

# The Effect of Minimum Wage on Consumer Price Index in Denpasar City

I Nyoman Sutapa<sup>1</sup>, Ni Luh Putu Mita Miati<sup>2</sup>

Faculty of Economics and Business, Warmadewa University, Denpasar, Bali, Indonesia

Email address: nymstutapa@warmadewa.ac.id

**Abstract-** This study aims to analyze the effect of minimum wage on the consumer price index in Denpasar City. The minimum wage is an important factor in a region's economy and can have a significant impact on inflation rates and people's well-being. The consumer price index (CONSUMER PRICE INDEX) is an important indicator in measuring the level of inflation and changes in the prices of goods and services consumed by the public. Denpasar City was chosen as the focus of the study because it has had a dynamic economy and a significant inflation rate in recent years. The method used in this study is a simple linear regression analysis using secondary data from sources such as the Central Statistics Agency (BPS) and the Denpasar City Wage Council. The data used include the minimum wage, consumer price index, and other control variables such as economic growth, unemployment rate, and national inflation. The results of this study are expected to provide a better understanding of the relationship between minimum wage and the consumer price index in Denpasar City. If there is a significant relationship between these two variables, this study can provide valuable information for governments, employers, and workers in taking appropriate policies to maintain a balance between fair wages and price stability.

**Keywords:** Minimum wage, consumer price index, Denpasar City.

## I. INTRODUCTION

Denpasar City, as the capital of Bali Province, has a rapidly growing economy and is the center of trade, tourism, and services on the island. However, in recent years, Denpasar has also experienced significant inflation rates. The minimum wage implemented in this city can be a factor that affects the inflation rate and consumer prices.

A number of studies have been conducted to analyze the effect of the minimum wage on inflation and consumer prices across a variety of contexts. For example, research conducted by Card and Krueger (1995) on the impact of minimum wage increases in New Jersey and Pennsylvania found that there is no significant evidence that the minimum wage causes inflation or increases in overall consumer prices. However, another study by Neumark and Wascher (2008) suggests that minimum wage increases tend to contribute to inflation and price increases for certain goods and services.

Research has also looked at the impact of the minimum wage on workers' well-being. For example, a study by Card (1995) found that the minimum wage can increase incomes and reduce poverty rates for workers who earn the minimum wage. However, research by Sabia Hauser (2010) suggests that an increase in the minimum wage can lead to a decrease in the number of hours worked and the level of employment, which can ultimately offset the benefits for workers.

In Indonesia, there are several studies that examine the impact of the minimum wage on inflation and consumer prices. One of them is a study by Suharno et al. (2017) which analyzed the effect of the minimum wage on inflation in several cities in Central Java. The study found that minimum wage increases contribute positively to inflation. However, this study has not specifically addressed the effect of minimum wage on the consumer price index in Denpasar City.

However, the effect of minimum wage on the Consumer Price Index in Denpasar City still requires more in-depth research. Through this research, it is expected to gain a better understanding of the relationship between the minimum wage and the Consumer Price Index in the city. This research can provide a more comprehensive understanding for the government, employers, and workers in formulating appropriate policies related to minimum wages and price stability in Denpasar City.

By exploring this relationship, this research is expected to contribute to the development of more effective and sustainable economic policies in Denpasar City and encourage the improvement of community welfare through fair wage management and maintaining price stability. Thus, research on the effect of minimum wage on the consumer price index in Denpasar City has important relevance in the context of the local economy and regional development.

## II. GRAND THEORY

### *Supply and Demand*

According to Mankiw (2014), the Supply and Demand Theory is one of the fundamental theories in economics that explains the relationship between supply and demand for goods and services in the market. This theory explains that the price of a product or service is determined by the balance between supply and demand in the market.

In the words of Mankiw (2014), "The Law of Demand states that *ceteris paribus* (assuming other variables are fixed), the higher the price of a product or service, the lower the amount demanded by consumers. Conversely, the lower the price, the higher the quantity demanded." In addition, "The Law of Supply states that *ceteris paribus*, the higher the price of a product or service, the higher the amount offered by the producer. Conversely, the lower the price, the lower the quantity offered."

According to Perloff (2017), "Equilibrium occurs when the supply and demand of a product or service reach a level where

the quantity offered equals the amount demanded. At the equilibrium point, the price will stabilize."

Law of Demand, According to the law of demand, *ceteris paribus* (assuming other variables are fixed), the higher the price of a product or service, the lower the quantity demanded by consumers. Conversely, the lower the price, the higher the quantity demanded. Law of Supply, According to the law of supply, *ceteris paribus*, the higher the price of a product or service, the higher the amount offered by the producer. Conversely, the lower the price, the lower the quantity offered. Equilibrium, Equilibrium occurs when the supply and demand of a product or service reaches a level where the quantity offered equals the amount demanded. At the equilibrium point, the price will stabilize.

In the context of research on the effect of minimum wage on the consumer price index in Denpasar City, supply and demand theory can be used to understand how minimum wage increases can affect the consumer price index. If a minimum wage increase increases workers' incomes and their purchasing power, it could increase consumer demand. If the increase in demand exceeds the supply of goods and services, then prices may rise, contributing to an increase in the consumer price index.

