ANALYSIS OF FACTORS AFFECTING UNEMPLOYMENT IN CENTRAL KALIMANTAN

A THESIS

Presented as Partial Fulfilment of the Requirements

to Obtain the Bachelor Degree in the Economics Study Program

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2025

DECLARATION OF AUTHENTICITY

Herein, I declare this originality ; I have neither preented anyone el work from the university degree nor given anyone else's words, idea, or expres without acknowledgment. All quotations are cited and listed in thebibliograph the thesis

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Yogyakarta, 2 june 2025



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APPROVAL PAGE

Analysis of Factors Affecting Unemployment Rates in Central Kalimantan

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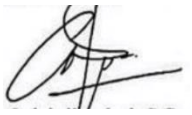
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No: 088/Ka.ProdiEp/10/Prodi.Ep/UTA/VII/2025

Bismillahirrahmanirrahim,

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ANALYSIS OF FACTORS AFFECTING UNEMPLOYMENT IN CENTRAL KALIMANTAN

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MOTTO

"Allah will not burden a person except according to his ability. He gets (reward) from the (virtue) he does and gets (torment) from the (evil) he does." (QS Albaqarah: 286)

"A drop of my parents' sweat that comes out, there are a thousand steps for me to move forward"

“There is always a price in the process. Just enjoy the tiredness. Expand your patience. Everything you invest in becoming yourself as you dream, may not always go smoothly. But, those waves are what you will tell.” (Boy Candra)

DEDICATION PAGE

In the name of Allah, the Most Merciful, the Most Merciful

Praise be to Allah SWT who has bestowed His grace and guidance so that the author can complete this thesis with great humility and patience. The success of writing this thesis is certainly inseparable from various assistance, therefore the author expresses his greatest gratitude to:

1. Thank you to Mr. Awan Setya Dewanta Drs. M.Ec.Dev. As the Supervisor who not only provided academic guidance, but also became an extraordinary director, encouragement, and motivator. Without your sincere and patient guidance and support, this thesis might not have been completed at all. Thank you for making every process of compiling the author's thesis easier, may Allah SWT always bestow health, blessings, and the best reward for every kindness that you have given.
2. Thank you to Mrs. Cithra Orisinilandari, SS., MA, for serving as the Language Advisor. Thank you for taking the time, energy, and patience to give me guidance. Without your guidance, this thesis might not have been completed. May Allah SWT always bestow health, blessings, and the best reward for every kindness that Mrs. has given.
3. Thank you to all academic staff of FBE IP UII, who have given positive spirit and encouragement to the author in completing the author's thesis. May Allah SWT always bestow health, blessings, and the best reward for every kindness that you have given.
4. Thank you to both parents, Mr. Kodrat Purwanto and Mrs. Norngafifah who always pray for the support both morally and materially needed by the author in completing this thesis. May Allah SWT always bestow health, blessings, and the best reward for every kindness that Mom and Dad have given.

5. Thank you to my brother Eko Puji Purnomo ST, who always gives me encouragement to finish my thesis soon. Thank you to my brother Rahmat Tri Cahyono who always accompanies me playing mobile legend games and gives me encouragement to be able to finish my thesis.
6. To someone who is no less important, my best friend Rini Handayani who always accompanies the author in every condition, both sad and happy. Thank you for being a part of the author's life journey, always taking the time, giving support, entertaining, and being a good listener.
7. Thank you to my classmates from 2018 who have been good friends and given me encouragement.
8. For someone whose name I can't write clearly here, but it is clearly written in the lauhul mahfudz for me. Thank you for being a source of motivation for the author in completing this thesis as a form of the author in improving himself. Although the author does not know where you are, in which part of the earth, and whose hand to hold as BJ Habibie said "if he was born for me, even if you turn upside down I will get it."
9. To all the Mugiwara Crew, especially Monkey D. Luffy, whose presence in sharing his life story has raised the spirit and motivated the author to always work hard and try as hard as possible.
10. Finally, thank you for being able to survive and fight hard.

FOREWORD

The researcher would like to express his gratitude to God Almighty for all His grace and gifts so that the researcher can complete the thesis entitled Analysis of Factors Affecting Unemployment in Central Kalimantan. The thesis is one of the requirements to obtain a Bachelor of Economics Degree at the Islamic University of Indonesia. The researcher realizes that this thesis is still far from perfect as expected. Therefore, with all humility the author expects all criticism and suggestions. In compiling this thesis, of course the researcher encountered many difficulties and obstacles, but thanks to the help, guidance and advice from various parties I was able to complete this according to the specified time.

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ABSTRACT

In general, unemployment is caused by an imperfect labor market in a country. Unemployment is a phenomenon that occurs in all countries, including Indonesia. The increase in the workforce that is not comparable to the availability of jobs results in some workers not getting jobs. In general, the open unemployment rate (TPT) in Kalimantan tends to fluctuate, but in recent years it has decreased. East Kalimantan, for example, previously recorded a TPT of 5.14% in August 2024, down from the previous year. Central Kalimantan also showed a TPT of 3.67% in February 2024, also down from the previous year. North Kalimantan had a TPT of 4.01% in February 2024, also down from the previous year.

This study aims to identify the effect of education level, UMR, GDP Deflator, economic growth, and life expectancy on the unemployment rate in Central Kalimantan Province partially and simultaneously. Quantitative research is used as the main design of researchers with panel data types and combining secondary data. Based on the results of education level, minimum wage level, GDP deflator, economic growth, and life expectancy. Partially influential. While the level of education has a significant negative effect on unemployment.

KEYWORDS: Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, Life Expectancy, and Unemployment Rate in Kalim Province

CHAPTER I

INTRODUCTION

A. Background

In general, unemployment is caused by an imperfect labor market in a country. Unemployment is a phenomenon that occurs in all countries, including Indonesia. The increase in the workforce that exceeds the availability of jobs results in some workers not securing employment.

Unemployment can be interpreted as a condition of people who are part of the workforce but do not have jobs, and are looking for work, including being unemployed (Soleh , 2017). Based on Keynes (In Sayifullah & Gandasari, 2016), the basis of this research is that the high unemployment rate is caused by low overall general demand caused by declining income, so that inflexible wage rates cause production to decline and many unused workers, which causes unemployment. Low community income can indicate a low value of the development index that measures human quality. In other words, low productivity is characterized by a decrease in the value of the human development index because it is not needed by the company and resulting in unemployment. Poor conditions like this cause companies to reduce the amount of capital investment issued, which, of course, hinders the running of the industry and does not open up new jobs, so that unemployment problems will always arise (Suhendra & Wicaksono, 2020). Unemployment can occur because the number of workers looking for work is greater than the number of jobs available and the absorption of the workforce is smaller. Unemployment is closely related to poverty because every unemployed person does not get an income, while every citizen has their own needs or the needs of their family, including primary, secondary, and tertiary needs.

Unemployment problems that cannot be resolved immediately and are allowed to drag on can hinder and have direct and indirect and interrelated impacts on the prosperity and welfare of society and the community environment, such as in terms of the economy, and will also have an impact on political, security and social aspects, thus hindering development and economic growth in a region.

Indonesia is one of the developing countries that has problems that are not much different from other countries, namely the high unemployment rate that has not been resolved. Based on

data from the Central Bureau of Statistics (BPS) **,** the unemployment rate in Indonesia decreased to 4.76 percent in the March quarter of 2025 from 4.82 percent in the same quarter the previous year, marking the lowest figure since 1997. The number of unemployed rose slightly by 1.11 percent from the previous year to 7.28 million. At the same time, the number of people working increased by 2.52 percent to 145.77 million, mainly in the wholesale & retail trade, car and motorcycle repair and maintenance sectors. Meanwhile, the labor force participation rate increased to 70.60 percent from 69.80 percent the previous year.

In general, the open unemployment rate (TPT) in Kalimantan tends to fluctuate, but in recent years it has decreased. East Kalimantan, for example, previously recorded a TPT of 5.14% in August 2024, down from the previous year. Central Kalimantan also showed a TPT of 3.67% in February 2024, also down from the previous year. North Kalimantan had a TPT of 4.01% in February 2024, also down from the previous year.

Here is a more detailed comparison between unemployment rates in several provinces in Kalimantan:

a) **East Kalimantan:** TPT in August 2024 was 5.14%, down from 5.31% in August 2023.
b) **Central Kalimantan:** TPT in February 2024 was 3.67%, down from 3.84% in February 2023.
c) **North Kalimantan:** TPT in February 2024 was 4.01%, down from 4.10% in February 2023.
d) **South Kalimantan:** TPT in February 2024 was 4.22%, down from 4.39% in February 2023.
e) **West Kalimantan:** TPT in February 2024 was 4.06%, down from 4.45% in February 2023.

The main causes of unemployment in Kalimantan, as in other parts of Indonesia, are the mismatch between the number of workers and the number of jobs available, as well as rapid population growth. Educated unemployment is also a problem, especially among vocational and high school graduates whose skills do not match the needs of industry.

The unemployment rate in Central Kalimantan is due to the low competition of its human resources, causing many workers to come from Java or outside Central Kalimantan Province who are looking for work in Central Kalimantan. Table 1.1 below shows the unemployment rates in districts in Central Kalimantan.

