

DOMINANT FACTORS AFFECTING EMPLOYMENT OPPORTUNITIES IN INDONESIA

Muhammad Nur Afiat¹, Muhamad Armawaddin², Ahmad³

^{1,2,3} Faculty of Economic and Business, Universitas Halu Oleo, Indonesia

¹ email: fiatbroadband@yahoo.com

² email: muhamad.armawaddin@uho.ac.id

³ email: ahmad@uho.ac.id

Received: September 27, 2023; Accepted: December 1, 2024; Published: December 9, 2024
Permalink/DOI: <http://dx.doi.org/10.17977/um002v16i22024p063>

Abstract

The Classical and Keynesian debate over the equilibrium of the open economy continues today. This research uses Keynes's theory of income and Cobb-Douglas's theory of production. The purpose of this study is to examine and analyze the partial effect of consumption expenditure, government expenditure, investment, and net exports on employment opportunities in Indonesia. In particular, this study knows the dominant factors that affect employment opportunities in Indonesia. The data type uses panel data from 33 provinces and the period 2010-2022. Data analysis using panel data regression and selection variables and stepwise least square forward.

The results found that the best panel data regression estimation model is the "Fixed Effect Model (FEM)". The results of the influence test found that consumption expenditure, government spending, investment, and net exports were significant to employment opportunities. Only the variable direction of influence of government spending is negative. Of the four predictor variables, the consumption expenditure variable is the most dominant in influencing employment opportunities in provinces in Indonesia in 2010-2022.

Keywords: Keynes; Employment Opportunities; Panel Data Regression

JEL Classification: E12; E24; C23

INTRODUCTION

Economic growth is a picture of the dynamic aspects of an economy, which is to see how an economy develops over time so that it can find out the rate of economic growth in a country. Economic growth is closely related to the increase in per capita output but also related to total output (GDP) and population, so the output of the per capita increase must be analyzed by looking at what happens to the total output on the one hand or the population on the other (Arsyad, 2010).

The level of economic development of a country is seen from its national income. The increase in economic development carried out by each country must be directed to increase to stabilize national income. National income is the sum of

the final value of goods and services produced by the economy in a given period calculated based on market value.

In simple terms, economic transactions carried out by people in life can be divided into two groups, namely producers and consumers. The producer group uses factors of production that come from the consumer group and are used to produce goods and services. Consumer groups own factors of production such as land, labor, capital, and entrepreneurship given to companies and receive remuneration in the form of land rent, wages and salaries, capital interest, and profits. This remuneration received is called added value, which is then used by consumers to buy goods and services from producers for consumption. Transactions from both groups occur continuously and form economic cycles that can enlarge and shrink (Badan Pusat Statistik, 2023). Furthermore (Central Statistics Agency, 2023) goods and services used both for consumption and for capital formation do not originate from within the country. In contrast, goods and services are produced domestically but partially used abroad reflecting an open economy.

Equilibrium in an open economy is achieved if aggregate demand equals aggregate supply assuming full employment. Aggregate demand is defined as the total demand for goods and services from all consumers in a region. While the aggregate supply is the total production of goods and services in the economy. The high and low consumer demand for goods and services depends on the size of the income obtained by these consumers. Conversely, from the producer side, the level of production of goods and services is largely determined by the availability of production inputs and one of them is labor input. Therefore, researchers are interested in analyzing how the relationship between employment opportunities and national income in terms of expenditure. Concretely it is how the relationship between employment opportunities and consumption expenditure, government spending, investment, and net exports.

The relationship analysis is based on Keynes's theory of national income from the demand side and the Cobb-Douglas theory of production from the supply side. Keynes's theory of national income formulated that national data collection is expressed in terms of identity equations, $Y = C + I + G + X - M$ which is the source of Keynesian legitimacy for government and economic interference. The equation can be analyzed that an increase or decrease in government spending, consumption expenditure, investment, and net exports, can increase or decrease national income. Government spending is one of the elements that express aggregate demand. This concept is known as identity $Y =$ national income while describing aggregate supply. The variable on the right represents an aggregate request. $G =$ government expenditure. Comparing G with Y which observes over time can determine how much government spending contributes to the formation of national income (Arsyad, 2010).

The employment opportunity model can be explained from two points of view, namely from classical theory and Keynesian theory. Classical theory sets forth their view of employment opportunity, namely that the level of output and equilibrium prices can only be achieved if the economy is at the level of full employment. Meanwhile, equilibrium with full employment can only be achieved through the operation of free market mechanisms. Thus, the existence of a market mechanism that works freely without government interference is a necessary

condition for achieving a balance with full employment opportunities. This balance with full employment according to the classicists is the ideal or normal condition of an economy. If there is unemployment in the economy, then it is only a temporary symptom or phenomenon, that in the long run will disappear by itself through the free working of market mechanisms (Tandiawan et al., 2012).

