

# INTER-IMPORT DEPOSITION IN THE BALI ECONOMY

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**Abstract:** This study aims to determine: trends in leakage of imports of Bali and their effects on Bali's GRDP, the nature of elasticity of leakage of imports between regions of Bali. Bali was chosen as a research area, because its economic growth is above national, as a world tourist destination, Bali's economy is open, population growth is high (above 2% per year) and Bali's GRDP is always increasing. The developing economy of the population will encourage their ability to import various types of commodities to meet consumption needs. This reality inspired researchers to focus on researching the problem of leakage in Bali imports. The analytical tool used is linear trend, multiple linear regression models, and the coefficient of income elasticity. Based on the results of this study it is expected to be able to reveal, that the trend of import leakage in the Bali economy is predicted to increase in the future, then the GRDP has a positive effect on leakage of imports between regions, and the income elasticity of leakage of imports between regions is thought to be elastic. This elasticity indicates that imports of commodities between Bali are luxury goods, and these commodities are used to meet the consumption of local residents. Based on the findings of this study it is suggested, the population saves more in consuming types of consumer products, including fuel, motor vehicles. and if necessary, use public transportation as a saving step forward.

**Keywords:** Import leaks, Bali's economy.

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## I. INTRODUCTION

Mercantilism ideology is rooted in government activities in the economy and centered on trade. This flow holds that trade is a source of wealth for a country. Their perception is that trade activities can benefit the country. The trade benefits are obtained by the state on the condition of export > import, using gold, silver and using the country's own transportation tools. Besides that the country also runs a policy of import restrictions, the use of foreign exchange (gold, silver) which is minimal for imports (Alzheimer's, O., 2009).

The philosophy of mercantilism has a contributory relevance to economic development, and up to now many developed countries have adopted it. The Province of Bali in enhancing the regional economy, also relies on trade contributions. The component of net export (or export > import) in Bali's GRDP shows a positive contribution. Bali's overseas export data for February - 2018 reached US \$ 45,260,970 and increased from US \$ 45,150,313 February - 2017, up 0.25 percent. At the same time Bali's foreign imports were US \$ 10,026,444 February - 2018, and increased from US \$ 4 573 455 February - 2017, up 119.23 percent. During (2017 - 2018) Bali's foreign net export value was a surplus of US \$ 35,234,526.

In contrast to net exports abroad, net imports (imports > exports) between Bali regions during (2013-2017) were positive. This indicates that for five years the economy of Bali experienced a leakage of imports between regions. Net imports between the regions of Bali reached IDR. 38129.41 billion (2013), then to IDR. 36648.43 billion (2017) or an average increase of IDR. 33895.81 billion per year. In 2017 inter-regional leakage of imports to Bali's GRDP reached 22.27 percent.

Observing the development of net imports between the positive regions of Bali during (2013-2017) it can be revealed, that leakage of imports between regions of Bali has increased. The causal factor is suspected to be due to the high dependence of the Balinese economy on imports between Bali regions which reached 51.87 percent (2016).

The main problems proposed are formulated as follows: 1) What is the trend of leakage of imports of Bali so far? 2) What is the effect of import leakage on Bali's GRDP? 3) How big is the income elasticity of Bali import leakage? Research Objectives are 1) To analyze the coefficient of leakage trends between inter-regional imports in Bali. With the results of the analysis of the trend coefficient, it can be predicted further the direction of its development in the future. 2) To analyze the effect of import leaks between Bali regions on Bali's GRDP. The tendency of import leakage is important to know to estimate foreign exchange needs in importing products outside Bali. 3) To analyze the nature of people's income elasticity towards leakage of imports between Bali regions. This public income response needs to be known to uncover the community's need for imported products that cannot be produced in Bali, and to monitor the large income of local people flowing outside Bali.