Table 1.1

Unemployment Rate of Regency/City in Central Kalimantan Province 2011-2024

Regency/City														
	Open Unemployment Rate by Regency/Municipality, 2011-2024													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Central Kalimantan	3.54	3.14	3.00	3.24	4.54	4.82	4.23	3.91	4.04	4.58	4.53	4.26	4.10	4.01
West Kotawaringin	2.82	2.36	3.65	2.66	3.25	2.71	2.17	2.88	2.58	4.76	4.70	4.51	4.45	4.42
East Kotawaringin	3.64	4.61	2.45	4.11	3.53	4.23	4.92	4.46	4.41	5.25	5.15	5.00	4.77	4.63
Kapuas	3.52	3.00	1.49	2.50	4.07	4.75	5.42	3.97	5.18	4.98	4.91	3.91	3.66	3.61
South Barito	3.12	1.72	2.17	3.77	9.99	7.04	4.09	4.14	4.05	4.21	4.16	3.53	4.33	4.12
North Barito	0.72	1.63	3.01	3.34	4.78	4.99	5.19	4.19	3.93	5.29	5.14	4.82	4.85	4.71
Sukmara	0.58	0.32	1.85	1.67	4.68	4.76	4.83	4.35	4.80	4.70	4.65	6.46	5.23	4.95
Lamandau	3.33	0.92	1.67	2.61	5.00	3.18	1.35	2.30	2.32	2.83	2.30	3.41	3.32	3.17
Seruyan	1.97	3.99	4.52	4.40	4.64	4.72	4.79	4.28	4.45	4.30	4.25	3.96	3.61	3.47
Katingan	2.61	3.35	5.56	5.23	5.97	4.89	3.81	4.65	5.25	5.69	5.50	5.33	4.96	4.88
Pulang Pisau	2.62	2.59	2.40	4.28	3.29	2.46	1.62	2.07	1.71	2.63	2.60	1.96	2.07	1.99
Gunung Mas	2.38	4.31	3.00	1.20	2.70	1.94	1.17	2.15	2.62	2.49	3.11	2.96	3.24	3.12
East Barito	2.07	0.93	1.68	2.46	2.14	3.41	4.68	3.39	2.82	2.91	3.22	2.95	3.37	3.26

Murung Raya	0.63	1.52	3.45	1.13	6.33	4.56	2.78	3.20	2.99	3.10	3.03	2.77	2.75	2.90
Palangkaraya	3.82	6.38	5.03	3.36	6.30	6.78	7.26	5.77	5.81	5.95	5.86	5.64	5.13	5.02

Source: kalteng.bps.go.id

Table 1.1 shows the unemployment rate in regencies/cities in Central Kalimantan in the past 14 years. In 2011, the unemployment rate in regencies/cities in Central Kalimantan was still low, but in Kota Waringin Timur district, the unemployment rate increased by 3.64 percent compared to other regencies in Central Kalimantan. During the period 2011-2024, most areas in Central Kalimantan Province managed to reduce unemployment rates. Pulang Pisau and Gunung Mas Regencies are the regencies with the smallest number of unemployed people in the period 2011-2024. Then Kota Waringin Timur Regency and North Barito Regency are the regencies with the largest number of unemployed people in the period 2011-2024, among several regencies in Central Kalimantan. Then in 2015-2016 South Barito Regency experienced an increase in the number of unemployed, namely 9.99 and 7.04 percent. In 2020, the COVID-19 pandemic occurred, which resulted in an increase in the number of unemployed in the regencies/cities in Central Kalimantan. This resulted in layoffs of workers in several companies in Central Kalimantan. This was exacerbated by the low level of education in Central Kalimantan, which caused the defeat of the competition for workers coming from outside Central Kalimantan Province, thus increasing the number of Central Kalimantan. In addition to the explanation above, there are factors that influence unemployment, namely Education Level, Regional Minimum Wage (UMR), GDP Deflator, Economic Growth, and Life Expectancy.

Success in achieving human quality improvement can be measured by the level of education in Central Kalimantan Province. Not only does it have an impact on social vulnerability, but unemployment can also affect aspects of the level of education in the Regency/City of Central Kalimantan Province. According to Dewey in Tarjo (2011) education is a process of forming fundamental skills, both intellectually and emotionally, towards nature and fellow human beings. Jean Jaques Rousseau explains that education is a provision that does not exist in childhood, but is needed in adulthood (Tarjo, 2011). Similar to the opinion above, Page, Thomas, and Marshall define education as the process of developing human abilities and behavior as a whole (Endah, et al., 2010).

Based on data from the Directorate General of Population and Civil Registration (Dukcapil) of the Ministry of Home Affairs, there were 310 Central Kalimantan residents who were educated up to S3 in June 2021. This number is only 0.01% of the population of 2.64 million people, while 6.26 thousand people (0.24%) of Central Kalimantan residents have successfully

obtained a S2 education degree and 107.08 thousand people (4.06%) of residents who have a S1 education, then as many as 44.93 thousand people (1.7%) of the population of Central Kalimantan Province in the capital city of Palangkaraya have D1/D2/D3 education. Meanwhile, the population of Central Kalimantan who are educated up to high school is 830.43 thousand people (31.46%) of which there are 444.84 thousand people (16.85%) of the population of Central Kalimantan who are educated at high school (SLTA) and 385.58 thousand people (14.61%) who are educated up to junior high school (SLTP). A total of 638.34 thousand people (24.14) of the population of Central Kalimantan are educated at Elementary School (SD) and 378.41 thousand people (14.26) of the population who have not/have not attended school.

In an effort to achieve sustainable economic development, the education sector plays a very strategic role in supporting the production process and other economic activities. In this context, education is considered a tool to achieve sustainable targets, because with education, development activities can be achieved so that opportunities to improve the quality of life in the future will be better. Data on the level of education in Central Kalimantan Province can be seen in Table 2.1

Table 2.1

Education Level of Regency/City in Central Kalimantan Province

2011-2024

Regency/City														
	[New Method] Mean Years of Schooling by Regency/Municipality in Central Kalimantan Province (year), 2011-2024													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Central Kalimantan	7.68	7.73	7.79	7.82	8.03	8.13	8.29	8.37	8.51	8.59	8.64	8.65	8.73	8.81
West Kotawaringin	7.48	7.49	7.58	7.82	8.01	8.05	8.35	8.36	8.41	8.42	8.53	8.54	8.66	8.77
East Kotawaringin	7.39	7.48	7.59	7.69	7.70	7.88	7.89	7.90	8.12	8.13	8.15	8.16	8.17	8.18
Kapuas	6.79	6.82	6.84	6.94	6.94	7.09	7.50	7.51	7.52	7.59	7.60	7.64	7.84	7.93
South Barito	7.80	8.01	8.16	8.27	8.59	8.60	8.67	8.69	8.71	8.82	8.95	9.01	9.13	9.22
North Barito	7.55	7.74	7.97	8.00	8.33	8.34	8.35	8.59	8.60	8.71	8.85	8.90	8.91	8.92
Sukmara	6.67	7.04	7.21	7.30	7.81	7.82	7.83	7.84	7.91	8.01	8.09	8.10	8.17	8.18
Lamandau	7.21	7.38	7.55	7.67	7.68	7.79	7.94	7.95	8.38	8.42	8.43	8.53	8.67	8.82
Seruyan	6.76	6.76	6.90	7.03	7.45	7.49	7.75	7.76	7.93	7.94	7.96	7.99	8.00	8.01
Katingan	8.13	8.15	8.17	8.23	8.62	8.63	8.64	8.65	8.66	8.67	8.68	8.78	8.85	8.95
Pulang Pisau	7.20	7.29	7.55	7.58	7.59	7.66	7.67	7.70	8.08	8.18	8.19	8.26	8.27	8.42
Mount Mas	8.57	8.65	8.73	8.74	8.93	8.94	8.96	8.97	9.03	9.14	9.18	9.24	9.25	9.37

East Barito	8.43	8.75	8.98	9.01	9.02	9.03	9.04	9.05	9.20	9.21	9.23	9.32	9.45	9.54
Murung Raya	7.09	7.12	7.15	7.18	7.36	7.37	7.38	7.45	7.46	7.54	7.61	7.66	7.81	7.94
Palangkaraya	10.27	10.48	10.69	10.73	10.74	11.02	11.03	11.42	11.51	11.52	11.53	11.55	11.65	11.66

Source: : kalteng.bps.go.id

Based on Table 2.1, it can be seen that the level of education in 13 regencies in Central Kalimantan in 2011-2014 was still very low. Table 2.1 above shows the average education value at 7.50%, so it can be concluded that the level of education of the population of Central Kalimantan in 2011-2014 was on average elementary school graduates to junior high school. Then in 2015-2019 the level of education in 13 regencies in Central Kalimantan increased, it can be seen from table 2.1 which has an average value of 8.60%, so it can be concluded that in that year the population of Central Kalimantan in 2015-2019 on average graduated from junior high school to high school. In 2020-2024, the level of education of the population of Central Kalimantan increased with an average value of 9.21%, it can be concluded that in that year the population of Central Kalimantan in 2020-2024 on average graduated from high school to college. Education can affect the unemployment rate because a worker's education greatly influences the unemployment rate. So to get a job, education and skills are needed from prospective workers so that they can be absorbed into the world of work (Suprayitno, 2016).

In an effort to meet the needs of family welfare, a worker relies heavily on the amount of wages given by the company. The high wages that exist cause large costs to be spent by the company, this can result in a reduction in employees working in the company. The development of minimum wages in districts in Central Kalimantan Province can be seen in Table 3.1.