Employment opportunities, in Keynes's view, are different from the classics. According to Keynes, economic activity depends on demand, that is, it depends on the aggregate expenditure or expenditure that the economy makes at a given time. Defined as aggregate expenditure is expenditure made to buy goods and services produced by an economy in a certain period, and can only be measured for a certain year (Tandiawan et al., 2012).

The theoretical review in this study refers to Keynes's theory of income and the Cobb-Douglas model of production. Keynes's income theory states that income (Y) is a function of household (C), government (G), firm (I), and other countries' (X-M) consumption expenditures. Keynes's revenue model is formulated in equation (1):

$$Y = C + G + I + (X - M) \dots (1)$$

Furthermore, the Cobb-Douglas theory of production states that production output (Z) is a function of capital (K) and labor (L). The Cobb Douglas production model is formulated in equation (2):

$$Z = K^\alpha L^\beta \dots (2)$$

Assuming the capital (K) is constant, then (2) changes to (3):

$$Z = aK^\alpha \dots (3)$$

Where a = capital. In the context of provinces in Indonesia, the variable Y in (1) is the provincial income in Indonesia, and Z in (2) is the amount of all goods and services produced by the province, so it can be formulated that $Y = Z$. Thus, based on Keynes's national income model and Cobb-Douglas production model, this study can be formulated:

$$Y = Z \\ C + G + I + (X - M) = aK^\alpha \dots (4)$$

Based on the formulation of the research model in equation (6), the economic model that is used as the basis for analyzing the relationship between employment opportunities and consumption expenditures, government, companies, and abroad is an open economy model.

An empirical review of the relationship between consumption expenditure and employment using different research subjects. Consumption has a significant relationship with employment opportunities in East Kalimantan province (Fitriyono & Hadiyanti, 2019). Another study consistent with this study also found that household consumption expenditure has a positive and significant effect on employment opportunities (Untari & Marhaeni, 2019). The results of

different studies, namely: Household consumption directly has a positive and insignificant effect on employment opportunities (Zakki & Jiuhardi, 2022). Although there is a gap in research results related to the relationship between consumption expenditure and employment opportunities, researchers believe that consumption expenditure has a positive and significant relationship with employment opportunities.

Furthermore, the relationship between government spending and employment opportunities is empirically proven by: (Buana et al., 2019), (Danawati et al., 2016), (Endang Astuti, 2011), (Ginting, 2019), (Harijono & Utama, 2016), (Ginting, 2019), (Makna, 2016), (Suindyah D, 2018). Other empirical studies related to the relationship between Investment and Employment Opportunities, namely: (Dharma & Djohan, 2015); (Danawati et al., 2016); (Diantari & Wirathi, 2017); (Eliza, 2016); (Kartika, 2016); (Rahmawati, 2013); (Tandiawan et al., 2012); (Surani et al., 2021); (Wibawa & Purbadharmaja, 2018); (Yusrizal et al., 2014); (Zakki & Jiuhardi, 2022). And Export Relations and Employment Opportunities, namely: Research Agung & Rahmi (2021): Export variables have a positive and significant effect on labor in West Java Province in the year 2007- 2021.

Analysis of the relationship between employment opportunities and consumption expenditure, government spending, investment, and net exports have been done by many previous researchers. Research (Zakki & Jiuhardi, 2022): The effect of household consumption and investment and government spending on GDP and Employment Opportunities. Penelitian (Agung & Rahmi, 2021): The Effect of Exports, PMDN Investment, and FDI Investment on Employment Opportunities in West Java Province in 2007-2021. However, the model of the two researchers has not fully applied Keynes's identity equation to national income theory. In addition, there were differences in the results of previous studies.

Therefore, this study aims to elaborate on the model of the two researchers by applying Keynes's model of national income identity equality. Furthermore, to analyze the relationship with employment opportunities using regression models of panel data and provincial subjects in Indonesia in 2010-2022. In particular, the study aims to determine the most dominant variables affecting employment opportunities using methods of "Variable Selection and Stepwise Least Square-Foward". Based on the research objectives and theoretical framework, the hypothesis proposed is: (1) consumption expenditure has a significant effect on employment opportunities. (2) government spending has a significant effect on employment opportunities. (3) Investment has a significant effect on employment opportunities. (4) net exports have a significant effect on employment opportunities. (5) the dominant factor affecting employment opportunities is consumption expenditure.

METHOD

Data

This study used data sourced from the Ministry of Finance of the Republic of Indonesia and the Central Statistics Agency. The research data is accessed from the websites of the two institutions. This type of data uses panel data with cross-section data from provinces in Indonesia and series 2006-2022. Regarding cross-

section data, not all provinces were made the subject of research because of the existence of new provinces in the observation period. Thus, the number of provinces that are the subject of research amounts to 33 provinces, namely: Aceh, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, Kep. Riau, Dki Jakarta, Jawa Barat, Jawa Tengah, Di Yogyakarta, Jawa Timur, Banten, Bali, Nusa Tenggara Barat, Nusa Tenggara Timur Kalimantan Barat, Kalimantan Tengah, Kalimantan Selatan, Kalimantan Timur, Kalimantan Utara, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo, Sulawesi Barat, Maluku, Maluku Utara, Papua Barat, Papua.

