/month	= The Total Cost/2 years / 36 months	
	= Rp.415.000,00/36	
	= Rp. 11.528,00	

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need in 3 years is around **Rp. 415.000,00/3 years** or **Rp. 11.527,00/month.**

4 Years cost for 4 - 6 persons :

Cot/Bed	= Rp. 350.000,00 x 2 pc	= Rp. 700.000,00
Foam Mattress	= Rp. 520.000,00 x 2 pc	= Rp. 1.040.000,00
Table and Chairs	= Rp. 1.000.000,00 x 1 set	= Rp. 1.000.000,00
Wardrobe	= Rp. 500.000,00 x 2 pcs	= Rp. 1.000.000,00
Rice Cooker (½ liter)	= Rp. 200.000,00 x 1 pc	= Rp. 200.000,00
Iron	= Rp. 105.000,00 x 1 pc	= Rp. 105.000,00
The Total Cost/4 years	= Rp. 4.045.000,00	
The Total Cost/month	= The Total Cost/4 years / 48 months	
	= Rp.4.045.000,00/48	
	= Rp. 84.271,00	

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need in 4 years is around **Rp. 4.045.000,00/4 years** or **Rp. 84.271,00/month.**

5 Years cost for 4 - 6 persons :

3 kg Gas Cylinder = Rp. 165.000,00 x 1 pc = Rp. 165.000,00

The Total Cost/5 years = Rp. 165.000,00

The Total Cost/month = The Total Cost/5 years / 60 months

= Rp.165.000,00/60

= Rp. 2.750,00

From the calculation above, the total of average house cost for workforce who had family around 4 - 6 people need in 5 years is around **Rp. 165.000,00/5 years** or **Rp. 2.750,00/month**

But, the total of average house cost every month for 4 - 6 people will be :

Monthly = Rp. 2.408.248,00/month

Yearly = Rp. 73.334,00/month

2 Years = Rp. 23.750,00/month

3 Years = Rp. 11.527,00/month

4 Years = Rp. 84.271,00/month

5 Years = Rp. 2.750,00/month

Total = Rp. 2.603.880,00/month

From the calculation above, the total of average house cost for skilled construction workforce bricklayer who had family around 4 - 6 people need is around **Rp. 2.603.880,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life.

B. Additional Average Cost

The detail of extra house cost for 4 - 6 people/month :

Phone Android Infinix Smart 8 with monthly internet telephone credit. for 4 - 6 people for communication with the family, online studying, doing homework and working, except children who still study in Elementary School (SD) because, its no needed, not necessary, the child is still young and a lot of things in phone

and social media is not allowed or forbidden for kids. The phone price is Rp. 1.050.000,00 and the usage time is around 4 years.

Monthly cost for owned phone will be :

= phone price / usage time

= Rp. 1.050.000,00/ 4 years

= Rp. 1.050.000,00/ 48 months

= Rp. 21.875,00/ month

Assumption average internet telephone credit for 1 person in 1 month is around Rp. 50.000,00.

Total = Phone price/ month + Internet credit

= Rp. 21.875,00 + Rp. 50.000,00

= Rp. 71.875,00 / month

From the calculation above, the total of average additional cost phone and internet for 1 person need is around **Rp. 71.875,00/month.**

The average additional house cost for 1person/month will be **Rp. 71.875,00/month.** Remember this cost is only for 1 person, look at the case above, most of workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation is for 5 people, because its the perfect amount of family member as en example of Decent Living Needs (KHL) cost calculation. But the actual will be different, its only for 4 people because, the last child assumption is still study in Elementary School (SD). Thats why its no needed, not necessary, the child is still young and a lot of things in phone and social media is not allowed or forbidden for kids. The cost will be different, where the cost for house will be higher. How much is different? Now, the assumption of differences average house cost for 4 people/month will be :

Assumption :

KHL Detail = 1 person

1 person = a

4 people = 1 person x 4

= a x 4

= 4a

Cost 1 person/ month = Rp. 71.875,00

Total cost/ month = a x cost 1 person/month

= 4 x Rp. 71.875,00

= Rp. 287.500,00/ month

From the calculation above, the total of average additional cost for owned phone for 4 people because, the last child who still study in Elementary School (SD) is exception and the cost need is around **Rp. 287.500,00/ month.**

The total average house cost 4 - 6 people/month are :

= Regular average cost + additional average cost

= Rp. 2.603.880,00/month + Rp. 287.500,00

= Rp. 2.891.380,00

After the calculation finished, the total average house cost for workforce who had family around 4 - 6 people need in 1 month is around **Rp. 2.891.380,00/ month.** That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life.

This calculation is still un-decent, based on the calculation above, the average rent house cost for workforce who had family around 4 - 6 people/month will be **Rp. 1.500.000,00/month or Rp. 18.000.000,00/year. There is a problem for the house? Is this the best choice to rent house or should buy house?** The house is an important aspect explained in the Decent Living Needs (KHL) and this has been regulated in the UUD and Permenaker, it says that a decent life for workforce's is that they can have a private house as a place to live and shelter with the family. **Thats why, there is an option to choose between rent house for**

only Rp. 18.000.000,00/year or buying a house which can be paid in installments over 10 years time. Which one is the best choice and how much cost needed every month? Remember, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

Imagine the conditions of this case, where should live with 4 - 6 people, the house has to be rented and there is no clarity as to what the future is like. In accordance with the rules that have been explained and stated in the UUD or Permenaker, the house is one of the important aspect indicators for assessing whether a workforce is living a decent life. Private house is needed as a form of comfort and appreciation for workforce and the family. Make sure make a right choice, because house is one of the most important thing for living, please consider and calculated for a long term benefit. For the average price of the houses is mentioned in the table below :

Table 5.11 Average Price of The Houses

Location	Average Price
Sleman Regency	Rp. 280.000.000,00
Yogyakarta City	Rp. 350.000.000,00
Malang Regency	Rp. 360.000.000,00
Badung regency	Rp. 500.000.000,00
Denpasar City	Rp. 460.000.000,00
Tulungagung Regency	Rp. 260.000.000,00
Total	Rp. 2.210.000.000,00
Average Price	Rp. 368.333.334

Source : rumah123.com

Based on the data on the table above, the average house price from the 6 sample Regency's (Badung Regency, Denpasar City, Sleman Regency, Yogyakarta

City, Malang Regency and Tulungagung Regency) is Rp. 368.333.334,00. From that condition, there is a choice between rented house or buying house. Before decide, these are the specification and comparison of the house between buying rented and the explanation is mentioned in the table below :

Table 5.12 Specification and Comparison of The House

RENT (Specification)	UNIT	BUY (Specification)	UNIT
Bedroom	2	Bedroom	2
Bathroom	1	Bathroom	1
Living Room	1	Living Room	1
Kitchen	1	Kitchen	1
Carport :		Carport :	
Car	1	Car	1
Motor Bike	2	Motor Bike	2
Electricity (watt)	900	Electricity (watt)	900
Land Area (m2)	60	Land Area (m2)	60
Building Area (m2)	42	Building Area (m2)	40
Price	Rp. 18.000.000,00/ year or Rp. 1.500.000,00/ month	Price	Rp. 368.333.334,00 (all in include SHM, IMB, Change name at notary).
Other Information	-	Other Information	SHM, IMB

Source : rumah123.com

With the explanation of the case above, the assumption of the calculation for buying house will be different and the cost for buying house will be higher than rent a house. **How much is different?** At least when buying a house, the price of the house must have value or can be purchased with 10 years of family workforce wages, **why?** In essence, one of the fundamental necessities and a component of the right to a decent life is owning a decent home. Affordability, economic justice, and social welfare are the three main tenets of the idea that a decent home should at least be within 10 years of being able to be bought with a workforce wages.

Additionally, the typical 10 year period is thought to be a reasonable length of time for a workforce to save money, fulfill other commitments such as health care, education, and savings, and set aside a percentage of his income to buy a home without sacrificing other essentials. It is not mandatory for workforce to save the majority of their earnings for housing or mortgage payments. People will frequently take on a lot of credit or debt in order to buy a home, and if home prices are too high in comparison to income, there may be a housing gap. Excessive debt can pose significant dangers, including default, which can negatively impact both individual and economic financial stability.

According to several international organizations and specialists in the housing business, a decent home should cost no more than three to five times one's annual income. The price of a house that can be bought within ten years of starting a job is still considered reasonable and is a commonly accepted global standard. This demonstrates the equitable distribution of income in society. This suggests that rather than benefiting only particular groups, housing development and economic expansion benefit the entire community. When workforce feel more comfortable and financially stable because they own a decent home, it has a positive effect on society as a whole. As a result, they might become more motivated and productive at work. If people believe their future is safe, they might be more inclined to put in more effort and be more devoted to the business.

For the decent house, what is the criteria parameter? In September 2015, the UN, together with 193 countries, officially endorsed the Sustainable Development Goals. The SDGs carry the theme "Changing Our World: The 2030 Agenda for Sustainable Development" and contain an action plan for 15 years, valid from 2016 to 2030. Since this agreement is universal, all nations, including Indonesia, have a moral duty to fulfill the SDGs' objectives. Following the creation of the SDGs' goals and targets, global indicators, data sets, and indicators based on operational concepts and definitions pertinent to the various SDGs goals have been developed. In Indonesia, The creation of Sustainable Development

Goals Indicator Metadata (TPB/SDGs) as a follow up to the global indicator agreement was followed by its incorporation into national indicators in the 2020–2024 RPJMN. Based on UU No 23 Tahun 2014 Pasal 263 Ayat 3 About Regional Government,” RPJMD as intended in Ayat (1) b is an explanation of the vision, mission and program of the head areas that contain goals, objectives, strategies, directions policy, regional development and regional finance, as well as regional and cross-device apparatus programs Regions accompanied by a funding framework are indicative for a period of 5 (five) years prepared guided by the RPJPD and RPJMN.”

The criteria parameters of a decent house are calculated by considering construction durability, access to drinking water, access to sanitation, and floor area per capita. Based on National Policy for Handling Urban Slum Settlements – Kementrian PPN/Bappenas, the suitability standards for all components must be met 100%. If there is one component that is not suitable, then the residence is considered un-decent. Assuming all the most basic components are met for eligibility. For the criteria parameter of the decent house is mentioned in the table below :

Table 5.13 Criteria for Adequate Housing in the SDGs

COMPONENT	CRITERIA
Building Resilience	The broadest roof building materials are tile, concrete, wood/shingles, and zinc.
	The widest range of wall building materials are walls/GRC boards, woven bamboo/wire plaster, wood/boards, and wooden sticks.
	The widest flooring house building materials are marble/granite, ceramic, parquet/vinyl/carpet, tile/tile/terrazzo, wood/board, and cement/red brick
Decent Living Space	Floor area per capita > 7.2 m2
Access to Decent Drinking Water	Following the indicators and calculation methods for target 6.1.1 (a) regarding access to decent drinking water
Access to Decent Sanitation	Following the indicators and calculation methods for target 6.2.1 (b) related to access to decent sanitation

Source : Metadata SDGs Indonesia, 2017

Look at back at the cases, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on. Now, the calculation cost and the differences between buying house and rent house per month will be :

The calculation for decent house are should be :

$$n \text{ (member)} = 5$$

$$\text{Minimum Decent Living Space} = > 7.2 \text{ m}^2/\text{person}$$

$$\begin{aligned} \text{Decent Living Space} &= \text{Minimum Decent Living Space} \times n \\ &= 7.2 \text{ m}^2 \times 5 \\ &= 36 \text{ m}^2 \end{aligned}$$

From the calculation above, the total of a decent house are for workforce who had family around 4 - 6 people need is around **> 36 m²**.

Checking for the requirement of decent house should be :

$$\text{House Rent Land Area} = 60 \text{ m}^2 > 36 \text{ m}^2 \text{ (ok)}$$

$$\text{House Rent Building Area} = 42 \text{ m}^2 > 36 \text{ m}^2 \text{ (ok)}$$

$$\text{Buying House Land Area} = 60 \text{ m}^2 > 36 \text{ m}^2 \text{ (ok)}$$

$$\text{Buying House Building Area} = 40 \text{ m}^2 > 36 \text{ m}^2 \text{ (ok)}$$

From the result of the above, the area for buying and rent house, both of them are qualified as a decent house. Now, the calculation cost and the differences between buying house and rent house per month are,

The calculation for buying house will be :

$$\text{Buying House Price} = \text{Rp. } 368.333.334,00$$

$$\text{Administration and etc} = \text{already included}$$

$$\begin{aligned} \text{Buying House Price all in} &= \text{Buying House Price} + \text{Administration and etc} \\ &= \text{Rp. } 368.333.334,00 + \text{already included} \\ &= \text{Rp. } 368.333.334,00 \end{aligned}$$

$$\text{Estimation Time (t)} = 10 \text{ years}$$

$$= 10 \times 12 \text{ months}$$

$$= 120 \text{ months}$$

$$\text{Buying House Price/ month} = \text{Buying House Price all in} / \text{Estimation Time (t)}$$

$$= \text{Rp. } 368.333.334,00 / 120 \text{ months}$$

$$= \text{Rp. } 3.069.445,00 / \text{month}$$

From the calculation above, the total average of buying house cost for workforce who had family around 4 - 6 people need is around **Rp. 368.333.334,00/10 years** or **Rp. 3.069.445,00/month.**

The calculation for rent house will be :

$$\text{Rent House Price} = \text{Rp. } 1.500.000,00$$

$$\text{Administration and etc} = \text{Rp. } 000,00$$

$$\text{Rent House Price all in} = \text{Rent House Price} + \text{Administration and etc}$$

$$= \text{Rp. } 1.500.000,00 + \text{Rp. } 000,00$$

$$= \text{Rp. } 1.500.000,00$$

$$\text{Estimation Time (t)} = 10 \text{ years}$$

$$= 10 \times 12 \text{ months}$$

$$= 120 \text{ months}$$

$$\text{Rent House Price/ year} = \text{Rent House Price all in} \times \text{Estimation Time (t)}$$

$$= \text{Rp. } 1.500.000,00 \times 10 \text{ years}$$

$$= \text{Rp. } 180.000.000,00 / 10 \text{ years}$$

From the calculation above, the total average of rent house cost for workforce who had family around 4 - 6 people need is around **Rp. 180.000.000,00/10 years** or **Rp. 1.500.000,00/month.**

$$\text{The Difference Cost/ 10 years} = \text{Buying House Cost} - \text{Rent House Cost}$$

$$= \text{Rp. } 368.333.334,00 - \text{Rp. } 180.000.000,00$$

$$= \text{Rp. } 188.333.334,00$$

$$\text{The Difference Cost/ month} = \text{Buying House Cost} - \text{Rent House Cost}$$

$$= \text{Rp. } 3.069.445,00 - \text{Rp. } 1.500.000,00$$

$$= \text{Rp. } 1.569.445,00$$

Which one is better? Buying house for Rp. 368.333.334,00/10 years or Renting house for Rp. 180.000.000,00/10 years? Based on the calculation above, the conclusion is buying house is better. **Why?** Because, as a fundamental human need, a home is a valuable asset in life. In contrast to renting, which does not alter ownership and may see annual increases in rental costs, buying entails that ownership passes to the buyer and that the money spent on renting can be used to purchase the asset. The house will be owned once the installments are completed or paid off. As long as everyone pays the installments on time, nobody can evict the house.

The total of average house cost with buying a decent house credit every month for 4 - 6 people need will be :

$$\begin{aligned}
 \text{Monthly} &= \text{Rp. Rp. 2.408.248,00/month} + \text{The Difference Cost/month} \\
 &= \text{Rp. Rp. 2.408.248,00/month} + \text{Rp. 1.569.445,00/month} \\
 &= \text{Rp. 3.977.693/month} \\
 \text{Yearly} &= \text{Rp. 73.334,00/month} \\
 \text{2 Years} &= \text{Rp. 23.750,00/month} \\
 \text{3 Years} &= \text{Rp. 11.527,00/month} \\
 \text{4 Years} &= \text{Rp. 84.271,00/month} \\
 \text{5 Years} &= \text{Rp. 2.750,00/month} \\
 \text{Additional Average Cost} &= \text{Rp. 287.500,00/month} \\
 \text{Total} &= \text{Rp. 4.460.825,00/month}
 \end{aligned}$$

From the calculation above, the grand total of average house cost for workforce who had family around 4 - 6 people need is around **Rp. 4.460.825,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of house for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.14 The Data About Decent Living Needs Cost Comparison of House for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Housing for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience	Level	Location	Supouse	N	Children	Profession	Housing (per week)	Housing (per month)	Housing (per week)	Housing (per month)	Description (decent/un-decent)
			(year)	(ducation)						Real	Real	Adjust	Adjust	
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 255.000	IDR 1.109.250	IDR 1.128.025	IDR 4.906.908	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 200.000	IDR 870.000	IDR 1.384.394	IDR 6.022.114	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 200.000	IDR 870.000	IDR 1.538.216	IDR 6.691.238	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 350.000	IDR 1.522.500	IDR 1.538.216	IDR 6.691.238	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 250.000	IDR 1.087.500	IDR 1.128.025	IDR 4.906.908	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 275.000	IDR 1.196.250	IDR 1.025.477	IDR 4.460.825	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 922.929	IDR 4.014.743	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 230.000	IDR 1.000.500	IDR 1.128.025	IDR 4.906.908	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 205.000	IDR 891.750	IDR 922.929	IDR 4.014.743	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 130.000	IDR 565.500	IDR 1.025.477	IDR 4.460.825	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 175.000	IDR 761.250	IDR 1.025.477	IDR 4.460.825	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 170.000	IDR 739.500	IDR 922.929	IDR 4.014.743	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 135.000	IDR 587.250	IDR 922.929	IDR 4.014.743	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 200.000	IDR 870.000	IDR 922.929	IDR 4.014.743	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 450.000	IDR 1.957.500	IDR 1.128.025	IDR 4.906.908	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 203.000	IDR 883.050	IDR 922.929	IDR 4.014.743	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 170.000	IDR 739.500	IDR 922.929	IDR 4.014.743	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 305.000	IDR 1.326.750	IDR 1.538.216	IDR 6.691.238	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-	IDR 280.000	IDR 1.218.000	IDR 1.538.216	IDR 6.691.238		
AVERAGE COST										IDR 239.320	IDR 1.041.042	IDR 1.152.636	IDR 5.013.967	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

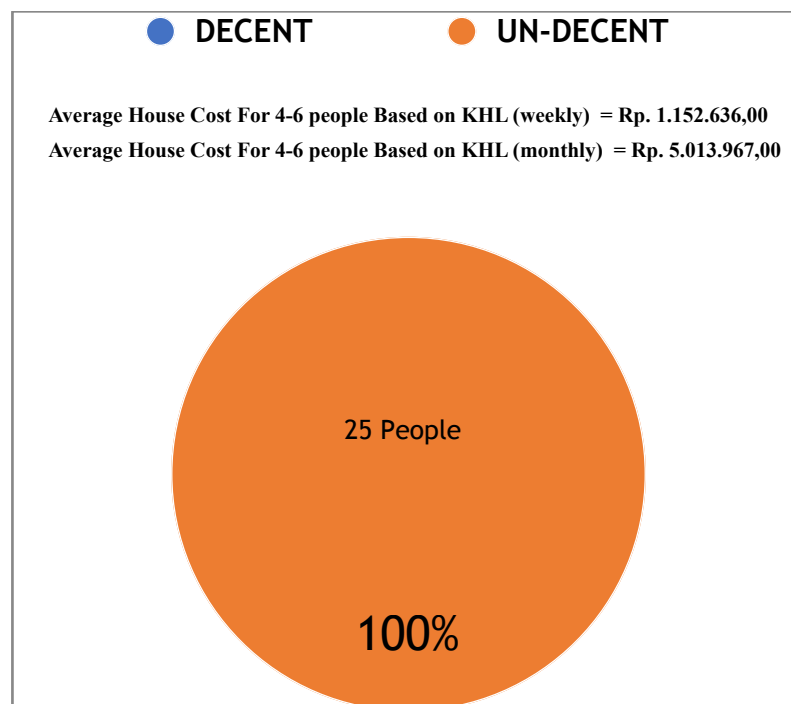
Source : Observation and Calculation

From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as house prices. The final results of these calculations are definitely different. The total of average house cost for skilled construction workforce bricklayer who had family around 4 - 6 people need before is around **Rp. 4.460.825,00/month** and after the calculation based on the difference location, difference house price in each location, and with the 25 workforce's as the sample, the final result of the total of average house cost for skilled construction workforce bricklayer who had family around 4 - 6 people need is around **Rp. 5.013.967,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

= Rp. 5.013.967,00/month - Rp. 4.460.825,00/month

= Rp. 553.142,00/month (This difference cost can be used as additional cost)

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of house for skilled construction workforce bricklayer who had family around 4 - 6 people which is around Rp. 239.320,00 per week or Rp. 1.041.042,00 per month. This value is quite low when compared to the average cost value of house for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 1.152.636,00 per week or Rp. 5.013.967,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.5 The Diagram Result of House Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 workforce who were sampled, all of the 25 sample workforce's (100%) doesn't meet than the average house cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 25 workforce's of the sample has low value than average cost or un-decent. With the average wages received every month right now, the amount of the wages gap isn't much with the other workforce's. That's mean is the 25 workforce's are still not enough to cover the cost in the other sector also, such as education, health, food, clothes, transport, and saving/recreation. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.4 Calculation of Education Category in Decent Living Needs (KHL)

One of the key pillars of human life is education, which is the process of transforming a person's or a group of people's attitudes and behaviors into those of mature humans via instruction, training, educational procedures, methods, and actions. The development of people, society, and even the entire world depends on this process, which goes beyond merely dispensing knowledge. The Decent Living Needs (KHL) table for the education category is mentioned below :

Table 5.15 Decent Living Needs (KHL) Table Education Category

COMPONENT	QUALITY	QUANTITY	AVERAGAE PRICE (/pcs)
Reading/Radio	Tabloid/4 bands	4 pieces (1/48)	Rp. 75.000,00
Ballpoints/Medium Pencils		6/12 pieces	Rp. 3.500,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for the workforce to lead a respectable life, the Decent Living Needs (KHL) standards

mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average education cost for skilled construction workforce bricklayer or 1 person. The detail calculation of cost spend on education will be explained below :

A. Regular Average Cost

In this calculation, the group division method is used based on the number of items and length of service life. Now, the calculation of 1 person cost for education, the detail calculation is explained below.

The detail of average education cost for 1 person/month :

Yearly cost for 1 person :

Ballpoint/Medium Pencils = Rp. 3.500,00 x 6 pcs = Rp. 21.000,00

The Total Cost/1 year = Rp. 21.000,00

The Total Cost/month = The Total Cost/1 year / 12 months

= Rp.21.000,00/12

= Rp. 1.750,00

From the calculation above, the total of average education cost for workforce need in 1 year is around **Rp. 21.000,00/year** or **Rp. 1.750,00/month**.

4 Years cost for 1 person :

Reading Tabloid/Radio = Rp. 75.000,00 x 4 pcs = Rp. 300.000,00

The Total Cost/4 years = Rp. 300.000,00

The Total Cost/month = The Total Cost/4 years / 48 months

= Rp.300.000,00/48

= Rp. 6.250,00

From the calculation above, the total of average education cost for workforce need in 4 years is around **Rp. 300.000,00/4 years** or **Rp. 6.250,00/month**.

The total of regular average education cost every month for workforce :

Yearly cost = Rp. 1.750,00/month

4 Years cost = Rp. 6.250,00/month

Total = Rp. 8.000,00/month

From the education Decent Living Needs (KHL) table, the average education cost for 1 person/month will be **Rp. 8.000,00/month**. Remember this cost is only for 1 person, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation only for 5 people, because its the perfect amount of family member as an example of Decent Living Needs (KHL) cost calculation. The cost will be different, where the cost for education will be higher. How much is different? Now, the assumption of differences average education cost for 5 people/month will be :

Assumption :

KHL Detail = 1 person

1 person = a

5 people = 1 person x 5

= a x 5

= 5a

Cost 1 person/ month = Rp. 8.000,00

Total cost/ month = a x cost 1 person/month

= 5 x Rp. 8.000,00

= Rp. 40.000,00/ month

Total cost/ 4 years = total cost/month x 4 years

= Rp. 40.000,00 x 48 months

= Rp. 1.920.000,00/ 4 years

From the calculation above, the total of average education cost for workforce who had family around 4 - 6 people needed in 4 years is around **Rp. 1.920.000,00/4 years** or **Rp. 40.000,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs

(KHL) standards basic needs that must be met and the construction workforce can live a decent life.

B. Additional Average Cost

The detail of extra education cost for 4 - 6 persons/month :

Schoolbook for (Head of Family, Bricklayer) = No needed (because not going to school anymore)

Schoolbook for (House Wife) = No needed (because not going to school anymore)

Schoolbook for (1st child, Senior High School) = Optional (free from government (BOS funds))

Schoolbook for (2nd child, Junior High School) = Optional (free from government (BOS funds))

Schoolbook for (3rd child, Elementary School) = Optional (free from government (BOS funds))

Total = Free (Optional)

Based on UUD 1945 Pasal 31 Ayat 1, "Every citizen has the right to education." and Based on UUD 1945 Pasal 31 Ayat 2, "Every citizen is obliged to attend basic education and the government is obliged to pay for it." This emphasizes that basic education (SD, SMP and SMA) must be funded by the government. Basically, based on government regulations, state schools for elementary, middle and high school levels should be free because they are funded by the state through the BOS (School Operational Assistance) fund. However, in practice, there are some additional costs that may still be charged to students, depending on regional policies and school needs.

From the calculation above based on current and future condition after adjust wages, the total of additional average education schoolbook cost for workforce who had family around 4 - 6 needed is **Free (Optional)**. Why is it free? Because of BOS funds, **What is BOS funds?** BOS funds are special non physical allocation funds to support the education unit's non personnel operating expenses.

Is it because of BOS fund make operational education free? Yes it is, based on Permendikbud No 8 Tahun 2017 Pasal 1 Ayat 3, "Further School Operational Assistance abbreviated as BOS funds is a Central Government program to provide funding for non operating costs personnel for basic education units and intermediate." **How much BOS funds did the students received?** Based on Permendikbud No 8 Tahun 2017 Pasal 4 BAB 1 (C), "BOS funds received by SD/SDLB/SMP/SMPLB and SMA/SMALB/ Vocational Schools are calculated based on the number of students at that school concerned.

BOS unit costs are:

1. SD/SDLB: Rp. 800.000,00/student/year
2. SMP/SMPLB: Rp. 1.000.000,00/student/year
3. SMA/SMALB and SMK: Rp. 1.400.000,00/student/year."

Do students receive assistance in the form of money from the BOS funds?

No, students do not receive financial assistance directly from BOS funds. BOS funds are given to schools to support educational operations, such as purchasing books, paying teacher honorariums, and maintaining facilities. However, in some cases, schools can use BOS funds to help less fortunate students, for example by providing uniforms, school supplies, or subsidizing the costs of certain activities.

What kind of assistance does the BOS fund provide? BOS (School Operational Assistance) funds are used to support school operational activities so that education can run well. The provided assistance of BOS funds are mentioned in the table below.

Table 5.16 Assistance of BOS Fund

Assistance	Action
Purchase of Books and Stationery	1) Procurement of textbooks and accompanying books. 2) Stationery to support learning.
Financing Learning and Extracurricular Activities	1) Fees for school exams, daily tests and practical activities. 2) Development of extracurricular activities such as sports, arts and student organizations.

Continued of Table 5.16 Assistance of BOS Fund

Assistance	Action
Payment of Honorarium for Teachers and Education Personnel	Salaries for honorary teachers and education staff are in accordance with applicable regulations.
Maintenance of School Facilities and Infrastructure	1) Light repairs to classrooms, tables, chairs and other facilities. 2) Providing school cleanliness such as providing cleaning tools.
Financing of Other Supporting Activities	1) School electricity, water and internet costs. 2) Subscriptions to learning media or educational applications. 3) Transportation for students who need it (especially in remote areas).
Assistance for Disabled Students	1) Cost subsidies for certain educational activities. 2) Uniforms, shoes and school supplies for underprivileged students.

Source : Permendikbud Nomor 63 Tahun 2022

How long will it take to distribute the BOS funds? Based on Permendikbud No 8 Tahun 2017 Pasal 4 BAB 1 (D),” BOS funds distribution is carried out every 3 (three) months (quarterly), namely on January-March, April-June, July-September, and October-December. For areas that are geographically very difficult to reach, the BOS funds collection process experiences obstacles or requires costs expensive collection, then at the suggestion of the regional government and approval from the Ministry of Education and Culture for BOS funds distribution is carried out every 6 (six) months (semester), namely on January-June and July-December.”

Every student needs a few more things in order to engage in the educational process at school, even though the BOS funds help students with their operational burden. Thats why, the government give KIP for the students, **what is KIP?** KIP is a sign or identity given to students as a condition for accessing the Smart Indonesia Program (PIP). The process of providing this card involves data matching between Basic Education Data (Dapodik) and Integrated Social Welfare Data (DTKS) carried out by the Ministry of Social (Kemensos). Based on Peraturan Sekretaris Jendral Kementrian Pendidikan, Kebudayaan, Riset, dan Teknologi No 14 Tahun 2022, Pasal 6 BAB 1 (A),”Increasing access for children

aged 6 (six) years to 21 (twenty one) years to receive educational services until completion of secondary education units to support implementation of universal secondary education/compulsory education 12 (twelve years).” **Is it KIP same with BOS fund?** No, KIP differs from the government run assistance program known as School Operational Assistance (BOS) funds, despite their near identical nature. The fundamental reasoning behind KIP is directed at the students, not the institution, if BOS goes straight to the school. It is run by the students, who receive a monthly money transfer through an ATM. This money must be used for student operations.

What is the different between KIP and PIP? KIP is given to students who receive PIP which comes from the results of matching Dapodik with the Ministry of Social DTKS (Integrated Social Welfare Data). Meanwhile, all designated PIP recipients receive PIP funds. Both play distinct roles in promoting Indonesian education. While PIP as a program offers educational support in the form of cash, increased access, and learning opportunities, KIP as a card grants access. The Smart Indonesia Program (PIP) through the Smart Indonesia Card (KIP) is an educational cash assistance given to school age children (6-21 years) who come from poor or vulnerable families.

Apart from the textbooks received by students at school which are provided free of charge by every school in Indonesia through BOS funds, there are several other school needs that must be met. There are additional items student need to buy outside of give by school or BOS funds. For the additional item of education, the students need to buy are mentioned in the table below :

Table 5.17 Additional Item Table Education Category

COMPONENT	QUALITY	QUANTITY	AVERAGAE PRICE (/pcs)
Notebook	Book	10 pieces (3/12)	Rp. 40.000,00
Ruler	4 Type	1/12 piece	Rp. 20.000,00

Continued of Table 5.17 Additional Item Table Education Category

COMPONENT	QUALITY	QUANTITY	AVERAGAE PRICE (/pcs)
Rubber		3/12 pieces	Rp. 2.500,00
Tip X	Liquid	3/12 pieces	Rp. 4.000,00
Calipers		1/24 piece	Rp. 55.000,00
Sharpener		2/12 piece	Rp. 2.500,00
Highlighter	Light	3/12 pieces	Rp. 7.500,00
Colored Pencils		2/12 piece	Rp. 9.000,00
Drawing Book	A4	3/12 pieces	Rp. 7.000,00
Calculator	Scientific	1/24 piece	Rp. 125.000,00

Source : Personal Calculation

In this calculation, the group division method is used based on the number of items and length of service life. Now, the detail and the calculation of additional education cost for 1 person/month in a skilled construction workforce bricklayer family member is explained below. The detail of additional average education cost for 1 person/month :

Yearly cost for 1 person :

Notebook	= Rp. 40.000,00 x 3	= Rp. 120.000,00
Ruler	= Rp. 20.000,00 x 1	= Rp. 20.000,00
Rubber	= Rp. 2.500,00 x 3	= Rp. 7.500,00
Tip X	= Rp. 4.000,00 x 3	= Rp. 12.000,00
Sharpener	= Rp. 2.500,00 x 2	= Rp. 5.000,00

Highlighter	= Rp. 7.500,00 x 3	= Rp. 22.500,00
Colored Pencils	= Rp. 9.000,00 x 2	= Rp. 18.000,00
Drawing Book A4	= Rp. 7.000,00 x 3	= Rp. 21.000,00
The Total Cost/year	= Rp. 230.000,00	
The Total Cost/month	= The Total Cost/year / 12 months	
	= Rp.230.000,00/12	
	= Rp. 19.167,00	

From the calculation above, the total of average additional education cost for 1 person/month in a workforce family member need monthly is around **Rp. 230.000,00/year** or **Rp. 19.167,00/month.**

2 Years cost for 1 person :

Calipers	= Rp. 55.000,00 x 1	= Rp. 55.000,00
Calculator Scientific	= Rp. 125.000,00 x 1	= Rp. 125.000,00
The Total Cost/2 years	= Rp. 180.000,00	
The Total Cost/month	= The Total Cost/2 years / 24 months	
	= Rp.180.000,00/24	
	= Rp. 7.500,00	

From the calculation above, the total of average additional education cost for 1 person/month in a workforce family member need monthly is around **Rp. 180.000,00/2 years** or **Rp. 7.500,00/month.**

The total of average additional education cost every month for 1 person/month in a workforce family member will be :

Yearly cost	= Rp. 19.167,00/month
2 Years cost	= Rp. 7.500,00/month
Total	= Rp. 26.667,00/month

From the calculation above, the total of average education cost for 1 person/month in a skilled construction workforce bricklayer family member need is around **Rp. 26.667,00/month.** Remember this cost is only for 1 person, look at the case above, most of the workforce at the data sample had family around 4 - 6

people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

In this case, the calculation only for 3 people, because only 3 people who still study at the school. The individual expenditure is evenly distributed among each child family member which are study at school. This shows that education has important value in shaping intelligence and a good personality in the future. The calculation of 3 persons will be different and the cost for education will be higher, it can be calculated using the following simple equation below. The assumption of differences average education cost for 3 persons/month will be :

Assumption :

KHL Detail = 1 person

1 person = a

3 people = 1 person x 3

= a x 3 = 3a

Cost 1 person/ month = Rp. 26.667,00

Total cost 3 persons/month = a x cost 1 person/month

= 3 x Rp. 26.667,00 = Rp. 80.001,00/ month

Total cost 3 persons/2 years = total cost 3 persons/month x 2 years

= Rp. 80.001,00 x 24 months

= Rp. 1.920.024,00/2 years

From the calculation above, the total of average additional education cost for 3 people of workforce family member needed is around **Rp. 80.001,00/month** or **Rp. 1.920.024,00/2 years**.