## **II. LITERATURE REVIEW**

### ***A. Teori Perdagangan Merkantilisme***

Mercantilism is an economic philosophy that underlies European colonial policy from the beginning of the 16th century to the 18th century. This economic philosophy broadly emphasizes that free trade and trade are important activities aimed at increasing the country's wealth by imposing government regulations on all the commercial interests of the country. Mercantilism ideology assumes that national power can be maximized through import restrictions by implementing tariff policies and maximizing exports (Hady, Hamdy, 2001). According to mercantilism experts (Alzheimer's, 2009), the view of the state should be to encourage exports and reduce imports by way of tariffs, quotas, subsidies, taxes, and others. Mercantilism also believes that to achieve a favorable trade balance, there must be government interference in the domestic economy in order to stimulate production, as well as foreign trade must be regulated and there must be a customs ban imposed on manufactured goods from abroad, and imports of materials Cheap raw materials must be encouraged for the manufacturing sector to increase exports.

Landreth and Colander (1989) revealed that Mercantilism was the name given to a number of literatures about 250 years ago and was practiced in economics between 1500 and 1750. These periods were marked by an increase in economic activity; as a result of the destruction of feudalism economically, socially, and politically, which provides a way to increase trade, the growth of cities, and the growth of the state / nation and individual activities that are less controlled by the feudal habits and traditions of society and by church authorities.

Tamuno (2006) argues that Mercantilism is not merely a theory but rather an economic thought, assuming that total wealth is determined so that other profits are losses of others. In line with this point of view, a country's profit or loss profile lies in the severity of the trading period. Trade requirements are important, assuming wealth can only be of national size, and the method of increasing real national wealth comes from: increasing production, increasing exports, decreasing domestic consumption, and paying low wages which makes production costs reduced in order to enjoy comparative advantage.

Thomas J. Dilorenzo, 2006 revealed that mercantilism is a merchant economic philosophy with the aim of minimizing harmful import objects and maximizing exports and other trade activities that increase the country's income. This implies that to achieve the goal of mercantilism in a country, a favorable trade balance is desirable. As a highlight of this matter, Adoghor (2004) states that certain factors play a role in the presence of mercantilism. The factors referred to are economic, political, cultural and scientific religious factors. All of these factors underlie this school of thought which aims to strengthen the nation (state), a favorable trade balance and exploitation of the nation's natural resources.

### ***B. Teori Perdagangan Antar Daerah***

Every region on earth has limitations and differences in natural and social resources between regions, including in all regions of Indonesia. These limited commodity resources result in domestic trade flows, both local, interinsular and inter-provincial trade. Trade between countries and trade between regions is essentially an exchange of goods and services between regions. Inter-regional trade is trade conducted between different regions in the same country. Inter-regional trade is also called domestic trade. Examples of trade between the provinces of Java and Bali and others in Indonesia.

Based on the results of research other researchers related to import problems here appear to be different but there are also little similarities with the results of this study. The similarity of research, among others, is viewed from the point of view of the occurrence of import activities between regions in Indonesia, namely between provinces as well as in other countries. Their research generally emphasizes the problem of the influence of changes in people's income where there is a measure of using economic growth in addition to being measured based on regional / regional and national income

towards imports. Whereas in this study the emphasis is more on the degree of openness of Bali's regional imports, considering that Bali has been increasingly open to international trade lately when viewed from the increase in imports. In addition to emphasizing this research also on the trend of regional imports of Bali, also see the nature of income elasticity ( $\eta_I$ ) of imports. The regional imports of Bali discussed consisted of: (i) imports between provinces in Bali domestically (ii) imports of the province of Bali from abroad. The import commodities of Bali Province revolve around basic needs for the fulfillment of public consumption, most of which cannot be produced in the local area.

Characteristics of trade between Java and Bali, inter alia:

1) Voluntary transactions (Boediono, 1980) but in this context many are determined through the policies of the local government (Pemda), in an effort to meet the needs of local communities where imported products are not produced in their regions.

2) The purpose of trade or exchange of goods. This exchange aims to procure goods in Bali that do not have supplies, and bring in pro-surplus Java.

### **C. Empirical Review**

As a reference in writing this empirical review, there are several studies which form the basis of observing the problem and its results. That is: Laura LaHay revealed that mercantilism is economic nationalism for the purpose of building a rich and powerful country. Countries try to maintain a balance of imports to bring money to the country and exports to maintain domestic work. The theory states that the economy needs to export more than imports to remain economically viable and politically viable (Dana Griffin, 2018). Alzheimer, O., (2009) observed that the main problem in the balance of trade mechanisms is that a country must encourage exports and reduce imports by way of tariffs, quotas, subsidies, taxes, and the like, to achieve a favorable balance.