Variables and Their Measurements

The variables of the study consist of employment opportunities (dependent variable), consumption expenditure variables, government spending, investment, and exports (independent variables). The operationalization of the five variables is:

1. Employment Opportunity (AK) is the number of employed people divided by the labor force in the province each year (person/year).
2. Consumption Expenditure (CS) is the nominal value of household/community expenditure in the province each year (IDR / year).
3. Government expenditure (G) is the nominal value of provincial government expenditure each year (IDR / year).
4. Investment (I) is the nominal value of the investment in each province in Indonesia every year (IDR / year).
5. Net export (EXPORT) is the nominal value of the net export expenditure of each province in Indonesia each year (IDR / year).

Panel Data Regression

Panel data regression models were formulated based on Keynes's income theory and Cobb-Douglas production theory. Based on the model in the theoretical review section, this research model is:

Common Effect Models (CEM)

CEM is an OLS panel data regression model and is formulated:

$$AK_{it} = a_0 + b_{1t} CS_{it} + b_{2t} G_{it} + b_{3t} I_{it} + b_{4t} EKSPORN_{it} + e_{it} \dots (1)$$

Fixed Effect Models (FEM)

According to Saragih et.al (2005), Estimation (1) depends on assumptions about intersection points, slope coefficients, and error terms. There are several possible estimates of the fixed effect, namely: (a) all coefficients are constant between time and panel members, (b) Slope coefficients are constant but intersection points vary between panel members or least squares dummy variable (LSDV), (c) Slope coefficients are constant but intersection points vary between panel members and time, (d) All coefficients vary between panel members, and (e) All coefficients vary between panel members and time. Of the five possibilities, this study uses the second possibility using pooled unbalanced data, namely: the slope coefficient is constant but intersection points vary between

panel members or least squares dummy variable (LSDV). Although the cutoff points differ between panel members, the time is no different. The LSDV regression model is:

$$AK_{it} = \beta_{0i} + \beta_{provinsi1}D_{provinsi1} + \dots + \beta_{provinsi33}D_{provinsi33} + \beta_1 CS_{it} + \beta_2 G_{it} + \beta_3 I_{it} + \beta_4 EKSPORN_{it} + \mu_{it}$$

with $D_{provinsi1} \dots D_{provinsi33}$, each variable dummy $D_{provinsi}$ = 1 for district 1 and 0 for other provinces. Model (2) is also called the provincial covariance model Random Effect Model (REM)

Knowledge of dummy variables in LSDV models requires in-depth knowledge of the meaning of dummy variables to encourage the use of error component models (ECM) or random effect models. The basic idea of this model is:

$$AK_{it} = \beta_{0i} + \beta_1 CS_{it} + \beta_2 G_{it} + \beta_3 I_{it} + \beta_4 EKSPORN_{it} + \mu_{it}$$

With $\beta_{0i} = \beta_0 + \mu_i$, $i = 1, 2, 3, \dots, N$, Substitution $\beta_{0i} = \beta_0 + \mu_i$ to (3) and generate a regression model:

$$AK_{it} = \beta_{0i} + \beta_1 CS_{it} + \beta_2 G_{it} + \beta_3 I_{it} + \beta_4 EKSPORN_{it} + u_i + u_{it}$$

$$AK_{it} = \beta_{0i} + \beta_1 CS_{it} + \beta_2 G_{it} + \beta_3 I_{it} + \beta_4 EKSPORN_{it} + \varepsilon_{it}$$

The error term in (5) consists of two components, namely the cross-section-specific component of districts and cities in Southeast Sulawesi Province (μ_i) and the error component (μ_{it}). The error component (ε_{it}) is a combination of time series error and cross-section error.

- a. Regression Model Selection Determination of the estimation model between CEM and FEM. Test using Chow Test. The test method is to compare the probability cross-section F and alpha 0.05. The test criteria are: if the probability cross-section F is greater than the alpha value is 0.05, then the estimation model used CEM. Conversely, if the probability cross-section value is F smaller than alpha, then the estimation model used FEM.
- b. Determination of which estimation model between FEM and REM using the Hausman Test. The test method is to compare Probability value chi-square statistics and alpha. The test criterion is if the value probability chi-square statistics is smaller than alpha 0.05, hence the estimation model used FEM. Conversely, if the probability value chi-square statistic is greater than alpha 0.05, hence the estimation model used by REM (Widarjono, 2007).
- c. Determination of which estimation model is between REM and CEM using the LM Test. The test method is to compare the probability F statistics and alpha values. The test criterion is that if the probability F statistics value is smaller than alpha 0.05, then the estimation model is used by REM. Conversely, if the probability value of the F statistic is greater than alpha 0.05, then the estimation model used CEM. This test will be carried p-value F-statistic, H_0 accepted (The variables of consumption, government spending, investment, and net exports have a partially insignificant effect on employment opportunities; depending largely on the results of the Chow and Hausman tests).