Table 3.1

Minimum Wage Levels in Districts/Cities of Central Kalimantan Province 2011-2024

Regency/City														
	Minimum Regional Wages (million rupiahs), 2011 – 2024													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Central Kalimantan	1,135	1,327	1,553	1,724	1,896	2,058	2,227	2,421	2,663	2,903	2,903	2,923	3,181	3,262
West Kotawaringin	1,240	1,401	1,583	1,789	2,004	2,204	2,391	2,600	2,809	3,048	3,048	3,077	3,353	3,475
East Kotawaringin	1,185	1,387	1,608	1,817	2,008	2,169	2,348	2,552	2,757	2,992	2,992	3,015	3,266	3,342
Kapuas	1,146	1,341	1,569	1,741	1,916	2,100	2,273	2,471	2,670	2,910	2,910	2,923	3,194	3,262
South Barito	1,184	1,361	1,606	1,895	2,198	2,352	2,546	2,768	2,990	3,245	3,245	3,246	3,529	3,595
North Barito	1,158	1,362	1,569	1,776	2,113	2,166	2,506	2,725	3,048	3,308	3,308	3,308	3,595	3,662
Sukmara	1,135	1,327	1,678	1,930	2,026	2,209	2,419	2,629	2,845	3,089	3,089	3,110	3,389	3,490
Lamandau	1,135	1,327	1,553	1,724	2,063	2,233	2,419	2,622	2,885	3,130	3,130	3,161	3,443	3,551
Seruyan	1,135	1,394	1,617	1,827	2,010	2,201	2,383	2,590	2,840	3,194	3,194	3,318	3,594	3,634
Katingan	1,135	1,327	1,553	1,724	1,896	2,109	2,283	2,482	2,730	2,962	2,962	2,980	3,231	3,344
Pulang Pisau	1,135	1,327	1,553	1,724	1,896	2,137	2,313	2,514	2,716	2,947	2,947	2,955	3,223	3,269
Mount Mas	1,135	1,327	1,553	1,724	1,896	2,058	2,263	2,460	2,706	2,937	2,937	2,957	3,227	3,328
East Barito	1,135	1,327	1,553	1,724	1,896	2,061	2,231	2,425	2,740	2,973	2,973	2,983	3,236	3,285
Murung Raya	1,212	1,443	1,731	1,939	2,191	2,498	2,498	2,715	2,941	3,205	3,205	3,205	3,489	3,562
Palangkaraya	1,154	1,397	1,676	1,844	2,028	2,129	2,301	2,501	2,702	2,932	2,932	2,973	3,227	3,310

In Table 3.1, it can be seen that there is a development in minimum wages from 2011-2024 which has increased significantly. The regencies and cities in Central Kalimantan Province that have the highest minimum wages in 2023 are IDR 3,595,013 in North Barito Regency, and then in Seruyan Regency of IDR 3,594,095. The minimum wage in Central Kalimantan Province in 2022 experienced a fairly significant increase, but in the same year there was also an increase in unemployment of 1.11% in Sukamara Regency in Central Kalimantan Province, so it is not in line with Keynes' theory (1936) which explains that the higher the wages of a region, the lower the unemployment rate.

According to Mankiw (2006), high wages can retain workers (employees) who want to leave the business sector , so that companies will not accept new workers quickly without the skills and experience they have. With high wages, companies can improve the average quality of employees, if wages are lowered, workers can leave the company and switch to business sectors that provide high incentives. This will affect someone to be unemployed for a certain time to find the best job with the assumption that they will get high wages. If the workforce sets a certain wage as the minimum wage received, then if all the wages offered are below that wage level, someone will refuse to get that wage.

The unemployment problem is also related to the GDP Deflator, an indicator that measures the average price growth of goods and services produced in a country. The direct influence of the GDP Deflator on the unemployment rate in Central Kalimantan is in the form of changes in prices and production costs because a high GDP Deflator indicates inflation, which can affect the cost of living and reduce people's purchasing power. An increase in the price of production inputs can increase production costs, so companies may reduce production and reduce their workforce. The increase in the GDP Deflator rate can be seen in Table 4.1 as follows.

Table 4.1

GDP Deflator in Central Kalimantan Regency/Province 2011-2024

Regency/City	GDP Deflator														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	100.0	105.7	111.3	116.9	125.0	129.8	136.2	143.0	146.4	150.1	157.8	172.6	180.4	184.8	194.2
East Kotawaringin	100.0	108.4	111.9	117.0	119.6	125.0	131.4	138.9	142.5	145.3	150.9	162.4	170.0	174.9	182.9
Kapuas	100.0	108.2	114.0	119.0	124.9	130.5	135.7	142.5	149.1	152.3	153.4	165.4	190.0	187.4	187.5
South Barito	100.0	109.5	113.2	117.8	121.1	125.0	130.2	136.7	142.9	145.8	148.0	154.3	176.7	178.4	178.8
North Barito	100.0	109.0	112.7	115.8	116.4	117.8	122.5	129.6	136.6	137.8	135.0	147.7	188.2	176.9	166.7
Sukmara	100.0	106.5	111.5	117.1	123.8	128.6	134.6	141.5	144.3	147.2	152.2	162.5	169.9	174.4	184.2
Lamandau	100.0	107.6	115.5	120.2	124.4	127.0	132.4	137.9	142.8	146.5	151.3	165.5	173.8	175.8	186.5
Seruyan	100.0	107.1	112.5	117.7	122.8	126.7	133.0	138.8	140.2	141.5	148.4	163.9	172.2	174.8	186.7
Katingan	100.0	107.9	115.5	122.4	130.1	137.3	144.1	150.2	155.8	160.9	167.7	177.6	185.4	188.8	195.8
Pulang Pisau	100.0	106.6	113.5	121.2	129.4	136.1	141.6	147.3	153.0	156.1	160.4	166.0	171.7	177.2	185.9
GunungMas	100.0	109.7	117.6	126.7	134.9	141.0	147.7	153.6	158.0	163.9	173.3	188.5	200.8	204.1	221.2
East Barito	100.0	110.7	112.9	115.1	117.3	119.3	124.8	132.3	139.4	141.7	137.1	149.0	193.4	186.2	178.7
Murung Raya	100.0	111.2	114.5	117.1	117.9	119.2	124.1	130.2	137.4	138.7	135.6	149.3	203.3	184.6	167.4
Palangkaraya	100.0	106.6	112.7	119.5	127.2	136.2	144.4	153.3	163.5	168.4	172.8	178.1	187.3	193.5	197.0
Central Kalimantan	100.0	108.9	113.6	118.1	121.9	126.8	133.5	140.5	146.6	149.5	153.8	165.5	183.1	183.8	187.8

Source: : kalteng.bps.go.id

In Table 4.1 it can be seen that, GDP Deflator has increased every year in the period 2010-2011 which increased by 5-8%. Then in 2012-2015 GDP Deflator increased significantly as seen from the high GDP Deflator figure in that year with an average value of 115.5 - 125.5 meaning that in that year inflation increased by 15% -25.5% from the previous year and goods and services in the economy increased by 15% - 25.5%. this can be calculated using the formula: inflation = (GDP Deflator-100) if the base year is 100. Then in 2016-2024 the GDP deflator figure increased from 136.0 - 190.2 meaning that in that year inflation increased by 36% - 90% from the previous year and goods and services increased by 36% - 90%.

Economic growth is one of the factors that influences the unemployment rate in Central Kalimantan Province, one of the factors that influences economic growth is the quality of human resources including education level, skills, and welfare. If economic growth improves, it will reduce the unemployment rate in Central Kalimantan. If open unemployment is not immediately addressed, it will cause social vulnerability and has the potential to result in inequality both in terms of social and economic. The large number of unemployed in Central Kalimantan Province can be said to be very important in measuring the success of economic development. This is because unemployment is one of the indicators to show the level of welfare due to economic development . The economy of Central Kalimantan based on the amount of GRDP at current prices in 2022 reached IDR 199.9 trillion. Based on constant prices in 2010 it reached IDR 109.1 trillion and GRDP per capita reached IDR 72.9 million. The economy of Central Kalimantan in 2022 grew by 6.45%, in terms of production. Mining and quarrying experienced high growth of 15.74%, while in terms of expenditure, the component of exports of goods and services experienced the highest growth of 20.23%. Spatially in 2022, Central Kalimantan Province was in fourth place with a contribution of 11.32%. The following is a table of economic growth in Central Kalimantan Province in 2011-2024.

Table 6.1

Economic Growth in Central Kalimantan Regency/Province 2011-2024

Regency/City															
	Growth of GRDP, 2011-2024														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
West Kotawaringin		7.56	6.70	6.99	6.90	7.32	5.85	6.80	6.48	5.79	0.98	5.61	6.01	6.10	4.10
East Kotawaringin		7.11	7.01	7.79	7.37	7.66	7.93	7.94	6.92	7.10	-3.06	2.10	7.41	1.81	4.00
Kapuas		5.86	6.48	6.81	7.00	7.27	7.29	7.62	7.01	7.16	-1.04	4.71	7.04	5.71	4.95
South Barito		7.06	5.32	5.25	5.31	5.54	5.63	5.44	5.12	4.96	-2.90	2.13	6.28	3.27	4.70
North Barito		7.93	6.23	7.04	4.19	5.29	5.48	6.01	5.95	5.42	-2.24	2.82	6.24	5.49	5.08
Sukmara		5.91	6.28	6.44	6.05	6.01	6.12	6.27	6.17	6.06	1.98	4.74	5.62	5.64	3.90
Lamandau		6.17	6.97	7.00	6.98	6.76	6.69	6.70	6.85	6.87	1.84	4.02	6.05	1.59	3.64
Seruyan		4.82	5.16	6.28	5.31	5.17	5.12	5.18	5.21	5.09	-2.23	2.12	4.01	4.44	3.04
Katingan		6.13	6.23	6.34	6.54	6.53	6.54	6.56	6.59	5.81	-3.18	2.90	5.58	5.98	4.67
Pulang Pisau		5.53	6.46	6.79	7.23	7.71	6.07	5.83	5.94	6.36	2.68	3.24	4.67	4.85	4.41
Gunung Mas		6.57	6.28	6.87	6.42	6.96	7.00	6.63	6.87	7.21	3.39	5.09	6.47	4.25	4.48
East Barito		6.98	6.04	6.73	5.25	5.16	5.50	5.98	5.71	5.44	-2.73	2.97	6.07	3.47	4.29
Murung Raya		7.70	6.82	6.49	5.85	6.88	5.76	5.87	5.61	5.94	-2.45	4.38	7.03	5.46	5.05