Total average education cost 5 people/month :

= Regular average cost + additional average cost

= Rp.40.000,00 + Rp.80.001,00 = Rp. 120.001,00

After the calculation finished, the total average education cost for workforce who had family around 5 people need in 1 month is around **Rp. 120.001,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of education for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.18 The Data About Decent Living Needs Cost Comparison of Education for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Education for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Education (per week) Real	Education (per month) Real	Education (per week) Adjust	Education (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 6.000	IDR 26.100	IDR 37.242	IDR 162.001	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 9.500	IDR 41.325	IDR 27.586	IDR 120.001	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 10.000	IDR 43.500	IDR 30.345	IDR 132.001	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 12.000	IDR 52.200	IDR 27.586	IDR 120.001	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 3.000	IDR 13.050	IDR 37.242	IDR 162.001	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 7.000	IDR 30.450	IDR 37.242	IDR 162.001	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 6.500	IDR 28.275	IDR 41.380	IDR 180.002	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 12.000	IDR 52.200	IDR 41.380	IDR 180.002	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 8.000	IDR 34.800	IDR 30.345	IDR 132.001	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 7.000	IDR 30.450	IDR 27.586	IDR 120.001	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 13.000	IDR 56.550	IDR 27.586	IDR 120.001	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 8.500	IDR 36.975	IDR 30.345	IDR 132.001	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 3.500	IDR 15.225	IDR 27.586	IDR 120.001	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 5.000	IDR 21.750	IDR 27.586	IDR 120.001	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 3.000	IDR 13.050	IDR 24.828	IDR 108.001	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
19	Syahriul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 12.000	IDR 52.200	IDR 24.828	IDR 108.001	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 3.000	IDR 13.050	IDR 30.345	IDR 132.001	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 10.500	IDR 45.675	IDR 24.828	IDR 108.001	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 7.000	IDR 30.450	IDR 37.242	IDR 162.001	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 11.500	IDR 50.025	IDR 41.380	IDR 180.002	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 4.500	IDR 19.575	IDR 41.380	IDR 180.002	
AVERAGE COST										IDR 7.140	IDR 31.059	IDR 31.007	IDR 134.881	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

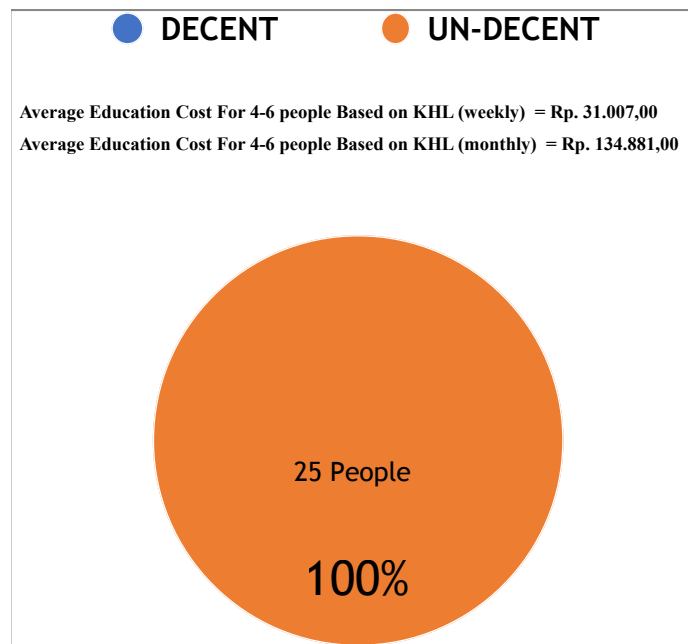
From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as stationary prices. The final results of these calculations are definitely different. The total of average education cost for workforce who had family around 4 - 6 people need before is around **Rp. 120.001,00/month** and after the calculation based on the difference location, difference stationary price in each location, and with the 25 workforce's as the sample, the final result of the total of

average education cost for workforce who had family around 4 - 6 people need is around **Rp. 134.881,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

$$= \text{Rp. 134.881,00/month} - \text{Rp. 120.001,00/month}$$

$$= \text{Rp. 14,880,00/month} \text{ (This difference cost can be used as additional cost)}$$

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of education for skilled construction workforce bricklayer who had family around 4 - 6 people which is around Rp. 7.140,00 per week or Rp. 31.059,00 per month. This value is quite low when compared to the average cost value of education for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 31.007,00 per week or Rp. 134.881,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.6 The Diagram Result of Education Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 construction workforce's who were sampled, all of the 25 sample workforce's (100%) doesn't meet than the average education cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 25 workforce's of the sample has low value than average cost or un-decent. With the average wages received every month right now, the amount of the wages gap isn't much with the other workforce's. That's mean is the 25 workforce's are still not enough to cover the cost in the other sector also, such as housing, health, food, clothes, transport, and saving/recreation. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.5 Calculation of Health Category in Decent Living Needs (KHL)

A state of physical, mental, mental and social health, which is not only free from disease or weakness/defects, where having a healthy and fit body can prevent the body from being attacked by disease that can continue carrying out daily activities. It is allows everyone to live a productive life socially and economically. The decent living needs (KHL) table for the health category is mentioned below.

Table 5.19 Decent Living Needs (KHL) Table Health Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
Health Facilities			
a. Toothpaste	80 grams	1 tube	Rp. 15.000,00
b. Bath Soap	81 grams	2 pieces	Rp. 6.500,00
c. Toothbrush	Local Product	3/12 pieces	Rp. 7.500,00
d. Shampoo	Local Product	1 bottle 100 ml	Rp. 25.000,00
e. Sanitary Napkins or shaving Tools. Contents of 10		1 box/set	Rp. 35.000,00
Deodorant	100 ml/gr	6/12 bottles	Rp. 25.000,00
Anti-Mosquito Medicine	Burn	3 boxes	Rp. 6.500,00
Hair Cut	At The Barber/Salon	6/12 times	Rp. 25.000,00
Comb	Ordinary	2/12 pieces	Rp. 7.500,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for the workforce to lead a decent life. The Decent Living Needs (KHL) standards mentioned above were established. The detail of Decent Living Needs (KHL) mentioned above are average health cost for skilled construction workforce bricklayer who had family around 1 - 3 persons. The detail calculation of cost spend on health will be explained below.

A. Regular Average Cost

In this calculation, the group division method is used based on the number of items and length of service life. The detail of average health cost for skilled construction workforce bricklayer who had family around 1 - 3 persons/month :

Monthly cost for 1 - 3 persons :

Toothpaste = Rp. 15.000,00 x 1 pc = Rp. 15.000,00

Bath Soap = Rp. 6.500,00 x 2 pcs = Rp. 13.000,00

Shampoo = Rp. 25.000,00 x 2 pcs = Rp. 50.000,00

Sanitary Napkins or shaving Tools = Rp. 35.000,00 x 1 set = Rp. 35.000,00

(Contents of 10)

Anti-Mosquito Medicine = Rp. 6.500,00 x 3 box = Rp. 19.500,00

From the calculation above, the total of average health cost for workforce who had family around 1 - 3 persons needed monthly is around **Rp. 132.500/month.**

Yearly cost for 1 person :

Toothbrush = Rp. 7.500,00 x 3 pcs = Rp. 22.500,00

Deodorant = Rp. 25.000,00 x 6 pcs = Rp. 150.000,00

Hair Cut = Rp. 25.000,00 x 6 times = Rp. 150.000,00

Comb = Rp. 7.500,00 x 2 pcs = Rp. 15.000,00

From the calculation above, the total of average health cost for workforce who had family around 1 - 3 persons needed yearly is around **Rp. 337.500,00/year** or **Rp. 28.125,00/month.**

But, the total of average health cost every month for workforce who had family around 1 - 3 persons needed monthly will be :

Monthly = Rp. 132.500,00/month

Yearly = Rp. 28.125,00/month

Total = Rp. 160.625,00/month

From the education Decent Living Needs (KHL) table, the average health cost for skilled construction workforce bricklayer who had family around 1 - 3 persons needed monthly will be **Rp. 160.625,00/month.** That is the calculation of Decent

Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. Remember this cost is only for workforce who had family around 1 - 3 persons, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation of workforce who had family around 4 - 6 people will be different and the cost for health will be higher. How much is different? Now, the assumption of differences average health cost for workforce who had family around 4 - 6 people/month will be :

Assumption :

$$\begin{aligned}
 \text{KHL Detail} &= 1 - 3 \text{ persons} \\
 1 - 3 \text{ persons} &= a \\
 4 - 6 \text{ people} &= (1 - 3 \text{ persons}) \times 2 \\
 &= a \times 2 \\
 &= 2a
 \end{aligned}$$

From the equation above, the assumption of average health cost for workforce who had family around 4 - 6 people/month is twice bigger than average health cost for workforce who had family around 1 - 3 persons/month. The detail calculation of average cost spend on health will be explained below.

The detail of average health cost for workforce who had family around 4 - 6 people/month :

Monthly cost for 4 - 6 people :

$$\begin{aligned}
 \text{Toothpaste} &= \text{Rp. } 15.000,00 \times 2 \text{ pcs} &= \text{Rp. } 30.000,00 \\
 \text{Bath Soap} &= \text{Rp. } 6.500,00 \times 10 \text{ pcs} &= \text{Rp. } 65.000,00 \\
 \text{Shampoo} &= \text{Rp. } 25.000,00 \times 3 \text{ pcs} &= \text{Rp. } 75.000,00 \\
 \text{Sanitary Napkins or shaving Tools} &= \text{Rp. } 35.000,00 \times 2 \text{ set} &= \text{Rp. } 70.000,00 \\
 &(\text{Contents of 10})
 \end{aligned}$$

Anti-Mosquito Medicine = Rp. 6.500,00 x 6 box = Rp. 39.000,00

From the calculation above, the total of average health cost for workforce who had family around 4 - 6 people needed monthly is around **Rp. 279.000,00/month.**

Yearly cost for 4 - 6 people :

Toothbrush = Rp. 7.500,00 x 15 pcs = Rp. 112.500,00

Deodorant = Rp. 25.000,00 x 30 pcs = Rp. 750.000,00

Hair Cut = Rp. 25.000,00 x 12 times = Rp. 300.000,00

Comb = Rp. 7.500,00 x 10 pcs = Rp. 75.000,00

From the calculation above, the total of average health cost for workforce who had family around 4 - 6 people needed yearly is around **Rp. 1.237.500,00/year or Rp. 103.125,00/month.**

But, the total of average health cost every month for skilled construction workforce bricklayer who had family around 4 - 6 people needed monthly will be :

Monthly = Rp. 279.000,00/month

Yearly = Rp. 103.125,00/month

Total = Rp. 382.125,00/month

From the calculation above, the total of average health cost for workforce who had family around 4 - 6 people needed monthly is around **Rp. 382.125,00/month.**

The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life.

B. Additional Average Cost

The detail of extra health cost for 4 - 6 persons/month :

BPJS Kesehatan (Health) for skilled construction workforce's (bricklayer's in this case) = 1% from wages received every month in the company work into.

BPJS Ketenagakerjaan (Profession) for skilled construction workforce's (bricklayer's in this case) = 3% from wages received every month in the company work into.

BPJS Kesehatan (Health) for house wife = already included, based on UU No 24 Tahun 2011 BAB Pasal 15 Ayat (2)

BPJS Kesehatan (Health) for 1st child, Senior High School = already included, based on UU No 24 Tahun 2011 BAB Pasal 15 Ayat (2)

BPJS Kesehatan (Health) for 2nd child, Junior High School = already included, based on UU No 24 Tahun 2011 BAB Pasal 15 Ayat (2)

BPJS Kesehatan (Health) for 3rd child, Elementary School = already included, based on UU No 24 Tahun 2011 BAB Pasal 15 Ayat (2)

Why need BPJS Kesehatan (Health)? In Indonesia, BPJS Kesehatan (Health) is here as a solution for all people to get access to health protection or services and also protects us from the high medical costs that should be paid. Based on UU No 24 Tahun 2011 BAB 1 Pasal 3, "BPJS purpose to make its implementation a reality providing guarantees for the fulfillment of basic needs a decent life for every participant and/or member his family." BPJS Kesehatan (Health) provides health facilities with easy access throughout Indonesia, from clinics, health centers to hospitals. With BPJS Kesehatan (Health), all Indonesian people can get treatment and health facilities more easily. Guaranteeing protection for all Indonesian citizens regardless of previous conditions is one of the benefits provided by BPJS Kesehatan (Health), such as no age or disease limits. Based on UU No 24 Tahun 2011 BAB 1 Pasal 2, "BPJS administers the national social security system based on the principle:

- a. Humanity;
- b. Benefit; And
- c. Social justice for all Indonesian people."

Anyone who has a chronic disease can still receive the same health facility services, they will not get rejected due to illness or requirements for medical check options. All Indonesian citizens are required to register themselves and their family members on one family card to become BPJS Kesehatan (Health) participants. Based on UU No 24 Tahun 2011 BAB V Pasal 16 Ayat (1),"

Everyone, other than Company, Workforce, and Contribution Assistance recipients, who comply requirements for participation in the Guarantee program Social media is required to register itself and its members his family as Participants to BPJS, accordingly with the Social Security program that is followed.” Base on the case above, many of the skilled construction workforce bricklayer is working in construction company, that means company should cover BPJS Kesehatan (Health) for the skilled construction workforce’s (bricklayer’s in this case) and the other 4 family member, which is wife and 3 children. For the BPJS Ketenagakerjaan (Profession) is different case because, only 1 workforce on the family, the wife is not working and the 3 other family member is still studying at school, its meaning the company only responsible to cover workforce only for the BPJS Ketenagakerjaan (Profession). Based on UU No 24 Tahun 2011 BAB 1 Pasal 15 Ayat (2),” Company, in carrying out registration as intended in Ayat (1), is mandatory provide the following data about himself and his workforce family members completely and correctly to BPJS.” For the BPJS Kesehatan (Health) has a basis for calculating contributions that business owners or HR must know. In general, the amount of independent BPJS Kesehatan (Health) fees and company BPJS Kesehatan (Health) have several differences. The differentiates independent BPJS Kesehatan (Health) participants from company registered participants is the class, where workforce cannot choose the class. The classified of the BPJS Kesehatan (Health) will be explained in the table below.

Table 5.20 Classified of BPJS Kesehatan (Health) Table Category

Category	Amount	Paid
PBI	Rp. 42.000,00	Covered by Government
PPU Class 1	Workforce with wages above Rp. 4.000.000,00	5% of salary (4% by company, 1% by workforce); Maximal from the salary Rp. 12.000.000,00
PPU Class 2	Workforce with wages under Rp. 4.000.000,00	5% of salary (4% by company, 1% by workforce); Maximal from the salary Rp. 12.000.000,00

Continued of Table 5.20 Classified of BPJS Kesehatan (Health) Table

Category

Category	Amount	Paid
PHK	Workforce who experience layoffs	5% of salary (4% by company, 1% by workforce); Maximal from the salary Rp. 12.000.000,00
PBPU Class 2	Rp. 100.000,00	Independent
PBPU Class 3	Rp. 35.000,00 (From Rp. 42.000,00 subsidized Rp. 7.000,00 by the government)	Independent
PBPU Class 1	Rp. 150.000,00	Independent

Source : Peraturan Presiden No 64 Tahun 2020

The BPJS Kesehatan (Health) contribution paid by the company is 5% per month with the provision that 4% will be paid by the company and 1% will be paid by the participant. Workforce can register a maximum of 5 family members (husband/wife and 3 children), if the workforce wants to add family members as well, the workforce must pay an additional 1% of his wages for each person registered. Workforce can also add parents, in-laws, 4th child and so on, with an addition of 1 percent of wages for each person. Apart from those mentioned above, according to the nominal contribution, workforce can add other relatives such as brothers, sisters, uncles, aunts, etc. Workforce can provide a power of attorney to the company stating their willingness to reduce their wages for additional family members. That means, skilled construction workforce bricklayer and the other 4 family member (wife and 3 child) only need to cover the payment for 1% only to cover all who have been registered on the family card and only for the BPJS Kesehatan (Health).

How about BPJS Ketenagakerjaan (Profession), **what is the different between BPJS Kesehatan (Health) and BPJS Ketenagakerjaan (Profession)?** BPJS Kesehatan (Health) provides a social security program that provides health service benefits to participants and/or their family members who meet the requirements. Meanwhile, BPJS Ketenagakerjaan (Profession) is a public legal

entity tasked with administering workforce social security programs. BPJS Ketenagakerjaan (Profession) focuses more on social protection for workforce, who are at risk of losing or experiencing a decrease in income due to work accidents, work-related illnesses, retirement or death, while BPJS Kesehatan (Health) focuses more on health protection for all Indonesian people regardless of workforce status. **Why need BPJS Ketenagakerjaan (Profession)?** BPJS Ketenagakerjaan (Profession) organizes four different workforce social security programs, that provides benefits in the form of health services, rehabilitation, compensation, and/or assistance to participants who experience work accidents or work-related illnesses, cash to participants who have entered retirement age, resigned, or been dismissed from their jobs or to his heirs if the participant dies. BPJS Ketenagakerjaan (Profession) organizes four workforce social security programs. Based on UU No 24 Tahun 2011 BAB II Pasal 6 Ayat (2),”BPJS Ketenagakerjaan (Employment) as intended in Pasal 5 Ayat (2) letter b organizes program:

- a. Accident insurance;
- b. Retiring plan;
- c. Retiring guarantee; and
- d. Death guarantee.

BPJS Ketenagakerjaan (Profession) has the authority to determine, change the types of benefits and develop and improve the quality of services provided to participants and/or their heirs. Based on UU No 24 Tahun 2011 BAB 1 Pasal 15 Ayat (1),” Company are gradually required to register himself and his workforce as participants in BPJS is in accordance with the Social Security program followed.” Profession Social Security Administration Agency (BPJS Ketenagakerjaan/Profession), one of the Indonesian Government's programs to ensure that Indonesian workforce receive the best safety protection against various dangerous risks in the workplace and post-work welfare. BPJS Ketenagakerjaan (Profession) has a number of programs with fixed contribution amounts, the

percentage paid for each program varies both by companies and direct workforce.

The amount and percentage of each program will be explained in the table below.

Table 5.21 Classified of BPJS Ketenagakerjaan (Profession) Table
Category

Category	Risk	Percentage	Paid
Work accident insurance (JKK), Based on Peraturan Pemerintah No 44 Tahun 2015	Low	0.24%	Company
	Low	0.54%	Company
	Medium	0.89%	Company
	High	1.27%	Company
	Very High	1.74%	Company
Death Guarantee (JKM), Based on Peraturan Pemerintah No 44 Tahun 2015		0.30%	Company
Retiring Guarantee (JP)		2%	Company
Based on Peraturan Pemerintah No 45 Tahun 2015		1%	Independent
Retiring Plan (JHT)		3.7%	Company
Based on Peraturan Pemerintah No 46 Tahun 2015		2%	Independent
Job Loss Guarantee (JKP)		0.22%	Central Government
		0.14%	Recomposition of JKK program contributions
		0.10%	Recomposition of JKM program contributions.

Source : Peraturan Pemerintah No 44, No 45, No 46 Tahun 2015

BPJS Ketenagakerjaan (Profession) only for workforce who works and receives wages or other forms of compensation from an company. The Work Accident Insurance (JKK) and Death Guarantee (JKM) skilled construction workforce bricklayer received from the company around 1.74% and 0.30% per month, because the type of work is a construction sector. Based on Peraturan Menteri Ketenagakerjaan No 5 Tahun 2021 Pasal 71 Ayat (1),”JKK contributions for construction service workforce whose wage components are listed and known

are set at 1.74% (one point seventy four percent) of a month's wages.” Based on Peraturan Menteri Ketenagakerjaan No 5 Tahun 2021 Pasal 71 Ayat (2),”JKM contributions for construction service workforce whose wage components are listed and known are set at 0.30% (zero point thirty percent) of a month's wages.” For the reminder, workforce the only one who work among in the family. Based on Peraturan Menteri Ketenagakerjaan No 5 Tahun 2021 Pasal 66 Ayat (1),”Every construction services company is required to register its workforce in the JKK program and JKM program with BPJS Ketenagakerjaan (Profession).” The regulation states that construction service workforce include casual daily workforce, contract workforce, and Specific Time Work Agreement (PKWT) workforce.

Refers to legal provisions in Indonesia, there are sanctions for BPJS participants who are in arrears and late in paying their contributions, they will be subject to a fine, especially if they don't pay at all. Based on Peraturan Presiden No 64 Tahun 2020 Pasal 42 Ayat (1),” In the event that the Participant and/or Company does not pay the dues by the end of the current month, the Participant's guarantee will be temporarily suspended from the 1st of the following month.” Based on Peraturan Presiden No 64 Tahun 2020 Pasal 42 Ayat (2),” In the event that the company has not paid off the arrears of contributions as intended in Ayat (1) to BPJS Kesehatan (Health), the company is obliged to be responsible when the workforce requires health services in accordance with the benefits provided.” Based on Peraturan Presiden No 64 Tahun 2020 Pasal 42 Ayat (6a),” For the year 2020, the fine as intended in Ayat (5) is 2.5% (two point five percent) of the estimated cost of the Indonesian CaseBased Groups package based on initial diagnosis and procedures for each month in arrears with the following provisions :

- a. The maximum number of months in arrears is 12 (twelve) months; and
- b. The maximum fine is Rp. 30.000.000,00 (thirty million rupiah).”

This also applies to companies that do not register their workforce with BPJS. Sanctions for companies that do not comply with BPJS obligations are designed

to ensure company compliance in providing social security to workforce and ensuring the protection of workforce welfare in Indonesia. For BPJS Kesehatan (Health) sanctions are arranged based on UU No 24 Tahun 2011 Pasal 17 Ayat (1),” Company other than state administrators who does not implement the provisions as follows referred to in Pasal 15 Ayat (1) and Ayat (2), and everyone who does not carry it out provisions as intended in Pasal 16 subject to administrative sanctions. Based on UU No 24 Tahun 2011 Pasal 17 Ayat (2),” Administrative sanctions as referred to in Ayat (1) can be in the form of:

- a. Written warning,
- b. Fine, and/or
- c. Do not receive certain public services.”

For BPJS Ketenagakerjaan (Profession) sanctions are arranged based on Peraturan Pemerintah No 86 Tahun 2013 Pasal 5 Ayat (1),” Company other than State Officials who violate the provisions as intended in Pasal 3 and every person, other than company, workforce and recipients of contribution assistance who violate the provisions as intended in Pasal 4 will be subject to administrative sanctions.” Based on Peraturan Pemerintah No 86 Tahun 2013 Pasal 5 Ayat (2),” Administrative sanctions as referred to in Ayat (1) can be in the form of:

- a. Written warning,
- b. Fine, and/or
- c. Do not receive certain public services.”

While for additional fines, based on BPJS regulations, companies that do not pay their contributions on time are also subject to a late fine of 2% of the amount of contributions in arrears for each month of delay. With the obligations and sanctions explained above, BPJS payments need to be implemented so that everyone has the same opportunity to get guaranteed health and long term guarantee services. Good health insurance certainly doesn't come for free. Good future life also certainly doesn't come for free.

Now, the calculation of additional average health cost for workforce who had family around 4 - 6 people, the detail calculation is explained below.

The detail of average health cost for workforce/month are,

The average wages of skilled construction workforce bricklayer 2024/month

= Rp. 3.946.000,00

n (work days in 1 month) = 25 days (Based on UU No 13 Tahun 2003 Pasal 77 Ayat 2)

The average wages of skilled construction workforce bricklayer 2024/day :

= The average wages monthly/n(work days)

= Rp. 3.946.000,00/25 days

= Rp. 157.840,00

BPJS Kesehatan (Health)/month : 5% of salary

BPJS Kesehatan (Health)/month covered by company : 4%

BPJS Kesehatan (Health)/month covered by independent : 1%

Amount of BPJS Kesehatan (Health) for workforce who had family around 4 - 6 people/month covered by company are,

= BPJS Kesehatan (Health)/month covered by company x The average wages monthly

= 4% x Rp. 3.946.000,00

= Rp. 157.840,00

Amount of BPJS Kesehatan (Health) for workforce who had family around 4 - 6 people/month covered by Independent :

= BPJS Kesehatan (Health)/month covered by company x The average wages monthly

= 1% x Rp. 3.946.000,00

= Rp. 39.460,00

The value paid personally to BPJS Kesehatan (Health)/month for workforce who had family around 4 - 6 people only Rp. 39.460,00. **Why is it cheap?** This happens because the condition of a workforce working on a project or

construction company with a monthly wages system already registered with BPJS Kesehatan (Health) by the company, it falls into the PPU category. For PPU participant, the maximum family members who can be covered are husband/wife and 3 children or 4 family member, which is in accordance with the conditions of the case above and has been covered in the contribution. Based on Peraturan Presiden No 64 Tahun 2020, skilled construction workforce's (bricklayer's in this case) who had family around 4 - 6 people get facility PPU Class 2 because, the wages get from the company every month is below to Rp. 4.000.000,00.

Now, the calculation of additional average health cost for skilled construction workforce bricklayer only, the detail calculation is explained below.

The detail of average health cost for skilled construction workforce bricklayer/month :

BPJS Ketenagakerjaan (Profession) : 9.16%

BPJS Ketenagakerjaan (Profession)/month covered by company : 6.16%

BPJS Ketenagakerjaan (Profession)/month covered by independent : 3%

Amount of BPJS Ketenagakerjaan (Profession) for skilled construction workforce bricklayer/month covered by company :

$$\begin{aligned}
 &= \text{BPJS Ketenagakerjaan (Profession)/month covered by company} \times \text{The average wages monthly} \\
 &= 6.16\% \times \text{Rp. } 3.946.000,00 \\
 &= \text{Rp. } 243.074,00
 \end{aligned}$$

Amount of BPJS Ketenagakerjaan (Profession) for skilled construction workforce/month covered by Independent :

$$\begin{aligned}
 &= \text{BPJS Ketenagakerjaan (Profession)/month covered by company} \times \text{The average wages monthly} \\
 &= 3\% \times \text{Rp. } 3.946.000,00 \\
 &= \text{Rp. } 118.380,00
 \end{aligned}$$

From the calculation above, the total of average additional BPJS Ketenagakerjaan (Profession) cost for workforce needed monthly is around **Rp.**

118.380,00/month. The cost spend is only for workforce because, this cost only for workforce who is working in the company, the wife as a housewife, and the other 3 childs is still studying. BPJS Ketenagakerjaan (profession) is not only for formal workforce, but also for non-formal workforce. Non-formal workforce fall into the category of Non-Wage Recipient (BPU) workforce. Jobs that are included in non-formal jobs include entrepreneurs, freelancers, casual workforce and street vendors. Everyone who works and receives wages or other forms of compensation from an company.

The total of average health cost for skilled construction workforce bricklayer who had family around 4 - 6 people/month are,

$$\begin{aligned} &= \text{Regular average cost} + \text{additional average cost} \\ &= \text{Rp. } 382.125,00 + \text{Rp. } 118.380,00 + \text{Rp. } 39.460,00 \\ &= \text{Rp. } 539.965,00 \end{aligned}$$

After the calculation finished, the total average health cost for workforce who had family around 4 - 6 people need in 1 month is around **Rp. 539.965,00/month.** That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of health for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.22 The Data About Decent Living Needs Cost Comparison of Health for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Health for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Health (per week) Real	Health (per month) Real	Health (per week) Adjust	Health (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 105.000	IDR 456.750	IDR 167.575	IDR 728.953	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 50.000	IDR 217.500	IDR 136.543	IDR 593.961	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 65.000	IDR 282.750	IDR 124.130	IDR 539.965	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 75.000	IDR 326.250	IDR 167.575	IDR 728.953	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 100.000	IDR 435.000	IDR 167.575	IDR 728.953	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 55.000	IDR 239.250	IDR 186.195	IDR 809.948	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 100.000	IDR 435.000	IDR 186.195	IDR 809.948	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 100.000	IDR 435.000	IDR 136.543	IDR 593.961	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 55.000	IDR 239.250	IDR 136.543	IDR 593.961	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 65.000	IDR 282.750	IDR 111.717	IDR 485.968	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 45.000	IDR 195.750	IDR 124.130	IDR 539.965	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 52.000	IDR 226.200	IDR 124.130	IDR 539.965	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 58.500	IDR 254.475	IDR 136.543	IDR 593.961	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 100.000	IDR 435.000	IDR 167.575	IDR 728.953	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 100.000	IDR 435.000	IDR 186.195	IDR 809.948	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 80.000	IDR 348.000	IDR 186.195	IDR 809.948	
AVERAGE COST										IDR 67.420	IDR 293.277	IDR 139.522	IDR 606.921	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

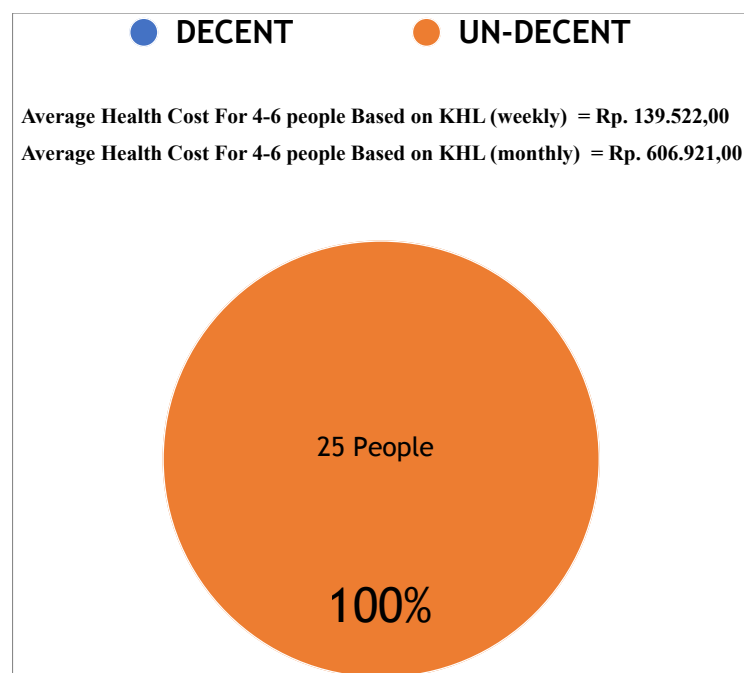
Source : Observation and Calculation

From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as medicine prices. The final results of these calculations are definitely different. The total of average health cost for skilled construction workforce bricklayer who had family around 4 - 6 people need before is around **Rp. 539.965,00/month** and after the calculation based on the difference location, difference medicine price in each location, and with the 25 workforce's as the sample, the final result of the total of average health cost for skilled construction workforce bricklayer who had family around 4 - 6 people need is around **Rp. 606.921,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

= Rp. 606.921,00/month - Rp. 539.965,00/month

= Rp.66.956,00/month (This difference cost can be used as additional cost)

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of health for skilled construction workforce bricklayer who had family around 4 - 6 people which is around Rp. 67.420,00 per week or Rp. 293.277,00 per month. This value is quite low when compared to the average cost value of health for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 139.522,00 per week or Rp. 606.921,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.7 The Diagram Result of Health Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 workforce who were sampled, all of the 25 sample workforce's (100%) doesn't meet than the average health cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 25 workforce's of the sample has low value than average cost or un-decent. With the average wages received every month right now, the amount of the wages gap isn't much with the other workforce's. That's mean is the 25 workforce's are still not enough to cover the cost in the other sector also, such as housing, education, food, clothes, transport, and saving/recreation. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.6 Calculation of Transport Category in Decent Living Needs (KHL)

Transportation is used to make it easier for people to carry out daily activities. Humans can move places quickly because of transportation support. Good transportation support makes life in the country more optimal because all needs can be met. In developed countries, they usually use the subway and taxis. Residents there rarely have private vehicles because they mostly use public transportation as their transportation. The Decent Living Needs (KHL) table for the transportation category is mentioned below.