If the results of the Chow or Hausman test recommend CEM, then the LM test is used otherwise not used.

Test the hypothesis

Hypothesis testing will be carried out after the best estimation model is selected. The hypothesis test is carried out by comparing the p-value with an alpha value of 5% with the test criteria:

1. If the p-value of the t-statistic is greater than the alpha value %, then the hypothesis is rejected.
2. If the p-value of the t-statistic is less than the alpha value of 5%, then the hypothesis is accepted.

Dominant Factor Test

Determination of which variables among the variables of consumption expenditure, government spending, investment, and net exports most dominantly affect employment opportunities using the Variable Selection and Stepwise Least Square-Forwards method using the Eviews 12.0 program. The Stepwise-Forwards method is started without additional regression in regression,

- 1) Sedentary criteria variable filtering, alpha 5%.
- 2) Add variables and compare the lowest probability value with alpha.
- 3) Variables with a p-value greater than alpha will be selected.
- 4) Add the next variable, and then compare its probability value and the previously selected variable.
- 5) Variables whose p-value is higher are removed.
- 6) Repeat rare 4 until the number of selected variables is complete.
- 7) The selected variable is the most dominant influencing variable.

RESULTS AND DISCUSSION

Descriptive Analysis

Job Opportunities

Employment opportunities are defined as the participation rate of the provincial labor force in Indonesia in 2010-2022. The average employment opportunities by province in Indonesia are shown in Figure 1.



Figure 1. Job Opportunities (AK)

Employment opportunities are relatively evenly distributed across all provinces in Indonesia, with provinces with the highest employment rates in Papua and Bali Provinces. The lowest provinces of West Java and South

Sulawesi. This condition is caused because job opportunities are proxied by AK where it is determined by the size of the available labor force.

Household Consumption Expenditure (CS)

Consumption expenditure is defined as all expenditures on goods and services by residents of a region, both those carried out inside and outside the domestic territory of a province in Indonesia in 2010-2022. The average consumption expenditure by province in Indonesia is seen in Figure 2.

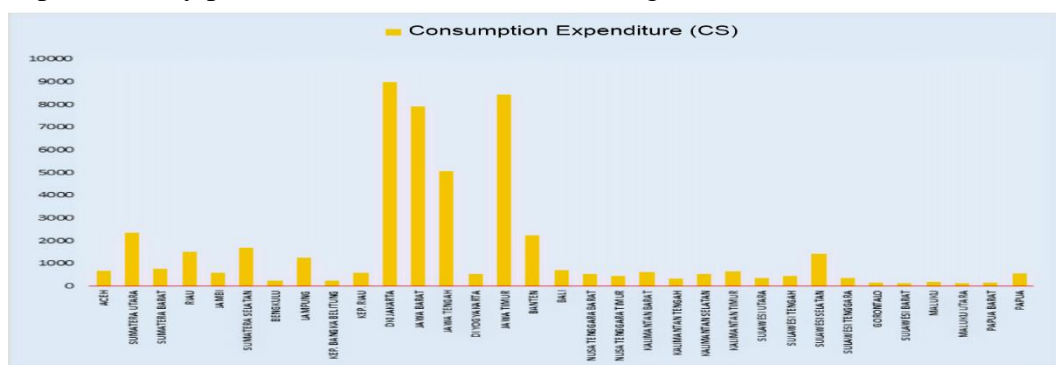


Figure 2. Consumption Expenditure (CS)

Figure 2, It can be seen that consumption expenditure is highest in DKI Jakarta Province, then followed by East Java and West Java. The high consumption expenditure in the province is correlated with the population whereas the three provinces are the provinces with the largest population in Indonesia.

Government Expenditure (G)

Government expenditure is defined as the Consumption Expenditure of the Provincial Government, Regency / City Government, and Village Government / Village / Nagari in the province and the Consumption Expenditure of the Central Government which is part of the Provincial Government in Indonesia in 2010- 2022. The average government expenditure by province in Indonesia is seen in Figure 3.

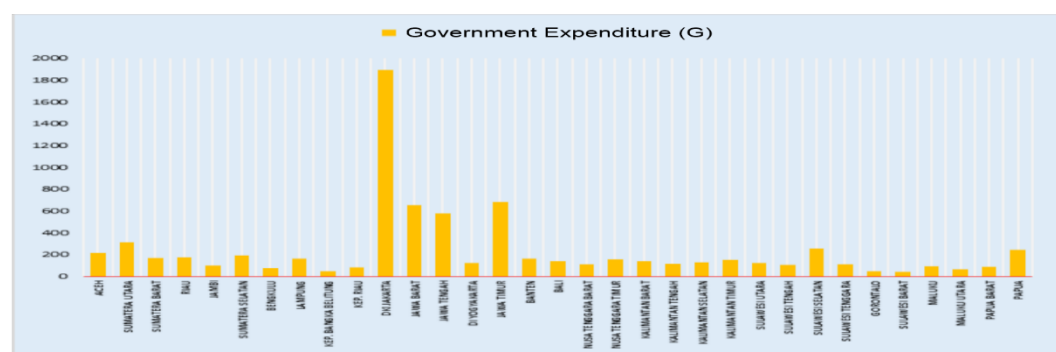


Figure 3. Government Expenditure (G)