According to Lindert and Kindenberger (1995) when a country's GDP increases, it will trigger people's purchasing power to become greater. This causes the marginal tendency to import (Marginal Propensity to Import / MPI) to increase. MPI is the ratio of changes in the value of imports to real national income (at constant prices) which causes changes in imports.

Indonesia is currently more concentrated on imports, because imports are very influential in GDP especially after the industrialization process. According to Eko Atmadji (2004) the increase in imported Indonesian products is inseparable from the effects of the economic crisis. Indonesia is in a high level of import vulnerability. Septiana (2011) who revealed that GDP has a significant effect on imports in Indonesia from the United States. Real GDP greatly influences import demand (Doroodian et al (1994).

The Provincial Government of East Java will continue to enhance the role of the Small and Medium Industries (IKM) in order to increase the value of inter-island trade which currently totals Rp 971 trillion. Data records of total inter-island trade in East Java when compared with total imports to East Java still experienced a surplus of Rp100 trillion so that it was still quite profitable (M Ardi Prasetiawan, 2017). Development between the islands, the Government of South Sulawesi and the Provincial Government of East Java, has increased trade very significantly even in 2016 the South Sulawesi surplus with East Java was Rp1, 379 trillion (Syahrul Yasin Limpo, 2017). Bali seen from net imports shows a positive value until 2017 (22.27 percent). This shows that Bali in trade between islands is still deficit and highly dependent on products outside Bali (BPS - Bali Province, 2017). Intiwart.Com (2017) revealed that trade between regions has a strategic role for the regional and national economy. Soekarwo, Governor of East Java, said that inter-regional trade strengthens the domestic market from free market attacks.

Empirical studies relating to economic interactions between regions in Indonesia, carried out by several parties with different regional divisions and different time periods, but showed a phenomenon of economic disparity between regions in Indonesia which is more or less similar. The researchers in question, among others: Wuryanto (1996) used the Computable General Equilibrium (CGE) model to divide the study area into a macro-Java region and a macro-Outer Java region, and each macro region is further subdivided into a micro region. Java's macro region consists of three micro regions, namely: West Java, Central Java, East Java. While the macro region outside Java consists of four micro regions, namely: Sumatra, Kalimantan, Sulawesi, and other islands. Hadi (2001) uses the Interregional Accounting Matrix (IRSAM) model dividing the study area into Western Regions of Indonesia (covering Java and Sumatra) and Eastern Regions of Indonesia. Achjar et el (2003) used the IRSAM model with study areas in Java, Sumatra, Kalimantan, Sulawesi, and other islands outside Java. Whereas Alim (2006) uses the IRSAM model with Java and Sumatra study areas.

In general, the results of the empirical study as mentioned above show that the widening economic disparities between regions stem from the following matters: (i) More than 80 percent of manufacturing industries established in Indonesia are located in Java and in Sumatra around 12-13 percent with more or less equal value added contribution; while the remaining less than 10 percent (between 7-8 percent) are in other regions. (2) Areas outside Java generally export primary products to Java and import secondary products from Java, where the value of imports outside the Java region is far greater than the value of exports. This has made the trade balance in regions outside Java experience a deficit, while the Java trade balance has a surplus. This trade balance imbalance becomes worse when the relative prices of primary products are lower than secondary products. (3) Production activities of economic sectors outside Java are very dependent on inputs originating from Java, whereas vice versa they are not. This results in a multiplier effect that the Java economy receives on the economic progress of the Outer Java regions is very large, whereas the opposite is not. In other words, the spillover effect that is caused by the economic progress of the regions outside Java to the Java economy is far greater than vice versa. This condition makes the economic gap between regions become wider.

A study from Ibrahim, et al, 2011, concluded that in terms of supply in the main regional sectors in Indonesia which include food commodities are more caused by high raw material components, which are not only caused by increased domestic demand growth, but are also influenced by commodity prices international. Meanwhile, the results of research from Firdaus and Widiasanti (2010) show that factors affecting trade between provinces in Indonesia, especially Java and other provinces, are population, transportation costs, real GRDP.