Palangkaraya		7.28	7.29	7.53	6.96	7.19	6.92	6.99	7.14	7.17	-2.85	4.32	6.24	6.57	6.62
Central Kalimantan		7.01	6.87	7.37	6.21	7.01	6.35	6.73	5.61	6.12	-1.41	3.59	6.45	4.14	4.46

Source: : kalteng.bps.go.id

From the data above, it can be seen that in 2011-2015, the economic growth of districts in Central Kalimantan experienced a significant increase, as seen from the average figure of 7.00 - 7.56. This can be interpreted that economic growth in that year increased by 7.00% to 7.56%. Then in 2016-2020, economic growth in districts/cities in Central Kalimantan Province decreased with an average value of 5.48 - (-2.90). This can be interpreted that the economic growth experienced a major decline from 5.48% to -2.90%. The production of goods and services has decreased drastically, this is due to the Covid-19 pandemic which has had a significant impact on economic growth, one of which is due to social restrictions and *lockdowns* which have caused a decline in economic activity such as business closures, decreased consumption, and reduced production of goods and services. Post-pandemic, Central Kalimantan's economic growth began to increase in 2021-2023 with an average economic growth value of 4.02 - 6.24, meaning that economic growth increased by 4.02% to 6.24%. However, in 2024, economic growth was seen to decline again. The lowest economic growth in 2024 was in Seruyan Regency, namely 3.04% and the highest economic growth was in North Barito Regency and Murung Raya Regency, namely 5.08% and 5.05%. In addition to economic growth, Life Expectancy also affects the unemployment rate in Regencies/Cities in Central Kalimantan Province.

Life expectancy is one of the measures used to determine the average number of years that a person is expected to live since birth, assuming that the mortality pattern that exists at that time will continue, meaning that the calculation of life expectancy is based on the current mortality pattern, without considering changes that may occur in the future. Thus, life expectancy does not directly predict how long a person will survive, but rather provides an overview of the average number of years that a person in a population is expected to live based on the current mortality pattern. Although life expectancy does not directly affect the unemployment rate in districts/cities in Central Kalimantan Province, there are several relationships between life expectancy in reducing the unemployment rate in districts/cities in Central Kalimantan Province, namely:

Improving the quality of human resources, high life expectancy shows that people have a good quality of life and access to adequate health services. This can improve the quality of human resources, so that they can be more productive and can contribute to the economy.

Increased productivity, with a good quality of life, people can increase productivity, so that they can increase income and reduce poverty. Increased productivity can also increase

employment opportunities, with good quality human resources, it will increase employment opportunities and reduce the unemployment rate in Central Kalimantan. Life expectancy in regencies/cities in Central Kalimantan Province in 2011-2014 can be seen in Table 7.1 as follows:

Table 7.1

Life Expectancy in Central Kalimantan Regency/Province 2011-2024

Regency/City															
	[New Method] Life Expectancy Rate at Birth by Regency/Municipality in Central Kalimantan Province (year)														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Central Kalimantan	68.98	69.09	69.18	69.29	69.39	69.54	69.57	69.59	69.64	69.69	69.74	69.79	70.04	70.27	70.43
West Kotawaringin	69.41	69.51	69.60	69.68	69.77	70.07	70.21	70.34	70.43	70.51	70.59	70.68	70.98	71.28	71.38
East Kotawaringin	69.05	69.15	69.24	69.32	69.41	69.51	69.60	69.70	69.75	69.80	69.85	69.90	70.15	70.39	70.51
Kapuas	67.94	68.04	68.13	68.21	68.30	68.40	68.49	68.59	68.64	68.69	68.74	68.78	69.02	69.23	69.34
South Barito	65.74	65.83	65.92	65.99	66.08	66.48	66.63	66.78	66.89	66.99	67.09	67.19	67.48	67.75	67.86
North Barito	70.54	70.64	70.73	70.81	70.91	71.01	71.26	71.27	71.28	71.29	71.30	71.30	71.50	71.68	71.80
Sukmara	70.82	70.92	71.02	71.10	71.19	71.24	71.32	71.41	71.45	71.49	71.53	71.56	71.80	72.03	72.15
Lamandau	68.71	68.81	68.90	68.98	69.07	69.12	69.20	69.28	69.31	69.34	69.36	69.39	69.62	69.84	69.98
Seruyan	68.23	68.32	68.41	68.49	68.58	68.88	69.22	69.23	69.24	69.25	69.26	69.26	69.46	69.63	69.72
Katingan	64.64	64.73	64.82	64.89	64.98	65.28	65.40	65.53	65.62	65.70	65.78	65.87	66.16	66.43	66.52
Murung Raya	67.09	67.19	67.27	67.35	67.44	67.64	67.75	67.86	67.92	67.98	68.04	68.10	68.36	68.60	68.74
Gunung Mas	69.23	69.33	69.42	69.50	69.59	69.89	70.02	70.15	70.24	70.32	70.40	70.46	70.72	70.96	71.10
East Barito	67.06	67.16	67.24	67.32	67.41	67.71	67.84	67.97	68.06	68.14	68.22	68.31	68.61	68.91	69.02

Murung Raya	68.75	68.85	68.94	69.02	69.11	69.21	69.30	69.39	69.43	69.47	69.51	69.53	69.75	69.94	70.04
Palangkaraya	72.57	72.68	72.77	72.85	72.95	72.97	73.05	73.13	73.16	73.19	73.21	73.24	73.47	73.70	73.82

Source: : kalteng.bps.go.id

From Table 7.1 it can be seen that the life expectancy in regencies/cities in Central Kalimantan in 2011 had an average value of 68.75, meaning that the life expectancy with an average age of 68 years was 75%. Then if viewed from 2012-2024, the life expectancy of the population in regencies/cities in Central Kalimantan Province experienced a stable increase with an average age of 69.48 to 69.94, meaning that in that year the life expectancy of the population in Central Kalimantan regencies/cities in the age range of 69 years was 48% and 69 years was 94% in 2012-2024. Of the 13 regencies in Central Kalimantan Province, the highest life expectancy is in North Barito, Sukamara, and Palangka Raya regencies/cities, namely with an average age of the population in the regencies/cities of 70.54 to 72.86. This means that the average age of the population in Barito Utara, Sukamara, and Palangka Raya regencies/cities is 70 years as much as 54% to 72 years as much as 86%, and the life expectancy with the lowest value is in Katingan Regency/City with an average age of Katingan residents ranging from 60 years to 66 years in 2011-2024. As seen in Table 1.1 which discusses unemployment data in regencies/cities in Central Kalimantan, the unemployment rate in Katingan Regency/City has increased significantly, this may be due to a decrease in life expectancy in Katingan Regency/City, resulting in an increase in the unemployment rate compared to other regencies/cities in Central Kalimantan Province in 2011-2024.

B. Formulation of the problem

1. What is the role of community education levels in reducing unemployment rates?
2. How does the regional minimum wage (UMR) affect the unemployment rate in Central Kalimantan? Does PDRB have a significant effect on the high unemployment rate in Central Kalimantan?
3. Does the GDP Deflator have a significant impact on the high unemployment rate in Central Kalimantan?
4. How big is the influence of economic growth on job creation in Central Kalimantan?
5. What is the effect of life expectancy on unemployment rates in Central Kalimantan?

C. Research purposes

This research on the analysis of factors influencing unemployment in Central Kalimantan aims to:

1. find out how much influence the level of education has on the unemployment rate in Central Kalimantan
2. identify how UMR affects unemployment rates in Central Kalimantan
3. evaluate the impact of GDP Deflator on unemployment rates in Central Kalimantan
4. analyze how much economic growth can create new jobs and its impact on reducing unemployment rates in Central Kalimantan.
5. find out the role of health (Life Expectancy) in reducing unemployment in Central Kalimantan

D. Benefits of research

This research is expected to be able to give benefits to the following parties as mentioned below:

1. For the government:
    a. To give a reliable description of factors influencing the unemployment rate in Central Kalimantan
    b. To formulate appropriate economic policies to reduce unemployment rates and the level of welfare of the people of Central Kalimantan.
2. For business practitioners
    a. To add references for business practitioners and investors to find out the labor market conditions in Central Kalimantan.
3. For future researchers
    b. To add scientific references for academics or researchers related to this topic to conduct further research in the future.

CHAPTER II

LITERATURE REVIEW

A. Previous Literature Review

This research study was conducted to minimize the occurrence of similarities in research on unemployment, in addition the author has conducted several studies with similar themes that have existed previously to obtain reference sources for the author in conducting research. The following are previous studies that have been conducted related to the analysis of unemployment factors:

1. Muhammad Dony's article (2016), entitled the influence of government spending and GRDP on the unemployment rate in West Kalimantan Regency/City, examines the problem of unemployment rates in West Kalimantan and the influence of GRDP on the unemployment rate in West Kalimantan. This study uses a quantitative descriptive method. The model used in the study is a multiple linear regression model and statistical tests. From the results of the analysis that has been carried out by the author, a constant value of 8.020562 was obtained. The *Adjusted R-Square* (R2) coefficient value is 0.632881 or 63.28% which indicates that the ability to contribute or contribute government spending and GRDP to unemployment in West Kalimantan, while the rest is influenced by other factors outside this variable. The results of the calculation and data analysis, it can be explained that
    a. Government spending has a negative and significant effect on unemployment in West Kalimantan, meaning that the lower government spending, the higher unemployment. The lower government spending causes the open unemployment rate to increase. The coefficient value of each parameter of this expenditure is inelastic, where the percentage decrease in the unemployment rate is smaller than the percentage increase in government spending. Thus, the government's performance in allocating these expenditures is not yet efficient.
    b. GRDP has a negative and significant effect on unemployment in West Kalimantan, meaning that the lower the GRDP, the higher the unemployment rate. This is because the highest contribution of GRDP is in the agricultural

sector. The agricultural sector cannot absorb much labor, so even though GRDP increases, it is not followed by a decrease in unemployment .