Table 5.23 Decent Living Needs (KHL) Table Transportation Category

COMPONENT	QUALITY	QUANTITY	AVERGAE PRICE (/pcs)
Work Transportation and Others	Public Transportation	30 days (round- trip)	Rp. 3.500,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for

the workforce to lead a respectable life, the Decent Living Needs (KHL) standards mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average transport cost for skilled construction workforce bricklayer or 1 person. The detail calculation of cost spend on transport will be explained below :

A. Regular Average Cost

The detail of average transportation cost for 1 person/month.

Work Transportation and Others (Public Transport) = Rp. 3.500,00/1 way go

Now, the calculation of transportation costs for workforce, the detail calculation is explained below.

Daily transport cost :

= Average transport for 1 day x Average transport cost 1 way go

= 2 x Rp. 3.500,00

= Rp. 7.000,00/day (2 times go with Bus Trans)

Monthly transport cost :

= Daily transport cost x 1 month

= Rp. 7.000,00 x 30

= Rp. 210.000,00/30 days or Rp. 210.000,00/month

From the calculation above, the total of average transport cost for workforce need is around **Rp. 210.000,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. Remember this cost is only for 1 person, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation only for 5 people, because its the perfect amount of family member as en example of Decent Living Needs (KHL) cost

calculation. The cost will be different, where the cost for transport will be higher. How much is different? Now, the assumption of differences average transport cost for 5 people/month will be :

Assumption :

KHL Detail = 1 person

1 person = a

5 people = 1 person x 5

= a x 5

= 5a

Transport cost 1 person/ month = Rp. 210.000,00

Total transport cost 5 persons/month = 5 x transport cost 1 person/month

= 5 x Rp. 210.000,00

= Rp. 1.050.000,00/month

From the calculation above, the total of average transport cost for workforce who had family around 4 - 6 people needed monthly is around **Rp. 1.050.000,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life.

B. Additional Average Cost

The detail of extra transportation cost for 4 - 6 people/month are :

In the calculation above, the average transport cost for workforce who had family around 4 - 6 people/month will be **Rp. 1.050.000,00/month or Rp. 12.600.000,00/year**. There is a problem for the transportation, **Is this the best choice?** Because, there is an option to choose between public transport for Rp. 12.600.000,00/year or buying a motorbike (Honda Beat Deluxe Smart Key) for Rp. 21.000.000,00/10 years using time. **Which one is the best choice and how much cost needed every month?** Make sure make a right choice, because transport is also one of the most important thing for living, please consider and

calculated for a long term benefit. For the specification and comparison of the transportation is mentioned in the table below :

Table 5.24 Specification and comparison of The Transportation

Public Transport (Specification)	Price	Buy Motorbike (Specification)	Price
Rates/times using	Rp. 3.500,00	Honda Beat Deluxe Smart Key 2024	Rp. 19.830.000,00
Interest Rate	-	Interest Rate	10.9%
Administration and etc		Administration and etc	Rp. 2.170.000,00
Price	Rp. 3.500,00	Price All in	Rp. 24.161.470,00
DP	-	DP (10 %)	Rp. 2.000.000,00
Remaining Credit	-	Remaining Credit	Rp. 22.161.470,00
Credit Period	-	Credit Period	4 years (48 months)
Average Cost Everyday/person	Rp. 7.000,00	Average Credit Everyday/motorbike/ 4 years (After DP 10%	Rp. 16.779,00
Average Cost Everyday/5 persons	Rp. 35.000,00	Average Credit Everyday/motorbike/ 4 years (After DP 10%)	Rp. 16.779,00
Average Cost Every Month/ 5 persons	Rp. 1.050.000,00	Average Credit Every Month/4 years (After DP 10%)	Rp. 503.364,00
Average Cost Every Year/ 5 persons	Rp. 12.600.000,00	Average Credit Every Year/4 years (After DP 10%)	Rp. 6.040.368,00

Source : oto.com

With that case above, the assumption of the calculation for buying motorbike will be different and the cost for buying motorbike will be higher than using public transport over a certain period of time (1 - 2 years start). **How much is different? Also, when buying a motorbike, why the price of the motorbike must have value or can be purchased with 4 years of family workforce wages?** The cost of a motorcycle that can be bought with at least four years worth of workforce income depends on the workforce's purchasing power, financial stability, and economic well being. The majority of Indonesian workforce have

low incomes, therefore motorcycles are a necessary form of transportation. The four year time frame offers an installment plan that enables workforce to make payments without significantly reducing their monthly income. Workforce are generally recommended to set aside 10 - 15% of their monthly wages for installments on non property, such as motorbikes. With a four year period, motorcycle payments remain within a reasonable range of their wage, preventing long term financial issues and maintaining a managed debt ratio.

For a number of primary reasons, including credit risk, asset depreciation, and installment stability, motorcycle financing is typically restricted to a maximum of four years. Compared to other assets like cars or real estate, motorcycles depreciate or lose value quite quickly. The motorcycle's value often drops significantly in 4 years. The financing institution runs the risk of the motorcycle's selling value being much less than the outstanding loan if the installment period is excessively extended. The risk of non-performing loans (NPL) or bad credit increases with the length of the installment period. Financing institutions can lower the default risk by capping installments after four years. The consumer's financial situation is also connected to this danger. There is a significant chance that the customer's financial situation may deteriorate and they run the risk of defaulting if the motorcycle payment is still required in installments for an extended period of time. The monthly installment amount becomes comparatively more constant and not too little when the maximum installment period is extended to 4 years. Long tenors that result in too-small installments may discourage customers from making their payments on time, which could ultimately cost the finance institution money.

In order to preserve loan value stability and credit quality in the automobile industry, a maximum tenor of four years is advised for two wheeled cars by the banking Services Authority (OJK) and industry norms, which are followed by a number of banking and leasing institutions. Consumers will soon be able to fully own motorcycles with shorter payment terms. This lowers the possibility of losing

assets as a result of past due payments or shifting financial circumstances, which are more likely to happen with longer tenors. Given that motorcycles are not assets with long term durability and high resale value, this 4 year maximum limit attempts to preserve consumer financial security and financial institution stability. The motorcycle is within a reasonable and affordable price range for the majority of workforce if the cost can be covered by 4 years worth of wage. This keeps goods that are essential to mobility accessible and cheap for workforce. With this cap, workforce may still maintain their financial stability, acquire a motorcycle quickly, and keep valuable assets without having to worry about taking on long-term debt.

Now, the calculation cost and the differences between buying motorbike and public transport cost per month will be :

The calculation for buying motorbike will be :

Buying Motorbike Price/unit = Rp. 19.830.000,00

Administration and etc = Rp. 2.170.000,00

Interest Rate = 10.9%
 = 10.9% x Rp. 19.830.000,00
 = Rp. 21.991.470,00

DP (10%) = Rp. 2.000.000,00

Buying Motorbike Price all in = Buying Motorbike Price + Administration and
 etc + interest rate

= Rp. 19.830.000,00 + Rp. 2.170.000,00
 + Rp. 2.161.470,00
 = Rp. 24.161.470,00

Remaining Credit = Buying Motorbike All In - (DP 10%)
 = Rp. 24.161.470,00 - Rp. 2.000.000,00
 = Rp. 22.161.470,00

Credit Time Estimation (t) = 4 years
 = 4 x 12 months

$$= 48 \text{ months}$$

Using Time Estimation (t) = 10 years

$$= 10 \times 12 \text{ months}$$

$$= 120 \text{ months}$$

Buying Motorbike Price all in/month = Buying Motorbike Price all in/ Credit
Time Estimation (t)

$$= \text{Rp. } 24.161.470,00 / 48 \text{ months}$$

= Rp. 503.364,00/month (This price is including
normal price for motorbike, Administration, and DP 10%)

Buying Motorbike Price 2 units all in/month = (Buying Motorbike Price all in/
Credit Time Estimation (t)) x 2

$$= (\text{Rp. } 24.161.470,00 / 48 \text{ months}) \times 2$$

$$= \text{Rp. } 503.364,00/\text{month} \times 2$$

= **Rp. 1.006.728,00/month** (This price is including
normal price for motorbike, Administration, and DP 10%)

From the calculation above, the total average of buying 1 motorbike cost for workforce need is around Rp. 24.161.470,00/4 years or Rp. 503.364,00/month. Look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, a family of 5 members usually needs at least 2 motorbikes as a means of transportation to meet their various daily mobility needs. Families with multiple children or adults may have different transportation demands. Children require transportation to school or other events, while parents may have to travel to work or shop. They can carry out these tasks well and independently because they have two motors. Additionally, having two motorcycles gives you flexibility in case of emergencies, medical demands, or other unforeseen circumstances.

From the calculation above, the total average of buying 2 motorbikes cost for workforce had family around 4 - 6 people needed is around **Rp. 48.322.940,00/4 years** or **Rp. 1.006.728,00/month**.

To own a motor vehicle must have to pay attention to several things that are mandatory and routine or usually call as a motorbike servicing. This motorbike service depends on usage, type of motorbike, and manufacturer's recommendations. However, to maintain motorbike performance and safety, the following is the recommended frequency and type of service, namely :

1. Routine Service (every 3 - 6 months /2.000 - 3.000 km)

General checks such as changing the oil, checking the spark plugs, cleaning the air filter, and checking the chain. Routine service costs range from Rp. 100.000,00 - Rp. 300.000,00, depending on the type of motorbike (moped, automatic or sport) and the type of oil used.

2. Major Service (once a year or after 10.000 km)

Comprehensive inspection, including carburetor (or injection for injection motors), brakes, battery, clutch, suspension and electrical system. The cost of this major service can reach Rp. 500.000,00 - Rp. 1.000.000,00, depending on the condition and type of motorbike.

3. Periodic Service on Special Components

Some components, such as chains, tires, brake linings and batteries, may need to be replaced earlier depending on usage conditions. The average cost to replace this component is Rp. 50.000,00 - Rp. 300.000,00, per component.

Now, the calculation for average service cost for 1 motorbike/year will be ;

Routine Service (every 6 month) = Rp. 100.000,00 x 2 = Rp. 200.000,00/year

Major Service (once a year) = Rp. 500.000,00 x 1 = Rp. 500.000,00/year

Periodic Service (special part) = Rp. 150.000,00 x 1 = Rp. 150.000,00/year

Total average cost for 1 motorbike/year = Rp. 850.000,00/year

Total average cost for 1 motorbike/ month =

= Total average cost for 1 motorbike/year/ 12 months

$$= \text{Rp. } 850.000,00/12 \text{ months}$$

$$= \text{Rp. } 70.834,00/\text{month}$$

$$\text{Total average cost for 2 motorbikes/ month} =$$

$$= (\text{Total average cost for 1 motorbike/year/ 12 months}) \times 2$$

$$= (\text{Rp. } 850.000,00/12 \text{ months}) \times 2$$

$$= \text{Rp. } 70.834,00/\text{month} \times 2$$

$$= \text{Rp. } 141.668,00/\text{month}$$

From the calculation above, the total average of servicing 1 motorbike cost for workforce need is around Rp. 850.000,00/year or Rp. 70.834,00/month. For servicing 2 motorbikes monthly needed is around **Rp. 1.700.000,00/year** or **Rp. 141.668,00/moth.**

Now, the calculation for average petrol cost for 1 and 2 motorbikes/year :

$$\text{Petrol 1L/day/ motorbike} = \text{Rp. } 10.000,00 \times 1$$

$$= \text{Rp. } 10.000,00$$

$$\text{Petrol/month/motorbike} = \text{Petrol 1 L/day} \times 30 \text{ days}$$

$$= \text{Rp. } 10.000,00 \times 30 \text{ days}$$

$$= \text{Rp. } 300.000,00/30 \text{ days or 1 month}$$

$$\text{Petrol/year/motorbike} = \text{Petrol/day} \times 365 \text{ days}$$

$$= \text{Rp. } 10.000,00 \times 365 \text{ days}$$

$$= \text{Rp. } 3.650.000,00/12 \text{ months or 1 year}$$

$$\text{Petrol 1L/day/ 2 motorbikes} = \text{Petrol 1L/day/ motorbike} \times 2$$

$$= \text{Rp. } 10.000,00 \times 2$$

$$= \text{Rp. } 20.000,00$$

$$\text{Petrol/month/2 motorbikes} = (\text{Petrol 1L/day/ motorbike} \times 2) \times 30$$

$$= \text{Rp. } 20.000,00 \times 30$$

$$= \text{Rp. } 600.000,00$$

$$\text{Petrol/year/motorbike} = (\text{Petrol 1L/day/ motorbike} \times 2) \times 365 \text{ days}$$

$$= \text{Rp. } 20.000,00 \times 365 \text{ days}$$

$$= \text{Rp. } 7.300.000,00/\text{year}$$

From the calculation above, the total average of petrol for 1 motorbike cost for workforce need is around Rp. 3.650.000,00/year or Rp. 300.000,00/month. For petrol 2 motorbikes monthly needed is around **Rp. 7.300.000,00/year or Rp. 600.000,00/month.**

The total cost for owning 1 and 2 motorbikes all in with services charge and petrol every month/year will be :

$$\begin{aligned} &= \text{Buying Motorbike Price all in/month} + \text{Average cost for 1 motorbike/ month} \\ &\quad + \text{Petrol cost for motorbike/month} \\ &= \text{Rp. 503.364,00} + \text{Rp. 70.834,00} + \text{Rp. 300.000,00} \\ &= \text{Rp. 874.198,00/month} \end{aligned}$$

The total cost for owning 1 motorbike all in with services charge and petrol every year will be :

$$\begin{aligned} &= \text{The total cost for owning 1 motorbike all in} \times 12 \text{ months} \\ &= \text{Rp. 874.198,00} \times 12 \text{ months} \\ &= \text{Rp. 10.490.376,00/year} \end{aligned}$$

The total cost for owning 2 motorbikes all in with services charge and petrol every month/year will be :

$$\begin{aligned} &= \text{The total cost for owning 1 motorbike all in} \times 2 \\ &= \text{Rp. 874.198,00/month} \times 2 \\ &= \text{Rp. 1.748.396,00/month} \end{aligned}$$

The total cost for owning 2 motorbikes all in with services charge and petrol every year will be :

$$\begin{aligned} &= \text{The total cost for owning 1 motorbike all in} \times 2 \\ &= \text{Rp. 10.490.376,00/year} \times 2 \\ &= \text{Rp. 20.980.752,00/year} \end{aligned}$$

From the calculation above, the total average of buying 1 motorbike cost for workforce need is around Rp. 10.490.376,00/year or Rp. 874.198,00/month. For buying and owning 2 motorbikes cost is around **Rp. 1.748.396,00/month or Rp. 20.980.752,00/year.**

But, after a few years the price of the motorbike drops from its initial price in this period, the exact figure can vary greatly depending on several factors such as:

1. Popular motorcycle brands and specific models, such mopeds and automated scooters (like Honda and Yamaha), typically have more steady resale values. The depreciation of premium or sports motorcycles is more severe.

2. A motorbike that is well maintained, without major damage will have a higher selling price than a motorbike that is poorly maintained.

3. The performance and technology of the majority of motorcycles have declined. With the exception of some models that might be rare or have collection value, the selling price has also dropped significantly.

4. Motorcycles typically have some wear and damage to the frame, engine, and other parts. This significantly affects the selling price since prospective purchasers might think about how much it would cost to replace or repair parts.

How much depreciation of the motorbike after 4 years using? Assume in this case, the calculation for average resale price is based on the credit time estimation and using time estimation of the motorbike. Now, the calculation for average resale price for 1 and 2 motorbikes will be :

Credit Time Estimation (t) = 4 years or 48 months

Depreciation Price = 40% - 60%

Depreciation Price Assume = 50% (mid in the middle range of 40% - 60%)

Motorbike Price = Motorbike price all in - Administration and etc

= Rp. 22.000.000,00 - Rp. 2.170.000,00

= Rp. 19.830.000,00

Depreciation Price of Motorbike = Motorbike price x Depreciation Price

Assume

= Rp. 19.830.000,00 x 50%

= Rp. 9.915.000,00

Motorbike Price after Depreciation/4 years = Motorbike price - Depreciation

Price of Motorbike

$$= \text{Rp. } 19.830.000,00 - \text{Rp. } 9.915.000,00$$

$$= \text{Rp. } 9.915.000,00/4 \text{ years}$$

Motorbike Price after Depreciation/year = Motorbike Price after Depreciation/
4 years / Credit Time Estimation

$$= \text{Rp. } 10.915.000,00/4 \text{ years}$$

$$= \text{Rp. } 2.478.750,00/\text{year}$$

Motorbike Price after Depreciation/month = Motorbike Price after
Depreciation/year/ Credit Time Estimation

$$= \text{Rp. } 2.728.750,00/12 \text{ months}$$

$$= \text{Rp. } 206.563,00/\text{month}$$

Resale price motorbike after 4 years will be = Motorbike price - Depreciation
Price of Motorbike

$$= \text{Rp. } 19.830.000,00 - \text{Rp. } 9.915.000,00$$

$$= \text{Rp. } 9.915.000,00/4 \text{ years}$$

Resale price 2 motorbikes after 4 years will be = (Motorbike price -
Depreciation Price of Motorbike) x 2

$$= (\text{Rp. } 19.830.000,00 - \text{Rp. } 9.915.000,00) \times 2$$

$$= \text{Rp. } 19.830.000,00/4 \text{ years}$$

After 4 years, the value of a motorbike usually experiences significant depreciation or price reduction. From the calculation above, the total average of resale price for 1 motorbike for workforce get is around Rp. 9.915.000,00/4 years or Rp. 206.563,00/month. If the motorbike was sales after 4 years, the motorbike will still have value around Rp. 9.915.000,00. For 2 motorbikes, the average resale price is around **Rp. 19.830.000,00/4 years** or **Rp. 413.126,00/month**.

Now, the total of average cost of having or buying 1 and 2 motorbikes credit every month for workforce :

The total cost owned 1 motorbike without resale the motorbike after 4 years,
Owned Cost : The total cost for owning 1 motorbike all in/month x 48 months

$$= \text{Rp. } 874.198,00 \times 48 \text{ months}$$

$$= \text{Rp. } 41.961.504,00/4 \text{ years}$$

The total cost of owned 1 motorbike with resale the motorbike after 4 years,
Owned Cost : (The total cost for owning 1 motorbike all in/month - Motorbike price after depreciation/month) x 48 months

$$= (\text{Rp. } 874.198,00 - \text{Rp. } 206.563,00) \times 48 \text{ months}$$

$$= \text{Rp. } 32.046.480,00/4 \text{ years}$$

The total cost owned 2 motorbikes without resale the motorbike after 4 years,
Owned Cost : (The total cost for owning 1 motorbike all in/month x 48 month)x 2

$$= (\text{Rp. } 874.198,00 \times 48 \text{ months}) \times 2$$

$$= \text{Rp. } 83.923.008,00/4 \text{ years}$$

The total cost of owned 2 motorbikes with resale the motorbike after 4 years,
Owned Cost : ((The total cost for owning 1 motorbike all in/month - Motorbike price after depreciation/month) x 48 months) x 2

$$= ((\text{Rp. } 874.198,00 - \text{Rp. } 206.563,00) \times 48 \text{ months}) \times 2$$

$$= \text{Rp. } 64.092.960,00/4 \text{ years}$$

How much depreciation of the motorbike after 10 years using? Assume in this case, the calculation for average resale price is based on the credit time estimation and using time estimation of the motorbike. Now, the calculation for average resale price for 1 and 2 motorbikes will be :

Credit Time Estimation (t) = 10 years or 120 months

Depreciation Price = 70% - 80%

Depreciation Price Assume = 75% (mid in the middle range of 70% - 80%)

Motorbike Price = Motorbike price all in - Administration and etc

$$= \text{Rp. } 22.000.000,00 - \text{Rp. } 2.170.000,00$$

$$= \text{Rp. } 19.830.000,00$$

Depreciation Price of Motorbike = Motorbike price x Depreciation Price

$$= \text{Rp. } 19.830.000,00 \times 75\%$$

$$= \text{Rp. } 14.872.500,00$$

Motorbike Price after Depreciation/10 years = Motorbike price - Depreciation price of motorbike

$$= \text{Rp. } 19.830.000,00 - \text{Rp. } 14.872.500,00$$

$$= \text{Rp. } 4.957.500,00/10 \text{ years}$$

Motorbike Price after Depreciation/year = Motorbike Price after Depreciation/10 years / Credit Time Estimation

$$= \text{Rp. } 4.957.500,00/10 \text{ years}$$

$$= \text{Rp. } 495.750,00/\text{year}$$

Motorbike Price after Depreciation/month = Motorbike Price after Depreciation/year/ Credit Time Estimation

$$= \text{Rp. } 495.750,00/12 \text{ months}$$

$$= \text{Rp. } 41.313,00/\text{month}$$

Resale price motorbike after 10 years will be = Motorbike price - Depreciation price of motorbike

$$= \text{Rp. } 19.830.000,00 - \text{Rp. } 14.872.500,00$$

$$= \text{Rp. } 4.957.500,00/10 \text{ years}$$

Resale price 2 motorbikes after 10 years will be = (Motorbike price - Depreciation price of motorbike) x 2

$$= (\text{Rp. } 19.830.000,00 - \text{Rp. } 14.872.500,00) \times 2$$

$$= \text{Rp. } 4.957.500,00/10 \text{ years} \times 2$$

$$= \text{Rp. } 9.915.000,00/10 \text{ years}$$

After 10 years, the value of a motorbike usually experiences significant depreciation or price reduction. From the calculation above, the total average of resale price 1 motorbike for workforce get is around Rp. 4.957.500,00/10 years or Rp. 41.313,00/month. If the motorbike was sales after 10 years, the motorbike will still have value around Rp. 4.957.500,00. For 2 motorbikes, the average resale price is around **Rp. 9.915.000,00/10 years** or **Rp. 82.626,00/month**.

Now, the total of average cost of having or buying 1 and 2 motorbikes credit every month for workforce :

The total cost of owned 1 motorbike without resale the motorbike after 10 years are,

Owned Cost : (The total cost for owning 1 motorbike all in/month x 48 months) + ((Service cost + petrol) x 72 months)

= (Rp. 874.198,00 x 48 months) + ((Rp. 70.834,00 + Rp. 300.000,00) x 72 months)

= Rp. 41.961.504,00 + Rp. 26.700.048,00

= Rp. 68.661.552,00/10 years

The total cost of owned 2 motorbikes without resale the motorbike after 10 years are,

Owned Cost : Owned cost 1 motorbike without resale x 2

= Rp. 68.661.552,00/10 years x 2

= **Rp. 137.323.104,00/10 years**

The total cost owned 1 motorbike with resale the motorbike after 10 years,

Owned Cost : (The total cost for owning 1 motorbike all in/month x 48 months) + ((Service cost + petrol) x 72 months) - Motorbike Price after Depreciation/10 years

= (Rp. 874.198,00 x 48 months) + ((Rp. 70.834,00 + Rp. 300.000,00) x 72 months) - Rp. 4.957.500,00

= Rp. 41.961.504,00 + Rp. 26.700.048,00 - Rp. 4.957.500,00

= Rp. 63.704.052,00/10 years

The total cost owned 2 motorbikes with resale the motorbike after 10 years,

Owned Cost : (Owned cost 1 motorbike with resale x 2) - Resale price 2 motorbikes after 10 years

= (Rp. 63.704.052,00/10 years x 2) - Rp. 9.915.000,00/10 years

= **Rp. 127.408.104,00/10 years**

Look at the case above, the assumption of the calculation for buying motorbike will be different and the cost for buying motorbike will be higher than using public transport over a certain period of time (4 - 10 years start). **How**

much is different? Now, the calculation cost and the differences between buying 1 and 2 motorbikes and public transport per month for 4 years.

The calculation for public transport will be :

Motorbike Price after Depreciation/4 years = Rp. 9.915.000,00/4 years

2 Motorbikes Price after Depreciation/4 years = Rp. 19.830.000,00/4 years

Public Transport Price/5 person/month = Rp. 1.050.000,00

Administration and etc = Rp. 000,00

Public Transport Price/5 person/month all in = Public Transport Price/5

person/month + Administration and etc

= Rp. 1.050.000,00 + Rp. 000,00

= Rp. 1.050.000,00/month

Estimation Time (t) = 4 years

= 4 x 12 months

= 48 months

Public Transport Price/5 person/year = Public Transport Price/5 person/month
all in x Estimation Time (t)

= Rp. 1.050.000,00 x 48 months

= Rp. 50.400.000,00/48 months or 4 years

From the calculation above, the total average cost of using public transport for workforce need is around Rp. 50.400.000,00/4 years or Rp. 1.050.000,00/month. The difference between owning 1 motorbike and 2 motorbikes and using public transport for 4 years are :

The Difference Cost/4 years = Owning 1 motorbike - Public transport
= Rp. 41.961.504,00 - Rp. 50.400.000,00
= - Rp. 8.438.496,00

The Difference Cost/4 years = Owning 2 motorbikes - Public transport
= Rp. 83.923.008,00 - Rp. 50.400.000,00
= + Rp. 33.523.008,00

The Difference Cost/10 years = Owning 1 motorbike - Public transport
 = Rp. 68.661.552,00 - Rp. 126.000.000,00
 = - Rp. 57.338.448,00

The Difference Cost/10 years = Owning 2 motorbikes - Public transport
 = Rp. 137.323.104,00 - Rp. 126.000.000,00
 = + Rp. 11.323.104,00

From the calculation above, the difference of total additional average transportation cost for owning 1 motorbike and using public transport are around - Rp. 8.438.496,00/4 years or - Rp. 57.338.448,00/10 years. For the 2 motorbikes and using public transport the difference will be + **Rp. 33.523.008,00/4 years** or + **Rp. 11.323.104,00/10 years**. Positive (+) sign it means owning motorbike cost is higher than using public transport. Negative (-) sign it means owning motorbike cost is lower than using public transport. The difference still can be lower or higher, its depend from the personal and the reality is that person spend can be lower if the motorbike was selling after 4 or 10 years owning.

Which one is better, Buying 1 motorbike or 2 motorbikes or using public transportation? The answer is buying 2 motorbikes, **why?** because, based on the case above, with a family of 5 members usually needs at least 2 motorbikes as a means of transportation to meet their various daily mobility needs. Their dual motors enable them to carry out these tasks autonomously, effectively, and with flexibility in unexpected circumstances. Setting up a shuttle schedule with just one motorcycle can be more challenging, particularly in suburban or rural locations where public transportation may be scarcer or less expensive. **Which one is better, buying 2 motorbike with resale or without resale?** The answer is buying 2 motorbike with resale, **why?** because, buying with resale is suitable for those who want convenience and don't want the hassle of taking care of an old or outdated motorbike. The value of the old motorbike can be immediately deducted from the price of the new motorbike, thereby easing the burden of payments or installments. This option is often chosen when someone wants to replace an old

motorbike with a newer motorbike. **Which one is the best option, buying 2 motorbikes and sell it at 4 years owning or sell it when turned to 10 years owning?** The decision to sell a motorcycle after 4 years or 10 years depends on a number of factors, such as depreciated value, maintenance costs, and personal needs. However, look at the calculations and use of motorized vehicles above, then buying with resale after 10 years of owning is the best option to choose. Can get the full benefit of the motorbike for 10 years, reducing the need to buy a new motorbike. There is no need to replace the motor every few years, the capital expenditure for a new motor is less. After 10 years, motorbike depreciation costs are generally maximum. The conclusion is to maximize the use of motorbike without frequently buying a new one, maintaining motorbike for up to 10 years can be more economical, even though it requires higher maintenance costs. The result comparison between buying 2 motorbikes with resale after 4 years owning and 10 years owning will be explained in the table below.

Table 5.25 The Result Comparison Between Buying 2 Motorbikes With Resale After 4 Years Owning and 10 Years Owning

Buying 2 Motorbikes With Resale After 4 Years Owning	Price	Buying 2 Motorbikes With Resale After 10 Years Owning	Price
Price	Rp. 48.000.000,00	Price	Rp. 48.000.000,00
Using Time (t)	4 years (48 months)	Using Time (t)	10 years (120 months)
Credit Time (t)x	4 years (48 months)	Credit Time (t)x	4 years (48 months)
Depreciation	50%	Depreciation	75%
Credit/month	Rp. 1.000.000,00	Credit/month	Rp. 1.000.000,00
DP (10%)	Rp. 4.000.000,00	DP (10%)	Rp. 4.000.000,00
Administration	Rp. 4.340.000,00	Administration	Rp. 4.340.000,00
Average Service	Rp. 141.668,00	Average Service	Rp. 141.668,00
Average Petrol	Rp. 600.000,00	Average Petrol	Rp. 600.000,00

Continued of Table 5.25 The Result Comparison Between Buying 2 Motorbikes With Resale After 4 Years Owning and 10 Years Owning

Buying 2 Motorbikes With Resale After 4 Years Owning	Price	Buying 2 Motorbikes With Resale After 10 Years Owning	Price
Total Cost Owning 2 Motorbike/year	Rp. 1.748.396,00	Total Cost Owning 2 Motorbike/year	Rp. 1.144.360,00
2 Motorbikes Price after Depreciation/4 years	Rp. 19.830.000,00	2 Motorbikes Price after Depreciation/10 years	Rp. 9.915.000,00
Public Transport for 5 Persons/month	Rp. 1.050.000,00	Public Transport for 5 Persons/month	Rp. 1.050.000,00
The Difference Cost on Public Transport/ month	+ Rp. 931.167,00 (more higher than public transport)	The Difference Cost on Public Transport/ month	+ Rp. 331.667,00 (more higher than public transport)
The total cost of owned 2 motorbikes without resale the motorbike after 4 years	Rp. 83.923.008,00	The total cost of owned 2 motorbikes without resale the motorbike after 10 years	Rp. 137.323.104,00
The total cost of owned 2 motorbikes with resale the motorbike after 4 years	Rp. 64.092.960,00	The total cost of owned 2 motorbikes with resale the motorbike after 10 years	Rp. 127.408.104,00

Source : Personal Calculation

From the table above and the previous explanation, it can be concluded that buying a new motorbike every 4 years means you have to prepare additional funds more often and in those 4 years while the motorbike can still be used longer. Selling at this age may feel like throwing away an asset that is still valuable. Therefore, to get the most out of motorbike and don't mind the higher maintenance costs, the best option is to sell after 10 years to save more on buying a new motorbike.

The transport tax in Indonesia called Samsat (motor vehicle tax) is a processing fees for motorbikes, there are basic national rules or regulations, the

amount can vary slightly depending on the province or region. The type category of Samsat tax for motorbike are :

1. Motor Vehicle Tax (PKB) = 2% of the vehicle's sale value (The selling value of a vehicle will decrease every year according to the age of the vehicle)
2. SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund) = Rp. 35.000,00
3. STNK Administration Fee (if there is a STNK extension) = For annual renewal, it is usually included in the main fee (not separated) and for a 5 year extension (replacing plates), the cost is around Rp. 60.000,00 - Rp. 100.000,00.
4. TNKB (Number Plate) Administration Fee (only for 5 year renewal) = Ranges from Rp. 60.000,00 - Rp. 100.000,00 for two-wheeled motorbikes.
5. Tax Penalty (Late Payment) = If late in paying, the fine is 25% of the PKB per year.