### III. RESEARCH METHODS

Bali is a research area. The reasons proposed include: (a) Bali is a world tourist destination, (b) Bali's economy is still very dependent on products outside the region, namely the proportion of imports between regions above 20 percent of GRDP, (c) the need for imports between regions has increased to future, due to the population of Bali continues to grow (above 1.5 percent per year).

In this study, time series data from 1990-2017 were used as samples. During that period the Province of Bali experienced various economic disruptions, such as: the economic crisis (1997/1998 and 2007/2008), the Jimbaran Kuta - Bali bombings (2002 and 2004), the global crisis of Greece and the United States (2012) and the eruption of Mount Agung 2017. Bali's economy has had a significant impact due to the incident, even foreign and inter-regional trade slowed slightly in the last year

#### Data Analysis Method

##### 1) Trend of leakage of imports in Bali Province

The trend of import leakage trends:  $KI = bo + b1Sc + b2 Tr \dots\dots\dots (1)$ .

Note: KI = import leakage between regions of Bali is the difference between exports and imports between regions (percent), bo = constant, b1Sc = economic shock coefficient, b2Tr = trend coefficient (trend of leakage of imports between regions of Bali).

IC data are used to estimate the extent of exposure to imports across Bali. The results of this trend coefficient analysis show the estimated percentage change in community income, which is used to meet the demand for imported goods across Bali or how big the impact of the demonstration effect on regional economic conditions. If the percentage change in public income is higher, the greater the import exposure between regions of Bali. This means that the proportion of the use of public income as measured by Bali's GRDP, is increasingly large for the payment of imports between regions. This is a sign that the effect of the population demonstrations is getting bigger through the consumption patterns of imported products between regions.

Bali's GRDP is analyzed with the following equation:

$$PD = ao + a1M + a2KU + a3IN + a4WS + a5SE + er \dots\dots\dots (2)$$

Note: PD = Bali GRDP at current prices (IDR); M = leakage of imports between regions (percent); KU = IDR / US \$, IN = inflation (percent), SE = economic shock = dummy variable (ie: the value of 0 under normal year conditions and the value of 1 year of shaking conditions), er = error term (error forming regression models).

The elasticity of public income towards leakage of imports between Bali regions, was analyzed using the double log equation (Gujarati, Damodar, 2003), as follows:

$$\text{Log } M = \text{Log } b_0 + b_1 \text{Log } PD + a_2 \text{Log } PP + a_3 \text{Log } IN + a_4 \text{SC} + \text{Log } Er \dots\dots\dots (3).$$

Where: M = Leakage of imports between regions (percent); PD = Bali GRDP at current prices (IDR), PP = Population (people), IN = inflation (percent), and Er = error term (error forming the regression model).

In equation (3) the coefficient  $a_1$  = income elasticity ( $\eta_I$ ) against leakage of imports between regions. The coefficient  $\eta_I$  is calculated as follows: assume zero (0): Log  $b_0$ ;  $a_2$  Log.PP;  $a_3$  Log.IN; SC. So Equation (3) becomes:

$$\text{Log } M = a_1 \text{PD Log or } \eta_I = a_1 = M \text{ Log} / \text{PD Log} \dots\dots\dots (4).$$

In differential Log M = (1 / M) ( $\Delta M$ ) and Log PD = (1 / PD) ( $\Delta PD$ ). Then this result is substituted into equation (4). So the coefficient of income elasticity ( $\eta_I$ ), is:

$$\eta_I = ((1 / M) / \Delta M) / ((1 / PD) / \Delta PD) \text{ or: } \eta_I = (\Delta PD / \Delta M) (M / PD) \dots\dots\dots (5).$$

#### IV. ANALYSIS RESULTS AND DISCUSSION

##### A. Estimated GDP equation (adhb)

The GRDP (adhb) equation is arranged, as follows:

$$PE_t = b_0 + b_1 KI_t + b_2 KU_t + b_3 IN_t + b_4 WA_t + b_5 SE_t + \epsilon_r \dots\dots\dots (2).$$

The results of data analysis of Annex II show the following.