2. Komang's article (2018), entitled Analysis of the Influence of Open Unemployment Rate, Job Opportunities, and Education Level on Poverty Levels in Regencies/Cities in Bali Province, examines the problem of poverty which is influenced by various interrelated factors, including unemployment, education, health, job opportunity levels, consumption, location, and environment. The purpose of this study is to analyze the influence of open unemployment rates, job opportunities, and education levels simultaneously and partially on poverty levels in Regencies/Cities in Bali Province in 2011-2016. The data analysis technique used is multiple linear regression analysis technique. The results of the analysis show that open unemployment rates, job opportunities, and education levels simultaneously have a significant effect on poverty levels in regencies/cities in Bali Province in 2011-2016. The results of this study also show that open unemployment rates have a positive and significant effect on poverty levels. Job opportunities have a negative and significant effect on poverty levels and education levels have a negative and significant effect on poverty levels. The open unemployment rate has a dominant influence on the poverty rate in districts/cities in Bali Province in 2011-2016 compared to employment opportunities and education levels, with a contribution of 64.32 percent.

3. The article by Alkatiri, Machmud, and Lagarutu (2022), entitled *Factors Affecting Unemployment in Bone Bolango Regency* , examines the Factors Affecting Unemployment in Bone Bolango Regency. This study uses a descriptive quantitative approach using multiple linear regression analysis tools. The data sources used are secondary time series data or data over a period of five years (2016-2020). The results of the study show that unemployment in Bone Bolango Regency is influenced by two factors, namely population growth factors and economic growth factors. Based on the results of multiple linear *regression* analysis , partially unemployment is only influenced by the percentage increase in population while economic growth has no effect on unemployment. However, simultaneously unemployment in Bone Bolango Regency is influenced by population growth and economic growth as indicated by the Rsquare value of 55.20 percent. While = the remaining 44.80 is influenced by other variables not studied. Meanwhile, the relationship between unemployment and the factors that influence it is obtained by the multiple regression equation Y = 4.525 +

0.164X1 0.164X2. This means that the unemployment rate in Bone Bolango Regency will only be 4,525 people if there is no population growth and economic growth.

4. Pendi's article, *entitled Analysis of Unemployment Rate and Influencing Factors in Indonesia* , analyzes the factors that influence unemployment. The purpose of this study is to analyze the influence of variables, wages, inflation, GRDP, investment, population growth rate and to see the variables that most influence the unemployment rate in Indonesia in 2008-2013. The research method used is the explanatory research method and the analysis method uses multiple regression analysis using panel data that combines time series data with cross sections from 2008-2013 and 33 provinces, as data processed in a multiple regression model with 198 observations.

5. The article *Analysis of Factors Affecting the Unemployment Rate in East Java Province in 2009-2015*, conducted by Setiawan, Saleh, and Yuliati (2017), explains that unemployment is a condition where there is an imbalance between demand and labor and labor supply in the labor market. Community welfare is reduced due to the large number of unemployed. This study aims to determine the effect of the variables PDRB, population and district minimum wages on the Open Unemployment Rate in East Java in 2009-2015. This study was motivated by the high unemployment rate in East Java Province. To find out and answer the formulation of the problem, this study uses the regression analysis method with using panel data. Data was obtained from the Central Statistics Agency (BPS) in the form of *time series* and *cross-sectional data. section* , which includes data on the Open Unemployment Rate, GRDP, Population Number, and UMK in East Java Province. Based on the selection of panel data, the best data was obtained with the model (FEM). The results of the panel data regression analysis using the FEM model show that PDRB and the amount population has a significant negative effect on the unemployment rate in East Java province. While UMK does not have a significant influence on the unemployment rate in East Java province. From This study can conclude that PDRB, Population Number, and UMK have a significant influence on Open Unemployment Rate in East Java Province so that the Government can provide innovation or create jobs so that unemployment can be reduced.

6. Muhharrahman's article (2017) entitled *The Effect of Inflation and Economic Growth on Unemployment in West Kalimantan*, analyzes the factors that influence unemployment in West Kalimantan Province. These factors are Inflation and Economic

Growth. This study uses multiple linear analysis with a descriptive research method conducted using five years of data from 2010 to 2014. The results of the study indicate that the inflation variable does not have a significant effect on unemployment, indicating that the increase in the inflation rate has a negative effect on unemployment in West Kalimantan. While economic growth does not have a significant effect on unemployment, indicating that economic growth also has a negative effect on unemployment in West Kalimantan. So the inflation and economic growth variables have a negative effect on the unemployment rate in West Kalimantan.

7. Magirang, Masinambow and Maslowman's (2023) article entitled *Analysis of Factors Affecting the Unemployment Rate in Minahasa Regency*, analyzes the influence of the unemployment rate in Minahasa Regency, including Education, Minimum Wages, and Human Development Index. The higher a person's education, the higher their ability and job opportunities. Wages are rights that must be paid for services that have been rendered. The higher the wages paid, the higher a person's participation in working. Human development index, which increasingly illustrates the standard of education, health level, and economic quality of families which continues to improve, so that people's purchasing power continues to increase, which will have an impact on reducing poverty levels. unemployment. This study aims to determine the influence of education, minimum wages and unemployment index. human development towards the unemployment rate in Minahasa Regency. The data used in this research is secondary data with an observation period of eleven years, namely 2010-2020. The method The analysis used in this study is multiple linear regression. The software used for this study is multiple linear regression. conducted the analysis using Eviews 10. The results of the study showed that the education variable had a positive effect and significant on the unemployment rate. The minimum wage variable has a negative and significant effect on unemployment rate. The human development index variable has a negative and significant effect on the unemployment rate. unemployment. And together the variables of education, minimum wage, and human development index has a significant influence on the unemployment rate in Minahasa Regency .

8. Qamaruddin's article, *entitled Analysis of Factors Affecting the Unemployment Rate in Palopo City during the Covid-19 Pandemic*, examines the factors that affect the unemployment rate in Palopo City during the Covid-19 pandemic. The data collection

method in this study uses observation, namely observing the object being studied. Obtained from observational data in the form of secondary data or data obtained from other parties (already available) and has been processed into a publication form. In this study, the researcher used a data analysis method in the form of descriptive analysis and factor analysis using multiple linear regression with the help of SPSS software. The results of the study showed that life expectancy and education level during the Covid-19 pandemic did not have a significant effect on the unemployment rate, while total population growth and total GDP growth had a positive and significant effect on the unemployment rate in Palopo City in 2021. The multiple linear regression equation obtained that each increase in population growth also had an effect on increasing unemployment by 0.213%. Furthermore, for each increase in the amount of GRDP growth, the Unemployment Rate variable also increased by 0.00000134%.

9. Putra, AD (2019) in his article *entitled Analysis of Factors Affecting Unemployment Rates and Poverty Rates in Indonesia*, examines poverty and unemployment as problems that have currently reached quite concerning conditions in Indonesia. The purpose of this study is to analyze the factors that affect the unemployment rate and poverty rate in Indonesia. With independent variables of economic growth, inflation, investment, minimum wages, and education, while the dependent variables are the unemployment rate and poverty rate. Data were obtained from the Central Statistics Agency (BPS) for the period 2000 - 2014. The analysis method used is the Path Analysis Method and *SPSS*. The results of the study indicate that the investment variable has a significant effect on the unemployment rate, and the wage variable has a significant effect on the poverty rate in Indonesia.

10. Gunawan's article (2017) entitled *The Effect of Labor Force Growth and Economic Growth on Unemployment in Indonesia*, examines the impact of labor force growth and economic growth on unemployment in Indonesia. The method used is a descriptive quantitative method. The model used in the study is a multiple linear regression model and statistical tests. From the results of the analysis that has been carried out by the author, a constant value of 1.969727 was obtained. The *R-Square coefficient value* (R2) of 0.907790 or 90.77% (percent) shows the ability of contribution or contribution of labor force growth and economic growth to unemployment in Indonesia, while the rest is influenced by other factors outside this variable. The results of the calculation and

data analysis, it can be explained that: labor force growth has a negative and significant effect on unemployment in the Province in Indonesia. This is because the F-probability value of 0.0133 is smaller than alpha 0.05 and economic growth has a positive and insignificant effect on unemployment in the province of Indonesia. This is because the F-probability value of 0.5024 is smaller than alpha 0.05.

11. Sorensen and Hwang, (2021) article states that young people in remote rural communities face significant geographic barriers to accessing higher education. Even those who live near a postsecondary institution may not have the resources to pursue higher education or may not see its value in their local economy. This study uses 18 years of county-level national data to examine how local economic shocks affect postsecondary enrollment and completion among students from rural areas compared to students in metropolitan areas and areas adjacent to metropolitan areas. The results of an instrumental variable analysis show that each 1 percentage point increase in local unemployment increases enrollment in local higher education institutions in remote rural areas by 10.0%. In comparison, this increase is 5.2% in areas adjacent to metropolitan areas and no increase is seen in metropolitan areas. The increase in enrollment in rural colleges is primarily due to students starting or continuing from 2-year to 4-year degree programs.
12. Asrina's article (2017) states that in the era of increasingly advanced globalization, unemployment is one of the biggest challenges for social and economic development, including in North Luwu Regency. This study examines the relationship between education levels and unemployment among young workers. Using a qualitative approach based on literature review, this study uses various scientific articles in the period 2016 to 2024. The results of the study show that education plays a very important role in reducing unemployment rates by improving the skills and competitiveness of the workforce. In addition, education also contributes to poverty reduction and supports economic growth by strengthening the quality of human resources. However, the gap between the education system and the demands of the labor market remains a significant obstacle and causes high unemployment among skilled workers. Many graduates do not have skills that are relevant to the needs of the local industry. Coupled with the lack of technology-oriented training and limited formal employment opportunities. Therefore, it is necessary to improve the curriculum to be more responsive to the needs of the labor market and develop vocational training programs based on practical skills.