The highest government expenditure is the DKI Jakarta province. This is because DKI Jakarta is the capital of the country and the center of government so development expenditure is the highest compared to other provinces in Indonesia. In addition, in terms of development financing, DKI Jakarta does not rely on transfer funds as other provinces in general.

Investment (I)

Investment is defined as all capital additions made by the government and non-government sectors (households that have businesses, LNPRT, and corporations) in provinces in Indonesia from 2010-2022. The average investment by the province in Indonesia is seen in Figure 4.

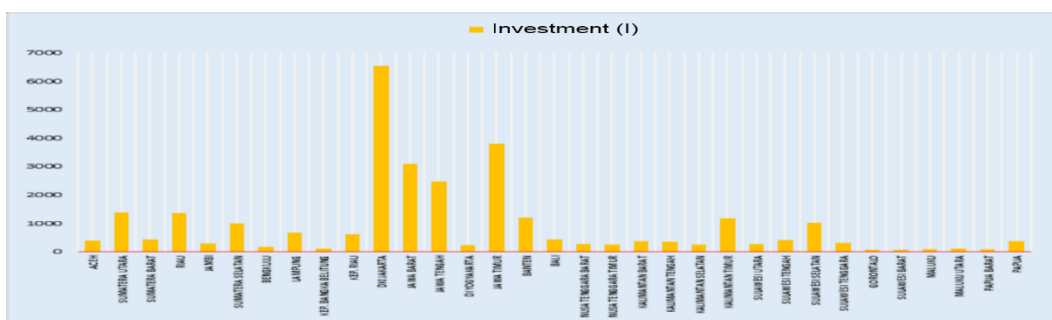


Figure 4. Investment (I)

Figure 4, shows that the provinces with the highest investment are in DKI Jakarta and East Java Provinces. These two provinces with the most economic and industrial centers compared to other provinces so investment expenditure is certainly high as well.

Net Exports (EKSPORN)

Net exports are defined as the difference between the amount of exports minus imports. Export-Import in GRDP includes exports to and from foreign residents as well as import exports between provinces in Indonesia in 2010-2022. Average net exports by province in Indonesia are seen in Figure 5.

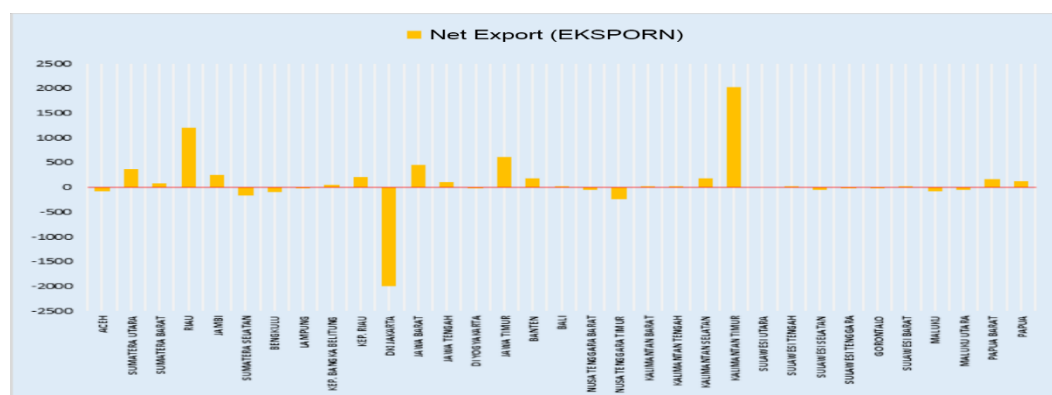


Figure 5. Net Export (EKSPORN)

Figure 5, shows a marked difference in net exports between provinces in Indonesia. DKI Jakarta Province in this period appears that the average value of net exports is negative. This means that consumption of imported goods and services is higher than exports. On the contrary, East Kalimantan even the consumption of goods and services sourced from abroad is lower than its exports. The basic difference between these provinces is the availability and ownership of natural resources so export activities in East Kalimantan province are higher while in DKI Jakarta, the availability and ownership of natural resources are relatively small and even almost non-existent.

Panel Data Regression Model

The panel data regression model consists of three models, namely CEM, FEM, and REM. The results of data analysis with Eviews 12.0 can be formulated as regression equation models from the three models.