*Hypothesis*

Based on the background and explanation of the librarian study, the following hypothesis can be formulated.

Minimum Wage Significantly Has a Positive Effect on Consumer Price Index in Denpasar City

III. RESEARCH DESIGN

The population in this study is minimum wage data and consumer price index data sourced from data from the central statistics agency from 2018 to 2022 obtained 60 data. In this study, there are two variables including the following.

*Minimum Wage (Independent variable)*

The minimum wage is the lowest amount of salary or pay that must be given to workers by employers within a particular region or country. The purpose of the minimum wage is to protect workers by setting a lower threshold for the level of wages acceptable to workers. The minimum wage aims to ensure that workers receive reasonable and decent compensation for the work they do. Data to measure this variable is obtained from accessing the central statistics agency BALI on its website at <https://bali.bps.go.id/>

*Consumer Price Index*

The Consumer Price Index is a statistical indicator used to measure the change in the average price of goods and services purchased by consumers over a period of time. Data on the Consumer Price Index is obtained from the central statistics agency BALI by accessing the website at the address <https://bali.bps.go.id/>

*Data analysis*

to analyze the data in this study using Partial Least Square (PLS). In the context of Partial Least Squares (PLS), significance acceptance refers to testing the statistical

significance of partial regression coefficients estimated in the PLS model. This significance test is performed to determine whether the partial regression coefficient is significantly different from zero, indicating a significant relationship between the independent and dependent variables. This approach involves an iterative sampling process with the replacement of existing data (bootstrap resampling). Each time a sample is taken, the PLS model is re-estimated and a partial regression coefficient is calculated. In many samplings, a partial regression coefficient distribution is constructed and tested whether the coefficient differs significantly from zero. The bootstrap approach provides a more robust and accurate estimation of the significance of partial regression coefficients in PLS. To test the level of significance that will later be used to draw conclusions about the acceptance of the hypothesis is to look at the significance value ( $p\text{-value} < \alpha$ ).

IV. RESULT

Based on the results of data processing can be presented in Table 1, the results of bootstrap testing can be seen  $p$ -value of 0.00 which is smaller than the  $\alpha$  value of 0.05, it can be concluded to have a significant influence and seen from the Original Sample (O) value can be seen to have a negative value of -0.872 can be concluded to have a negative influence. From these results, it can be concluded that the minimum wage significantly negatively affects the Consumer Price Index in Denpasar City. This is different from the proposed hypothesis which has a significant positive influence, therefore the hypothesis in this study is rejected.

The discussion about the Minimum Wage has a significant negative effect on the Consumer Price Index in Denpasar City can be explained by several possible interpretations that can be considered such as Purchasing power increases if the minimum wage increases and at the same time the Consumer Price Index decreases, this can show that the increase in the minimum wage provides a significant boost to consumer purchasing power in Denpasar City. By having a higher income, consumers may be able to buy more goods and services at lower prices, thus lowering the Consumer Price Index.

If the minimum wage has a significant negative influence on the Consumer Price Index, it may indicate that the government or relevant body of authority has properly managed the minimum wage as an instrument of inflation control. A controlled increase in the minimum wage can reduce inflationary pressures because it can reduce production costs and limit the increase in prices of goods and services.

TABLE 1. Bootstrap Testing Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Minimum Wage -> Consumer Price Index	-0.872	-0.874	0.012	70.068	0,00

Although the minimum wage has a significant negative influence on the Consumer Price Index, it is important to

remember that there are many other factors that can affect the Consumer Price Index in Denpasar City. Factors such as supply and demand, production costs, government policies, changes in raw material prices, or changes in consumer habits can also play an important role in changes in the Consumer Price Index.

#### V. CONCLUSION

In this study, conclusions were obtained from the results of the tests that have been carried out, namely that the Minimum Wage significantly negatively affects the Consumer Price Index in Denpasar City. For future research, you can develop this research by adding intervening variables to explain the influence of these variables more clearly because in this study there are still different results from the hypothesis that has been proposed.

#### REFERENCES

- [1]. BPS.2023. Bali Dalam Angka. Bali: Badan Pusat Statistik Provinsi Bali
- [2]. Card, D., & Krueger, A. B. (1995). *Myth and Measurement: The New Economics of the Minimum Wage*. Princeton University Press.
- [3]. Mankiw, N. G. (2014). *Principles of Economics* (7th ed.). Cengage Learning.
- [4]. Perloff, J. M. (2017). *Microeconomics* (8th ed.). Pearson.
- [5]. Sabia, J. J., & hauser, R. L. (2010). Minimum Wages and Nonemployment: Evidence from Panel Data on State Minimum Wage Laws. *Industrial Relations: A Journal of Economy and Society*, 49(1), 21-54.
- [6]. Suharno, A. D.,ahman, R., & Sarwedi, B. (2017). The Impact of Minimum Wage Policy on Inflation: Empirical Evidence from Central Java Provinces, Indonesia. *International Journal of Economics, Commerce and Management*, 5(1), 1-8.