Cooperation between the government, the private sector and educational institutions is intended to create more and sustainable jobs. These steps are expected to reduce unemployment rates while improving the welfare of the people in North Luwu Regency.

13. Mpendulo and Mang'unyi (2018) examine the relationship between educational attainment and unemployment among youth in four municipalities in the OR Tambo District (ORTDM), Eastern Cape, South Africa. Human capital theory provides a theoretical basis for the relationship between educational attainment and unemployment and is also used to interpret the results. It is expected that this study will make an important contribution to the theoretical development of literature and policy in the education sector and the labour market in South Africa. Research Methods: The participants were selected using systematic random sampling as the study used a quantitative research paradigm. A cross-sectional study was conducted. Data included 120 self-administered questionnaires from the employed youth studied. Cross-tabulation, correlation and chi-square analyses were used, while the developed multiple regression model was used to test the relationships. Results: The analysis showed a correlation indicating that educational attainment was positively related to unemployment and also had the greatest influence on unemployment. Furthermore, the results showed a negative correlation between economic status and educational attainment, while there was a positive correlation with unemployment. Finally, there was a weak linear relationship between educational attainment and economic status. Implications for research and practice: The results offer opportunities for education policymakers to work with governments to develop strategies to increase employment. The results suggest that continued integration of education and training into the labor market has not been accompanied by a reduction in unemployment. Future research could investigate other causes of rising unemployment in the country despite economic recovery, as well as the moderating role of ethnicity.
14. The article by Yaln and Yaln (2024) states that the minimum wage, which has increased more than tenfold in Turkey since 2014, has become a controversial issue in Turkish economic policy in recent years. This controversy is due to several factors, including the high number of minimum wage earners and the decline of the minimum wage below the hunger and poverty lines due to inflation, despite the rapid increase in the nominal minimum wage. The literature on the Turkish labor market and the broader empirical and theoretical literature in economics disagree on the impact of the minimum wage on

employment. According to Yaln and Yaln, the minimum wage has a positive and Granger causal relationship with unemployment, because the high number of minimum wage earners suggests that an increase in the minimum wage can lead to strong labor market rigidities. To test this hypothesis, we conducted ordinary least squares (OLS) regression and Granger causality tests using unemployment, minimum wage, gross domestic product (GDP), and producer price index (PPI) data from 2014 to 2022. We conclude that there is a positive relationship between minimum wage and unemployment and that minimum wage has a Granger causal relationship with unemployment. Although further research is needed to show a clear causal relationship, the results of this study indicate a positive relationship and support the assumption that higher minimum wage has a causal relationship with higher unemployment. These results imply that the impact of minimum wage on unemployment needs to be more considered when setting minimum wage.

15. Kadeřábková and Jašová (2019) conduct an empirical analysis of the existence and nature of the relationship between minimum wages and selected unemployment indicators in the Visegrad countries. The correlation coefficients determined for the Czech Republic, Hungary and Poland show that the positive effect outweighs the negative effect, that is, an increase in the minimum wage leads to an increase in unemployment. In line with similar studies worldwide, it was found that the opposite effect of the relationship between changes in the minimum wage and certain unemployment indicators is also relevant in the Visegrad countries.
16. Ramos-Herrera (2023) examines new insights into the impact of minimum wages on unemployment rates in 33 OECD countries over the period 1980–2020 using a dynamic fixed-effects panel threshold model. Taking into account common macroeconomic and demographic factors, the best model estimates a minimum wage threshold of 9.1667. The higher the minimum wage, the lower the unemployment rate; however, above the threshold, the marginal effect is larger. A single-threshold model is identified for the 25-74 age group and for secondary and long-term unemployment. The possibility of a two-threshold model is excluded for all unemployment indicators.
17. The article by Ramadhan, Teguh, Roselina, and Andriastuti (2024) examines the impact of regional minimum wages (UMR), gross domestic product (GDP), and inflation on the unemployment rate in Indonesia from 2012 to 2020. The method used is Multiple linear regression analysis to examine the relationship between these economic variables. The results of the study indicate that UMP has a significant negative effect

on the unemployment rate. This means that a 1% increase in the minimum wage, ceteris paribus, will result in a decrease in unemployment of 3.951%. GDP also shows a significant negative impact, which is consistent with Okun's law, which shows an inverse relationship between economic growth and unemployment. In contrast, inflation did not have a significant impact on the unemployment rate during the period under review. When combined, the three variables have a significant positive impact on the unemployment rate in Indonesia, with an adjusted R-squared value of 0.749. This means that 74.9% of unemployment fluctuations can be explained by GDP, inflation, and minimum wages, while other factors account for the remaining 25.1%. The study also highlights the complex interactions between macroeconomic indicators and unemployment and provides insights for policymakers to develop effective strategies to address employment issues in Indonesia. The findings provide an evidence-based basis for formulating more effective and adaptive employment and economic policies for Indonesia's labor market conditions.

18. Korkmaz and Abdullazade's (2020) found that unemployment and inflation are major issues in macroeconomics. While solving unemployment is a priority for some governments, controlling inflation is also a priority for others. Unemployment and inflation are two undesirable issues for a national economy. To address these issues, national governments implement monetary and fiscal policies that meet their objectives. Group of 6 (G6) countries are countries that influence the policies of international institutions. In this context, this study investigates whether there is a relationship between inflation rates and unemployment in nine randomly selected G6 countries (Australia, Brazil, Canada, France, Germany, Italy, the Russian Federation, Turkey, and the United Kingdom) using data from the period 2009–2017 and a panel causality test. According to the Granger causality test, there is a unidirectional causality between inflation rates and unemployment rates. According to the study findings, controlling inflation is a priority in these countries. As a result of anti-inflationary measures, the demand for goods and services in the economy decreases. When the aggregate demand for goods and services falls, the demand for labor also falls. In macroeconomic policy, there is a relationship between inflation and unemployment. If unemployment increases, inflation decreases, and if unemployment decreases, inflation increases. The results of the study also confirm this. If inflation can be controlled, it will cause unemployment at the inflation rate.

19. The article by Alhabarneh, Salameh, and Al-Sawaie (2024) examines the relationship between inflation and unemployment, which is one of the most frequently discussed topics. This study is based on the Phillips curve, which describes the balance between inflation and unemployment. The dynamic autoregressive least squares method is applied to Jordanian economic data from 1993 to 2022. The Johansen test is used to determine whether there is a cointegration relationship between inflation and unemployment. The results show that the unemployment rate is statistically significant in the long run and has a negative impact
20. Gülener's (2024) article examines the complex relationship between unemployment and inflation in Turkey over 64 years, from 1960 to 2023. Using correlation analysis and simple linear regression, it is found to investigate the long-run relationship between these two important macroeconomic indicators. The results show a moderate positive correlation between unemployment and inflation, thus challenging the traditional inverse relationship of the Phillips curve. This unexpected result suggests that in the context of the Turkish economy, periods of higher unemployment are usually accompanied by higher inflation rates. The paper provides a comprehensive review of the relevant literature and analyzes historical data in the context of Turkey's evolving economic landscape. This study contributes to the ongoing debate on the validity of the Phillips curve in emerging markets and offers insights into the unique dynamics of the Turkish economy. The results underscore the need for specific economic models and policies that take into account the Turkish economic conditions. Furthermore, the analysis reveals patterns of economic stability and turbulence over the period studied and provides a valuable historical perspective on Turkey's economic development. These findings have significant implications for policymakers who must address the complex interplay between unemployment and inflation in Turkey and perhaps other emerging market economies.
21. Hjazeen, Seraj, and Ozdeser's (2021) article examines the impact of unemployment on the Jordanian economy during the period 1991–2019. In this study, the Autoregressive Distributed Lag (ARDL) model is used to investigate the relationship between the unemployment rate and other variables. Furthermore, this study uses the ARDL bootstrap cointegration approach to investigate the correlation and long-run relationship between the variables. The empirical results show a long-run relationship between the unemployment rate, economic growth, education, female population and urban population in Jordan. Our results show a negative relationship between economic

growth and unemployment, and a positive relationship between education, female population, urban population, and unemployment in Jordan.