Common Effect Models (CEM)

$$AK = 14.68 + 0.041 CS - 0.65 G - 0.26 + 0.03 EKSPORN$$

Fixed Effect Models (FEM)

$$AK = 28.11 + 0.047 CS - 0.20 G + 0.07 I + 0.09 EKSPORN$$

Random Effect Models (REM)

$$AK = 26.95 + 0.12 CS - 0.34 G + 0.002 I + 0.01 EKSPORN$$

The three regression models will be selected as the best model using a series of tests, namely the Chow test, the Hausman test, and the Lagrange Multipliers test.

Selection of the Best Estimation Model

Test Chow

The Chow test is used to select the best estimation model between CEM and FEM. The results of the Chow test as shown in table () prove that the best estimation model is FEM, where it appears that the p-value of F-statistic is smaller than the alpha value 1 %, 5%, and 10%.

Table 1. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	414.396581	(32,392)	0.0000
Cross-section Chi-square	1523.134493	32	0.0000

Source: Secondary data processed by the author (2023)

Hausman Test

The best estimation model for the results of the Chow test is FEM so the Hausman test is then carried out to choose an estimation model between FEM and

REM. The results of the Hausman test show that the p-value of the Chi-square is smaller than 10%.

Table 2. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	228.445850	4	0.0000

Source: Secondary data processed by the author (2023)

Lagrange Multiplier Test (LM-Test)

The results of Chow and Hausman's test recommend that the best estimation model is FEM. Thus this test is not performed. The results of the best estimation model selection test are FEM so hypothesis testing is carried out based on the FEM test results.

Dominat Factor

Dominant Factor Test Results using the "variable selection and stepwise-forward" method are seen in Table 3.

Table 3. Dominant Factor Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CS	0.196955	0.005010	39.31091	0.0000
R-squared	0.671458	Mean dependent var		37.11622
Adjusted R-squared	0.671458	S.D. dependent var		51.79149
S.E. of regression	29.68614	Akaike info criterion		9.621566
Sum squared resid	377182.2	Schwarz criterion		9.631033
Log-likelihood	-2062.826	Hannan-Quinn criteria.		9.625304
Durbin-Watson stat	0.191560			

Selection Summary

Added CS

Source: Secondary data processed by the author (2023). *Note: p-values and subsequent tests do not account for variable selection

The test results of the most dominant variable affecting employment opportunities are the consumption expenditure (CS) variable with the ability to explain the variable of changes in employment opportunities by 67.14%.

Hypothesis Test Results

Based on the results of the estimation model selection test and the best is FEM, the hypothesis test is carried out using the Fixed Effect Model (FEM) model. The estimation results with FEM are:

Table 4. Best Estimate: FEM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	28.11030	0.544212	51.65322	0.0000
CS	0.047045	0.013880	3.389452	0.0008
G	-0.203680	0.031994	-6.366279	0.0000
I	0.066579	0.017868	3.726205	0.0002
EKSPORN	0.085886	0.015808	5.432888	0.0000
F-statistic	5120.354	R-squared		0.997878
Prob(F-statistic)	0.000000	Adjusted R-squared		0.997683

Source: Secondary data processed by the author (2023)

The Effect of Consumption Expenditure on Employment Opportunities

Table 3, shows that the t-value of the t-statistic of the effect of consumption expenditure on employment is 0.0008 and the value is less than the alpha value of 5%. At a 95% confidence level, it can be stated that consumption expenditure has proven to have a significant influence on employment opportunities in Indonesia. The interpretation of the results of this study is that employment opportunities will increase or decrease depending on the high or low consumption expenditure. Consumption expenditure that is increasing or decreasing certainly affects the consumption of goods and services, resulting in changes in the production of goods and services.

The classical theory of employment states that the market mechanism is a condition for equilibrium in an open and full employment economy. In contrast to the classical view, Keynes's view is that government intervention in the balance of the economy is very important especially if there is an imbalance in the economy through instruments of fiscal and monetary policy. The results of this study are relevant to the research (Fitriyono & Hadiyanti, 2019); (Untari & Marhaeni, 2019); (Zakki & Jiuhardi, 2022) which found that the effect of consumption expenditure was significant on employment opportunities. Even though using different analytical tools, the results of the conclusions remain consistent.

The Effect of Government Spending on Employment Opportunities

Table 3, shows that the t-value of the t-statistic of the effect of government spending on employment is 0.0000 and the value is less than the alpha value of 5%. At a 95% confidence level, it can be stated that government spending has proven to have a significant influence on employment opportunities in Indonesia.

The classical theory of employment states that the market mechanism is a condition for equilibrium in an open and full employment economy. In contrast to the classical view, Keynes's view is that government intervention in the balance of the economy is very important especially if there is an imbalance in the economy through instruments of fiscal and monetary policy. The results of this study are relevant to the research (Buana et al., 2019); (Danawati et al., 2016); (Endang Astuti, 2011); (Ginting, 2019); (Harijono & Utama, 2011); (Suindyah D, 2018) which found that the effect of government spending is significant on employment opportunities. Government expenditure in this case expenditure in the fields of education, health, infrastructure, and other functional expenditures. Changes in the allocation of expenditures for this component have an impact on employment opportunities.