By using the results of analysis of Annex II, each regression coefficient is obtained, namely:  $b_0 = - 14100,511$ ;  $b_1 = - 1,461$ ;  $b_2 = 0.903$ ;  $b_3 = - 270,107$ ;  $b_4 = 0.028$ ;  $b_5 = 2518,730$ . By using this estimation result, the GRDP equation (adhb) becomes:

$$PE_t = - 14100,511 - 1,461 KI_t + 0,903 KU_t - 270,107 IN_t + 0,028 WA_t + 2518,730 SE_t$$

The coefficient of this regression equation is interpreted statistically, as follows.

- (1) For the coefficient  $b_0 = - 14100,511$ , it means that on average the GRDP (adhb) of the area of Bali (PE) is estimated to decrease by IDR. 14100,511 billion per year, if it is assumed a change in the independent variable ( $KI_t$ ,  $KU_t$ ,  $IN_t$ ,  $WA_t$ ,  $SE_t$ ) is stated as zero (0).
- (2) For the coefficient  $b_1 = - 1.461$ , it means that an increase in Import Leaks (KI) of IDR. 1 billion is expected to reduce the regional GDP (adhb) of Bali (PEt) by Rp. 1.461 billion per year during the period (1984 - 2018).
- (3) For the coefficient  $b_2 = 0.903$  means that an increase in the exchange rate ( $KU_t$ ) of IDR 1,000 to 1 US \$, is expected to increase the regional GDP (adhb) of Bali (PEt) by Rp 0.903 billion per year during the period (1984 - 2019).
- (4) For the coefficient  $b_3 = - 270.107$ , it means that an increase in inflation in the relatively small area of Bali by 1 percent is expected to reduce the regional GDP (adhb) of Bali by Rp 270.107 billion per year during the period (1984 - 2018).
- (5) For a coefficient of  $b_4 = 0.028$ , it means that an increase in the arrival of foreign tourists to Bali by 1000 people is expected to increase the regional GDP (adhb) of Bali (PEt) by Rp 28 billion per year during the period (1984 - 2018).
- (6) For the coefficient  $b_5 = 2518,730$  means that even though there are economic disruptions ( $SE_t$ ) such as; economic crises, terrorists, epidemics, natural disasters and others), it is estimated that the regional GDP (adhb) of Bali (PEt) will continue to increase by IDR. 2518.730 billion per year over the period (1984 - 2018).

By using statistical tests on the estimated results of the regression coefficients, the results are known to be significant at the 5 percent significance level, namely for constant values, and the independent variables namely Import Leakage (KIT) and the number of tourists ( $WA_t$ ) each have significance (sig. ) amounting to: (0,003), (0,000) and (0,000) (see Appendix II). Meanwhile, for variables other than constants, import leaks and foreign tourists, were declared insignificant.

##### B. Estimation of Import Leakage Equations

The Import Leakage Equation (IC) is arranged, as follows:

$$KI_t = b_0 + b_1 PE_t + b_2 IN_t + b_3 PP_t + \epsilon_t \dots\dots\dots (3)$$

The results of data analysis of Annex III show the following.



By using the results of the analysis of Annex III, each regression coefficient is obtained, namely:  $b_0 = -31527,453$ ;  $b_1 = -0,361$ ;  $b_2 = -18,838$ ;  $b_3 = 12,209$ . By using this estimation result, the KIT equation becomes:

$$KIT = -31527,453 - 0,361 PEt - 18,838 INt + 12,209 PPt$$

The coefficient of this regression equation is interpreted statistically, as follows.

(1) For the coefficient  $b_0 = -31527,453$  means that on average Import Leakage (KIT) is estimated to decrease by IDR. 31527.453 billion per year, if it is assumed that changes in independent variables (PEt, INt, PPt) are expressed equal to zero (0).

(2) For the coefficient  $b_1 = -0.361$ , it means that an increase in the regional GDP (adhb) of Bali (PEt) of Rp. 1 billion, will reduce Import Leakage (KIT) by IDR. 0.361 billion per year during the period (1984 - 2018).

(3) For the coefficient  $b_2 = -18,838$  it means that an increase in inflation of 1 percent per year is expected to cause a decrease in changes in Import Leaks (KIT) of Rp. 18,838 billion per year over the period (1984 - 2018).