The result of average Samsat tax (motor vehicle tax) for owning motorbikes for 4 years until 10 years will be explained in the table below.

Table 5.26 The Result Of Average Samsat Tax (Motor Vehicle Tax) For Owning Motorbikes For 4 Years Until 10 Years

Activity	Year	Depreciation (%)	Samsat Tax Price (Motor Vehicle Tax)
Motor Vehicle Tax (PKB)	1st Year Owning	40%	Included (usually the tax already paid included when buying new motorbike)
	2nd Years Owning	40%	Rp. 237.960,00
	3rd Years Owning	50%	Rp. 198.300,00
	4th Years Owning	50%	Rp. 198.300,00
	5th Years Owning	55%	Rp. 178.470,00
	6th Years Owning	60%	Rp. 158.640,00
	7th Years Owning	60%	Rp. 158.640,00
	8th Years Owning	65%	Rp. 138.810,00
	9th Years Owning	70%	Rp. 118.980,00

Continued of Table 5.26 The Result Of Average Samsat Tax (Motor Vehicle Tax) For Owning Motorbikes For 4 Years Until 10 Years

Activity	Year	Depreciation (%)	Samsat Tax Price (Motor Vehicle Tax)
	10th Years Owning	75%	Rp. 99.150,00
SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund)	1st Year Owning		Included (usually the tax already paid included when buying new motorbike)
	Owning/year		Rp. 35.000,00
STNK Administration Fee (if there is a STNK extension)	1st Year Owning		Included (usually the tax already paid included when buying new motorbike)
	Owning/year		For annual renewal, it is usually included in the main fee (not separated).
	5th Years Owning		Rp. 100.000,00
TNKB (Number Plate) Administration Fee (only for 5 year renewal)	1st Year Owning		Included (usually the tax already paid included when buying new motorbike)
	5th Years Owning		Rp. 60.000,00
Tax Penalty (Late Payment)		25%	From Motor Vehicle Tax (PKB)
			Additional Penalty SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund) (Rp. 35.000,00)

Source : Peraturan Pemerintah Nomor 76 Tahun 2020

Motor vehicle owners are required to pay the state the Non-Tax State Revenue (PNBP) STNK administration fee. As evidence of their legality, motorized vehicles must have a STNK before they can be driven on public roads. Government rules or formal directives from the Indonesian National Police are typically used to notify changes to tariffs, replacements, extensions, and other

policies related to the issuing of STNK. Now, the calculation based on the table above for average Samsat Tax (Motorbike Vehicle Tax) cost for owning 2 motorbikes for 10 years will be :

Motor Vehicle Tax (PKB) 1st year owning = free (Included, usually the tax already paid included when buying new motorbike)

Motor Vehicle Tax (PKB) 5th year owning = 2% from resale price

Motorbike 5 years depreciation = 55%

$$\begin{aligned}\text{Price} &= (\text{Motorbike 5 years depreciation} \times \text{Motorbike price only}) \times 2\% \\ &= (55\% \times \text{Rp. 19.830.000,00}) \times 2\% \\ &= \text{Rp. 178.470,00}\end{aligned}$$

Motorbike 10 years depreciation = 75%

$$\begin{aligned}\text{Price} &= (\text{Motorbike 10 years depreciation} \times \text{Motorbike price only}) \times 2\% \\ &= (75\% \times \text{Rp. 19.830.000,00}) \times 2\% \\ &= \text{Rp. 99.150,00}\end{aligned}$$

SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund) 1st year owning = free (Included, usually the tax already paid included when buying new motorbike).

$$\text{Owning/year} = \text{Rp. 35.000,00}$$

SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund) 10 years

$$\begin{aligned}\text{owning} &= \text{Owning/year} \times 9 \text{ years} \\ &= \text{Rp. 35.000,00} \times 9 \text{ years} \\ &= \text{Rp. 315.000,00/10 years}\end{aligned}$$

STNK Administration Fee (if there is a STNK extension) 1st year owning = free (Included, usually the tax already paid included when buying new motorbike).

Owning/year = For annual renewal, it is usually included in the main fee (not separated).

STNK Administration Fee (if there is a STNK extension) 10th year owning =

$$\begin{aligned}5 \text{ years owning} &= \text{Rp. 100.000,00} \\ 10 \text{ years owning} &= 5 \text{ years owning} \times 2\end{aligned}$$

$$= \text{Rp. } 100.000,00 \times 2$$

$$= \text{Rp. } 200.000,00$$

TNKB (Number Plate) Administration Fee (only for 5 years renewal) = free
(Included, usually the tax already paid included when buying new motorbike).

TNKB (Number Plate) Administration Fee for 10th years owning =

$$5 \text{ years owning} = \text{Rp. } 60.000,00$$

$$10 \text{ years owning} = 5 \text{ years owning} \times 2$$

$$= \text{Rp. } 60.000,00 \times 2$$

$$= \text{Rp. } 120.000,00$$

Tax Penalty (Late Payment) = Optional.

The price above is only for 1 motorbike, the discussion before is skilled construction workforce's (bricklayer's in this case) and family need to buying and owning 2 motorbikes, because the family member of 4 - 6 people, it was based on the safety, comfort and condition at that time. Now, the total cost of average Samsat Tax (Motorbike Vehicle Tax) cost for owning 2 motorbikes for 10 years :

= (Motor Vehicle Tax (PKB) 10th year owning + SWDKLLJ (Mandatory Contribution to Road Traffic Accident Fund) 10 year s owning + STNK Administration Fee (if there is a STNK extension) 10th year owning + TNKB (Number Plate) Administration Fee for 10th years owning) x 2

$$= (\text{Rp. } 99.150,00 + \text{Rp. } 315.000,00 + \text{Rp. } 200.000,00 + \text{Rp. } 120.000,00) \times 2$$

$$= \text{Rp. } 1.468.300,00/10 \text{ years}$$

Now, the total cost of average Samsat Tax (Motorbike Vehicle Tax) cost for owning 2 motorbikes for 10 years/month are :

= the total cost of average Samsat Tax (Motorbike Vehicle Tax) cost for owning 2 motorbikes for 10 years/120 months

$$= \text{Rp. } 1.468.300,00/120 \text{ months}$$

$$= \text{Rp. } 12.236,00$$

From the calculation above, the total cost of average Samsat Tax (Motorbike Vehicle Tax) cost for owning 2 motorbikes for 10 years are around **Rp. 1.468.300,00/10 years** or **Rp. 12.236,00/month**.

Now, the total of average additional transportation cost for workforce who had family around 4 - 6 people to owning 2 motorbikes in 10 years/month are,

$$\begin{aligned} & \text{Total additional average transportation cost for 5 persons/ month :} \\ & = (\text{Owning 2 motorbikes/120 months}) + \text{Samsat Tax (Motorbike Vehicle Tax/} \\ & \quad \text{month)} \\ & = (\text{Rp. 137.323.104,00/120 months}) + \text{Rp. 12.236,00} \\ & = \text{Rp. 1.144.360,00} + \text{Rp. 12.236,00} \\ & = \text{Rp. 1.156.596,00/month} \end{aligned}$$

From the calculation above, the total of additional average transportation cost for workforce who had family around 4 - 6 people needed is around **Rp. 1.156.596,00/month**.

Based on the table and calculation above, for the total of average regular and additional transportation cost for workforce who had family around 4 - 6 people are,

Regular Transportation cost for 4 - 6 people/month = Rp. 1.050.000,00, this value is from using public transportation for 4 - 6 every month and this value is not included into final calculation, because already choosing to own 2 motorbikes for 10 years).

Additional Transportation cost for 4 - 6 people/month = Rp. 1.156.596,00, this value is cost every month for workforce who had family around 4 - 6 people to owning 2 motorbikes for 10 years.

The total regular and additional average transportation cost for 4 - 6 people/month :

$$\begin{aligned} & = \text{Regular Average Cost/month} + \text{Additional Average Cost/month} \\ & = \text{Rp. 000,00} + \text{Rp. 1.156.596,00} \\ & = \text{Rp. 1.156.596,00} \end{aligned}$$

From the calculation above, the total of regular and additional average transportation cost for skilled construction workforce bricklayer who had family around 4 - 6 people needed is around **Rp. 1.156.596,00/month**.

The difference cost every month between owning 2 motorbikes and using public transport are :

$$= \text{Rp. 1.156.596,00} - \text{Rp. 1.050.000,00}$$

$$= + \text{Rp. 106.596,00/month}$$

Positive (+) sign it means owning motorbike cost is higher than using public transport. The difference still can be lower or higher, its depend from the personal and the reality spend can be lower if the motorbike was selling after 4 or 10 years owning. After the calculation finished, the total average transport cost for skilled construction workforce bricklayer who had family around 4 - 6 people need in 1 month is around **Rp. 1.156.596,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of transport for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.27 The Data About Decent Living Needs Cost Comparison of Transport for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Transport for Construction Workforce															
Based on Observation and Calculation															
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Transportation (per week) Real	Transportation (per month) Real	Transportation (per week) Adjust	Transportation (per month) Adjust	Description (decent/un-decent)	
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 125.000	IDR 543.750	IDR 358.944	IDR 1.561.405	Decent	
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 120.000	IDR 522.000	IDR 265.884	IDR 1.156.596		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 100.000	IDR 435.000	IDR 292.473	IDR 1.272.256		
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 100.000	IDR 435.000	IDR 265.884	IDR 1.156.596		
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 450.000	IDR 1.957.500	IDR 358.944	IDR 1.561.405		
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 130.000	IDR 565.500	IDR 358.944	IDR 1.561.405		
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 450.000	IDR 1.957.500	IDR 398.826	IDR 1.734.894		
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 155.000	IDR 674.250	IDR 398.826	IDR 1.734.894		
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 100.000	IDR 435.000	IDR 292.473	IDR 1.272.256		
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 100.000	IDR 435.000	IDR 265.884	IDR 1.156.596		
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 125.000	IDR 543.750	IDR 265.884	IDR 1.156.596		
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 300.000	IDR 1.305.000	IDR 239.296	IDR 1.040.936		
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 100.000	IDR 435.000	IDR 292.473	IDR 1.272.256		
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 100.000	IDR 435.000	IDR 239.296	IDR 1.040.936		
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 350.000	IDR 1.522.500	IDR 265.884	IDR 1.156.596		
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 300.000	IDR 1.305.000	IDR 265.884	IDR 1.156.596		
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 250.000	IDR 1.087.500	IDR 239.296	IDR 1.040.936		
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 250.000	IDR 1.087.500	IDR 239.296	IDR 1.040.936		
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 125.000	IDR 543.750	IDR 239.296	IDR 1.040.936		
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 110.000	IDR 478.500	IDR 292.473	IDR 1.272.256		
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 100.000	IDR 435.000	IDR 239.296	IDR 1.040.936		
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 255.000	IDR 1.109.250	IDR 292.473	IDR 1.040.936		
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 145.000	IDR 630.750	IDR 358.944	IDR 1.561.405		
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 205.000	IDR 891.750	IDR 398.826	IDR 1.734.894		
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 450.000	IDR 1.957.500	IDR 398.826	IDR 1.734.894		
				AVERAGE COST							IDR 199.800	IDR 869.130	IDR 298.854	IDR 1.300.014	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia The range value of the coefficient are 0.9 < 1 < 1.5 0.9 = Value is lower than Sleman Regency 1.0 = Value same as the Sleman Regency 1.5 = Value are higher than sleman regency															

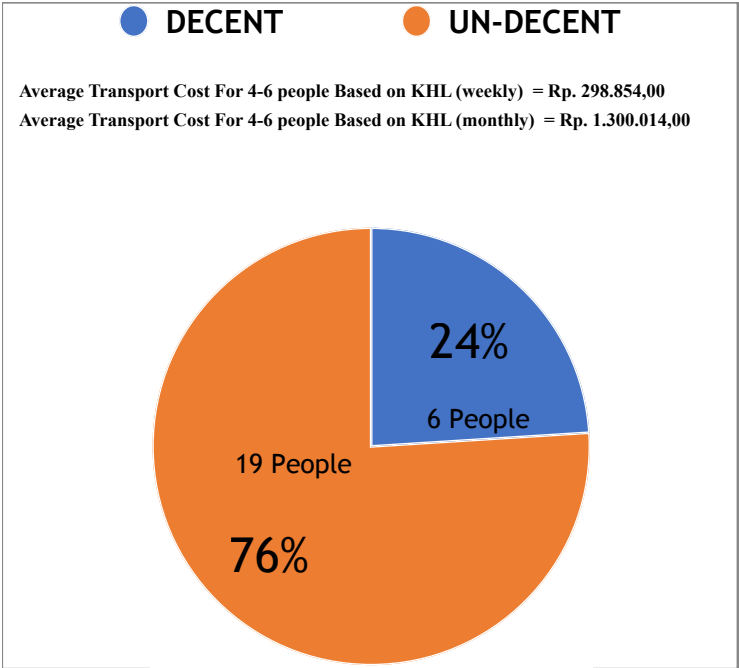
Source : Observation and Calculation

From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as transport and petrol prices. The final results of these calculations are definitely different. The total of average transport cost for skilled construction workforce bricklayer who had family around 4 - 6 people need before is around **Rp. 1.156.596,00/month** and after the calculation based on the difference location, difference transport price in each location, and with the 25 workforce's as the sample, the final result of the total of average transport cost for workforce who had family around 4 - 6 people need is around **Rp. 1.300.014,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

$$= \text{Rp. 1.300.014,00/month} - \text{Rp. 1.156.596,00/month}$$

$$= \text{Rp.143.418,00/month} \text{ (This difference cost can be used as additional cost)}$$

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be seen from the table above, where the table has explained of the comparison between the current average cost value of transport for skilled construction workforce's (bricklayer's in this case) who had family around 4 - 6 people which is around Rp. 199.800,00 per week or Rp. 869.130,00 per month. This value is quite low when compared to the average cost value of transport for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 298.854,00 per week or Rp. 1.300.014,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.8 The Diagram Result of Transport Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 workforce who were sampled, only 6 workforce's (24%) of the 25 sample workforce's meet than the average transport cost based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this

condition are in worse condition because, the 6 workforce's of the sample that has bigger value that average cost is still un-decent. **Why?** even from the table and diagram above, it's clearly that the 6 workforce's able to cover the cost for transport but, **how about the other sector?** With the average wages received every month right now, the amount of the wages gap isn't much with the other 19 workforce's. That's mean is the 6 workforce's are still not enough to cover the cost in the other sector, such as education, health, clothes, housing, food, and saving/recreation. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.7 Calculation of Saving wages and Recreation Category in Decent Living Needs (KHL)

Recreation is an activity carried out to achieve calm, has the potential to reduce stress, improve mood, can provide and improve the overall quality of life with happiness, life satisfaction and a sense of well being. Usually, people's purpose in saving is to set aside a portion of their wages that can be used for the short to medium term, because savings are an important asset that every individual must have and can be a source of funds or a financial protection shield during unexpected situations to cover sudden needs. It can help plan for the future life in retirement is calmer. The Decent Living Needs (KHL) table for the recreation and savings wages category is mentioned below.

Table 5.28 Decent Living Needs (KHL) Table Recreation and Savings Wages Category

COMPONENT	QUALITY	QUANTITY	AVERAGE PRICE (/pcs)
Recreation	Surrounding Area	2/12	Rp. 100.000,00
Savings	2% From Grades 1 to 59	2%	Rp. 81.584,00

Source : Humaira Aliya/glints.com

The amount needed column can be read by dividing the amount by the number of months. Based on the elements of basic needs that must be satisfied in order for the workforce to lead a respectable life, the Decent Living Needs (KHL) standards mentioned above were established. The detail Decent Living Needs (KHL) mentioned above are average saving wages and recreation cost for skilled construction workforce bricklayer or 1 person. The detail calculation of cost spend on transport will be explained below.

A. Regular Average Cost

Monthly cost for 1 person :

Saving = Rp. 4.079.167,00 x 2% = Rp. 81.584,00

Yearly cost for 1 person :

Saving = Rp. 81.584,00 x 12 = Rp. 979.008,00

Recreation = Rp. 100.000,00 x 2 = Rp. 200.000,00

The Total Cost/1 year = Rp. 200.000,00

The Total Cost/month = The Total Cost/1 year / 12 months

= Rp.200.000,00/12

= Rp. 16.667,00

From the calculation above, the total of regular average recreation cost for workforce need ed in 1 year is around **Rp. 200.000,00/year** or **Rp. 16.667,00/month**.

Remember this cost is only for 1 person, look at the case above, most of the workforce at the data sample had family around 4 - 6 people, which are skilled

construction workforce bricklayer with his wife as a house wife, and 2 - 4 children's, with different level of education, first child in Senior High School (SMA), second child in Junior High School (SMP), third child in Elementary School (SD) and go on.

With this case, the calculation only for 5 people, because its the perfect amount of family member as an example of Decent Living Needs (KHL) cost calculation. The cost will be different, where the cost for recreation will be higher. How much is different? Now, the assumption of differences average recreation cost for 5 people/month will be :

Assumption :

KHL Detail = 1 person

1 person = a

5 people = 1 person x 5

= a x 5

= 5a

Cost 1 person/ month = Rp. 16.667,00

Total cost 5 persons/month = a x cost 1 person/month

= 5 x Rp. 16.667,00

= Rp. 83.335,00/month

Total cost 5 persons/year = Total cost 5 persons/month x 12 months

= Rp. 83.335,00/month x 12 months

= Rp. 1.000.020,00/12 months or year

From the calculation above, the total of regular average recreation cost for workforce who had family around 4 - 6 people needed in 1 year is around **Rp. 1.000.020,00/year** or **Rp. 83.335,00/month**.

Now, the detail of regular average Savings cost for 1 person/month.

Savings (2% from the wages every month), the cost spend is only for skilled construction workforce's (bricklayer's in this case) because, only for workforce

who had wage or income. It means the other family member don't have wages.

The wife as a housewife and the other 3 childs is still studying.

Average wage every month for workforce received = Rp. 4.079.167,00/month.

Savings (2%)/workforce = (Rp. 4.079.167,00 x 2%)

= Rp. 81.584,00/month

Total cost saving workforce/year = Savings (2%)/workforce every month x 12 months

= Rp. 81.584,00/month x 12 months

= Rp. 979.008,00/year

From the calculation above, the total of regular average saving cost for skilled construction workforce bricklayer needed in 1 year is around **Rp. 979.008,00/year** or **Rp. 81.584,00/month**. The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life. The following comparison data about Decent Living Needs (KHL) cost of recreation and saving wage for construction workforce based on observation and calculation are mentioned in the table below.

Table 5.29 The Data About Decent Living Needs Cost Comparison of Recreation and Saving Wage for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Recreation and Saving for Construction Workforce															
Based on Observation and Calculation															
Case	Name	Age	Experience (year)	Level Education	Location	Spouse	N	Children	Profession	Recreation and Saving (per week)	Recreation and Saving (per month)	Recreation and Saving (per week)	Recreation and Saving (per month)	Description (decent/un-decent)	
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	Real IDR 45.000	Real IDR 195.750	Adjust IDR 51.182	Adjust IDR 222.641	Decent	
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 15.000	IDR 65.250	IDR 37.912	IDR 164.919		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 20.000	IDR 87.000	IDR 41.704	IDR 181.411		
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 17.500	IDR 76.125	IDR 37.912	IDR 164.919		
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 40.000	IDR 174.000	IDR 51.182	IDR 222.641		
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 35.000	IDR 152.250	IDR 51.182	IDR 222.641		
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 95.000	IDR 413.250	IDR 56.869	IDR 247.379		
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 35.000	IDR 152.250	IDR 56.869	IDR 247.379		
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 20.000	IDR 87.000	IDR 41.704	IDR 181.411		
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 22.000	IDR 95.700	IDR 37.912	IDR 164.919		
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 16.500	IDR 71.775	IDR 37.912	IDR 164.919		
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 20.000	IDR 87.000	IDR 34.121	IDR 148.427		
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 21.000	IDR 91.350	IDR 41.704	IDR 181.411		
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 15.000	IDR 65.250	IDR 34.121	IDR 148.427		
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 30.000	IDR 130.500	IDR 37.912	IDR 164.919		
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 20.000	IDR 87.000	IDR 37.912	IDR 164.919		
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 36.000	IDR 156.600	IDR 34.121	IDR 148.427		
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 25.000	IDR 108.750	IDR 34.121	IDR 148.427		
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 12.000	IDR 52.200	IDR 34.121	IDR 148.427		
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 18.000	IDR 78.300	IDR 41.704	IDR 181.411		
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 10.500	IDR 45.675	IDR 34.121	IDR 148.427		
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 45.000	IDR 195.750	IDR 34.121	IDR 148.427		
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 24.000	IDR 104.400	IDR 51.182	IDR 222.641		
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 20.000	IDR 87.000	IDR 56.869	IDR 247.379		
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 52.000	IDR 226.200	IDR 56.869	IDR 247.379		
AVERAGE COST										IDR 28.380	IDR 123.453	IDR 42.614	IDR 185.369		
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia The range value of the coefficient are 0.9 < 1 < 1.5 0.9 = Value is lower than Sleman Regency 1.0 = Value same as the Sleman Regency 1.5 = Value are higher than sleman regency															

Source : Observation and Calculation

From the comparison of the calculation above, there was a difference in value calculations, this was because other calculations were influenced by several factors such as recreation and saving needed. The final results of these calculations are definitely different. The total of average recreation cost and saving wage for skilled construction workforce bricklayer who had family around 4 - 6 people need before is around **Rp. 164.919,00/month** and after the calculation based on the difference location, difference recreation and saving wage needed in each person, and with the 25 workforce's as the sample, the final result of the total of average recreation cost and saving wages for workforce who had family around 4 - 6 people need is around **Rp. 185.369,00/month**. A difference in value causes a difference in value. The results of the difference in value can be allocated as one of the important factors supporting a decent life, namely as additional costs. Then the difference in value is equal to :

= Rp. 185.369,00/month - Rp. 164.919,00/month

= Rp. 20.450,00/month (This difference cost can be used as additional cost)

The other expense will be included in the additional cost. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life.

B. Additional Average Cost

The detail of extra recreation cost and saving wage for 4 - 6 people/month :

Additional for (Head of Family, Bricklayer)	= Rp. 20.450,00
Additional for (House Wife, Emergency Fund)	= Rp. 000.00,00
Additional for (1st child, Senior High School)	= Rp. 000.00,00
Additional for (2nd child, Junior High School)	= Rp. 000.00,00
Additional for (3rd child, Elementary School)	= Rp. 000.00,00
Total	= Rp. 20.450,00

From the calculation above, the total of additional average recreation cost and saving wage for workforce who had family around 4 - 6 people need is around **Rp. 20.450,00/month**.

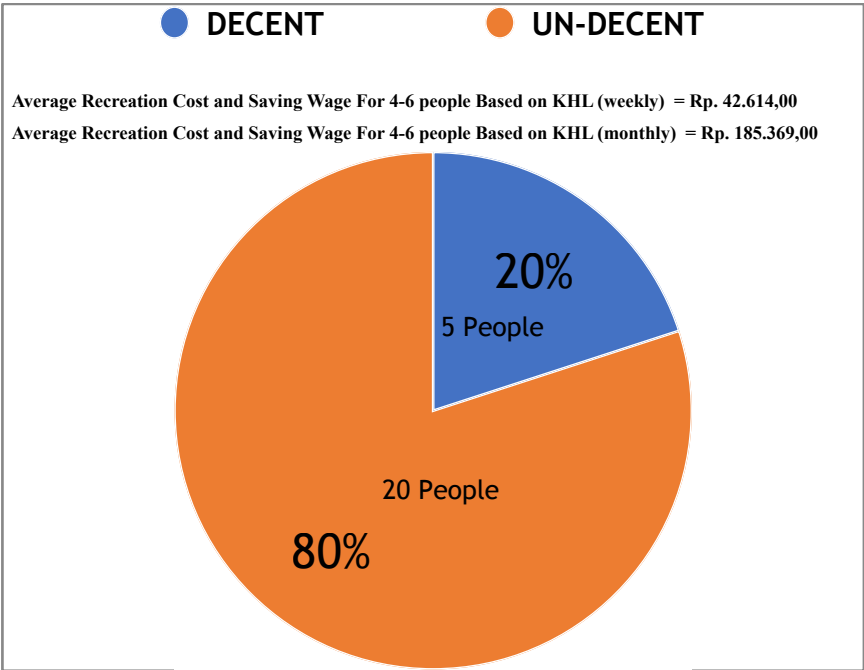
Total average recreation cost and saving wage of skilled construction workforce bricklayer who had family around 4 - 6 people/month:

$$\begin{aligned} &= \text{Regular average cost} + \text{additional average cost} \\ &= \text{Rp. 164.919,00} + \text{Rp. 20.450,00} \\ &= \text{Rp. 185.369,00} \end{aligned}$$

At the end, after the calculation finished, the total average recreation cost and saving wage for skilled construction workforce bricklayer who had family around 4 - 6 people need in 1 month is around **Rp. 185.369,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the workforce can live a decent life.

Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, the wages are not enough to meet a life as a Decent Living Needs (KHL). This can be

seen from the table above, where the table has explained of the comparison between the current average cost value of recreation cost and saving wage for workforce who had family around 4 - 6 people which is around Rp. 28.380,00 per week or Rp. 123.453,00 per month. This value is quite low when compared to the average cost value of recreation cost and saving wage for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 42.614,00 per week or Rp. 185.369,00 per month. For further and specific illustration, it will be explained in the diagram figure below.



Source : Observation and Calculation

Figure 5.9 The Diagram Result of Recreation and Saving Wage Comparison for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 skilled construction workforce bricklayer who were sampled, only 5 workforce's (20%) of the 25 sample workforce's meet than the average recreation cost and saving wage based on Decent Living Needs (KHL) in the 6 Regency's. In fact, this condition are in worse condition because, the 5 workforce's of the sample that has bigger value that average cost is still un-decent. **Why?** even from the table and diagram above, it's clearly that the 5

workforce's able to cover the cost for recreation and saving wage but, **how about the other sector?** With the average wages received every month right now, the amount of the wages gap isn't much with the other 20 workforce's. That's mean is the 5 workforce's are still not enough to cover the cost in the other sector, such as education, health, clothes, housing, food, and Transport. It is true that each person's needs are different, but overall the wages received by workforce right now are un-decent and un-able to meet the decent needs of the workforce and the family based on the Decent Living Needs (KHL) guidelines. This problem must be addressed immediately because it has a serious impact on the lives of construction workforce and the family member.

5.4.1.8 Total Calculation of Construction Workforce Needs Based on Decent Living Needs (KHL)

The total of regular average and additional average cost for skilled construction workforce bricklayer who had family around 4 - 6 people based on Decent Living Needs (KHL) and the calculation on the previous explanation are mentioned in the table below.

Table 5.30 Total of Regular Average and Additional Average Cost Table Based on The Decent Living Needs Every Month (KHL)

Category (Based on KHL)	Regular Average Cost/Month	Additional Average Cost/ Month	Total Average Cost/ Month
Food	Rp. 1.756.000	Rp. 217.744	Rp. 1.973.744,00
Clothes	Rp. 587.500,00	Rp. 503.717,00	Rp. 1.091.217,00
House	Rp. 4.173.325,00	Rp. 840.642,00	Rp. 5.013.967,00
Education	Rp. 40.000,00	Rp. 94.881,00	Rp. 134.881,00
Health	Rp. 382.125,00	Rp. 224.796,00	Rp. 606.921,00
Transportation	000.00,00	Rp. 1.300.014,00	Rp. 1.300.014,00
Recreation and Saving	Rp. 164.919,00	Rp. 20.450,00	Rp. 185.369,00

Source : Observation and Calculation

From the calculation above, the total of regular and additional average cost for skilled construction workforce's (bricklayer's in this case) who had family around 4 - 6 people based on Decent Living Needs (KHL) needed is around **Rp. 10.306.113,00/month**. That is the calculation of Decent Living Needs (KHL) standards basic needs that must be met and the construction workforce can live a decent life.

Based on the calculation above, the average wages for skilled construction workforce bricklayer who had family around 4 - 6 people received right now are around Rp. 3.946.000,00/month. This wages must be enough to cover workforce who had family around 4 - 6 people needs living every month. The reality are difference, after recalculation based on the Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 about Decent Living Needs (KHL), the perfect wages amount for the construction workforce are Rp. 10.500.000,00/month. The amount wages received by workforce right now is far from decent and sufficient to meet the needs of the family concerned. Small wages can negatively affect construction workforce both directly and indirectly, which can lower quality of life and the families, which can later become a further burden. The recapitulation data about Decent Living Needs (KHL) cost for construction workforce based on observation and calculation are mentioned in the table below.