22. The article by Sahoo and Sahoo (2019) reveals the relationship between some macroeconomic variables and unemployment in India. The focus is on the impact of some macroeconomic variables on unemployment during the period 1991–2017. Cointegration test and corresponding vector error correction model (VECM) and Granger causality test are used for the analysis. The study uses variables such as unemployment rate (UNEMP), real gross domestic product (RGDP) as a general indicator of economic growth, consumer price index as an indicator of inflation, gross fixed capital formation, literacy rate, and labor force. Stationarity test is performed using the Augmented Dickey-Fuller (ADF) test, and the results show that all the variables become stationary after the first differentiation. In addition, the results of the Johansen cointegration test indicate a significant long-run relationship between UNEMP, GDP, INFL, LF, LR and GFCF. Similarly, VECM shows that economic unemployment in India can be predicted to some extent based on the given explanatory variables. In VECM, the intercept β_0 is positive 0.147108 and significant at the 1% level, indicating that overall unemployment has increased proportionally during this period. Finally, the Granger causality test results show a unidirectional relationship between UNEMP and GDPR, with the causality running from GDPR to UNEMP. Gross domestic product, domestic private investment (GFCF) and labor force significantly cause unemployment according to their probability values. There is a bidirectional Granger causality between labor force and unemployment. Based on these findings, this study recommends that the government should immediately create more job opportunities to absorb the large number of unemployed in the country by modernizing the agricultural sector, providing modern equipment in agricultural fields to make this sector more attractive to all citizens regardless of qualifications and professions.
23. Kreishan (2011) examines the relationship between unemployment and economic growth in Jordan by applying Okun's law. This study uses annual data from 1970 to 2008. Time series techniques are used to test the relationship between unemployment and economic growth and to obtain estimates of Okun's coefficients. Specifically, this study uses Augmented Dickey-Fuller (ADF) for unit root, cointegration test, and simple regression between unemployment rate and economic growth. The empirical results show that Okun's law cannot be confirmed for Jordan. Therefore, it can be assumed that the lack of economic growth does not explain the unemployment problem in Jordan.

Conclusion: This study finds that economic policy measures aimed at managing demand will not have a significant impact on reducing the unemployment rate. Therefore, it would be more appropriate for Jordanian policymakers to implement economic policies that focus on structural changes and labor market reforms.

24. Haririan, Huseyin and Karabulut (2010) prove the long-run relationship between GDP growth and unemployment in selected MENA countries: Turkey, Egypt, Israel, and Jordan. Although previous research results in this area are somewhat contradictory, the literature traditionally shows a negative relationship between GDP growth and unemployment. This paper reveals a long-run negative relationship between GDP growth and unemployment. Therefore, high GDP growth rates will lead to a decrease in unemployment. The results of our cross-country comparison model support a negative relationship between these variables.
25. Antonisse and Garfield's (2018) conducted a literature review, and found that (1) Poor health is associated with a higher risk of job loss, while access to affordable health insurance has a positive impact on people's ability to find and maintain employment; (2) There is limited evidence regarding the impact of health job. Some studies have shown a positive effect of employment on health, while others have shown no correlation or an isolated effect. The authors caution against inferring the reverse relationship (employment leads to improved health) from these results. While unemployment is almost always a negative experience and thus associated with poor outcomes, particularly poor mental health, employment can be positive or negative depending on the nature of the job (e.g., stability, stress, hours, pay, etc.).
26. Harris and Harris (2009) identified potentially effective strategies for use in primary health care (PHC) settings to prevent, detect and treat health problems among the unemployed. The design used was a narrative review of articles on PHC-based interventions for the unemployed published between January 1985 and February 2009. The article concluded that there is little formal scientific research on the effectiveness of PHC-based interventions for the unemployed. General practitioners and other health workers have a critical role in the prevention and early treatment of health problems among the unemployed and in supporting their return to work. Unemployed people have poorer physical and mental health than those in employment. Research needs to move from simply describing these health problems to developing interventions that are subject to rigorous evaluation.

27. Monsef and Mehrjardi (2018) examine the impact of unemployment on health capital in 136 countries between 2002 and 2010. Evaluation of the available literature on health capital shows that life expectancy has been used as an indicator of health capital. Although there are many studies that have examined the psychological and physical impacts of unemployment, there seems to be no study that has examined the impact of unemployment on life expectancy in these countries. In addition, the impact of other macroeconomic factors such as inflation, gross capital formation, and the level of development on life expectancy was analyzed. For this purpose, data from the World Bank were used, and the presented model was estimated using panel data methods. The results show that unemployment has a negative impact on life expectancy. The impact of inflation on life expectancy is also negative and statistically significant. However, gross capital formation is the most important positive economic factor in increasing life expectancy. The level of development of a country is positively correlated with life expectancy. The average life expectancy is higher in developed countries than in poor countries. Urbanization is also the most important socio-ecological factor for life expectancy. From a policy perspective, it is therefore recommended that policymakers consider the benefits of health capital for economic development, particularly in developing countries, when planning for new job creation and increasing national income.

B. Theoretical basis

a. Definition of Unemployment

According to Sukiro (2008) unemployment is a condition where someone who is included in the workforce wants to have a job but has not yet obtained one. According to Simanjutak (2003) unemployment is a person of working age who does not work at all

or works less than two days during the week before the census and tries to get a job. According to Putong (2008), the category of unemployed people is usually those who do not have a job at working age and working period. Working age is usually the age that is not in school but above the age of children (relatively 6-18 years, namely the education period from elementary school to graduating from high school). While over the age of 18 but still in school can be categorized as unemployed, although this is still widely debated.

Unemployment occurs due to an imbalance in the labor market. In the labor market, there is a demand and supply curve for labor. The labor demand curve shows the amount of labor that will be offered by households and has a positive slope towards wages. Market equilibrium will be achieved if a situation occurs where the amount of labor demanded is the same as the amount of labor offered at a certain wage level (Widiyawati, 2016).

According to Mankiw (2003), unemployment is also caused by wage power, namely the failure to balance the supply and demand of labor. One of the things that causes wage power is the minimum wage policy law. BPS (2016) states that the minimum wage is a minimum monthly request as compensation from a company to employees for a job or service that has been or is done and is stated in the form of money determined on the basis of an agreement or statutory regulations and payment on the basis of an agreement between employers.

b.Types of unemployment

According to Sukirno (2006), the causes of unemployment can be classified into four types, namely:

1. Frictional unemployment is unemployment that occurs when the economy has reached full employment.

2. Cyclical unemployment is unemployment caused by very slow economic development or a decline in economic activity

3. Structural unemployment occurs due to changes in the structure or composition of the economy.

4. Technological unemployment, caused by the replacement of human labor by machines and chemicals due to technological developments.

Labor utilization approach theory focuses on whether a person is sufficiently utilized in work and is seen in terms of the number of working hours, work productivity, and income earned. With this approach, the workforce is divided into three groups, namely:

1. Unemployed, namely, people who are not working at all and are trying to find work
2. Underemployed, namely the brand that is under-utilized in work in terms of working hours, work productivity, and income.
3. Fully employed or sufficiently utilized

To group each type of unemployment, it is necessary to pay attention to the dimensions related to unemployment itself, namely:

a) Work intensity (related to nutritional health)

b) Time (many of those who work want to work longer)

c) Productivity (lack of productivity is often caused by a lack of complementary resources to do the job)

Based on the dimensions of unemployment above, unemployment can be divided into (BPS 2000, p.8), namely:

1. Unemployment, both open and forced voluntarily, they do not want to work because they expect a better job while forced unemployment, they want to work but do not get a job. Underemployment is when people work where the time they spend is less than what they usually work.
2. They appear to be working, but are not working full time. They are classified as openly unemployed and underemployed. Included in this category are invisible unemployed, hidden unemployed and early retirees.

C. THEORY OF FACTORS CAUSING UNEMPLOYMENT

1. Level of education

Dr. John Dewey stated, “Education is a process of experience. Because life is growth, education means helping inner growth without being limited by age. The growth process is the process of adjusting to each phase and adding skills in a person's development.” Meanwhile, Prof. H. Mahmud Yunus is of the opinion that “Education is an effort that is deliberately chosen to influence and help children with the aim of increasing knowledge, physical and morals so that it can gradually lead the child to his/her goal. most tall. So that the child lives happy, and everything he does is beneficial for himself and society.

Meanwhile, according to Law no. 12 of 2012, it states that: Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals and skills needed by themselves, society, nation and state. From the definition explained above, it is clear that education is expected to be able to change a person into a behavior that can boost their abilities in all lines of life. From an education, it is expected that humans have expertise, skills and noble morals that can be provisions for them in living their lives. Later when they become role models as parents, they are able to educate their children as the next generation.

How does education reduce unemployment? There are three reasons: (1) Increased job opportunities: Higher education often prepares individuals for specialized roles and industries with higher employment rates and better prospects; (2) Higher demand: Companies often prefer to hire candidates with certain educational qualifications because they demonstrate a certain level of training and expertise, and (3) Increased job security: Studies have shown that people with higher education are more likely to obtain full-time employment and have longer-lasting job security.

2. Regional Minimum Wage (UMR)

According to Mankiw (2006), the wage theory is that high wages can retain workers (employees) who want to leave the business sector that will not accept new workers quickly without the skills and experience they have. With high wages, companies can improve the average quality of employees, if wages are lowered, workers can leave the company and switch to business sectors that provide high incentives. This will affect someone to be unemployed for a certain time to find the best job with the assumption that they will get high wages. If the workforce sets a certain wage as the minimum wage received, then if all the wages offered are below that wage level, someone will refuse to get that wage.

Thus, there are three reasons why minimum wages have a positive correlation with unemployment, namely: (1) Increased labor costs: Companies may find it more expensive to recruit workers at the new minimum wage, potentially leading to reduced hiring or layoffs; (2) Reduced competitiveness: increasing the minimum wage in industries with low profit margins can make it more difficult for companies to compete; (3) Demand for more skilled workers: Companies may prefer to hire more experienced or skilled workers who are willing to work for higher wages rather than pay entry-level workers the minimum wage.

3. GDP Deflator

GDP Deflator is a measure used to measure changes in the prices of goods and services produced in a country. GDP Deflator is one of the inflation indicators used to measure aggregate price changes. According to Mankiw (2013), GDP Deflator is a measure used to measure changes in goods and services produced by a country, by comparing nominal GDP and real GDP. The use of GDP Deflator is to measure inflation, calculate Real GDP and economic analysis. According to Iskandar (2008), inflation is a condition where there is an increase in the price of goods in general from time to time continuously. The level of price increase is only said to be inflation if the increase is widespread and affects the increase in prices for other goods. So that the increase in price for one or two goods alone cannot be said to be inflation, unless it has affected the prices of other goods.