(4) For the coefficient  $b_3 = 12.209$ , it means that an increase in the population of Bali area of 1 million people per year is estimated to cause an increase in Import Leaks (KIT) of IDR 12,209 billion per year during the period (1984 - 2018).

By using statistical tests on the results of the estimated regression coefficients, the results are known to be significant at the 5 percent significance level, namely for constants, independent variables PEt and PPt. The significance value (Sig.) Of the constant is (0.044), then the PEt variable is (0,000) and for the PPt variable is (0.026). Meanwhile, for statistical testing of the Influence (INt) variable is not significant at the 5 percent significance level.

### **C. Estimation of the Bali Regional Income Elasticity Coefficient**

PDRB elasticity coefficient (adhb) in Bali (PEt) against Import Leakage (KIT). calculated using the formula:

$$\eta_I = (\Delta KI / \Delta PE) (PE / KI) = b_1 (PE / KI) \dots\dots\dots (4).$$

By using the KI equation above it is known, the value of  $b_1 = -0.361$ . As for the average value of PEt and PPt, the results of the following Annex III data calculation are used here.

The data in Annex III shows the average value of the GRDP (adhb) of the Bali region (PEt) is IDR. 52.833 billion per year, and the average value of Import Leaks (KIT) is minus IDR. 8,629 billion per year. Using these data, the coefficient of elasticity of Bali's regional income towards import leakage is:

$$\eta_I = b_1 (PE / KI)$$

$$\eta_I = -0,361 (52,833 / (-8,629)) = -0,361 (-6,123) = 2.21$$

So the GDP elasticity coefficient (adhb) of the Bali region against import leaks is 2.21 or greater than 1 (one), which means that the regional income elasticity coefficient is elastic (where:  $\eta_I > 1$ ).

### **D. Economic Meaning of the Results of Statistical Analysis**

#### 1) Results of the Import Leakage (KI) trend

Based on the results of the trend it is known that the development of Import Leakage in Bali, on average for the past 35 years will still continue, and is even expected to experience changes that continue to increase in the future. The increase in changes in Import Leakage occurred due to many factors, but one that appeared was the factor of natural resource limitations (SDA) owned by the Bali region, namely the Bai area was unable to produce and provide products or commodities needed by the population so the commodity had to be imported from the province or other regions. For example: daily population consumption commodities include: sugar, salt, fruits, bottled water / gallon, and others; building material commodities, including; cement, steel, tile, wall paint, etc., fuel commodities such as; gasoline, kerosene, petramax, petralite, gas, and others.

#### 2) Estimation results of the regional GDP (adhb) equation in Bali (PE)

The estimated results of the significant PDRB regression coefficient (ADHB) in the Bali area are the Import Leakage (KIT) variable and the number of foreign tourists (WAt). First, the Import Leakage is indicated to significantly reduce the efforts to increase the GRDP (adhb) of the Bali area, for the last 35 years. Increased leakage of imports between regions in Bali is interpreted as the regional income stream of Bali to other regions in Indonesia, which is used to purchase these

imported commodities every year. Estimation results show that the percentage change in the flow of funds to meet import needs between Bali, is greater than the percentage change in GDP (adhb) per year. This condition can certainly be a burden for the Bali region, because it must be able to increase the GRDP (adhb) in a significantly larger percentage, compared to import leaks that occur every year.

Secondly, the arrival of tourists to Bali seems to have a significant effect on the economy of Bali, this is indicated through an increase in the regional GDP (adhb) of Bali every year for the past 35 years. Going forward, to improve the economy of Bali, this region must always strive to increase the number of tourist visits to Bali, because the contribution of foreign tourists visiting foreign exchange is significant for the region as a world tourist destination. Therefore, the Bali region is said to have a very high economic dependence from the development of tourism until the last year. Bali Provincial BPS Data, Kwt. I - 2019 shows that the economic structure of Bali in the first quarter of 2019 was still dominated by category I businesses (providing accommodation and eating and drinking) with a contribution of 23.28 percent.