Figure 5.31 The Data About Decent Living Needs Cost and Productivity of Construction Workforce

Based on Observation and Calculation

The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation and Calculation																									
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week)	Cloths (per week)	Housing (per week)	Education (per week)	Health (per week)	Transportation (per week)	Recreation and Saving (per week)	Needs (per week)	Needs (per month)	Real Wage (IDR)	Average Real Wage (IDR)	Ratio	Expected Wage (IDR)	Real Productivity (m2 per day)	Expected Productivity (adjusted payment)	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1.35	1		IDR 544.966	IDR 301.293	IDR 1.384.394	IDR 37.242	IDR 167.575	IDR 358.944	IDR 51.182	IDR 2.845.595	IDR 12.378.139	IDR 4.725.000		2,620		10 m2		
2	Ahmad Sodikin	38	7	SD	Sieman	YES	1	2		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1.1	3		IDR 444.046	IDR 245.198	IDR 1.128.025	IDR 30.345	IDR 136.543	IDR 292.473	IDR 41.704	IDR 2.318.633	IDR 10.086.054	IDR 3.850.000		2,620		8 m2		
4	Supriyanto	44	10	SD	Sieman	YES	1	3		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
5	Ketur Anawia	26	5	SMK	Denpasar	NO	1.35	2		IDR 544.966	IDR 301.293	IDR 1.384.394	IDR 37.242	IDR 167.575	IDR 358.944	IDR 51.182	IDR 2.845.595	IDR 12.378.139	IDR 4.725.000		2,620		10 m2		
6	Woyan Sudina	34	8	SMP	Denpasar	YES	1.35	2		IDR 544.966	IDR 301.293	IDR 1.384.394	IDR 37.242	IDR 167.575	IDR 358.944	IDR 51.182	IDR 2.845.595	IDR 12.378.139	IDR 4.725.000		2,620		10 m2		
7	Pitu Atika	28	6	SMK	Badung	NO	1.5	-		IDR 605.517	IDR 334.770	IDR 1.538.216	IDR 41.380	IDR 186.195	IDR 398.826	IDR 56.869	IDR 3.161.772	IDR 13.753.710	IDR 5.250.000		2,620		12 m2		
8	Kadek Eka	36	7	SD	Badung	YES	1.5	3		IDR 444.046	IDR 245.198	IDR 1.128.025	IDR 30.345	IDR 136.543	IDR 292.473	IDR 41.704	IDR 2.318.633	IDR 10.086.054	IDR 3.850.000		2,620		8 m2		
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1.1	2		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
10	Agus Haryadi	31	6	SMP	Sieman	YES	1	1		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
11	Eko Setiawan	43	9	SD	Sieman	YES	1	4		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
12	Herli	25	7	SMP	Tulungagung	YES	0.9	-	Bricklayer	IDR 444.046	IDR 245.198	IDR 1.128.025	IDR 30.345	IDR 136.543	IDR 292.473	IDR 41.704	IDR 2.318.633	IDR 10.086.054	IDR 4.000.000	IDR 3.946.000		IDR 10.500.000	25 - 30 m2	Decent	
13	Putra Ekayasa	39	8	SD	Malang	YES	1.1	2		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,522		6 m2		
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0.9	1		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
15	Muladi	29	6	SMP	Sieman	NO	1	-		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
16	Ahmad Lalu	32	9	SMP	Sieman	YES	1	-		IDR 403.678	IDR 223.180	IDR 1.025.477	IDR 27.586	IDR 124.130	IDR 265.884	IDR 37.912	IDR 2.107.848	IDR 9.169.140	IDR 3.500.000		2,620		8 m2		
17	Samsul Ramadhan	25	7	SMA	Tulungagung	NO	0.9	-		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0.9	1		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
19	Syehruf Ari	38	8	SD	Tulungagung	YES	0.9	4		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,522		6 m2		
20	Heru Gunawan	31	7	SMP	Malang	NO	1.1	-		IDR 444.046	IDR 245.198	IDR 1.128.025	IDR 30.345	IDR 136.543	IDR 292.473	IDR 41.704	IDR 2.318.633	IDR 10.086.054	IDR 4.000.000		2,522		8 m2		
21	Albar Haridhi	40	8	SD	Tulungagung	YES	0.9	3		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
22	Hamzah	29	7	SMP	Tulungagung	YES	0.9	-		IDR 363.310	IDR 200.862	IDR 922.929	IDR 24.828	IDR 111.717	IDR 239.296	IDR 34.121	IDR 1.897.063	IDR 8.252.226	IDR 3.150.000		2,620		6 m2		
23	Gede Anom	39	7	SD	Denpasar	YES	1.35	2		IDR 544.966	IDR 301.293	IDR 1.384.394	IDR 37.242	IDR 167.575	IDR 358.944	IDR 51.182	IDR 2.845.595	IDR 12.378.139	IDR 4.725.000		2,620		10 m2		
24	Komang Suteja	42	8	SD	Badung	YES	1.5	3		IDR 605.517	IDR 334.770	IDR 1.538.216	IDR 41.380	IDR 186.195	IDR 398.826	IDR 56.869	IDR 3.161.772	IDR 13.753.710	IDR 5.250.000		2,620		12 m2		
25	Made Arya	23	5	SMK	Badung	NO	1.5	-		IDR 453.724	IDR 250.855	IDR 1.152.636	IDR 31.007	IDR 139.522	IDR 298.854	IDR 42.614	IDR 2.369.221	IDR 10.306.113	IDR 5.250.000		2,612		8.32 m2		
AVERAGE COST																									

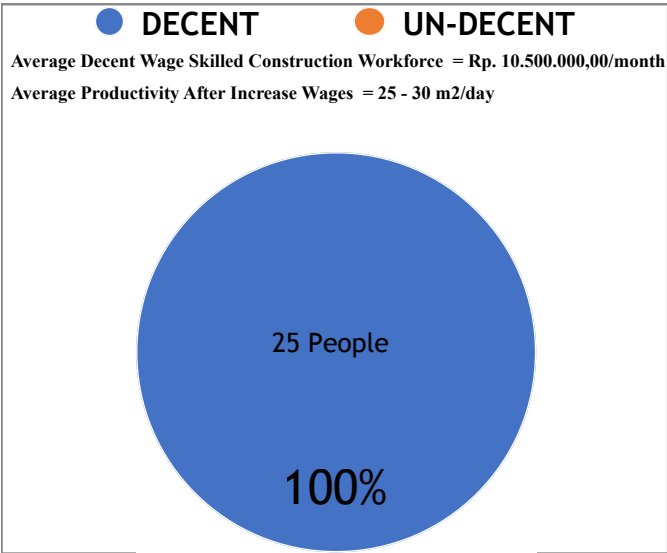
Source : Observation and Calculation

N = estimation of price in that area, that is for comparing the price between the other area in Indonesia
The range value of the coefficient are 0.9 < 1 < 1.5
0.9 = Value is lower than Sieman Regency
1.0 = Value same as the Sieman Regency
1.5 = Value is higher than Sieman regency

Before continued to the next explanation, there is something should be explain more about the table, **is it possible to achieve ideal wages and be in line with the increase in productivity of 20-30 m2?** Yes, **why?** Because, increasing construction workforce wages can contribute to increased productivity, as long as it is accompanied by other supporting factors. Where workforce's who receive higher wages tend to feel appreciated, which can increase their motivation and job satisfaction. Based on UIR Press Journal," This can encourage them to work more efficiently and improve the quality of their work results." In addition, effective leadership management quality and good project management can maximize the positive impact of wage increases on productivity. Training and development also play an important role, where in investment in technical and non-technical skills training for construction workforce's can improve work efficiency and quality of results. Working environment are also not free from influence, a safe and comfortable working environment, as well as the provision of decent equipment, can support higher productivity.

From the calculation above, the final results for skilled construction workforce bricklayer who had family around 4 - 6 people monthly average wage is around **Rp. 10.500.000,00/month** and after the calculation based on the difference location, difference price in each location, and with the 25 workforce's as the sample. Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, if the wages are set enough to meet a life as a Decent Living Needs (KHL), then the workforce's productivity increase. This can be seen from the table above, where the table has explained of the total comparison between the current average wages and decent average wages. Current average for skilled construction workforce bricklayer who had family around 4 - 6 people which is around Rp. 3.946.000,00 per month. This value is quite low when compared to the decent average wage for workforce who had family around 4 - 6 people based on

Decent Living Needs (KHL), which is around Rp. 10.500.000,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.10 The Diagram Result Comparison of Current Wages and Decent Wages for Construction Workforce’s Based on Observation and Calculation

From the diagram above, the 25 skilled construction workforce’s bricklayer who were sampled, all of the 25 workforce’s (100%) of sample workforce’s meet than the average decent wage based on Decent Living Needs (KHL) in the 6 Regency’s. With the average wages received every month for Rp. 10.500.000,00, the productivity produce is around 25 - 30 m2/day. This is true that each person's needs to fulfill based on the Decent Living Needs (KHL) guidelines.

5.4.2 Compare to Regional Minimum Wages (UMR)

Workforce in the construction industry may believe that their contributions are not valued, which lowers productivity, raises the possibility of mistakes, and lowers the caliber of output. Low wages encourages workforce in the construction industry to seek out other possibilities with more wages, which raises the company's turnover rate. Company who have low wage practices also frequently struggle to find qualified construction workforce, which eventually lowers the

caliber of the work. Low wages increases the disparity between low and high-paid construction workforce, which can exacerbate social unrest. People's purchasing power declines if low wages are prevalent throughout several industries, which eventually hinders economic growth as a whole. In addition to affecting individual construction workforce, low wages also have an effect on businesses, society, and the overall economy. Thus, one way to increase the wellbeing and productivity of construction workforce is to pay them a decent wage that corresponds to their contributions and living needs.

The research of changing the wages structure for skilled construction workforce bricklayer who had family around 4 - 6 people is demonstrated by this study. It is possible to boost productivity by up to 300% - 360% by establishing a decent wage of Rp. 10.500.000,00 per month, which would be extremely advantageous for company, workforce, and society at large. To make the construction industry more equitable and productive, this reform must be backed by government policy and cooperation from all stakeholders. Based on research data from this thesis, the wages of construction workforce in Sleman Regency are compared as follows :

1. Previous Skilled Construction Average Workforce Wages bricklayer are Rp. 3.946.000,00/Month. Skilled construction workforce bricklayer wages previously reflected inadequate wage conditions, when compared with :
 - a. Work Productivity : Average of only 8.32 m² per day, much lower than ideal productivity standards.
 - b. Minimum Wages Regulation (UMR) : The average wage of Rp. 3.946.000,00/month is only slightly higher than the average UMR of 6 Regency's in Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are Rp. 2.818.783,00/month, but does not reflect the need for a decent living for construction workforce who have high occupational risks.

c. Decent Living Needs (KHL) : When compared with Decent Living Needs (KHL), this wage is not sufficient to meet basic needs, let alone provide incentives for increasing productivity.

2. Adjusted Skilled Construction Workforce Wages bricklayer are Rp. 10.500.000,00/month. The research results show that the wages for workforce in Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency is Rp. 10.500.000,00/month, with productivity increasing from 8.32 m²/day to 30 m²/day. The difference explanation of the causes are explained below :

a. Increased Productivity: Increased wages provide incentives for workforce to increase productivity up to 300% - 360% compared to initial productivity.

b. Workforce Welfare: This wage better reflects the needs of a Decent Living Needs (KHL), improves the purchasing power of workforce and their families to fulfills the principle of fair wages.

c. Positive Impact on Construction Projects: Higher productivity reduces overall project costs and time, providing benefits to company.

3. Comparison with average UMR of 6 Regency's in Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency is Rp. 2.818.783,00/month. That value is the minimum value for workforce without special skills. However, workforce has different characteristics, such as :

a. Special Skills: Skilled construction workforce bricklayer are skilled workforce who require training and experience, and thus deserve higher wages than general workforce.

b. High Job Risk: Construction jobs have a high risk of workplace accidents, which should be rewarded with better wages.

c. Wage Inequality: When compared with a wages Rp. 10.500.000,00/month, the UMR of Rp. 2.818.783,00/month only covers around 37.25% of that value, indicating a large inequality in the wage system.

Current conditions, low wages do not reflect the added value produced by construction workforce. Where the current wage system does not respect the skills and experience of construction workforce, thereby greatly hampering economic growth in the area. This can be overcome by using local Decent Living Needs (KHL) data as the main reference for setting minimum wages for construction workforce, such as providing wages according to workforce's contribution to the project, for example Rp. 10.500.000,00/month with a productivity of 25 - 30 m²/day, in accordance with research that has been carried out. If this can be implemented, there will be an increase in welfare, work motivation and productivity for construction workforce.

5.4.3 Correlation to Economic Condition

The workforce wages system in Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, one of the areas with the fastest growth in the construction industry, presents difficulties, particularly for skilled construction workforce bricklayer. The level of workforce productivity and the wages paid under the current wage structure were determined becomes out of sync. The efficiency and competitiveness of the region's construction industry are also impacted by this mismatch, in addition to the welfare of the workforce. The wage of Rp. 3.946.000,00/month is only slightly above than the average UMR of 6 Regency's in Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are Rp. 2.818.783,00/month, which is still far from the figure for Decent Living Needs (KHL). This condition results in :

a. Limited purchasing power of workforce for basic needs.

- b. Decreased quality of life that affects motivation and productivity.

With an increase in wages to Rp. 10.500.000,00, purchasing power increases significantly, enabling workforce to meet the needs of a decent life, such as housing, education, health and transportation. Wage increases also assist in the process of raising workforce's purchasing power, which supports the local economy's recovery, particularly in industries like retail, services, and transportation. This has a favorable cascading effect on Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency economic expansion.

To put it another way, offering rewards to workforce is allowed as long as their performance surpasses productivity goals in order to boost motivation and output. The wage system must be periodically modified in accordance with the government announced yearly inflation rate in order to preserve the workforce's purchasing power. In summary, construction industry can grow more sustainably and competitively with the establishment of a fair wage regime.

5.4.4 Work Environment Influence

The wages structure has a significant impact on both project productivity and the well being of construction workforce. A discrepancy between the productivity levels and remuneration of skilled construction workforce bricklayer, was discovered in the context in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency. Variations in workforce wages are also influenced by characteristics including education, work status (contract or permanent), place of residence (city or village), and degree of qualification. The purpose of this study is to compare construction workforce's wages and examine how they relate to the wage structure in light of these variables. Based on the research data from this thesis, the wages of construction workforce are influenced by.

5.4.4.1 Wages Based on Qualification Level

The qualification level of construction workforce influences the amount of wages received. The more experience a construction workforce has in the world of construction, the greater the opportunity for the construction workforce to have a good career path. In Java and Bali Island Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, skilled construction workforce bricklayer, can be grouped based on experience and skill levels as follows:

a. Level I (Beginner)

Work experience : < 2 years

Average wage : Rp. 2.750.000,00/month - Rp. 4.500.000,00/month

Productivity : 6 - 8 m²/day

b. Level II (Intermediate):

Work experience : 2 - 5 years

Average wage : Rp. 3.125.000,00/month - Rp. 6.500.000,00/month

Productivity : 8 - 17 m²/day

c. Level III (Skilled) :

Work experience : > 5 years

Average wage : Rp. 3.946.000,00/month - Rp. 10.500.000,00/month

Productivity : 10 m² to (25 - 30 m²/day)

Wage increases as qualifications improve provide incentives for the workforce to improve skills, which impacts overall project productivity.

5.4.4.2 Wages Based on Education Level

The level of education also influences the wages of construction workforce. Skilled construction workforce bricklayer with more formal education are less likely to have opportunities to obtain additional technical training, which impacts productivity and wages. Not all jobs can be measured by education level, especially jobs in the construction sector. Work in the construction sector has its

own or special character, where workforce who have experience in the field are much more needed. However, the level of education is also important as a starting point for a construction workforce's career. This is very helpful, where at school you are taught to use your mind well and carefully. This is very functional in everyday life and in the world of work. Having a high level of education allows construction workforce to start their careers at a higher level than others, being able to adapt to the work environment, and the percentage of chances of having a good career is quite higher than others. Based on the research data of education level from this thesis, the wages of construction workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are divided into :

a. Elementary/Junior high school education

Average wage :Rp. 2.750.000,00/month - Rp. 4.500.000,00/month

Productivity : 6 - 8 m²/day

b. High School/Vocational School Education

Average wage : Rp. 3.125.000,00/month - Rp. 6.500.000,00/month

Productivity : 8 - 17 m²/day

c. Diploma/Equivalent Education

Average wage : Rp. 3.500.000,00/month - Rp. 8.000.000,00/month

Productivity : 20 m² to (25 - 30 m²/day)

Improved education provides better technical understanding, which supports work efficiency in the field. Certainly many questions arise regarding this matter whether, **there are any bricklayers with diploma education?** Based on Bina Marga Kementrian PUPR,"Diploma education in construction, especially for masons, plays an important role in improving the quality and competitiveness of the workforce in the Indonesian construction industry." Diploma education provides in-depth technical knowledge of masonry construction, including installation techniques, material selection, and structural calculations. Diploma education is often the first step in obtaining competency certification, which is

then followed by training and competency tests. Facing the ASEAN Economic Community (AEC), competency certification is important so that masons can compete with foreign workers who have recognized standards and certifications. Diploma education and certification increase the competitiveness of the Indonesian workforce in the global market.

5.4.4.3 Wages Based on Work Status

Work status, whether as a permanent workforce or contract, is one of the variables that determines the wage system. Permanent construction workforce will most likely be much better off in terms of economics and livability compared to contract construction workforce. This has been a problem for quite a long term, where in almost all work sectors the wages gap obtained by permanent workforce and contract workforce is very different even though the risks and work responsibilities are almost the same. Therefore, all groups involved in the formation of standardization values for workforce's wages should immediately review this because in fact up to now this gap is quite high and occurs frequently. The research data of work status from this thesis showing, the wages of construction workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are divided into :

a. Permanent Workforce

Average wage : Rp. 6.000.000,00/month - Rp. 12.000.000,00/month

Condition : Social security and work benefits and job stability or performance incentives.

b. Contract Workforce

Average wage : Rp. 3.500.000,00/month - Rp. 6.000.000,00/month

Condition : Productivity depends on the specific project and there are no additional allowances.

Permanent workforce tend to have higher wages due to job stability and training provided regularly by the company.

5.4.4.4 Wages Based on Location of Residence

Location of residence also influences differences in wages for construction workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency. Workforce's living in cities often have better access to large projects and training, while workforce's in rural areas are more focused on small scale projects. Reality, construction workforce's in the city have a higher chance of getting a higher wages than construction workforce's who work in the village. This shows the unequal distribution and scope of work by the government, this is also due to unequal economic growth in each region. Therefore, the government and all those in authority immediately take action to centralize disadvantaged areas, that excessive economic inequality or disparity does not occur. The research data of location residence from this thesis showing, the wages of construction workforce are divided into :

a. Workforce in the City

Average wage : Rp. 6.000.000,00/month - Rp. 12.000.000,00/month

Productivity : 20 to (25 - 30 m²/day)

Factors : Access to large projects, technical training

b. Workforce in the Village

Average wage : Rp. 3.000.000,00/month - Rp. 4.500.000,00/month

Productivity : 6 - 10 m²/day

Factors : Limited large projects, more traditional work

From the analysis above, it can be concluded that wages for construction workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are still far from adequate. Improvements to the wage system that take

into account qualification levels, education, work status and location of residence are very necessary to improve workforce welfare and project productivity. The wage system often does not consider the variables of qualifications, education, work status and location of residence as a whole. As a result, many construction workforce receive wages below living standards. Regional governments should set wage standards that take into account qualifications, education and location of residence. This requires that company need to provide performance based incentives to increase motivation. But, this must be encouraged by increasing productivity. Company and local governments are obliged to provide access to training for workforce in villages to catch up with the productivity of workforce in cities. Linking wages to work results to encourage project efficiency is not difficult. With these steps, it is hoped that the construction sector can achieve a balance between workforce welfare and project efficiency.

5.5 Calculating Methods of Case Study 2

Based on the example above after calculating the perfect wages construction workforce should be received every month based on Decent Living Needs (KHL) arranged on Law (UU). How much the average productivity of the skilled construction workforce's (bricklayer in this case) comparable with average decent wages?

Wages are financial rewards received by workforce's for the services or energy they provide. In the construction context, wages include basic wages, incentives and allowances. While productivity is the efficiency of workforce in completing a work. In construction, productivity is measured by the results of work (output) produced within a certain period of time. In the construction work system, wages increases and productivity have a favorable relationship, particularly when they are balanced by effective management and sufficient training. Wage increases boost workforce retention, motivation, and well being all of which lead to increased production. However, a number of variables, including

project management, workforce abilities, and economic conditions, affect how effective wages increases are. Businesses may improve workforce welfare and create a more productive and efficient work environment with the correct approach. The best productivity can be calculated using the following approach, which is pertinent to the rise in construction workforce's wages.

5.5.1 Calculation of Productivity

To calculate the wages for skilled construction workforce (bricklayer in this case) and their productivity in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, several calculation stages were carried out based on data obtained from field observations and supporting literature. The detail calculation of productivity should be increased comparable with wages increase in skilled construction workforce bricklayer who had family around 4 - 6 people cases are :

1 Month average working days = 25 days, based on UU No 13 Tahun 2003 Pasal 77 Ayat 1, "Every company is obliged to implement working time regulations". And Based on UU No 13 Tahun 2003 Pasal 77 Ayat 2, "Working time as intended in Ayat 1 includes:

- a. 7 (seven) hours 1 (one) day and 40 (forty) hours 1 (one) week for 6 (six) working days in 1 (one) week; or
- b. 8 (eight) hours 1 (one) day and 40 (forty) hours 1 (one) week for 5 (five) working days in 1 (one) week".**

Working Time = (09.00 WIB - 17.00 WIB), Rest 1 hour (12.00 WIB-13.00 WIB).

The average wages skilled construction workforce bricklayer received monthly = Rp. 3.946.000,00/month

The average wages skilled construction workforce bricklayer received daily :
 The average wages monthly/ 25 days
 = Rp. 3.946.000,00/ 25 days

= Rp. 157.840,00/day

The wages skilled construction workforce bricklayer received per hour

= The average wages daily/ 8 hours

= Rp. 157.840,00/ 8 hours

= Rp. 19.730,00/hour

The Decent Living Needs (KHL) for skilled construction workforce bricklayer

= Rp. 10.306.113,00/month.

The monthly wages should be received after increased for workforce bricklayer based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 = **Rp. 10.500.000,00/month.**

The daily wages should be received after increased for workforce based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 are :

= The monthly wages should be received after increased based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 / 25 days (working time)

= (Rp. 10.500.000,00/ 25 days)

= **Rp. 420.000,00/day**

The hour wages should be received after increased for workforce based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 are :

= The monthly wages should be received after increased based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 / 8 hours (working time)

= (Rp. 420.000,00/ 8 hours)

= **Rp. 52.500,00/hour**

The difference wages are,

= The monthly wages should be received after increased based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 - The average wages received right now

= Rp. 10.500.000,00/month - Rp. 3.946.000,00/month)

= **Rp. 6.554.000,00/month**

The wages increase ratio percentage are :

= The monthly wages should be received after increased based on Decent Living Needs (KHL), Peraturan Menteri Tenaga Kerja dan Transmigrasi No 13 Tahun 2012 / The average wages received right now

= Rp. 10.500.000,00/ Rp. 3.946.000,00

= **2.66**

The average productivity of skilled construction workforce bricklayer = **8.32 m²/day**

The increase productivity of skilled construction workforce bricklayer after the wages increase are :

= The wages increase ratio percentage x The average productivity

= 2.66 x 8.32 m²/day

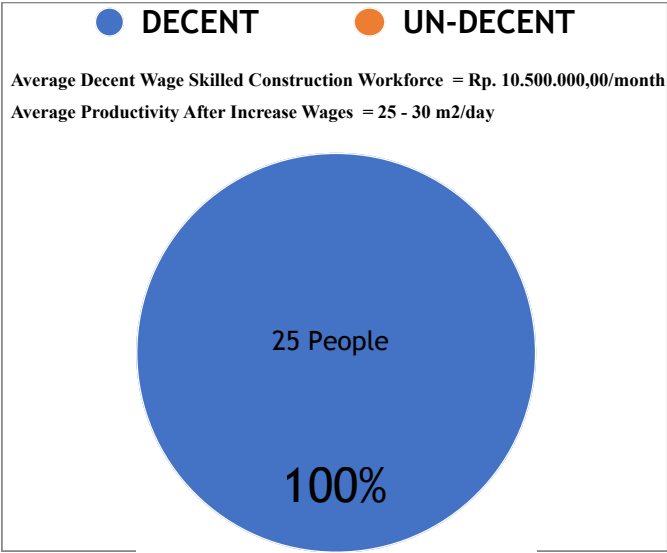
= **22.1312 m²/day**

The average increase productivity of skilled construction workforce bricklayer are range **25 m²/day - 30 m²/day**. The perfect value are on **30 m²** because, this value can be achieved if the government and companies are willing to work together to increase productivity by procuring equipment, training, increasing workforce's wages to **Rp. 10.500.000,00/month**, good work planning, effective field supervision, utilization of digital technology, motivation incentives and implementation of efficient work methods. Now, the table of total productivity of the construction workforce should be increased comparable with wages increase in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are mentioned in the table below.

Table 5.32 The Data About Comparable Decent Living Needs Cost and Productivity of Construction Workforce
Based on Observation and Calculation

The Data About Decent Living Needs Total Cost Comparison for Construction Workforce													
Based on Observation and Calculation													
Case	Name	Age	Experience (year)	Level (education)	Location	Supouse	N	Children	Profession	Needs (per week)	Real	Needs (per month)	Real Wage (IDR)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1		Real	IDR 1.086.000	IDR 4.724.100	IDR 2.845.595
2	Ahmad Sodikin	38	7	SD	Sieman	YES	1	2		Adjust	IDR 804.500	IDR 3.499.575	IDR 2.107.848
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		Adjust	IDR 885.000	IDR 3.849.750	IDR 2.318.633
4	Supriyanto	44	10	SD	Sieman	YES	1	3		Adjust	IDR 804.500	IDR 3.499.575	IDR 2.107.848
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		Adjust	IDR 1.086.000	IDR 4.724.100	IDR 2.845.595
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		Adjust	IDR 1.086.000	IDR 4.724.100	IDR 2.845.595
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		Adjust	IDR 1.206.500	IDR 5.248.275	IDR 3.161.772
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		Adjust	IDR 1.206.500	IDR 5.248.275	IDR 3.161.772
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		Adjust	IDR 885.000	IDR 3.849.750	IDR 2.318.633
10	Agus Haryadi	31	6	SMP	Sieman	YES	1	1		Adjust	IDR 804.500	IDR 3.499.575	IDR 2.107.848
11	Eko Setiawan	43	9	SD	Sieman	YES	1	4		Adjust	IDR 804.500	IDR 3.499.575	IDR 2.107.848
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2	Bricklayer	Adjust	IDR 919.500	IDR 3.999.825	IDR 2.318.633
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
15	Muliadi	29	6	SMP	Sieman	NO	1	-		Adjust	IDR 804.500	IDR 3.499.575	IDR 2.107.848
16	Ahmad Lalu	32	9	SMP	Sieman	YES	1	-		Adjust	IDR 804.500	IDR 3.497.400	IDR 2.107.848
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		Adjust	IDR 919.500	IDR 3.999.825	IDR 2.318.633
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		Adjust	IDR 724.000	IDR 3.149.400	IDR 1.897.063
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		Adjust	IDR 1.086.000	IDR 4.724.100	IDR 2.845.595
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		Adjust	IDR 1.206.500	IDR 5.248.275	IDR 3.161.772
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		Adjust	IDR 1.206.500	IDR 5.248.275	IDR 3.161.772
				AVERAGE COST						Real	IDR 906.920	IDR 3.945.102	IDR 2.369.221
										Adjust	IDR 906.920	IDR 3.945.102	IDR 2.369.221
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Adjust	IDR 1.086.000	IDR 4.725.000	IDR 2.845.595
										Real	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Adjust	IDR 1.206.500	IDR 5.250.000	IDR 3.161.772
										Real	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Adjust	IDR 885.000	IDR 3.850.000	IDR 2.318.633
										Real	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Adjust	IDR 804.500	IDR 3.500.000	IDR 2.107.848
										Real	IDR 1.086.000	IDR 4.725.000	IDR 2.845.5

From the calculation above, the final results for skilled construction workforce bricklayer who had family around 4 - 6 people monthly average wage is around **Rp. 10.500.000,00/month** and after the calculation based on the difference location, difference price in each location, and with the 25 workforce's as the sample. Based on the table above, the value gap is very clear when compared between the average wage currently get and the wage should get properly. Therefore, if the wages are set enough to meet a life as a Decent Living Needs (KHL), then the workforce's productivity increase. This can be seen from the table above, where the table has explained of the total comparison between the current average wages and decent average wages. Current average for skilled construction workforce bricklayer who had family around 4 - 6 people which is around Rp. 3.946.000,00 per month. This value is quite low when compared to the decent average wage for workforce who had family around 4 - 6 people based on Decent Living Needs (KHL), which is around Rp. 10.500.000,00 per month. For further and specific illustration, it will be explained in the diagram below.



Source : Observation and Calculation

Figure 5.11 The Diagram Result Comparison of Decent Wages and Productivity for Construction Workforce's Based on Observation and Calculation

From the diagram above, the 25 skilled construction workforce bricklayer who were sampled, all of the 25 workforce's (100%) of sample workforce's meet than the average decent wage based on Decent Living Needs (KHL) in the 6 Regency's. With the average wages received every month for **Rp. 10.500.000,00**, the productivity produce is around **25 - 30 m²/day**. This is true that each person's needs to fulfill based on the Decent Living Needs (KHL) guidelines.

Increasing the wages of construction workforce benefits businesses in a number of ways. In the long term, the advantages are frequently bigger, even with rising operating costs. Workforce in the construction industry who are paid a decent wage are typically more motivated and produce better work, which boosts productivity and fosters workforce loyalty and lowers turnover. The company is more well respected in society as a result of the wage given, and it is able to cultivate positive connections with investors, customers, and the government in addition to luring in a professional and qualified construction staff that can boost the business's competitiveness in the market. Now, the table of total productivity of the construction workforce comparable with wages in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are mentioned in the table below.

**Table 5.33 Total Productivity of The Construction Workforce
Comparable With Wages**

The Wages	The Productivity
Rp. 2.818.783,00	> 6 m ²
Rp. 3.500.000,00	6 - 8 m ²
Rp. 4.500.000,00	8 - 10 m ²
Rp. 5.000.000,00	10 - 12 m ²
Rp. 6.000.000,00	12 - 15 m ²
Rp. 7.000.000,00	15 - 17 m ²

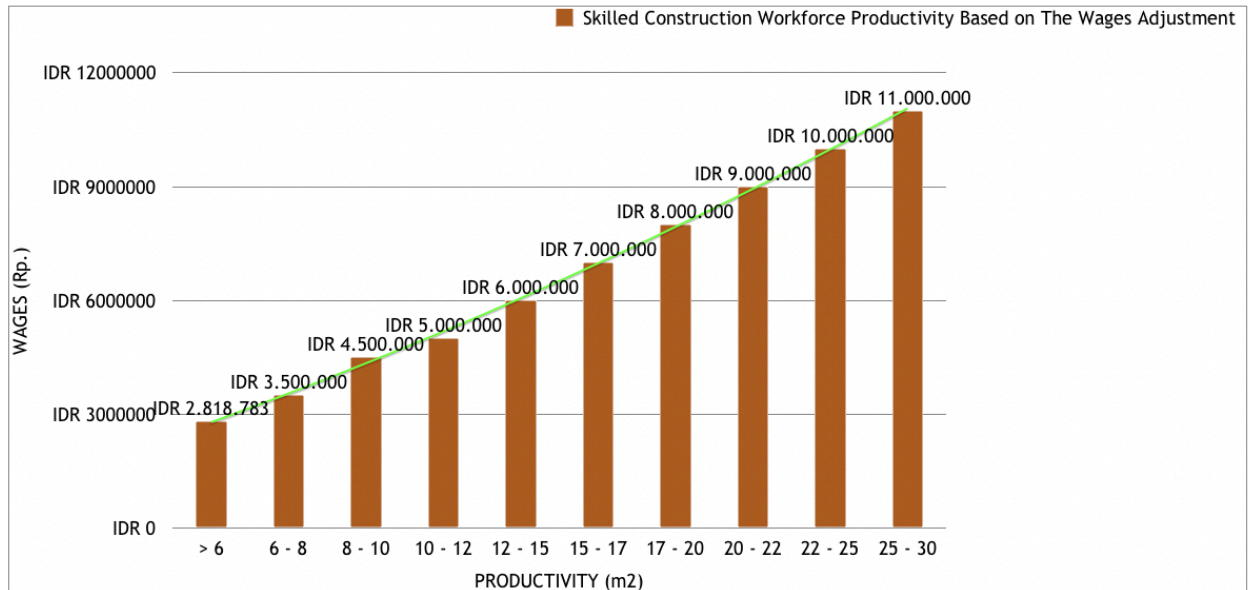
Continued of Table 5.33 Total Productivity of The Construction

Workforce Comparable With Wages

The Wages	The Productivity
Rp. 8.000.000,00	17 - 20 m2
Rp. 9.000.000,00	20 - 22 m2
Rp. 10.000.000,00	22 - 25 m2
Rp. 11.000.000,00	25 - 30 m2

Source : Observation and Calculation

Construction workforce who receive fair compensation are more inclined to follow safety regulations, which lowers the possibility of accidents at work. Their productivity rises as a result of improved mental and physical wellness. Maybe more about fostering creativity and fresh concepts in businesses that subtly support regional and national economic expansion. Support from the Government and the Community Businesses that promote the wellbeing of construction workforce frequently get government rewards or favorable public acknowledgment. This can lessen the likelihood of disagreements or tensions leading to protests or strikes. Now, the diagram relation of total productivity of the construction workforce should be increased comparable with wages increase in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency are mentioned in the diagram below.



Source : personal calculation

Figure 5.12 The Diagram Relation of Total Productivity For The Construction Workforce Should Be Increased Comparable With Wages Increase

The graph above shows the comparison of wages for skilled construction workforce bricklayer and productivity before and after the increase, with a comparison to the minimum wage in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency. For the graphic explanation will be mentioned below.

1. Workforce Wages (Dark Orange Bar)

Before the Increase : skilled construction workforce bricklayer average wages were only Rp. 3.946.000,00 per month.

After Improvement : The decent wage based on the analysis results is Rp. 10.500.000,00 per month.

2. Productivity (Bottom Line)

Before Improvement : Workforce average productivity only reached 8.32 m2/day.

After Upgrade : Productivity increases to 25m2/day - 30 m2/day as wages increase.

On the positive side, the graph shows that there is a direct relationship between increasing wages and increasing productivity. With more decent wages, workforce productivity increases up to 3 times. However, on the other hand, there appears to be a gap with the UMR or wages for workforce, both before and after the increase, which is much higher than the UMR. This reflects the need for wage adjustments in the construction sector that are more in line with the workload and contribution of the workforce.