The Effect of Investment Spending on Employment Opportunities

Table 3, shows that the t-statistical p-value of the effect of investment on employment is 0.0002 and the value is less than the alpha value of 5%. At a 95% confidence level, it can be stated that investment expenditure has proven to have a significant influence on employment opportunities in Indonesia.

The classical theory of employment states that the market mechanism is a condition for equilibrium in an open and full employment economy. In contrast to the classical view, Keynes's view is that government intervention in the balance of the economy is very important especially if there is an imbalance in the economy

through instruments of fiscal and monetary policy. The results of this study are relevant to the research (Agung & Rahmi, 2021);(Danawati et al., 2016); (Dharma & Djohan, 2015); (Diantari & Wirathi, 2017); (Eliza, 2016); (Kartika, 2016); (Rahmawati, 2013); (Surani et al., 2021); (Tandiawan et al., 2012); (Wibawa & Purbadharmaja, 2018); (Yusrizal et al., 2014); (Zakki & Juhardi, 2022) which found that the effect of investment was significant on employment opportunities.

The Effect of Net Export Expenditure on Employment Opportunities

Table 3, shows that the t-value of the t-statistic of the effect of net exports on employment is 0.0000 and the value is less than the alpha value of 5%. At a 95% confidence level, it can be stated that net export expenditure has proven to have a significant influence on employment opportunities in Indonesia. The higher net exports in a region indicate the increasing production of goods and services that will have an impact on the higher need for production inputs in the form of labor, subsequently having an impact on increasing employment opportunities.

The classical theory of employment states that the market mechanism is a condition for equilibrium in an open and full employment economy. In contrast to the classical view, Keynes's view is that government intervention in the balance of the economy is very important especially if there is an imbalance in the economy through instruments of fiscal and monetary policy. The results of this study are relevant to the research(Agung & Rahmi, 2021): which found that the effect of net export spending was significant on employment opportunities. Contradictory to the findings (Fauzi & Muhammad Suhaidi, 2010): Net export expenditure is not significant to employment opportunities.

Furthermore, the four variables predictor of employment opportunity, the most dominant variable affecting employment is the variable of consumption expenditure. The dominance of the consumption variable is explained in Okun's law which states that for every two percent decline in GNP from its potential GNP, the unemployment rate will jump by one percent. Associated with the results of this study, increasing unemployment will cause consumption expenditure to decrease as a result of declining purchasing power. Decreased purchasing power has an impact on the production of goods and services that decreases as well and in the long run will directly affect employment opportunities.

CONCLUSION

Imbalances in an open economy require government intervention through fiscal and monetary policy instruments. Based on the results of research and discussion, it can be concluded that partially and simultaneously consumption expenditure, government expenditure, investment, and net exports have a significant influence on employment opportunities in Indonesia in 2010-2022. Of the four predictor variables, the consumption expenditure variable is the most dominant in influencing employment opportunities in provinces in Indonesia.

The conclusion related to the relationship between employment and consumption expenditure, government spending, investment, and net exports is only a one-way relationship. In Keynes's theory of national income and open economic cycles, the relationship between these variables is not only single but

also a causality relationship. Therefore, it is recommended for subsequent researchers to analyze the causality relationship using simultaneous analysis.