### 3) The estimated results of the Import Leakage equation (KI)

The estimation results of the KI equation show that the GRDP variable (adhb) of the Bali region (PEt) and population (PPt) is significantly influencing Import Leakage (KI). The GRDP (adhb) of the Bali region indicates that an increase in the GRDP (adhb) of the Bali area is believed to be able to reduce the burden of Import Leakage between the regions of Bali every year for the last 35 years. Therefore, the regional GDP (adhb) needs to be continuously improved in the future, so that the needs of imported commodities from other provinces or regions can be met, in order to meet the consumption needs of the population. Such as: daily consumption needs: granulated sugar, salt, bottled water or gallons, fuel; and the need for local industrial raw materials, namely gold, silver and others for the handicraft industry.

The population that has been increasing every year in the Bali region over the past 35 years, shows a significant effect on the increase in regional import leaks. This condition indicates that the increasing number of population means that there are also more needs for imported goods between Bali areas that are used to meet the needs of final consumption or intermediate consumption (industrial raw materials) of the population. The increase in population seems to be one of the causes of the increasing need for imports of commodities between Bali. Therefore, in the future serious handling of the following problems is needed, firstly increasing population and secondly increasing regional income in Bali.

### 4) The results of the regional income elasticity coefficient in Bali

The estimated results of the PDRB elasticity coefficient (adhb) of the Bali region against Import Keboroan (KI) are elastic, this indicates that the Leakage of Imports continues to increase every year for the last 35 years. The results of this estimate inform about the condition of imports of commodities between regions of Bali, as something that can not be avoided in the future. In addition, the import of commodities between Bali regions in real terms reveals that the import needs are not as basic needs (primary) of the population but as secondary needs that must be met. This happens, because the area of Bali is unable to produce and supply this kind of commodity, but the population of the area of Bali is in dire need for consumption.

## **V. CONCLUSIONS AND RECOMMENDATION**

Several conclusions can be made in this section, namely: 1) The development of Bali's regional import leaks will continue going forward. This type of commodity imports between regions is not produced in the Bali area, because Bali does not have the natural resources to produce these commodities. However, this commodity is needed by the population even though it is a secondary commodity. 2) Import leakage is predicted to continue to increase going forward. This information can be used as a basis for residents and local governments, to continue working to increase regional income, so as to offset the increased need for imported commodities between Bali regions, especially products that cannot be produced in their own regions. 3) The visit of foreign tourists as a tourism sector, until the last year has been a source of regional income for Bali. The tourism sector gives the biggest contribution in the regional GRDP of Bali compared to others. The number of foreign tourists who are quite a lot every year, is believed to have a role in increasing the need for imported products, to meet their consumption. 4) Population growth, which on average continues to increase every year, is one of the triggering factors for increasing leakage of imports across Bali so far. Moreover, supported by an increase in public income which is reflected through the GRDP which continues to increase every year. 5) The elasticity of Bali's regional income elasticities results in the population spending more of their income on imported commodities between the regions of Bali if their income increases. This indicates that imported commodities between Bali are products that are needed by the population to meet their consumption.

Some suggestions given below are adjusted to the conclusions. The intended advice is: 1) Population efforts are needed to minimize the consumption of imported commodities between regions of Bali, and even better if creative residents take advantage of imported products between regions of Bali through increased added value. For example, fuel products and motor vehicles are used more for work than for end consumption (relaxed). In this way the development of inter-regional leakage will be reduced in the future. 2) Residents and local governments continue to work to increase regional income, inter alia; by increasing the quality of human resources (HR) through the mastery of information and communication technology to be able to compete in the global economy, by developing a quality creative economy in the face of increasingly fierce business competition between regions and across countries. And others. 3) Tourism is the mainstay of Bali's economy at this time, because of that the population must maintain the preservation of culture and the environment as a support for the development of sustainable tourism. However, diversification of business activity activities is still needed going forward to avoid dependence on one sector such as tourism, given that this sector is frail with non-economic disturbances such as natural disasters, security, politics, and others. 4) Population growth is indeed necessary but the next generation produced must be of higher quality, especially in the mastery of technology, information and communication, in order to face increasingly fierce competition in the era of the global economy. Significant efforts are needed from the population and the government in increasing regional income through hard work, in order to maintain regional economic stability. Because of the efforts to increase regional income, it can be utilized to offset leakage of imports between Bali regions which continues to increase and drains a lot of regional income.

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