5.5.2 Analyze The Productivity

To analyze the comparison of the increase in wages for skilled construction workforce bricklayer and the productivity in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, it is necessary to carry out a calculation method to show that the increase in wages from Rp. 3.946.000,00/month to Rp. 10.500.000,00/month is offset by an increase in productivity from 8.32 m²/day to (25 - 30 m²/day) increasing the efficiency of the wage system. To realize that, need a combination of training, incentives, improved working conditions and adjustments to the performance based wage system are needed. With this approach, workforce welfare can be improved without sacrificing the cost efficiency of construction projects. Things that need to be considered in analyzing productivity increases are as follows :

1. Analysis of Productivity and The Relationship with Wages

This calculation compares skilled construction workforce bricklayer productivity before and after the wage increase are :

Average Bricklayer Productivity (Before) : 8.32 m²/day

Average Bricklayer Productivity (After) : 25 - 30 m²/day

The change in productivity is calculated by :

$$\begin{aligned}\text{Change Productivity} &= (P \text{ after} - P \text{ before})/P \text{ before} \times 100\% \\ &= (30 - 8.32)/10 \times 100\% = \mathbf{216.8\%}\end{aligned}$$

2. Comparison of Skilled Construction Workforce Wages with UMR

Compare the calculated living wage with the local minimum wage (UMR) :

Average 6 Regency's UMR : Rp. 2.818.783,00

Previous Wage : Rp. 3.946.000,00

Calculated Decent Wage : Rp. 10.500.000,00

Compare to UMR :

$$\begin{aligned}\text{Ratio of Decent Wage to UMR} &= (\text{Decent Wage}/\text{UMR}) \times 100\% \\ &= (\text{Rp. } 10.500.000,00/\text{Rp } 2.818.783,00) \times 100\% \\ &= \mathbf{372.5 \%}\end{aligned}$$

3. Productivity Cost Calculation

Calculating the costs incurred for each unit of skilled construction workforce
bricklayer productivity :

a. Cost per m² (before) :

Productivity per day (before) = 8.32 m²/day

Average working time per month = 25 days

Productivity per month (before) = 8.32 m²/day x 25 days
= **208 m²/month**

C before = Wages (before)/Productivity per month (before)
= Rp. 3.946.000,00/208 m²
= **Rp. 18.972,00/m²**

b. Cost per m² (after) :

Productivity per day (after) = 30 m²/day

Average working time per month = 25 days

Productivity per month (after) = 30 m²/day x 25 days
= 750 m²/month

C after = Wages (after)/Productivity per month (after)
= Rp. 10.500.000,00/750 m²
= **Rp. 14.000,00/m²**

c. Productivity Cost Efficiency :

$$\begin{aligned}
\text{Efficiency} &= (C \text{ before} - C \text{ after})/C \text{ before} \times 100\% \\
&= (\text{Rp. } 18.972,00 - \text{Rp. } 14.000,00)/\text{Rp. } 18.972,00 \times 100\% \\
&= \mathbf{26.207\%}
\end{aligned}$$

This calculation method shows that increasing wages to Rp. 10.500.000,00/month significantly increases productivity up to three times, while reducing costs per unit of construction by 26.207%. A wage system based on productivity and efficiency has a positive impact, both for workforce and company, also supports local economic growth. Based on data, the ideal wage system in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency for skilled construction workforce bricklayer :

a. Wages Based on Productivity

Using the per m² formula as the basis for determining wages.

Example : wages are calculated as Rp. 10.331,02 × daily productivity (m²)

b. Gradual Increase in UMR

Wage adjustments based on inflation and Decent Living Needs (KHL)

c. Productivity Incentives and Bonuses

Provide bonuses for workforce who are able to exceed productivity targets.

A higher, productivity based wage system not only increases output per workforce but also reduces costs per unit of construction. Thus, company benefit from better operational efficiency. This method provides a strong basis for comprehensively evaluating the wage system for construction workforce's.

5.5.3 Increase The Productivity

Productivity and production have distinct definitions. While growing productivity entails improving production techniques and boosting results, rising production signifies an increase in the quantity of results attained. An economy may create and consume more goods and services for the same quantity of workforce when productivity rises. Analysts (including government statisticians

and policymakers), corporate executives, and individuals (like workforce and consumers) all value productivity. Increasing construction workforce productivity is an important step to ensure projects are completed on time, within budget, and with good quality. The following several strategies that can be implemented to increase construction workforce productivity are :

a. Technical Training

To help workforce's grasp the most recent standards in the construction industry and apply more effective work practices that reduce errors, such as the use of heavy machinery, concrete installation techniques, or more contemporary welding techniques, provide technical skills training, certification, and advanced training. Utilize the newest equipment and tools available to cut down on processing time. Many people are currently using technology like Building Information Modeling (BIM) to plan projects, which cuts down on both planning and execution time.

In bricklaying, most of the work is usually done manually by masons. However, on a large project scale or for efficiency of time and energy, there are several tools and heavy equipment that can be used to support the work. For large or multi-storey projects, heavy equipment such as concrete mixer, mini cranes, brick cutters, hoists, and telehandlers are used. Brick laying machine technology already exists but is still rarely used in Indonesia due to the high cost and skill requirements.

Welding technique are not closely related, as the two processes involve different techniques and skills. However, there are some indirect connections between the two in the broader context of construction. While bricklaying focuses on the laying of bricks with mortar, in the construction of large or multi-storey buildings, there is often a steel structure used to support the building. This is where welding plays a vital role. Before bricklaying begins, a steel frame structure (steel columns and beams) is often constructed to support the building structure. Welding is used to precisely connect these steel members.

In high-rise bricklaying projects, scaffolding is used to facilitate access to higher areas. Steel scaffolding is often manufactured using welding techniques, to connect and strengthen the scaffolding structure that the bricklayers use to lay bricks. Without strong scaffolding, the process of laying bricks on upper floors can be dangerous and inefficient.

b. Providing a Decent Wages

Make sure the pay for construction workforce is in line with industry norms and their level of experience. To give the construction workers a sense of security, offer benefits like health insurance or BPJS Kesehatan (Health) and BPJS Ketenagakerjaan (Profession). Additionally, offer rewards like bonuses to workforce who finish construction projects more quickly without sacrificing quality. Construction workforce can be motivated by acknowledgment in the form of certificates, best team awards, or praise from peers.

c. Creating a Conducive Work Environment

Establishing fair working hours and allowing enough time for rest will help prevent workforce fatigue in the construction industry. To guarantee efficiency, modify tasks according to the knowledge and expertise of the construction workforce. Use K3 gear, such as safety shoes, vests, helmets, and K3 training, to create a secure workplace. Workforce in the construction industry are more likely to be productive when they feel safe. Provide amenities like potable water, restrooms, suitable rest areas, and enough food.

d. Monitoring and Evaluation

Conduct regular supervision to guarantee that tasks are completed accurately and on schedule. In order to foster positive workforce relationships through team activities or an inclusive managerial approach, lead projects with field managers who possess strong communication and leadership abilities. To reduce barriers and increase productivity, use structured project management. Then, make sure that the construction crew is aware of their specific roles and responsibilities to prevent misunderstandings. Techniques like the Gantt chart and the critical path

method (CPM) are used to plan and manage project time. They can be used to set realistic daily goals for each construction team or workforce and track their progress. Regularly evaluate performance to find bottlenecks and look for ways to improve it.

Construction companies can boost construction workforce productivity by combining a well being focused approach, technology use, and efficient management. Construction business that are more productive are able to generate more output using the same amount of input, generate more income, and eventually increase their profit. This strategy guarantees the project's overall success while also benefiting the construction workforce.

5.5.4 Working Methods to Increase The Productivity

Increasing the productivity of skilled construction workforce bricklayer in the field can be achieved through the use of tools and the application of more efficient work methods. Implementing tools and work methods to increase mason productivity up to (25 - 30 m² per day) in Indonesia requires adjustments to local conditions, such as tool availability, costs, workforce skills and work culture. In general, there are many methods and tools that can support this. However, especially in Indonesia at this time, this is still a big obstacle due to limited understanding in the application of the method and the use or availability of these tools. The following is a complete explanation of tools and work methods that can help workforce achieve higher productivity and which are suitable for application in Indonesia today as,

5.5.4.1 Suitable Work Tools for Indonesia

Based on GPSKU Tracker Indonesia, “The following are some examples of tools that can increase the productivity of bricklayers in Indonesia, such as :

- a. Portable Mortar Mixer

Function : Automatically stirs a mixture of sand, cement and water.

Excess : Prices are relatively affordable, easy to use and transport on the work site.

Effect on Productivity : Speeds up the mortar mixing process, reducing manual preparation time and produces a more even mixture, then the brick installation is faster.

b. Simple Laser Level

Function : Helps quickly ensure brick alignment.

Excess : A simple model is sufficient for construction work in Indonesia and easy to use by workforce with short training.

Effect on Productivity : Reduces time for measuring and checking alignment manually and reduces brick installation errors.

c. Brick Pallets

Function : Makes it easier to distribute bricks around the work area.

Excess : Minimizes round trip time to pick up bricks and easy to implement with low cost.

Effect on Productivity : Reduce time and energy for material transportation.

d. Modular Scaffolding

Function : Makes it easier to access work at height.

Excess : More stable and safe than traditional wooden or bamboo piles also many are available in the local market at competitive prices.

Effect on Productivity : Speeds up work in vertical areas without requiring many adjustments.

e. Manual Brick Cutting Tool

Function : Cuts bricks with precision without power tools.

Excess : Cost effective and suitable for locations without electricity also faster than the manual punch method.

Effect on Productivity : Speeds up the brick cutting process without damaging the material.”

5.5.4.2 Suitable Working Methods for Indonesia

a. Task Sharing System

Principle : The division of workforce between skilled construction workforce bricklayer and assistants is clear.

Example : The assistant focused on mixing the mortar and carrying the bricks. Skilled construction workforce bricklayer are only tasked with laying bricks.

Excess : Skilled construction workforce bricklayer can focus on core tasks, then the work goes faster.

Effect on Productivity : More efficient working time, allowing installation of up to (25 - 30 m²/day).

b. Layer by Layer Method

Principle : Complete one layer of brick completely before moving on to the next layer.

Excess : Minimizes rework and makes it easier to check alignment.

Effect on Productivity : Ensure efficiency without sacrificing quality.

c. Lean Construction

Lean Construction is a project management approach that aims to improve efficiency and reduce waste in industrial construction. In the context of bricklaying, the application of Lean Construction can help improve productivity and quality of work. In many construction cases, the application of Lean Construction can increase the productivity of installing lightweight brick walls. Identification of waste such as unnecessary processing, over production, and defects is done through the Process Activity Mapping (PAM) method. After the improvement, activities that provide added value increased, while non-value added activities decreased. This shows increased efficiency and reduced waste in the brick wall installation process.

Principle : Eliminate non value added activities, such as material waiting times or inefficient transportation.

Excess : Reduce waste of time and energy.

Effect on Productivity : Every work process is more organized, then productivity targets are achieved.

d. Training and Certification

Principle : Providing simple technical training to improve skilled construction workforce bricklayer work skills.

Excess : Helps workforce's understand how modern tools work and faster installation techniques.

Effect on Productivity : Productivity increases because workforce's are more skilled and efficient.

e. Productivity Based Incentives

Principle : Provide bonuses or incentives for skilled construction workforce bricklayer who achieve certain productivity targets.

Excess : Increase workforce motivation to work faster without reducing quality.

Effect on Productivity : Skilled construction workforce bricklayer are more enthusiastic about achieving the target of (25 - 30 m²/day).

5.5.4.3 Implementation Strategy

a. Providing Easily Accessible Tools

Make sure tools such as portable mortar mixers and modular scaffolding are available on the job site.

b. Short Work Training

Provide basic training for workforce on the use of modern tools and efficient work methods.

c. Proper Material Management

Make sure materials such as bricks and mortar are available with efficient distribution.

d. Supervision and Evaluation

Appoint a supervisor to monitor work progress and help overcome obstacles in the field.

5.5.4.4 Suitable Material Used

a. Light Brick (Autoclaved Aerated Concrete/AAC)

Lighter than red brick, it is easier to lift and install. The larger size (60 cm × 20 cm × 10 cm) installation is faster than ordinary red brick. It has high precision reduces the use of mortar (cement mortar) and high durability or good heat insulation more energy efficient in the long term.

Impact on productivity :

Speeds up installation up to 30 - 50% faster than red brick.

Reduces the workload of craftsmen, less workforce is required.

b. Interlock Brick

Lock system does not require too much plaster and cement. Then more precise and stronger reduces installation errors. It can be used without cement mortar if using a dry stack system.

Impact on productivity :

Reduces installation time up to 40% faster than red brick.

Minimizes the use of mortar and plaster, resulting in lower material costs.

c. Precast Concrete Panels

Made in factory the guaranteed quality. For the Installation is like a puzzle, just lift and install. It makes reduce dependence on traditional workforce.

Impact on productivity :

Reduces installation time up to 60 - 80% faster than conventional methods.

Reduce the amount of workforce required.

d. Batako Press

Its larger than red brick make faster installation. The price is cheaper and stronger than conventional bricks. For the water absorption capacity is lower than red brick, it is more durable.

Impact on productivity :

Installation is 20 - 30% faster than ordinary red brick.

Reduces the need for plastering, because the size is more precise.

e. Instant Mortar (Pre-mixed Mortar)

No need to stir sand and cement manually just add water. It has faster hardening, the shorter processing time. For the composition is correct and the quality of the mortar is better and stronger.

Impact on productivity :

Reduces mortar mixing time up to 50% faster.

Reduces material waste due to more precise measurements.

f. Hebel Brick with Instant Adhesive

Hebel bricks already have a large size, but if used with instant adhesive (not ordinary cement), installation is faster. Instant adhesive has high adhesion and dries faster than conventional cement mixtures.

Impact on productivity :

Saves installation time up to 35% faster than conventional methods.

Reduces the amount of mortar required.

5.5.4.5 Implementation Assumptions of The Case Study

a. Conditions Before Implementation

Productivity : 8.32 m²/day.

Problem : Wasted workforce time mixing manual mortar and carrying bricks.

b. Conditions After Implementation

Tools : Mortar mixer, laser level, modular scaffolding.

Method : Task sharing, lean construction.

Productivity : Increases up to (25 - 30 m²/day).

Using modern tools such as mortar mixers and modular scaffolding, as well as efficient work methods such as task sharing and lean construction, can help increase skilled construction workforce bricklayer productivity by up to (25 - 30 m² per day). This strategy is suitable to be implemented in Indonesia by adapting to local conditions, such as workforce training and equipment availability in the domestic market. The additional costs of tools and training are offset by the reduction in total work time.

5.6 Analyze The Decent Wages and Productivity

Comparative analysis of construction workforce wages and the resulting productivity against the wage system is an evaluation method that aims to understand the relationship between workforce's wage levels and their work productivity. In the context in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, skilled construction workforce bricklayer, are an important element in the construction industry. However, the problem of low wages is the main issue that affects the welfare of workforce's and their productivity in the field. The wage system implemented must consider various factors, including decent living costs, work productivity, and the impact on project efficiency. By comparing the wages given with the productivity produced, this analysis provides an overview of fairness in wages and its impact on the sustainability of construction projects. Now, the factors that must be considered to measure decent wages and productivity are,

5.6.1 Analysis of Decent Living Needs (KHL)

Workforce wages are an important element in the wage system, especially in the construction sector. In this research, the main focus is the skilled construction workforce bricklayer in Java and Bali Island, especially in the

Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, which has a low wage level compared to Decent Living Needs (KHL). Based on research, the wage conditions for skilled construction workforce bricklayer are as follows :

- a. Current wage : Rp. 3.946.000,00 per month, with an average productivity of 8.32 m² per day.
- b. Decent wage : Rp. 10.500.000,00 per month, which is offset by an increase in productivity of up to (25 - 30 m² per day).

When compared with the average Regional Minimum Wage (UMR) of 6 Regency's are Rp. 2.818.783,00 per month, the current workforce wage is slightly higher, but still far from the Decent Living Needs (KHL) figure. Average wages of Rp. 3.946.000,00 per month are not sufficient to meet workforce's basic needs, especially with the high physical workload and productivity demands in the field. From a wage system perspective, this comparison shows that a productivity based approach provides significant results. The current time based wage system needs to be changed to an output based wage system to increase workforce efficiency and welfare.

5.6.2 Evaluation of Regional Minimum Wages (UMR)

In the construction industry, workforce costs play an important role in determining workforce welfare and project efficiency. In Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, for skilled construction workforce (bricklayer in this case) face major challenges related to inadequate wages compared to their work productivity. Currently, the average wage for skilled construction workforce bricklayer is Rp. 3.946.000,00 per month, far above Regency Minimum Wage (UMR) of 6 Regency's Rp. 2.818.783,00 per month. However, this figure is not enough to reflect the needs for a decent living and the contribution to productivity. This research purpose to analyze the

relationship between a decent wage of Rp. 10.500.00,00 per month and an increase in productivity of up to (25 - 30 m² per day), from a UMR evaluation perspective. To provide a minimum standard of workforce income to meet basic living needs. Things to pay attention to as follows :

a. UMR Value

The average UMR for 6 Regency's are around Rp. 2.818.783,00 per month. This figure is based on basic needs components, without considering productivity factors or specific work sectors.

b. Decent Living Needs (KHL)

Based on KHL analysis in 6 Regency's, the decent wage for workforce is estimated at Rp. 10.500.000,00 per month. This Decent Living Needs (KHL) covers the needs for food, clothing, house, transportation, education and health, saving.

c. UMR and Decent Living Needs (KHL) Gap

The difference between average UMR Rp. 2.818.783,00 per month and Decent Living Needs (KHL) Rp. 10.500.000,00 per month shows an income deficit of Rp. 7.681.217 per month. This causes a decrease in workforce welfare and low work motivation, which ultimately affects productivity.

5.6.3 Assessment Based on Job Complexity, Judgment, Experience, and Qualifications

In assessing decent wages and productivity of skilled construction workforce bricklayer in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency, there are several important aspects that must be considered, namely work complexity, assessment, experience and qualifications. The following is an analysis based on each aspect :

a. Job Complexity

The complexity of skilled construction workforce (bricklayer in this case) work includes a variety of factors that influence workload and project completion time. workforce is responsible for installing bricks which must be neat, precise and according to building standards. The higher the level of complexity (special brick patterns, installation on tall structures), the higher the demands on skill and speed of work.

b. Evaluation

Determining a decent wage must consider performance evaluation based on workforce productivity. In previous conditions, workforce productivity was only 8.32 m²/day with wages of Rp. 3.946.000,00. After recalculation and a more decent wage system, productivity increased to (25 - 30 m²/day) with wages of Rp. 10.500.000,00/month. With higher wages, workforce's have better purchasing power, improve welfare, and reduce the risk of burnout due to overwork.

c. Experience

Experience greatly influences a workforce skill level and directly impacts his productivity. Beginner workforce's (0 - 2 years experience), the productivity is still low (5 - 8 m²/day). Intermediate workforce's (2 - 5 years experience), Increased productivity (8 - 17 m²/day), starting to understand efficiency in installation. Skilled workforce's (>5 years experience), experienced workforce should be rewarded with higher wages because of their contribution to project efficiency.

d. Qualifications and Certifications

Apart from experience, qualifications and certification are also important indicators in determining a decent wage for construction workforce's. Following things to pay attention to :

1. Competency Certification (BNSP/LSP Construction)

Workforce's who have official certification have higher competency standards, so they are more efficient at work.

2. Continuous Training

With regular training, workforce's can continue to improve their skills and keep up with developments in construction technology.

5.6.4 Analysis Based on Location and Project Type

In determining the decent wage and productivity of a skilled construction workforce bricklayer, location factors and project type have a significant influence. The location of the project determines the availability of workforce, transportation costs, and material accessibility, while the type of project determines the level of work difficulty, quality standards, and construction methods used. It is necessary to adjust the wage system based on location and type of project, then the workforce remains motivated and productivity increases. Provide additional incentives in areas with geographic challenges or complex projects. Improve workforce training to ensure productivity remains high even in difficult project conditions.

5.6.5 Workforce Market Competition

Competition in the workforce market has a major influence on the level of wages and productivity of skilled construction workforce bricklayer. In the context of this research, it was found that the decent wage for workforce in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency is Rp. 10.500.000,00 per month, with an increase in average productivity to (25 - 30 m² per day), compared to previously only Rp. 3.946.000,00 per month with productivity of 8.32 m² per day. If construction workforce's wages remain low, workforce's will look for other more profitable sectors, causing a shortage of qualified workforce's and a decline in productivity. Small contractors will have difficulty finding qualified workforce, while large contractors will attract higher wage workforce, creating inequality in the construction industry. That decent

wages must be adjusted to remain competitive with other regions and other sectors, then the workforce's do not move to other more profitable jobs.

5.6.6 Evaluation of Social, Economic Impact and Use of Quantitative and Qualitative Research Methods

To understand the impact more broadly, this research uses qualitative and quantitative methods to analyze the social and economic impacts resulting from the wage system described previously. Generally, a decent wage contributes to workforce welfare, increases motivation, and reduces social inequality in society. Increasing decent wages contributes to regional economic growth, people's purchasing power increases, and construction projects run more efficiently. Increasing wages accompanied by the right policies will ensure the sustainability of a fairer and more productive construction sector.

5.6.7 Consultation with Stakeholders and Implementation Assumptions

Through this analysis, the project owner's perspective on the implementation of a decent wage will be evaluated, as well as assumptions about the implementation of the new wage policy and its impact on construction projects in the case previously described. Based on consultations with project owners, implementation assumptions show that a decent wage system of Rp. 10.500.000,00/month can be implemented without burdening the project, as long as it is accompanied by an increase in workforce productivity. With the right policies, this wage system will be :

- a. Increase project productivity and efficiency
- b. Improve the quality of construction results
- c. Support economic growth in the property and infrastructure sectors

This implementation requires regulatory support from the government and readiness of the construction industry, then it can run sustainably and fairly for all parties.

5.7 Validate Results

Validation of research results is very important to ensure that the conclusions drawn regarding decent wages and productivity of skilled construction workforce bricklayer in Java and Bali Island, especially in the Badung Regency, Denpasar City, Sleman Regency, Yogyakarta City, Malang Regency and Tulungagung Regency can be justified. In this research, it was found that following :

- a. Current wage : Rp. 3.946.000,00/month with productivity of 8.32 m²/day.
- b. Decent wage : Rp. 10.500.000,00/month with productivity of (25 - 30 m²/day).
- c. Average UMR of 6 Regency's : Rp. 2.818.783,00/month.

This analysis purpose to validate research results using various methods and prove that a better wage system can increase productivity. Implementation of a gradual wage system, then the contractors can adjust to the budget, workforce training to make productivity increases according to expectations, and the government regulations to ensure the implementation of decent wages in the construction industry.

CHAPTER VI

CONCLUSION AND SUGGESTION

6.1 Conclusion

This study highlights how crucial it is to pay construction workforce a decent wage in order to promote workforce welfare and the long-term viability of the Indonesian construction industry. The average current wages killed construction workforce bricklayer received are around Rp. 3.946.000,00/month and that amount is far from enough. If refers to Decent Living Needs (KHL) calculation, the amount of the wages for killed construction workforce (bricklayer in this case) every month should be Rp. 10.500.000,00/month. With this huge amount, **how can the company accept this condition?** This condition exist with the increase productivity, while the wages killed construction workforce bricklayer received every month Rp. 3.946.000,00/month, the productivity only 8.32 m²/day. But, If workforce received Rp. 10.500.000,00/month the productivity should increase to (25 - 30 m²/day). This productivity increased in provided where the companies and the government also help increased productivity in the form provide of investment in equipment, job training and worker welfare. With this condition no one is harmed and the work agreement will be accepted. The relationship between increasing wages and increasing productivity has been a widely researched topic in economics and human resource management.

Most construction workforce, particularly casual daily workforce and unskilled workforce, receive wages that is insufficient to meet their basic needs. This demonstrates inequity in upholding the mandate's requirements for workforce to lead respectable lives Pasal 88 UU No. 13 Tahun 2003 regarding profession. The average Regional Minimum Wage (UMR) of 6 regency's is Rp. 2.818.783,00 per month. This shows that even though the wages are slightly

above the minimum wage, the welfare level of workforce remains low, especially when compared with the heavy physical demands of work and the large responsibilities in the field. The following factor and impact can be drawn from research on Indonesia's underwhelming construction workforce wages are :

1. Factors Causing Un decent Wages

The factor causing un decent wages for construction workforce are :

- a. Due to their status as informal workforce, who are not covered by official work contracts, construction workers have little bargaining power.
- b. Absence of local government oversight over the application of minimum wage laws.
- c. Disparities in wage setting are caused by regional variations and workforce sectors. Wages in urban areas are typically higher than those in rural ones.

2. Impact of Un Decent Wages

The impact causing un decent wages for construction workforce are :

- a. Workforce welfare and a lack of motivation lead to a decline in workforce productivity.
- b. The construction industry has seen a rise in workforce turnover, particularly among young workforce who have moved to other industries with higher wages.
- c. Growing social risks include unchecked urbanization, social inequality, and working families' financial instability.

This research shows that an inadequate wage system has a direct impact on the low productivity of workforce. It is hoped that these findings will serve as consideration for policy makers, construction entrepreneurs and other stakeholders to create a better working environment for construction workforce's in Indonesia.

6.2 Suggestion

Additional research can concentrate on a number of topics, including a thorough examination of the reasons, effects, and remedies for low wages in the construction industry. The findings of more focused studies may have a bigger impact on enhancing Indonesian construction workforce's welfare and policy. Here are some recommendations for additional study on the low wages of construction workforces :

a. Deepening of Causal Factors

Investigate in greater detail the causes of low wages, such as governmental regulations, workforce market dynamics, or disparities between urban and rural regions. Examine how much construction workforce make in different parts of Indonesia, taking into account the disparities between highly developed and less developed areas. Can offer more detailed information, assist in creating pertinent policy-based solutions and determine regional differences and offer suggestions for a fair wage distribution across Indonesia.

b. The Role of Technology and Digitalization

Examine the potential effects of digitalization or technology on the workforce's wages structure in the construction industry. Examine methods for raising the wages of construction workforce, such as professional certification, skill development, or government and corporate incentive programs. Supplying practical answers to address the issue of low wages.

c. Company Case Study

Perform case studies on construction firms that have effectively incorporated living wage regulations. evaluation of the efficacy of governmental initiatives, such as the administration of the Provincial Minimum Wage (UMP) and oversight of its application in the building industry. Determine the main success factors and obstacles encountered. Give other businesses examples of best practices they can use. Offer suggestions to the government to enhance the way current policies are being implemented.

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APPENDIX

**ANALYSIS OF DECENT CONSTRUCTION
WORKFORCE WAGES AND PRODUCTIVITY
BASED ON INDONESIA LAW (UU)**

**ANALISIS UPAH LAYAK DAN PRODUKTIVITAS TENAGA KERJA
KONSTRUKSI BERDASARKAN HUKUM INDONESIA (UU)**

Appendix	: 1
Initial Step	: Observation.
Purpose	: Determining the elements that affect in Java and Bali Island for construction workforce' s wages structure and productivity.
Source	: Work Environment, Contractor, Skilled Construction Workforce (bricklayer in this case), Civil Engineer Expert, Law Expert, Economic Expert.
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

Decent Wages are wages received during a certain time (week) with standard work by a workforce in a certain place, sufficient to meet a decent standard of living for the workforce and his family. A decent wage, as recognized by the UN, UU, UUIK, PP No. 22 Tahun 2020 and No. 14 Tahun 2021 is the right of Workforce's who are sufficient to live with a decent standard of living for workforce's and their families. The basis for determining the minimum wage is the physical needs of a decent life. The purpose of setting a minimum wage is as a safety net for workforce's, that they are not exploited in their work and receive wages that can meet minimum living needs. Policy is a series of concepts and principles that serve as guidelines and the basis for plans in carrying out work, leadership and ways of acting. This term can be applied to governments,

organizations, groups, as well as individuals and policies also can be the basis for regulations.

The results of this observation is to understand the relationship between wages for skilled construction workforce (bricklayer in this case) and their work productivity. In the context of several districts located between the Java and Bali Island, it is found that current wages are still far from standards that are considered decent. Therefore, it is important to examine how a better wage system can increase workforce productivity. The following are the results of the observations that have been made and will be presented below as follows :

Appendices 1 : Observing the construction work environment



Source : Observation

Appendices 2 The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation

The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation																			
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week)	Clothes (per week)	Housing (per week)	Education (per week)	Health (per week)	Transportation (per week)	Recreation and Saving (per week)	Needs (per week)	Needs (per month)	Real Wage (IDR)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 105.000	IDR 350.000	IDR 6.000	IDR 105.000	IDR 125.000	IDR 45.000	IDR 1.086.000	IDR 4.724.100	IDR 4.725.000
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2	Bricklayer	IDR 350.000	IDR 60.000	IDR 200.000	IDR 9.500	IDR 50.000	IDR 120.000	IDR 15.000	IDR 804.500	IDR 3.499.575	IDR 3.500.000
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3	Bricklayer	IDR 400.000	IDR 50.000	IDR 255.000	IDR 10.000	IDR 50.000	IDR 100.000	IDR 20.000	IDR 885.000	IDR 3.849.750	IDR 3.850.000
4	Supriyanto	44	10	SD	Sleman	YES	1	3	Bricklayer	IDR 350.000	IDR 60.000	IDR 200.000	IDR 12.000	IDR 65.000	IDR 100.000	IDR 17.500	IDR 804.500	IDR 3.499.575	IDR 3.500.000
5	Keut Arwana	26	5	SWK	Denpasar	NO	1,35	-	Bricklayer	IDR 250.000	IDR 68.000	IDR 200.000	IDR 1.000	IDR 75.000	IDR 450.000	IDR 40.000	IDR 1.086.000	IDR 4.724.100	IDR 4.725.000
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2	Bricklayer	IDR 400.000	IDR 64.000	IDR 350.000	IDR 7.000	IDR 100.000	IDR 130.000	IDR 35.000	IDR 1.086.000	IDR 4.724.100	IDR 4.725.000
7	Putu Adilia	28	6	SWK	Badung	NO	1,5	3	Bricklayer	IDR 300.000	IDR 100.000	IDR 300.000	IDR 4.500	IDR 55.000	IDR 450.000	IDR 95.000	IDR 1.206.500	IDR 5.248.275	IDR 5.250.000
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3	Bricklayer	IDR 450.000	IDR 104.500	IDR 350.000	IDR 12.000	IDR 100.000	IDR 155.000	IDR 35.000	IDR 1.206.500	IDR 5.248.275	IDR 5.250.000
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2	Bricklayer	IDR 350.000	IDR 57.000	IDR 250.000	IDR 7.000	IDR 100.000	IDR 100.000	IDR 20.000	IDR 885.000	IDR 3.849.750	IDR 3.850.000
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1	Bricklayer	IDR 300.000	IDR 50.000	IDR 275.000	IDR 10.000	IDR 50.000	IDR 100.000	IDR 22.000	IDR 804.500	IDR 3.497.400	IDR 3.500.000
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4	Bricklayer	IDR 350.000	IDR 50.000	IDR 200.000	IDR 13.000	IDR 50.000	IDR 125.000	IDR 16.500	IDR 804.500	IDR 3.499.575	IDR 3.500.000
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-	Bricklayer	IDR 150.000	IDR 50.000	IDR 150.000	IDR 4.000	IDR 50.000	IDR 300.000	IDR 20.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2	Bricklayer	IDR 400.000	IDR 105.000	IDR 230.000	IDR 8.500	IDR 55.000	IDR 100.000	IDR 21.000	IDR 919.500	IDR 3.999.825	IDR 4.000.000
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1	Bricklayer	IDR 275.000	IDR 60.000	IDR 205.000	IDR 4.000	IDR 65.000	IDR 100.000	IDR 15.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
15	Muliadi	29	6	SMP	Sleman	NO	1	-	Bricklayer	IDR 200.000	IDR 46.000	IDR 130.000	IDR 3.500	IDR 45.000	IDR 350.000	IDR 30.000	IDR 804.500	IDR 3.499.575	IDR 3.500.000
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-	Bricklayer	IDR 200.000	IDR 52.000	IDR 175.000	IDR 3.000	IDR 52.000	IDR 300.000	IDR 20.000	IDR 804.500	IDR 3.497.400	IDR 3.500.000
17	Samsul Ramadani	25	7	SMA	Tulungagung	NO	0,9	-	Bricklayer	IDR 150.000	IDR 35.000	IDR 170.000	IDR 3.000	IDR 60.000	IDR 250.000	IDR 36.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
18	Abdul Fajar	24	5	SWK	Tulungagung	YES	0,9	1	Bricklayer	IDR 200.000	IDR 50.000	IDR 200.000	IDR 4.000	IDR 60.000	IDR 250.000	IDR 25.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4	Bricklayer	IDR 275.000	IDR 50.000	IDR 200.000	IDR 12.000	IDR 50.000	IDR 125.000	IDR 12.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-	Bricklayer	IDR 200.000	IDR 80.000	IDR 450.000	IDR 10.500	IDR 58.500	IDR 110.000	IDR 18.000	IDR 919.500	IDR 3.999.825	IDR 4.000.000
21	Akbar Harjadi	40	8	SD	Tulungagung	YES	0,9	3	Bricklayer	IDR 150.000	IDR 50.000	IDR 203.000	IDR 10.500	IDR 60.000	IDR 100.000	IDR 10.500	IDR 724.000	IDR 3.149.400	IDR 3.150.000
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-	Bricklayer	IDR 150.000	IDR 50.000	IDR 170.000	IDR 4.000	IDR 50.000	IDR 255.000	IDR 45.000	IDR 724.000	IDR 3.149.400	IDR 3.150.000
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2	Bricklayer	IDR 350.000	IDR 110.000	IDR 350.000	IDR 7.000	IDR 100.000	IDR 145.000	IDR 24.000	IDR 1.086.000	IDR 4.724.100	IDR 4.725.000
24	Komang Sutisja	42	8	SD	Badung	YES	1,5	3	Bricklayer	IDR 450.000	IDR 115.000	IDR 305.000	IDR 11.500	IDR 100.000	IDR 205.000	IDR 20.000	IDR 1.206.500	IDR 5.248.275	IDR 5.250.000
25	Made Arya	23	5	SWK	Badung	NO	1,5	-	Bricklayer	IDR 250.000	IDR 90.000	IDR 280.000	IDR 4.500	IDR 80.000	IDR 450.000	IDR 52.000	IDR 1.206.500	IDR 5.248.275	IDR 5.250.000
AVERAGE COST																			
										IDR 295.400	IDR 69.460	IDR 239.320	IDR 7.140	IDR 67.420	IDR 199.800	IDR 28.380	IDR 906.920	IDR 3.945.102	8.32 m2
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia																			
The range value of the coefficient are 0.9 < 1 < 1.5																			
0.9 = Value is lower than Sleman Regency																			
1.0 = Value same as the Sleman Regency																			
1.5 = Value are higher than Sleman Regency																			