REFERENCES

- Agung, M. Z., & Rahmi, D. (2021). Pengaruh Ekspor, Investasi PMDN dan Investasi PMA Terhadap Kesempatan Kerja di Provinsi Jawa Barat Tahun 2007-2021. *Bandung Conference Series: Economics Studies*, 3, 1–8.
- Arsyad, L. (2010). *Ekonomi Pembangunan*. PT Gramedia.
- Badan Pusat Statistik. (2023). *Produk Domestik Regional Bruto Provinsi-Provinsi di Indonesia Menurut Pengeluaran 2018-2022*. BPS Indonesia.
- Buana, A. L., Saragih, H. J. R., & Aritonang, S. (2019). Pengaruh Pengeluaran Pemerintah, Investasi Pemerintah, Investasi Swasta Dan Tenaga Kerja Terhadap Pertumbuhan Ekonomi Di Pulau Jawa Tahun 2011-2015. *Jurnal Ekonomi Pertahanan*, 4(2), 1–20. <https://jurnalprodi.idu.ac.id/index.php/EP/article/view/315/291>
- Danawati, S., Bandesa, I. K. G., & Utama, M. S. (2016). Pengaruh Pengeluaran Pemerintah Dan Investasi Terhadap Kesempatan Kerja, Pertumbuhan Ekonomi Serta Ketimpangan Pendapatan Kabupaten/Kota Di Provinsi Bali. *E-Jurnal Ekonomi Dan Bisnis Univeristas Udayana*, 5(7), 2123– 2160.
- Dharma, B. D., & Djohan, S. (2015). Pengaruh Investasi Dan Inflasi Terhadap Kesempatan Kerja Melalui Pertumbuhan Ekonomi Di Kota Samarinda. *Kinerja*, 12(1), 62–70.
- Diantari, N. P., & Wirathi, I. G. A. P. (2017). Pengaruh Investasi Swasta dan Investasi Pemerintah melalui Pertumbuhan Ekonomi terhadap Kesempatan Kerja di Provinsi Bali. *Jurnal EP Unud*, 472–498.
- Eliza, E. (2016). Analisis Pengaruh PMDN dan PMA terhadap Kesempatan Kerja di Indonesia. *JUSIE (Jurnal Sosial Dan Ilmu Ekonomi)*, 1(01), 34–41. <https://doi.org/10.36665/jusie.v1i01.4>
- Endang Astuti, M. S. (2011). Analisis Investasi, Pengeluaran Pemerintah Dan Pertumbuhan Ekonomi Terhadap Kesempatan Kerja Di Propinsi Nusa Tenggara Barat. *Iqtishoduna*, 3(1), 1–29. <https://doi.org/10.18860/iq.v3i1.242>
- Fitriyono, H., & Hadiyanti, S. U. E. (2019). Pengaruh Konsumsi Terhadap Kesempatan Kerja di Provinsi Kalimantan Timur. *Borneo Student Research (BSR)*, 1(1), 410–416.
- Ginting, A. L. (2019). Interelasi Pengeluaran Pemerintah dan Kesempatan Kerja Terhadap Pertumbuhan Ekonomi dan Kemiskinan di Provinsi Kalimantan Tengah. *EcceS (Economics, Social, and Development Studies)*, 6(2), 230. <https://doi.org/10.24252/ecc.v6i2.10957>
- Harijono, G. S., & Utama, I. M. S. (2016). Pengaruh Pengeluaran Pemerintah Dan Investasi Terhadap Kesempatan Kerja Melalui Pertumbuhan Ekonomi. *E-Jurnal Akuntansi Universitas Udayana*, 15(2), 1–17.
- Kartika, I. B. K. A. S. M. & I. N. (2016). Pengaruh Pengeluaran Pemerintah Dan Investasi Terhadap Kesempatan Kerja Melalui Pendidikan. *E-JURNAL Ekonomi Pembangunan Universitas Udayana*, 5(9), 960–992.
- Makna, G. A. (2016). Pengaruh Rata-Rata Lama Berpendidikan dan Pengeluaran Pemerintah Terhadap Penyerapan Tenaga Kerja. *Economics Development*

- Analysis Journal, 5(2), 143–152.
<http://journal.unnes.ac.id/sju/index.php/edaj>
- Rahmawati, I. D. (2013). Pengaruh Investasi Dan Tingkat Upah Terhadap Kesempatan Kerja Di Jawa Timur. *E-Journal Unesa*, 1(3), 1–23.
<https://ejournal.unesa.ac.id/index.php/jupe/article/view/3582>
- Suindyah D, S. (2018). Pengaruh Investasi, Tenaga Kerja Dan Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi Di Propinsi Jawa Timur. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 15(4), 477–500.
<https://doi.org/10.24034/j25485024.y2011.v15.i4.166>
- Surani, S., Iek, M., Hutajulu, H., & Hafizrianda, Y. (2021). Pengaruh Investasi Terhadap Penyerapan Tenaga Kerja Di Sektor Industri Di Provinsi Papua Tahun 2007 – 2018. *Journal of Management : Small and Medium Enterprises (SMEs)*, 14(3), 277–290.
<https://doi.org/10.35508/jom.v14i3.5055>
- Tandiawan, E., Naukoko, A., & Wauran, P. (2012). Pengaruh Investasi Swasta Dan Belanja Pemerintah Terhadap Pertumbuhan Ekonomi Dan Dampaknya Terhadap Kesempatan Kerja Di Kota Manado Tahun 2001- 2012. *Jurnal Berkala Ilmiah Efisiensi*, 181–196.
- Wibawa, I. P. E., & Purbadharmaja, I. B. P. (2018). Pengaruh Upah Minimum dan Investasi Terhadap Kesempatan Kerja dan Konsumsi di Kabupaten/Kota Provinsi Bali. *E-Jurnal EP Unud*, 10(9), 3826–3854.
- Yusrizal, Hamzah, A., & Nasir, M. (2014). Pengaruh Investasi dan Tingkat Upah Terhadap Kesempatan Kerja di Provinsi Aceh. *Pascasarjana Universitas Syiah Kuala*, 9(2), 82–90.
- Zakki, A., & Jiuhardi. (2022). Pengaruh konsumsi rumah tangga dan investasi serta pengeluaran pemerintah terhadap PDRB dan Kesempatan Kerja. *Jurnal Ilmu Ekonomi Mulawarman (JIEM)*, 7(1).
<https://garuda.kemdikbud.go.id/documents/detail/3012945>