Source : Observation

Appendices 3 : The Data About Decent Living Needs Cost Comparison of Food for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Food for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week) Real	Food (per month) Real	Food (per week) Adjust	Food (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 250.000	IDR 1.087.500	IDR 544.966	IDR 2.370.600	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 400.000	IDR 1.740.000	IDR 544.966	IDR 2.370.600	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 300.000	IDR 1.305.000	IDR 605.517	IDR 2.634.000	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 350.000	IDR 1.522.500	IDR 444.046	IDR 1.931.600	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 300.000	IDR 1.305.000	IDR 403.678	IDR 1.756.000	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 200.000	IDR 870.000	IDR 363.310	IDR 1.580.400	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 200.000	IDR 870.000	IDR 444.046	IDR 1.931.600	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 285.000	IDR 1.239.750	IDR 363.310	IDR 1.580.400	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 250.000	IDR 1.087.500	IDR 605.517	IDR 2.634.000	
AVERAGE COST										IDR 295.400	IDR 1.284.990	IDR 453.734	IDR 1.973.744	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

Appendices 4 : The Data About Decent Living Needs Cost Comparison of Clothes for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Food for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week) Real	Food (per month) Real	Food (per week) Adjust	Food (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 250.000	IDR 1.087.500	IDR 544.966	IDR 2.370.600	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 400.000	IDR 1.740.000	IDR 544.966	IDR 2.370.600	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 300.000	IDR 1.305.000	IDR 605.517	IDR 2.634.000	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 350.000	IDR 1.522.500	IDR 444.046	IDR 1.931.600	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 300.000	IDR 1.305.000	IDR 403.678	IDR 1.756.000	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 350.000	IDR 1.522.500	IDR 403.678	IDR 1.756.000	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 400.000	IDR 1.740.000	IDR 444.046	IDR 1.931.600	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 200.000	IDR 870.000	IDR 403.678	IDR 1.756.000	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 200.000	IDR 870.000	IDR 363.310	IDR 1.580.400	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 275.000	IDR 1.196.250	IDR 363.310	IDR 1.580.400	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 200.000	IDR 870.000	IDR 444.046	IDR 1.931.600	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 285.000	IDR 1.239.750	IDR 363.310	IDR 1.580.400	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 363.310	IDR 1.580.400	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 544.966	IDR 2.370.600	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 450.000	IDR 1.957.500	IDR 605.517	IDR 2.634.000	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 250.000	IDR 1.087.500	IDR 605.517	IDR 2.634.000	
AVERAGE COST										IDR 295.400	IDR 1.284.990	IDR 453.734	IDR 1.973.744	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

Appendices 5 : The Data About Decent Living Needs Cost Comparison of House for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Housing for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level Education)	Location	Supouse	N	Children	Profession	Housing (per week) Real	Housing (per month) Real	Housing (per week) Adjust	Housing (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 255.000	IDR 1.109.250	IDR 1.128.025	IDR 4.906.908	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 200.000	IDR 870.000	IDR 1.384.394	IDR 6.022.114	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 200.000	IDR 870.000	IDR 1.538.216	IDR 6.691.238	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 350.000	IDR 1.522.500	IDR 1.538.216	IDR 6.691.238	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 250.000	IDR 1.087.500	IDR 1.128.025	IDR 4.906.908	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 275.000	IDR 1.196.250	IDR 1.025.477	IDR 4.460.825	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 200.000	IDR 870.000	IDR 1.025.477	IDR 4.460.825	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 150.000	IDR 652.500	IDR 922.929	IDR 4.014.743	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 230.000	IDR 1.000.500	IDR 1.128.025	IDR 4.906.908	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 205.000	IDR 891.750	IDR 922.929	IDR 4.014.743	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 130.000	IDR 565.500	IDR 1.025.477	IDR 4.460.825	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 175.000	IDR 761.250	IDR 1.025.477	IDR 4.460.825	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 170.000	IDR 739.500	IDR 922.929	IDR 4.014.743	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 135.000	IDR 587.250	IDR 922.929	IDR 4.014.743	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 200.000	IDR 870.000	IDR 922.929	IDR 4.014.743	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 450.000	IDR 1.957.500	IDR 1.128.025	IDR 4.906.908	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 203.000	IDR 883.050	IDR 922.929	IDR 4.014.743	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 170.000	IDR 739.500	IDR 922.929	IDR 4.014.743	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 350.000	IDR 1.522.500	IDR 1.384.394	IDR 6.022.114	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 305.000	IDR 1.326.750	IDR 1.538.216	IDR 6.691.238	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 280.000	IDR 1.218.000	IDR 1.538.216	IDR 6.691.238	
AVERAGE COST										IDR 239.320	IDR 1.041.042	IDR 1.152.636	IDR 5.013.967	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

Appendices 6 : The Data About Decent Living Needs Cost Comparison of Education for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Education for Construction Workforce														
Based on Observation and Calculation														
Case	Name	Age	Experience (year)	Level Education	Location	Supouse	N	Children	Profession	Education (per week) Real	Education (per month) Real	Education (per week) Adjust	Education (per month) Adjust	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 6.000	IDR 26.100	IDR 37.242	IDR 162.001	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 9.500	IDR 41.325	IDR 27.586	IDR 120.001	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 10.000	IDR 43.500	IDR 30.345	IDR 132.001	
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 12.000	IDR 52.200	IDR 27.586	IDR 120.001	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 3.000	IDR 13.050	IDR 37.242	IDR 162.001	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 7.000	IDR 30.450	IDR 37.242	IDR 162.001	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 6.500	IDR 28.275	IDR 41.380	IDR 180.002	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 12.000	IDR 52.200	IDR 41.380	IDR 180.002	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 8.000	IDR 34.800	IDR 30.345	IDR 132.001	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 7.000	IDR 30.450	IDR 27.586	IDR 120.001	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 13.000	IDR 56.550	IDR 27.586	IDR 120.001	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 8.500	IDR 36.975	IDR 30.345	IDR 132.001	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 3.500	IDR 15.225	IDR 27.586	IDR 120.001	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 5.000	IDR 21.750	IDR 27.586	IDR 120.001	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 3.000	IDR 13.050	IDR 24.828	IDR 108.001	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 12.000	IDR 52.200	IDR 24.828	IDR 108.001	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 3.000	IDR 13.050	IDR 30.345	IDR 132.001	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 10.500	IDR 45.675	IDR 24.828	IDR 108.001	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 4.000	IDR 17.400	IDR 24.828	IDR 108.001	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 7.000	IDR 30.450	IDR 37.242	IDR 162.001	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 11.500	IDR 50.025	IDR 41.380	IDR 180.002	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 4.500	IDR 19.575	IDR 41.380	IDR 180.002	
				AVERAGE COST						IDR 7.140	IDR 31.059	IDR 31.007	IDR 134.881	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia														
The range value of the coefficient are 0.9 < 1 < 1.5														
0.9 = Value is lower than Sleman Regency														
1.0 = Value same as the Sleman Regency														
1.5 = Value are higher than sleman regency														

Source : Observation and Calculation

Based on Observation and Calculation													
Case	Name	Age	Experience (year)	Level (education)	Location	Supouse	N Children	Profession	Health (per week)	Health (per month)	Health (per week)	Health (per month)	Description (decent/un-decent)
									Real	Real	Adjust	Adjust	
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	IDR 105.000	IDR 456.750	IDR 167.575	IDR 728.953	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2	IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3	IDR 50.000	IDR 217.500	IDR 136.543	IDR 593.961	
4	Supriyanto	44	10	SD	Sleman	YES	1	3	IDR 65.000	IDR 282.750	IDR 124.130	IDR 539.965	
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-	IDR 75.000	IDR 326.250	IDR 167.575	IDR 728.953	
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2	IDR 100.000	IDR 435.000	IDR 167.575	IDR 728.953	
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-	IDR 55.000	IDR 239.250	IDR 186.195	IDR 809.948	
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3	IDR 100.000	IDR 435.000	IDR 186.195	IDR 809.948	
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2	IDR 100.000	IDR 435.000	IDR 136.543	IDR 593.961	
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1	IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4	IDR 50.000	IDR 217.500	IDR 124.130	IDR 539.965	
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-	IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2	IDR 55.000	IDR 239.250	IDR 136.543	IDR 593.961	
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1	IDR 65.000	IDR 282.750	IDR 111.717	IDR 485.968	
15	Muliadi	29	6	SMP	Sleman	NO	1	-	IDR 45.000	IDR 195.750	IDR 124.130	IDR 539.965	
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-	IDR 52.000	IDR 226.200	IDR 124.130	IDR 539.965	
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-	IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1	IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
19	Syahrlul Ari	38	8	SD	Tulungagung	YES	0,9	4	IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-	IDR 58.500	IDR 254.475	IDR 136.543	IDR 593.961	
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3	IDR 60.000	IDR 261.000	IDR 111.717	IDR 485.968	
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-	IDR 50.000	IDR 217.500	IDR 111.717	IDR 485.968	
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2	IDR 100.000	IDR 435.000	IDR 167.575	IDR 728.953	
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3	IDR 100.000	IDR 435.000	IDR 186.195	IDR 809.948	
25	Made Arya	23	5	SMK	Badung	NO	1,5	-	IDR 80.000	IDR 348.000	IDR 186.195	IDR 809.948	
AVERAGE COST									IDR 67.420	IDR 293.277	IDR 139.522	IDR 606.921	
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia The range value of the coefficient are 0.9 < 1 < 1.5 0.9 = Value is lower than Sleman Regency 1.0 = Value same as the Sleman Regency 1.5 = Value are higher than sleman regency													

Appendices 8 : The Data About Decent Living Needs Cost Comparison of Transport for Construction Workforce Based on Observation and Calculation

Source : Observation and Calculation

Appendices 9 : The Data About Decent Living Needs Cost Comparison of Recreation and Saving Wage for Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost Comparison of Recreation and Saving for Construction Workforce															
Based on Observation and Calculation															
Case	Name	Age	Experience (year)	Level (education)	Location	Supouse	N	Children	Profession	Recreation and Saving (per week)	Recreation and Saving (per month)	Recreation and Saving (per week)	Recreation and Saving (per month)	Description (decent/un-decent)	
										Real	Real	Adjust	Adjust		
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 45.000	IDR 195.750	IDR 51.182	IDR 222.641	Decent	
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 15.000	IDR 65.250	IDR 37.912	IDR 164.919		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 20.000	IDR 87.000	IDR 41.704	IDR 181.411		
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 17.500	IDR 76.125	IDR 37.912	IDR 164.919		
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 40.000	IDR 174.000	IDR 51.182	IDR 222.641		
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 35.000	IDR 152.250	IDR 51.182	IDR 222.641		
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 95.000	IDR 413.250	IDR 56.869	IDR 247.379		
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 35.000	IDR 152.250	IDR 56.869	IDR 247.379		
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 20.000	IDR 87.000	IDR 41.704	IDR 181.411		
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 22.000	IDR 95.700	IDR 37.912	IDR 164.919		
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 16.500	IDR 71.775	IDR 37.912	IDR 164.919		
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 20.000	IDR 87.000	IDR 34.121	IDR 148.427		
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 21.000	IDR 91.350	IDR 41.704	IDR 181.411		
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 15.000	IDR 65.250	IDR 34.121	IDR 148.427		
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 30.000	IDR 130.500	IDR 37.912	IDR 164.919		
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 20.000	IDR 87.000	IDR 37.912	IDR 164.919		
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 36.000	IDR 156.600	IDR 34.121	IDR 148.427		
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 25.000	IDR 108.750	IDR 34.121	IDR 148.427		
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 12.000	IDR 52.200	IDR 34.121	IDR 148.427		
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 18.000	IDR 78.300	IDR 41.704	IDR 181.411		
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 10.500	IDR 45.675	IDR 34.121	IDR 148.427		
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 45.000	IDR 195.750	IDR 34.121	IDR 148.427		
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 24.000	IDR 104.400	IDR 51.182	IDR 222.641		
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 20.000	IDR 87.000	IDR 56.869	IDR 247.379		
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 52.000	IDR 226.200	IDR 56.869	IDR 247.379		
AVERAGE COST										IDR 28.380	IDR 123.453	IDR 42.614	IDR 185.369		
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia															
The range value of the coefficient are 0.9 < 1 < 1.5															
0.9 = Value is lower than Sleman Regency															
1.0 = Value same as the Sleman Regency															
1.5 = Value are higher than sleman regency															

Source : Observation and Calculation

Appendices 10. The Data About Comparable Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Total Cost Comparison for Construction Workforce																		
Based on Observation and Calculation																		
Case	Name	Age	Experience (year)	Level (education)	Location	Supouse	N	Children	Profession	Needs (per week) Real	Needs (per month) Real	Needs (per week) Adjust	Needs (per month) Adjust	Real Wage (IDR)	Expected Wage (IDR)	Real Productivity (m2 per day)	Expected Productivity (adjusted payment)	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SMP	Denpasar	YES	1,35	1	Bricklayer	IDR 1.086.000	IDR 4.724.100	IDR 2.845.595	IDR 12.378.338	IDR 4.725.000	IDR 10.500.000	10 m2	25 - 30 m2	Decent
2	Ahmad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 804.500	IDR 3.499.575	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 885.000	IDR 3.849.750	IDR 2.318.633	IDR 10.086.054	IDR 3.850.000		8 m2		
4	Supriyanto	44	10	SD	Sleman	YES	1	3		IDR 804.500	IDR 3.499.575	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
5	Ketut Arnawa	26	5	SMK	Denpasar	NO	1,35	-		IDR 1.086.000	IDR 4.724.100	IDR 2.845.595	IDR 12.378.338	IDR 4.725.000		10 m2		
6	Wayan Sudana	34	8	SMP	Denpasar	YES	1,35	2		IDR 1.086.000	IDR 4.724.100	IDR 2.845.595	IDR 12.378.338	IDR 4.725.000		10 m2		
7	Putu Astika	28	6	SMK	Badung	NO	1,5	-		IDR 1.206.500	IDR 5.248.275	IDR 3.161.772	IDR 13.753.708	IDR 5.250.000		12 m2		
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 1.206.500	IDR 5.248.275	IDR 3.161.772	IDR 13.753.708	IDR 5.250.000		12 m2		
9	Muh. Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 885.000	IDR 3.849.750	IDR 2.318.633	IDR 10.086.054	IDR 3.850.000		8 m2		
10	Agus Haryadi	31	6	SMP	Sleman	YES	1	1		IDR 804.000	IDR 3.497.400	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 804.500	IDR 3.499.575	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
12	Hari	25	7	SMP	Tulungagung	YES	0,9	-		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
13	Putra Ekayasa	39	8	SD	Malang	YES	1,1	2		IDR 919.500	IDR 3.999.825	IDR 2.318.633	IDR 10.086.054	IDR 4.000.000		8 m2		
14	Sigit Purnomo	25	7	SMA	Tulungagung	YES	0,9	1		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
15	Muliadi	29	6	SMP	Sleman	NO	1	-		IDR 804.500	IDR 3.499.575	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
16	Ahmad Lalu	32	9	SMP	Sleman	YES	1	-		IDR 804.000	IDR 3.497.400	IDR 2.107.848	IDR 9.169.139	IDR 3.500.000		8 m2		
17	Samsul Ramadan	25	7	SMA	Tulungagung	NO	0,9	-		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
18	Abdul Fajar	24	5	SMK	Tulungagung	YES	0,9	1		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
19	Syahrul Ari	38	8	SD	Tulungagung	YES	0,9	4		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
20	Heru Gunawan	31	7	SMP	Malang	NO	1,1	-		IDR 919.500	IDR 3.999.825	IDR 2.318.633	IDR 10.086.054	IDR 4.000.000		8 m2		
21	Akbar Hariadi	40	8	SD	Tulungagung	YES	0,9	3		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
22	Hamzah	29	7	SMP	Tulungagung	YES	0,9	-		IDR 724.000	IDR 3.149.400	IDR 1.897.063	IDR 8.252.224	IDR 3.150.000		6 m2		
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 1.086.000	IDR 4.724.100	IDR 2.845.595	IDR 12.378.338	IDR 4.725.000		10 m2		
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 1.206.500	IDR 5.248.275	IDR 3.161.772	IDR 13.753.708	IDR 5.250.000		12 m2		
25	Made Arya	23	5	SMK	Badung	NO	1,5	-		IDR 1.206.500	IDR 5.248.275	IDR 3.161.772	IDR 13.753.708	IDR 5.250.000		12 m2		
AVERAGE COST										IDR 906.920	IDR 3.945.102	IDR 2.369.221	IDR 10.306.112	IDR 3.946.000		8.32 m2		
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia																		
The range value of the coefficient are 0.9 < 1 < 1.5																		
0.9 = Value is lower than Sleman Regency																		
1.0 = Value same as the Sleman Regency																		
1.5 = Value are higher than sleman regency																		

Source : Observation and Calculation

Appendices 11. The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation and Calculation

The Data About Decent Living Needs Cost and Productivity of Construction Workforce Based on Observation and Calculation																									
Case	Name	Age	Experience (year)	Level (education)	Location	Spouse	N	Children	Profession	Food (per week)	Cloths (per week)	Housing (per week)	Education (per week)	Health (per week)	Transportation (per week)	Recreation and Saving (per week)	Needs (per week)	Needs (per month)	Real Wage (IDR)	Average Real Wage (IDR)	Ratio	Expected Wage (IDR)	Real Productivity (m ² per day)	Expected Productivity (adjusted payments)	Description (decent/un-decent)
1	Kadek Wiranata	30	7	SNP	Denpasar	YES	1,35	1		IDR 544,966	IDR 301,293	IDR 1,384,394	IDR 37,442	IDR 167,575	IDR 358,944	IDR 31,182	IDR 2,845,595	IDR 12,378,339	IDR 4,725,000		2,620		10 m ²		
2	Almad Sodikin	38	7	SD	Sleman	YES	1	2		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
3	Muh. Sembiring	41	9	SD	Yogyakarta	YES	1,1	3		IDR 444,946	IDR 245,498	IDR 1,128,025	IDR 30,945	IDR 136,443	IDR 292,473	IDR 41,704	IDR 2,318,633	IDR 10,086,054	IDR 3,800,000		2,620		8 m ²		
4	Sugriyanto	44	10	SD	Sleman	YES	1	3		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
5	Kecut Ariawan	26	5	SNK	Denpasar	NO	1,35	-		IDR 544,966	IDR 301,293	IDR 1,384,394	IDR 37,442	IDR 167,575	IDR 358,944	IDR 31,182	IDR 2,845,595	IDR 12,378,339	IDR 4,725,000		2,620		10 m ²		
6	Wayan Sudiana	24	8	SNK	Denpasar	YES	1,35	2		IDR 605,517	IDR 334,770	IDR 1,538,216	IDR 37,442	IDR 186,95	IDR 398,826	IDR 51,182	IDR 2,845,595	IDR 12,378,339	IDR 4,725,000		2,620		10 m ²		
7	Putu Astika	38	6	SNK	Badung	NO	1,5	-		IDR 605,517	IDR 334,770	IDR 1,538,216	IDR 41,380	IDR 186,95	IDR 398,826	IDR 56,869	IDR 3,161,772	IDR 13,753,710	IDR 5,250,000		2,620		12 m ²		
8	Kadek Eka	36	7	SD	Badung	YES	1,5	3		IDR 444,946	IDR 245,498	IDR 1,128,025	IDR 30,945	IDR 136,443	IDR 292,473	IDR 41,704	IDR 2,318,633	IDR 10,086,054	IDR 3,800,000		2,620		8 m ²		
9	Mika Ruslan	42	10	SD	Yogyakarta	YES	1,1	2		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
10	Agus Haryadi	31	6	SNP	Sleman	YES	1	4		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
11	Eko Setiawan	43	9	SD	Sleman	YES	1	4		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
12	Hari	25	7	SNP	Tulungagung	YES	0,9	-	Bricklayer	IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000	IDR 3,946,000	2,522	IDR 10,500,000	25 - 30 m ²		Decent
13	Pitra Ekaayasa	39	8	SD	Malang	YES	1,1	2		IDR 444,946	IDR 245,498	IDR 1,128,025	IDR 30,945	IDR 136,543	IDR 292,473	IDR 41,704	IDR 2,318,633	IDR 10,086,054	IDR 4,000,000		2,620		8 m ²		
14	Sigit Purmono	25	7	SWA	Tulungagung	YES	0,9	1		IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000		2,620		8 m ²		
15	Melidi	29	6	SNP	Sleman	NO	1	-		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
16	Almad Lulu	32	9	SNP	Sleman	YES	1	-		IDR 403,678	IDR 223,180	IDR 1,025,477	IDR 27,586	IDR 124,330	IDR 265,884	IDR 37,912	IDR 2,107,848	IDR 9,169,140	IDR 3,500,000		2,620		8 m ²		
17	Samsul Ramadhan	25	7	SWA	Tulungagung	NO	0,9	-		IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000		2,620		6 m ²		
18	Abdull Fajar	24	5	SNK	Tulungagung	YES	0,9	1		IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000		2,620		6 m ²		
19	Syahrul Ari	38	8	SD	Malang	NO	1,1	4		IDR 444,946	IDR 245,498	IDR 1,128,025	IDR 30,945	IDR 136,543	IDR 292,473	IDR 41,704	IDR 2,318,633	IDR 10,086,054	IDR 4,000,000		2,522		8 m ²		
20	Herru Gunawan	31	7	SNP	Malang	YES	0,9	4		IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000		2,620		6 m ²		
21	Akbar Haridhi	40	8	SD	Tulungagung	YES	0,9	3		IDR 363,310	IDR 200,862	IDR 922,929	IDR 24,828	IDR 111,717	IDR 239,296	IDR 34,121	IDR 1,897,063	IDR 8,252,226	IDR 3,150,000		2,620		6 m ²		
22	Hamzah	29	7	SNP	Tulungagung	YES	0,9	-		IDR 544,966	IDR 301,293	IDR 1,384,394	IDR 37,442	IDR 167,575	IDR 338,944	IDR 51,182	IDR 2,845,595	IDR 12,378,339	IDR 4,725,000		2,620		10 m ²		
23	Gede Anom	39	7	SD	Denpasar	YES	1,35	2		IDR 605,517	IDR 334,770	IDR 1,538,216	IDR 41,380	IDR 186,95	IDR 398,826	IDR 56,869	IDR 3,161,772	IDR 13,753,710	IDR 5,250,000		2,620		12 m ²		
24	Komang Suteja	42	8	SD	Badung	YES	1,5	3		IDR 605,517	IDR 334,770	IDR 1,538,216	IDR 41,380	IDR 186,95	IDR 398,826	IDR 56,869	IDR 3,161,772	IDR 13,753,710	IDR 5,250,000		2,620		12 m ²		
25	Made Arya	23	5	SNK	Badung	NO	1,5	-		IDR 453,734	IDR 250,855	IDR 1,152,636	IDR 31,007	IDR 139,922	IDR 298,854	IDR 42,614	IDR 2,369,221	IDR 10,306,113	IDR 2,250,000		2,612		8.32 m ²		
AVERAGE COST																									
N = estimation of price in that area, that is for comparing the price between the other area in Indonesia																									
The range value of the coefficient are 0.9 < 1 < 1.5																									
0.9 = Value is lower than Sleman Regency																									
1.0 = Value same as the Sleman Regency																									
1.5 = Value are higher than Sleman regency																									

Source : Observation and Calculation

This observation shows that increasing wages for skilled construction workforce (bricklayer in this case) has a positive impact on work productivity. Therefore, the wage system needs to be adjusted to Decent Living Needs (KHL), that it not only improves workforce welfare, but also increases work efficiency and output in the construction industry. The results of observations and calculations of construction workforce decent wages and productivity are explained in the figure above. These results have gone through stages that have been approved by the relevant parties.

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Skilled construction workforce

(bricklayer in this case)

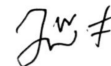


Hari

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Skilled construction workforce

(bricklayer in this case)



Hamzah

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**ANALYSIS OF DECENT CONSTRUCTION
WORKFORCE WAGES AND PRODUCTIVITY
BASED ON INDONESIA LAW (UU)**

**ANALISIS UPAH LAYAK DAN PRODUKTIVITAS TENAGA KERJA
KONSTRUKSI BERDASARKAN HUKUM INDONESIA (UU)**

Appendix	: 2
Initial Step	: Interview from civil engineering construction point of view.
Purpose	: Gathering suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on current condition of civil engineering construction.
Source	: Work Environment, Contractor, Skilled Construction Workforce (Bricklayer in this case), Civil Engineer Expert.
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

Decent Wages are wages received during a certain time (week) with standard work by a workforce in a certain place, sufficient to meet a decent standard of living for the workforce and his family. A decent wage, as recognized by the UN, UU, UUIK, PP No. 22 Tahun 2020 and No. 14 Tahun 2021 is the right of Workforce's who are sufficient to live with a decent standard of living for workforce's and their families. The basis for determining the minimum wage is the physical needs of a decent life. The purpose of setting a minimum wage is as a safety net for workforce's, that they are not exploited in their work and receive wages that can meet minimum living needs. Policy is a series of concepts and principles that serve as guidelines and the basis for plans in carrying out work, leadership and ways of acting. This term can be applied to governments,

organizations, groups, as well as individuals and policies also can be the basis for regulations.

The results of this interview is suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on current condition of civil engineering construction. The following are the results of the interview that have been made and will be presented below as follows :

- 1) What is the standard wage currently given to skilled construction workforce (bricklayer in this case) on the project you are currently handling ?

Bahasa : Berapa standar upah yang saat ini diberikan kepada tenaga kerja bricklayer di proyek yang anda tangani saat ini?

Answer : "Currently, the average wage I give to skilled construction workforce (bricklayer in this case) is up to around Rp. 3.500.000,00 per month, but apart from that, it still depends on the project and the policies of each contractor."

Bahasa : "Saat ini, rata-rata upah yang saya berikan kepada bricklayer sekitar lebih dari Rp. 3.500.000,00 per bulan, tetapi terlepas dari itu semua, tetap tergantung pada proyek dan kebijakan masing-masing kontraktor."

- 2) Do you consider this wage to be decent compared to the current standard of living costs for construction workforce's ?

Bahasa : Apakah Anda menganggap upah tersebut sudah layak dibandingkan dengan standar biaya hidup pekerja konstruksi saat ini?

Answer : "When compared to the average UMR of around Rp. 2.000.000,00 - Rp. 3.000.000,00 per month, this wage is indeed higher. However, if you look at the real needs of workforce's and job demands, perhaps it still needs to be evaluated."

Bahasa : "Jika dibandingkan dengan rata-rata UMR sekitar Rp. 2.000.000,00 - Rp. 3.000.000,00 per bulan, upah ini memang benar lebih tinggi. Namun, jika melihat kebutuhan riil pekerja dan tuntutan pekerjaan, mungkin masih perlu dievaluasi."

- 3) What are the main obstacles to increasing construction workforce wages?

Bahasa : Apa kendala utama dalam menaikkan upah tenaga kerja konstruksi?

Answer : "The main obstacles are limited project budgets and company funds, tight competition between contractors in price offers, and cost efficiency in construction projects."

Bahasa : "Kendala utama adalah anggaran proyek dan dana perusahaan yang terbatas, persaingan ketat antar kontraktor dalam penawaran harga, serta efisiensi biaya dalam proyek konstruksi."

4) How will an increase in workforce costs impact overall project costs ?

Bahasa : Bagaimana dampak kenaikan upah tenaga kerja terhadap biaya proyek secara keseluruhan?

Answer : "If wages are increased, workforce costs will increase drastically, thus affecting project selling prices. However, if this increase is accompanied by an increase in productivity, the impact may not be too big."

Bahasa : "Jika upah dinaikkan, maka biaya tenaga kerja akan meningkat drastis, sehingga mempengaruhi harga jual proyek. Namun, jika kenaikan tersebut dibarengi dengan peningkatan produktivitas, bisa jadi dampaknya tidak terlalu besar."

5) Do you think higher wages can increase workforce productivity?

Bahasa : Menurut Anda, apakah upah yang lebih tinggi dapat meningkatkan produktivitas tenaga kerja?

Answer : "In theory, higher wages can increase motivation and morale. However, productivity is also influenced by other factors such as work tools, work methods and material availability."

Bahasa : "Secara teori, upah yang lebih tinggi dapat meningkatkan motivasi dan semangat kerja. Namun, produktivitas juga dipengaruhi oleh faktor lain seperti alat kerja, metode kerja, dan ketersediaan material."

6) Currently, what is the average productivity of skilled construction workforce (bricklayer in this case) on your projects?

Bahasa : Saat ini, berapa produktivitas rata-rata bricklayer di proyek Anda?

Answer : "The average skilled construction workforce (bricklayer in this case) on my project is able to complete around 8 -10 m² per day, depending on project conditions and the materials used."

Bahasa : "Rata-rata bricklayer di proyek kami mampu menyelesaikan sekitar 8 - 10 m² per hari, tergantung dari kondisi proyek dan material yang digunakan."

7) If wages are increased around 2 times to Rp. 10.500.000,00, are you sure that productivity can increase up to 2 times or 25-30 m² per day?

Bahasa : Jika upah ditingkatkan sekitar 2 kali lipat menjadi Rp. 10.500.000,00, apakah Anda yakin produktivitas dapat meningkat hingga 2 kali lipat atau 25-30 m² per hari?

Answer : "Maybe it can, but it also needs to be supported by more efficient work methods, better tools, and project management that is stricter in monitoring work time."

Bahasa : "Mungkin bisa, tapi itu juga perlu didukung dengan metode kerja yang lebih efisien, alat yang lebih baik, dan manajemen proyek yang lebih ketat dalam pengawasan waktu kerja."

8) Currently, what kind of wage system is used in your construction projects? Is it daily, wholesale or contract based?

Bahasa : Saat ini, sistem pengupahan seperti apa yang digunakan di proyek konstruksi Anda? Apakah berbasis harian, borongan, atau kontrak ?

Answer : "Most projects still use a daily or contract system. For permanent workforce's, there is usually a contract system, but the number is smaller."

Bahasa : "Sebagian besar proyek masih menggunakan sistem harian atau borongan. Untuk pekerja tetap, biasanya ada sistem kontrak, tetapi jumlahnya lebih sedikit."

9) In your opinion, what kind of wage system is most effective for increasing workforce productivity?

Bahasa : Menurut Anda, sistem pengupahan seperti apa yang paling efektif untuk meningkatkan produktivitas pekerja ?

Answer : "Performance or productivity based wage systems may be more effective. For example, additional incentives for workforce's who can achieve certain targets."

Bahasa : "Sistem upah berbasis kinerja atau produktivitas mungkin lebih efektif. Misalnya, insentif tambahan untuk pekerja yang bisa mencapai target tertentu."

10) What are your hopes for government regulations regarding wages for construction workforce's?

Bahasa : Apa harapan Anda terhadap regulasi pemerintah dalam hal pengupahan tenaga kerja konstruksi ?

Answer : "We hope there are clearer and more realistic standards regarding construction workforce wages, which consider the balance between workforce welfare and project sustainability."

Bahasa : "Kami berharap ada standar yang lebih jelas dan realistis mengenai upah tenaga kerja konstruksi, yang mempertimbangkan keseimbangan antara kesejahteraan pekerja dan keberlanjutan proyek."

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Appendix	: 3
Initial Step	: Interview from law point of view.
Purpose	: Gather suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on law current condition.
Source	: Work Environment, Law Expert, PUPR, Skilled construction workforce (Bricklayer in this case)
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

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organizations, groups, as well as individuals and policies also can be the basis for regulations.

The results of this interview is suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on current condition of civil engineering construction law point of view. The following are the results of the interview that have been made and will be presented below as follows :

1) Are there any regulations governing decent wages for construction workforce's in Indonesia ?

Bahasa : Apakah ada peraturan yang mengatur tentang upah layak bagi tenaga kerja konstruksi di Indonesia?

Answer : "Yes, regulations regarding wages in Indonesia are regulated in UU No. 13 Tahun 2003 concerning profession and updated in UU No. 11 Tahun 2020 concerning job creation and its derivative regulations, such as PP No. 36 Tahun 2021 concerning wages. In it there are provisions regarding Minimum Wages and Decent Living Needs (KHL) as a reference in determining workforce's wages."

Bahasa : "Ya, pengaturan mengenai upah di Indonesia diatur dalam UU No 13 Tahun 2003 tentang Ketenagakerjaan dan diperbarui dalam UU No 11 Tahun 2020 tentang Cipta Kerja serta aturan turunannya, seperti PP No. 36 Tahun 2021 tentang Pengupahan. Di dalamnya terdapat ketentuan mengenai Upah Minimum dan Kebutuhan Hidup Layak (KHL) sebagai acuan dalam penentuan upah pekerja."

2) Is the wage in the range of Rp. 3.500.000,00 per month for skilled construction workforce (bricklayer in this case) does it meet applicable legal standards?

Bahasa : Apakah upah kisaran Rp. 3.500.000,00 per bulan untuk tenaga kerja bricklayer sudah memenuhi standar hukum yang berlaku?

Answer : "When compared to the UMR which is in the range of Rp. 2,000,000.00 - Rp. 3,000,000.00 per month, then the wage of Rp. 3,500,000.00 per month is

indeed higher. However, if we refer to the concept of Decent Living Needs (KHL) in Pasal 88B of UU No. 11 Tahun 2020, then the wage must be sufficient to meet the basic needs of workforce's and their families. If the wage is still not sufficient Decent Living Needs (KHL) standards, then it can be said that it does not meet the decent wage principle."

Bahasa : "Jika dibandingkan dengan UMR yang kisaran Rp. 2.000.000,00 - Rp. 3.000.000,00 per bulan, maka upah Rp. 3.500.000,00 per bulan memang lebih tinggi. Namun, jika kita merujuk pada konsep Kebutuhan Hidup Layak (KHL) dalam Pasal 88B UU No. 11 Tahun 2020, maka upah harus cukup untuk memenuhi kebutuhan dasar pekerja dan keluarganya. Jika upah tersebut masih belum mencukupi standar KHL, maka bisa dikatakan belum memenuhi prinsip upah layak."

3) What is the government's role in ensuring construction workforce's receive a decent wage ?

Bahasa : Bagaimana peran pemerintah dalam memastikan pekerja konstruksi mendapatkan upah yang layak ?

Answer : "The government has a role in determining Regency/City Minimum Wages (UMK) as well as supervising the implementation of wages through the Manpower Department (Disnaker). Apart from that, there is a negotiation mechanism between workforce's and company that can be carried out to determine a more decent wage."

Bahasa : "Pemerintah memiliki peran dalam menetapkan Upah Minimum Kabupaten/Kota (UMK) serta mengawasi pelaksanaan upah melalui Dinas Tenaga Kerja. Selain itu, ada mekanisme perundingan antara pekerja dan pengusaha yang dapat dilakukan untuk menentukan upah yang lebih layak."

4) Are there any regulations governing the relationship between wages and workforce productivity?

Bahasa : Apakah ada peraturan yang mengatur tentang hubungan antara upah dan produktivitas tenaga kerja?

Answer : "In general, wage regulations in PP No. 36 Tahun 2021 refer to economic factors and national productivity. In addition, in Pasal 92 UU Ketenagakerjaan No. 13 Tahun 2003, it is stated that company must provide wages based on the company's productivity and capabilities. This means that wages must not be set arbitrarily, but must take into account the work output and contribution of workforce's to the company."

Bahasa : "Secara umum, peraturan pengupahan dalam PP No. 36 Tahun 2021 mengacu pada faktor ekonomi dan produktivitas nasional. Selain itu, dalam Pasal 92 UU Ketenagakerjaan No. 13 Tahun 2003, disebutkan bahwa pengusaha harus memberikan upah berdasarkan produktivitas dan kemampuan perusahaan. Artinya, upah tidak boleh ditetapkan sembarangan, tetapi harus mempertimbangkan output kerja dan kontribusi pekerja terhadap perusahaan."

5) How should the wage system in the construction sector be in accordance with the principles of justice?

Bahasa : Bagaimana seharusnya sistem pengupahan di sektor konstruksi agar sesuai dengan prinsip keadilan?

Answer : "The wage system in the construction sector should be based on performance and productivity while still paying attention to Decent Living Needs (KHL) standards. For example, if a skilled construction workforce (bricklayer in this case) can increase his productivity from 8 - 10 m² to 25 - 30 m² per day, then there should be incentives or a proportional wage increase."

Bahasa : "Sistem pengupahan di sektor konstruksi sebaiknya berbasis kinerja dan produktivitas dengan tetap memperhatikan standar Kebutuhan Hidup Layak (KHL). Misalnya, jika seorang bricklayer bisa meningkatkan produktivitasnya dari 8 - 10 m² menjadi 25 - 30 m² per hari, maka sudah seharusnya ada insentif atau kenaikan upah yang proporsional."

6) Are there legal consequences for contractors or developers who provide wages below decent standards ?

Bahasa : Apakah ada konsekuensi hukum bagi kontraktor atau developer yang memberikan upah di bawah standar layak ?

Answer : "Yes, companies or contractors who pay wages below standard can be subject to sanctions based on Pasal 185 UU No. 13 Tahun 2003, namely fines and/or imprisonment. In addition, in Pasal 88E UU Cipta Kerja, it is stated that company who do not comply with wage requirements can be subject to administrative sanctions such as warnings, fines, and business termination."

Bahasa : "Ya, perusahaan atau kontraktor yang membayar upah di bawah standar dapat dikenai sanksi berdasarkan Pasal 185 UU No. 13 Tahun 2003, yaitu denda dan/atau pidana kurungan. Selain itu, dalam Pasal 88E UU Cipta Kerja, disebutkan bahwa pengusaha yang tidak memenuhi ketentuan pengupahan dapat dikenakan sanksi administratif seperti teguran, denda, hingga penghentian usaha."

7) How can construction workforce's claim their rights if they feel that the wages they receive are not decent?

Bahasa : Bagaimana cara pekerja konstruksi menuntut haknya jika merasa upah yang diterima tidak layak?

Answer : "Workforce's can report this case to the local Manpower and Transmigration Service (Disnaker) or through a workforce union if there is one. If there is no resolution, this case can be submitted to the Industrial Relations Court (PHI) to obtain justice."

Bahasa : "Pekerja bisa melaporkan kasus ini ke Dinas Tenaga Kerja dan Transmigrasi setempat atau melalui serikat pekerja jika ada. Jika tidak ada penyelesaian, kasus ini bisa diajukan ke Pengadilan Hubungan Industrial (PHI) untuk memperoleh keadilan."

8) Are there policies or schemes that can be implemented to ensure wage increases are in line with productivity increases ?

Bahasa : Apakah ada kebijakan atau skema yang dapat diterapkan untuk memastikan kenaikan upah sejalan dengan peningkatan produktivitas ?

Answer : "One policy that can be implemented is a productivity based incentive system. In this scheme, workforce's who are able to achieve certain targets will receive additional wages or bonuses. This has been implemented in several industrial sectors and has proven effective in improving workforce welfare as well as project efficiency."

Bahasa : "Salah satu kebijakan yang dapat diterapkan adalah sistem insentif berbasis produktivitas. Dalam skema ini, pekerja yang mampu mencapai target tertentu akan mendapatkan tambahan upah atau bonus. Hal ini sudah diterapkan di beberapa sektor industri dan terbukti efektif dalam meningkatkan kesejahteraan pekerja sekaligus efisiensi proyek."

9) How can the government encourage companies to implement a fairer wage system?

Bahasa : Bagaimana pemerintah dapat mendorong perusahaan untuk menerapkan sistem pengupahan yang lebih adil?

Answer : "The government can provide tax incentives or workforce training subsidies for companies that implement a wage system based on productivity and workforce welfare. Apart from that, strict supervision from the Manpower Service (Disnaker) is also needed to ensure there is no exploitation of construction workforce's."

Bahasa : "Pemerintah dapat memberikan insentif pajak atau subsidi pelatihan tenaga kerja bagi perusahaan yang menerapkan sistem pengupahan berbasis produktivitas dan kesejahteraan pekerja. Selain itu, pengawasan ketat dari Dinas Tenaga Kerja juga diperlukan untuk memastikan tidak ada eksploitasi terhadap pekerja konstruksi."

10) What is the role of trade unions in fighting for decent wages in the construction sector ?

Bahasa : Bagaimana peran serikat pekerja dalam memperjuangkan upah layak di sektor konstruksi ?

Answer : "Trade unions play an important role in negotiating wages with company and providing advocacy for workforce's who experience unfair treatment. If the construction sector has a strong union, then workforce's can be better protected and have better bargaining power in terms of wages."

Bahasa : "Serikat pekerja berperan penting dalam melakukan negosiasi upah dengan pengusaha serta memberikan advokasi kepada pekerja yang mengalami perlakuan tidak adil. Jika sektor konstruksi memiliki serikat yang kuat, maka pekerja dapat lebih terlindungi dan memiliki daya tawar yang lebih baik dalam hal pengupahan."

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Appendix	: 4
Initial Step	: Interview from economic point of view.
Purpose	: Gather suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on economic current condition.
Source	: Work Environment, Economic Expert, Skilled construction workforce (Bricklayer in this case)
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

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The results of this interview is suggestions from relevant parties to increase wages structure and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on current condition of civil engineering construction economic point of view. The following are the results of the interview that have been made and will be presented below as follows :

1) What is the concept of a decent wage from an economic perspective?

Bahasa : Bagaimana konsep upah layak dalam perspektif ekonomi?

Answer : "A decent wage in economics is defined as a wage level that allows workforce's to meet Decent Living Needs (KHL), improve welfare, and motivate increased productivity. An un-decent wage can have an impact on decreasing work motivation, increasing workforce turnover, and low quality of work. In this case, the increase in wages from around Rp. 3.500.000,00 per month to Rp. 10.500.000,00 per month is in line with the principle of a decent wage, as long as productivity increases proportionally."

Bahasa : "Upah layak dalam ekonomi diartikan sebagai tingkat upah yang memungkinkan pekerja memenuhi Kebutuhan Hidup Layak (KHL), meningkatkan kesejahteraan, dan memotivasi peningkatan produktivitas. Upah yang tidak layak dapat berdampak pada penurunan motivasi kerja, peningkatan turnover tenaga kerja, dan kualitas pekerjaan yang rendah. Dalam kasus ini, kenaikan upah dari gaji kisaran Rp. 3.500.000,00 per bulan menjadi Rp. 10.500.000,00 per bulan sejalan dengan prinsip upah layak, asalkan produktivitas meningkat secara proporsional."

2) What are the main factors that determine wages in the construction sector?

Bahasa : Apa faktor utama yang menentukan besaran upah dalam sektor konstruksi?

Answer : "The amount of wages in the construction sector is influenced by several factors, including : Workforce demand and supply, workforce productivity,

inflation rate and cost of living, government policies (UMR and Wage Regulations)."

Bahasa : "Besaran upah dalam sektor konstruksi dipengaruhi oleh beberapa faktor, antara lain :

Permintaan dan penawaran tenaga kerja, produktivitas tenaga kerja, tingkat inflasi dan biaya hidup, kebijakan pemerintah (UMR dan Peraturan Upah)."

3) When compared with the UMR which is only around Rp. 2.000.000,00 - Rp. 3.000.000,00 per month, is the wages Rp. 10.500.000,00 economically applicable?

Bahasa : Jika dibandingkan dengan UMR yang hanya kisaran Rp. 2.000.000,00 - Rp. 3000.000,00 per bulan, apakah upah Rp. 10.500.000,00 dapat diterapkan secara ekonomi?

Answer : "In theory, a wage of Rp 10.500.000,00 can be applied if there is a comparable increase in productivity. If a skilled construction workforce (bricklayer in this case) increases his productivity from 8 - 10 m²/day to 25 - 30 m²/day, then the wage increase can be considered reasonable and economical for the contractor, as long as the project remains profitable. However, if productivity does not increase, then there is a risk that the increase in wages will actually cause project costs to become inefficient."

Bahasa : "Secara teori, upah Rp. 10.500.000,00 dapat diterapkan jika ada peningkatan produktivitas yang sebanding. Jika seorang bricklayer meningkatkan produktivitasnya dari 8 - 10 m²/hari menjadi 25 - 30 m²/hari, maka kenaikan upah dapat dianggap wajar dan ekonomis bagi kontraktor, asalkan proyek tetap menguntungkan. Namun, jika produktivitas tidak naik, maka ada risiko kenaikan upah justru menyebabkan biaya proyek menjadi tidak efisien."

4) What is the relationship between wages and productivity from an economic perspective ?

Bahasa : Bagaimana hubungan antara upah dan produktivitas dalam perspektif ekonomi ?

Answer : "Economic theory states that higher wages can increase productivity through several mechanisms, such as:

- a. Increases Work Motivation : Better paid workforce's tend to be more focused and work more efficiently.
- b. Reducing Workforce Turnover : Decent wages can reduce excessive workforce turnover, that project efficiency is better maintained.
- c. Increase Purchasing Power : Workforce's who earn higher wages can better meet basic needs, improve their health and quality of life, which impacts productivity."

Bahasa : "Teori ekonomi menyatakan bahwa upah yang lebih tinggi dapat meningkatkan produktivitas melalui beberapa mekanisme, seperti :

- a. Meningkatkan Motivasi Kerja : Pekerja yang dibayar lebih baik cenderung lebih fokus dan bekerja lebih efisien.
- b. Mengurangi Turnover Pekerja : Upah yang layak dapat mengurangi pergantian tenaga kerja yang berlebihan, sehingga efisiensi proyek lebih terjaga.
- c. Meningkatkan Daya Beli : Pekerja yang mendapat upah lebih tinggi bisa memenuhi kebutuhan dasar dengan lebih baik, meningkatkan kesehatan dan kualitas hidupnya, yang berdampak pada produktivitas."

5) Does an increase in wages always lead to an increase in productivity ?

Bahasa : Apakah kenaikan upah selalu menyebabkan peningkatan produktivitas ?

Answer : "Not always. Wage increases must be accompanied by efficient work systems, training and the use of technology. If you only increase wages without improving skills or work methods, productivity will not rise, and this can burden the company economically."

Bahasa : "Tidak selalu. Kenaikan upah harus disertai dengan sistem kerja yang efisien, pelatihan, dan penggunaan teknologi. Jika hanya menaikkan upah tanpa meningkatkan keterampilan atau metode kerja, produktivitas tidak akan naik, dan ini dapat membebani perusahaan secara ekonomi."

6) In some cases, how to ensure that productivity increases match wage increases?

Bahasa : Dalam beberapa kasus, bagaimana cara memastikan kenaikan produktivitas sesuai dengan kenaikan upah?

Answer : "Some ways that can be implemented include workforce skills training, implementing performance based incentives, improving work equipment, and better project management, make the workforce is more productive."

Bahasa : "Beberapa cara yang dapat diterapkan, lakukan pelatihan keterampilan tenaga kerja, penerapan insentif berbasis kinerja, peningkatan peralatan kerja, dan manajemen proyek yang lebih baik agar tenaga kerja lebih produktif."

7) Can an increase in wages for construction workforce's reduce the profits of contractors or developers?

Bahasa : Apakah kenaikan upah pekerja konstruksi dapat mengurangi keuntungan kontraktor atau developer?

Answer : "In the short term, increasing wages can increase project costs. However, if productivity increases proportionally, contractors can complete projects faster with better quality, and the profits actually increase. Therefore, it is important for contractors to ensure a balance between wages and productivity."

Bahasa : "Secara jangka pendek, kenaikan upah bisa meningkatkan biaya proyek. Namun, jika produktivitas naik sebanding, kontraktor dapat menyelesaikan proyek lebih cepat dengan kualitas lebih baik, sehingga keuntungan justru meningkat. Oleh karena itu, penting bagi kontraktor untuk memastikan keseimbangan antara upah dan produktivitas."

8) Is there a negative risk of rising wages in the construction sector ?

Bahasa : Apakah ada risiko negatif dari kenaikan upah bagi sektor konstruksi ?

Answer : "Some risks that might occur if wages rise too high without increasing productivity are an increase in construction costs which could make projects less competitive. The contractors turn to cheaper informal workforce, which can

reduce workforce protection. This could lead to reduced investment in the construction sector if workforce costs are not offset by better outcomes.”

Bahasa : “Beberapa risiko yang mungkin terjadi jika upah naik terlalu tinggi tanpa peningkatan produktivitas adalah Kenaikan biaya konstruksi yang dapat membuat proyek menjadi kurang kompetitif. Sehingga kontraktor beralih ke tenaga kerja informal yang lebih murah, yang dapat mengurangi perlindungan tenaga kerja. Ini dapat menyebabkan penurunan investasi di sektor konstruksi jika biaya tenaga kerja tidak diimbangi dengan hasil yang lebih baik.”

9) What is the best solution to ensure decent wages but still maintain the competitiveness of the construction sector?

Bahasa : Apa solusi terbaik untuk memastikan upah layak tetapi tetap menjaga daya saing sektor konstruksi ?

Answer : "The best solution is to implement a productivity based wage system, for example :

Base wages and performance incentives are based on the number of square meters completed. Followed by workforce training to increase efficiency and skills. This leads to a flexible wage negotiation mechanism between contractors and workforce's, the both parties benefit."

Bahasa : "Solusi terbaik adalah menerapkan sistem pengupahan berbasis produktivitas, misalnya :

Upah dasar dan insentif kinerja berdasarkan jumlah meter persegi yang diselesaikan. Dilanjutkan dengan pelatihan tenaga kerja untuk meningkatkan efisiensi dan keterampilan. Hal ini menyebabkan mekanisme negosiasi upah yang fleksibel antara kontraktor dan pekerja agar kedua pihak mendapatkan keuntungan.”

10) What is the government's role in ensuring a balance between living decent and productivity in the construction sector ?

Bahasa : Apa peran pemerintah dalam memastikan keseimbangan antara upah layak dan produktivitas di sektor konstruksi?

Answer : "The government has an important role in establishing regulations that encourage productivity based wages, that wage increases do not burden contractors. Then it is mandatory to provide training for construction workforce's to be more competent and productive. The end result is that it can provide incentives for contractors who implement a fair wage system, for example in the form of tax cuts or subsidies for workforce training."

Bahasa : "Pemerintah memiliki peran penting dalam menetapkan regulasi yang mendorong upah berbasis produktivitas agar kenaikan upah tidak membebani kontraktor. Kemudian wajib menyediakan pelatihan bagi tenaga kerja konstruksi agar lebih kompeten dan produktif. Hasil akhirnya adalah dimana dapat memberikan insentif bagi kontraktor yang menerapkan sistem pengupahan yang adil, misalnya dalam bentuk pemotongan pajak atau subsidi pelatihan tenaga kerja."

Economic Expert,



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**ANALYSIS OF DECENT CONSTRUCTION
WORKFORCE WAGES AND PRODUCTIVITY
BASED ON INDONESIA LAW (UU)**

**ANALISIS UPAH LAYAK DAN PRODUKTIVITAS TENAGA KERJA
KONSTRUKSI BERDASARKAN HUKUM INDONESIA (UU)**

Appendix	: 5
Initial Step	: Questionnaire
Purpose	: To identify factors that influence wage and productivity gaps and to collect quantitative data to compare actual wages with decent wages and productivity in Java and Bali Island for skilled construction workforce (bricklayer in this case) based on current condition.
Source	: Work Environment, Skilled Construction Workforce (Bricklayer in this case).
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

Decent Wages are wages received during a certain time (week) with standard work by a workforce in a certain place, sufficient to meet a decent standard of living for the workforce and his family. A decent wage, as recognized by the UN, UU, UUIK, PP No. 22 Tahun 2020 and No. 14 Tahun 2021 is the right of Workforce's who are sufficient to live with a decent standard of living for workforce's and their families. The basis for determining the minimum wage is the physical needs of a decent life. The purpose of setting a minimum wage is as a safety net for workforce's, that they are not exploited in their work and receive wages that can meet minimum living needs. Policy is a series of concepts and principles that serve as guidelines and the basis for plans in carrying out work,

The results of this questionnaire is knowing what is the factors that influence wage and productivity gaps and to collect quantitative data to compare actual wages with decent wages and productivity in Java and Bali Island for skilled construction workforce (Bricklayer in this case) based on current condition. The following are the results of the questionnaire that have been made and will be presented below as follows :

[illegible][illegible][illegible]

Bagian 1 : Identifikasi Berapapun

1. Nomor telepon : 0813 5135 10 *Handy*

2. Nama : Handy *Handy*

3. Jarak : 10 km *Handy*

4. Lokasi : Handy *Handy*

5. Waktu : Handy *Handy*

6. Tujuan : Handy *Handy*

7. Cara : Handy *Handy*

8. Biaya : Handy *Handy*

9. Manfaat : Handy *Handy*

10. Risiko : Handy *Handy*

11. Kesimpulan : Handy *Handy*

12. Saran : Handy *Handy*

13. Penutup : Handy *Handy*

14. Lampiran : Handy *Handy*

15. Catatan : Handy *Handy*

16. Referensi : Handy *Handy*

17. Daftar Pustaka : Handy *Handy*

18. Kesimpulan : Handy *Handy*

19. Saran : Handy *Handy*

20. Penutup : Handy *Handy*

21. Lampiran : Handy *Handy*

22. Catatan : Handy *Handy*

23. Referensi : Handy *Handy*

24. Daftar Pustaka : Handy *Handy*

25. Kesimpulan : Handy *Handy*

26. Saran : Handy *Handy*

27. Penutup : Handy *Handy*

28. Lampiran : Handy *Handy*

29. Catatan : Handy *Handy*

30. Referensi : Handy *Handy*

31. Daftar Pustaka : Handy *Handy*

32. Kesimpulan : Handy *Handy*

33. Saran : Handy *Handy*

34. Penutup : Handy *Handy*

35. Lampiran : Handy *Handy*

36. Catatan : Handy *Handy*

37. Referensi : Handy *Handy*

38. Daftar Pustaka : Handy *Handy*

39. Kesimpulan : Handy *Handy*

40. Saran : Handy *Handy*

41. Penutup : Handy *Handy*

42. Lampiran : Handy *Handy*

43. Catatan : Handy *Handy*

44. Referensi : Handy *Handy*

45. Daftar Pustaka : Handy *Handy*

46. Kesimpulan : Handy *Handy*

47. Saran : Handy *Handy*

48. Penutup : Handy *Handy*

49. Lampiran : Handy *Handy*

50. Catatan : Handy *Handy*

51. Referensi : Handy *Handy*

52. Daftar Pustaka : Handy *Handy*

53. Kesimpulan : Handy *Handy*

54. Saran : Handy *Handy*

55. Penutup : Handy *Handy*

56. Lampiran : Handy *Handy*

57. Catatan : Handy *Handy*

58. Referensi : Handy *Handy*

59. Daftar Pustaka : Handy *Handy*

60. Kesimpulan : Handy *Handy*

61. Saran : Handy *Handy*

62. Penutup : Handy *Handy*

63. Lampiran : Handy *Handy*

64. Catatan : Handy *Handy*

65. Referensi : Handy *Handy*

66. Daftar Pustaka : Handy *Handy*

67. Kesimpulan : Handy *Handy*

68. Saran : Handy *Handy*

69. Penutup : Handy *Handy*

70. Lampiran : Handy *Handy*

71. Catatan : Handy *Handy*

72. Referensi : Handy *Handy*

73. Daftar Pustaka : Handy *Handy*

74. Kesimpulan : Handy *Handy*

75. Saran : Handy *Handy*

76. Penutup : Handy *Handy*

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78. Catatan : Handy *Handy*

79. Referensi : Handy *Handy*

80. Daftar Pustaka : Handy *Handy*

81. Kesimpulan : Handy *Handy*

82. Saran : Handy *Handy*

83. Penutup : Handy *Handy*

84. Lampiran : Handy *Handy*

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86. Referensi : Handy *Handy*

87. Daftar Pustaka : Handy *Handy*

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91. Lampiran : Handy *Handy*

92. Catatan : Handy *Handy*

93. Referensi : Handy *Handy*

94. Daftar Pustaka : Handy *Handy*

95. Kesimpulan : Handy *Handy*

96. Saran : Handy *Handy*

97. Penutup : Handy *Handy*

98. Lampiran : Handy *Handy*

99. Catatan : Handy *Handy*

100. Referensi : Handy *Handy*

101. Daftar Pustaka : Handy *Handy*

102. Kesimpulan : Handy *Handy*

103. Saran : Handy *Handy*

104. Penutup : Handy *Handy*

105. Lampiran : Handy *Handy*

106. Catatan : Handy *Handy*

107. Referensi : Handy *Handy*

108. Daftar Pustaka : Handy *Handy*

109. Kesimpulan : Handy *Handy*

110. Saran : Handy *Handy*

111. Penutup : Handy *Handy*

112. Lampiran : Handy *Handy*

113. Catatan : Handy *Handy*

114. Referensi : Handy *Handy*

115. Daftar Pustaka : Handy *Handy*

116. Kesimpulan : Handy *Handy*

117. Saran : Handy *Handy*

118. Penutup : Handy *Handy*

119. Lampiran : Handy *Handy*

120. Catatan : Handy *Handy*

121. Referensi : Handy *Handy*

122. Daftar Pustaka : Handy *Handy*

123. Kesimpulan : Handy *Handy*

124. Saran : Handy *Handy*

125. Penutup : Handy *Handy*

126. Lampiran : Handy *Handy*

127. Catatan : Handy *Handy*

128. Referensi : Handy *Handy*

129. Daftar Pustaka : Handy *Handy*

130. Kesimpulan : Handy *Handy*

131. Saran : Handy *Handy*

132. Penutup : Handy *Handy*

133. Lampiran : Handy *Handy*

134. Catatan : Handy *Handy*

135. Referensi : Handy *Handy*

136. Daftar Pustaka : Handy *Handy*

137. Kesimpulan : Handy *Handy*

138. Saran : Handy *Handy*

139. Penutup : Handy *Handy*

140. Lampiran : Handy *Handy*

141. Catatan : Handy *Handy*

142. Referensi : Handy *Handy*

143. Daftar Pustaka : Handy *Handy*

144. Kesimpulan : Handy *Handy*

145. Saran : Handy *Handy*

146. Penutup : Handy *Handy*

147. Lampiran : Handy *Handy*

148. Catatan : Handy *Handy*

149. Referensi : Handy *Handy*

150. Daftar Pustaka : Handy *Handy*

151. Kesimpulan : Handy *Handy*

152. Saran : Handy *Handy*

153. Penutup : Handy *Handy*

154. Lampiran : Handy *Handy*

155. Catatan : Handy *Handy*

156. Referensi : Handy *Handy</*

$\frac{1}{2} \text{ liter} = 20 \text{ cm}^3$
 Upper part = $3 \cdot 16 \text{ cm}^3$
 Lower part = $3 \cdot 16 \text{ cm}^3 / 10$
 $= 16 \text{ cm}^3$
 Upper part = $16 \text{ cm}^3 / 10$
 $= 1.6 \text{ cm}^3$

$\text{Kurs} = \text{Kurs}$
 $\text{Kurs per Aktie} = 2100 \text{ €}$
 $\text{Kurs per Aktie} = 3150 \text{ €}$
 $\text{Kurs per Aktie} = 15.750 - 6150 \text{ €}$

Und hier liegt es nur
 mal hier bei
 der um 3150 €

248

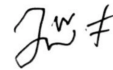
This questionnaire shows that increasing wages for skilled construction workforce (bricklayer in this case) has a positive impact on work productivity. Therefore, the wage system needs to be adjusted to Decent Living Needs (KHL), that it not only improves workforce welfare, but also increases work efficiency and output in the construction industry. These results have gone through stages that have been approved by the relevant parties.

Skilled construction workforce
(bricklayer in this case)



Hari
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Skilled construction workforce
(bricklayer in this case)



Hamzah
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**ANALYSIS OF DECENT CONSTRUCTION
WORKFORCE WAGES AND PRODUCTIVITY
BASED ON INDONESIA LAW (UU)**

**ANALISIS UPAH LAYAK DAN PRODUKTIVITAS TENAGA KERJA
KONSTRUKSI BERDASARKAN HUKUM INDONESIA (UU)**

Appendix	: 6
Initial Step	: Document Reference
Purpose	: To understand the wage policies that apply in Java and Bali Island and to assess the relevance of the proposed wage with Decent Living Needs (KHL) based on current condition.
Source	: Work Environment, Skilled Construction Workforce (Bricklayer in this case).
Location	: Java and Bali Island (Especially in Badung Regency, Denpasar City, Tulungagung Regency, Malang Regency, Sleman Regency, Yogyakarta City).

Decent Wages are wages received during a certain time (week) with standard work by a workforce in a certain place, sufficient to meet a decent standard of living for the workforce and his family. A decent wage, as recognized by the UN, UU, UUIK, PP No. 22 Tahun 2020 and No. 14 Tahun 2021 is the right of Workforce's who are sufficient to live with a decent standard of living for workforce's and their families. The basis for determining the minimum wage is the physical needs of a decent life. The purpose of setting a minimum wage is as a safety net for workforce's, that they are not exploited in their work and receive wages that can meet minimum living needs. Policy is a series of concepts and principles that serve as guidelines and the basis for plans in carrying out work, leadership and ways of acting. This term can be applied to governments,

organizations, groups, as well as individuals and policies also can be the basis for regulations.

The results of this document reference is knowing the wage policies that apply in Java and Bali Island and to assess the relevance of the proposed wage with Decent Living Needs (KHL) based on current condition. The following of the document reference that have been used will be presented below as follows :

1. UU No 2 Tahun 2017, about construction services.
2. UU No 13 Tahun 2003, about profession.
3. UU No 24 Tahun 2011, about Social Security Administrator (BPJS)
4. UU No 11 Tahun 2020, about Omnibus Law.
5. UU No 23 Tahun 2014, about local government.
6. PP No 36 Tahun 2021, about wage policy.
7. PP No 78 Tahun 2015, about wage review.
8. PP No 44 Tahun 2015, about work accident and death guarantee program.
9. PP No 64 Tahun 2020, about health insurance.
10. PP No 86 Tahun 2013, about imposing administrative sanctions.
11. PP No 76 Tahun 2020, about the type of PNBP that applies.
12. Permen PUPR No 8 Tahun 2023, about guidelines of public work/housing.
13. ILO K138 Tahun 1973, about minimum age to be allowed to work.
14. ILO K95 Tahun 1949, about wage protection.
15. Permenaker No 13 Tahun 2012, about component of KHL.
16. Permenaker No 5 Tahun 2021, about implementation of work accident.
17. Permenaker No. 18 Tahun 2022, about resolve of minimum wage in 2023.
18. Permenaker No 21 Tahun 2016, about Decent Living Needs (KHL).
19. Permendikbud No 50 Tahun 2022, about school uniforms for students.
20. Permendikbud No 8 Tahun 2017, about school funds (BOS).
21. Permendikbud No 14 Tahun 2022, about guidelines for PIP funds.

This document reference used as a guideline to increasing wages for skilled construction workforce (bricklayer in this case), and it has a positive

impact on work productivity. Therefore, the wage system needs to be adjusted to Decent Living Needs (KHL), that it not only improves workforce welfare, but also increases work efficiency and output in the construction industry. The document reference used for construction workforce decent wages and productivity are mentioned in the explanation above. These document reference have used as a through stages that have been approved by the government.