According to Samuelson and Nordhaus (2001), the price level in the definition of inflation, conceptually is the weighted average price level of goods and services in the economy. In practice, the price level is measured by the price index, both the consumer price index (CPI) and the producer price index.

Thus, unemployment and inflation are usually inversely related, a concept often visualized by the Phillips curve. In general, low unemployment is associated with higher inflation, while high unemployment is associated with lower inflation. When unemployment is low, there is strong demand for labor, leading to higher wages and higher prices. Conversely, high unemployment reduces aggregate demand, which puts downward pressure on prices and can lead to deflation.

The explanation of the relationship between inflation and unemployment is in the following:

a) **Phillips Curve:** This curve illustrates the historical tendency of inflation and unemployment to move in opposite directions. For example, during times of economic growth and low unemployment, rising demand for goods and services and wage pressures can cause inflation to rise.
b) **Demand-driven inflation:** If the demand for goods and services exceeds the supply, this can lead to demand-driven inflation, as consumers are willing to pay more for the goods and services available. This often occurs when unemployment is low and there is high disposable income in the economy.

4. Economic growth

According to Keynes (1936), economic growth can affect unemployment through aggregate demand, when aggregate demand increases companies need more workers to meet the demand for products and services. Economic growth can affect unemployment in several ways such as: increasing the demand for labor when the economy grows, companies need more workers to meet products and services, creating new jobs, if economic growth improves there will be many new jobs in developing sectors and increasing employment opportunities. According to Lucas (1988), economic growth can affect unemployment through investment in human capital. When investment in human capital increases the workforce will be more productive and can increase employment opportunities. According to Sukirno

(2000), economic growth is an increase in output per capita in the long term, the emphasis is on three aspects, namely the process, output per capita, and the long term. Economic growth is a process, not just a momentary economic picture. Regional economic development and sectoral development must be implemented in line so that sectoral development in the regions can run according to the potential and priorities of the region. Gross Regional Domestic Product (GRDP) is the amount of added value generated for all business and service areas in a region, applying the total value of final goods and services produced by all economic units. GRDP itself can be interpreted as the amount of added value generated by all economic units in a region (BPS, 2016). According to Sukirno (2006), economic growth can be defined as the development of activities in the economy that cause goods and services produced in society to increase.

Regional development is carried out to minimize the disparity in economic growth between regions. The objectives of development itself must include the following targets, namely: efforts to equalize development throughout the region, equalizing regional development according to the ability of aspirations and regions for the benefit of national development and the region itself. Then, the development of mutually beneficial economic relations between regions to establish strong economic ties to strengthen national economic unity. Then the last is to develop minus areas, borders, and critical land with special programs (Sanusi, 1987).

Thus, in general, there is an inverse relationship between economic growth and unemployment; as economic growth increases, unemployment tends to fall. This is often explained by Okun's Law, which states that for every percentage point of GDP growth above potential, the unemployment rate falls by about 0.3 percentage points. Okun's Law establishes a relationship between GDP growth and unemployment, namely that a decrease in unemployment is usually accompanied by an increase in GDP growth. However, this relationship is not always perfect, and there are other factors that can influence it.

5. Life Expectancy

Life expectancy is one of the keys to improving public health, with improved health facilities will also affect the productivity of the population, so that it can

improve the quality of work in a Regency/City. According to Bloom and Canning (2000), life expectancy can affect the unemployment rate through increasing the workforce. When life expectancy increases, employment opportunities also increase because the workforce becomes more productive and can work for longer periods of time.

Thus, longer life expectancy can indirectly contribute to reducing unemployment by encouraging a healthier and more productive workforce. A healthier workforce means fewer sick days, higher productivity, and potentially more job opportunities. Conversely, unemployment can have negative health effects and lead to a vicious cycle in which unemployment worsens health and shortens overall life expectancy. Likewise, healthy people are more likely to work, because (1) longer life expectancy is often associated with better overall health; (2) people are less likely to be absent from work due to illness or disability; and (3) a healthier workforce is more productive and competitive, increasing demand for their skills.

D. HYPOTHESIES

The hypotheses in this study are:

1. Education level has a significant negative effect on unemployment.
2. The minimum wage level has a significant positive effect on unemployment.
3. The inflation rate (deflator) has a significant negative effect on unemployment.
4. The economic growth rate has a significant negative impact on unemployment.
5. Health level (life expectancy) is thought to have a significant negative effect on unemployment.

CHAPTER III

RESEARCH METHODS

A. Data Types and Sources

The data used in this study is a type of secondary data, meaning data collected and provided by related agencies, such as the government or certain institutions at a certain time period and published to the data user community. Data was obtained from the Central Statistics Agency (BPS) in Central Kalimantan.

The type of research used in this study is descriptive quantitative research, this method is very suitable for this study, because this study was conducted using a case study approach. This study aims to determine the influence and relationship between two or more variables. In this study the author will analyze the factors that influence the unemployment rate in Central Kalimantan. In this study, there are five variables used, namely, Education Level, Regional Minimum Wage (UMR), GDP Deflator, Economic Growth, and Life Expectancy.

B. Research Variables and Operational Definitions

The variables used in this study are the open unemployment rate as the dependent variable. The independent variables are Education Level, Regional Minimum Wage (UMR), GDP Deflator, Economic Growth, and Life Expectancy. The operational definition of each variable studied is as follows:

1. Unemployment Rate (Y)

   Unemployment is a person who does not have a job, is not looking for a job because it is impossible to get a job and is looking for a job. In percent. The data was taken from the Central Kalimantan Statistics Agency in 2011-2024.

2. Education Level (X1)

   Education is a process of experience. Because life is growth, education means helping inner growth without being limited by age. The growth process is the process of adjusting to each phase and adding skills in a person's development . The data was taken from BPS Central Kalimantan in 2011-2024.

3. Regional Minimum Wage (X2)

   Regional Minimum Wage is the minimum salary standard that must be paid by employers to workers in a certain region or area. UMR is set by the local government to protect workers' rights and improve their welfare. The amount of UMR in a region varies depending on local government policies and local economic conditions. The data were taken from BPS Central Kalimantan in 2011-2024.

4. GDP Deflator (X3)

   GDP Deflator is an economic indicator that measures the average price change of all goods and services produced by a country or region. GDP Deflator is used to calculate inflation and measure economic growth. The data were taken from the Central Statistics Agency of Central Kalimantan in 2011-2024.

5. Economic Growth (X4)

   Economic growth is an increase in goods and services produced by a country or region in a certain period of time. Economic growth can be measured in certain indicators such as; GDP, GDP per capita, Annual economic growth rate. The data were taken from BPS Central Kalimantan in 2011-2024.

6. Life Expectancy (X5)

   Life expectancy is the average number of years a person is expected to live. Life expectancy is influenced by factors such as; health quality, access to health services, nutrition and healthy lifestyles, and the environment. The data were taken from BPS Central Kalimantan in 2011-2024.

C. Research Object

The object of unemployment research in Central Kalimantan Regency consists of 13 regencies, namely: West Kotawaringin Regency, East Kotawaringin Regency, Kapuas Regency, South Barito Regency, North Barito Regency, Sukamara Regency, Lamandau Regency, Seruyan Regency, Katingan Regency, Pulang Pisau Regency, Gunung Mas Regency, Murung Raya Regency, and East Barito Regency. Based on BPS data in 2022, the largest population is in East Kotawaringin Regency with around 436,079 people, Kapuas Regency with around 423,210 people, and South Barito Regency with around 131,140 people. Then from the most densely populated population, there is also a

population with the smallest number, namely in Sukamara Regency with a population of around 66,118 people.

D. Method of collecting data

In this study, secondary data types are used, the data used are obtained from other agencies with existing data or that have been processed with previous research. The data obtained in this study comes from BPS data from Central Kalimantan Province which uses data on unemployment rates, Education Levels, Regional Minimum Wages, GDP Deflators, Economic Growth, and Life Expectancy, from 2011-2024. Population is an object that has its own interests based on research and will make conclusions in the results of this study. The sample used in this study is non-probability sampling. The technique used is the saturated sampling technique, meaning that the sample in this study is the entire population in this study. In this study, the panel data regression analysis method was used by combining *cross-section data* with *time series data* , where the tool used to process data in this study used eviews 10.

E. Data Analysis

The data analysis technique used in this study is using multiple linear regression. Multiple linear regression analysis is an analysis of several dependent variables. The main purpose of multiple linear regression analysis is to explain the behavior of dependent variables, by taking into account the fact that the relationship between all variables is uncertain (Gurajati, 2007).

In conducting data analysis, quantitative descriptive analysis is used. Descriptive analysis is used to describe problems in general by discussing existing data and relating them to actual conditions. While quantitative analysis is used to determine the effect of independent variables on dependent variables using multiple linear regression models with the following functions:

$Y=\beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4x4 + \beta 5X5 + e$

Information :

Y : Number of Unemployed

$\beta 0$ =Intercept

$\beta 1, \beta 2, \beta 3, \beta 4, \beta 5$ =Regression Coefficient

e =residual / error

$x1$= Education Level

$x2$ =Regional Minimum Wage (UMR)

$x3$ =GPD Deflator

$x4$ =Economic growth

$x5$ =Life Expectancy

In using the multiple linear regression statistical analysis method in this study, it is assumed that: the factors that influence the unemployment rate in Central Kalimantan Province are, Education Level, Regional Minimum Wage (UMR), GDP Deflator, Economic Growth, Life Expectancy, while other factors are considered constant.

1. *Panel Data Regression Model Estimation*

According to Widarjono (2007), in estimating the regression model using panel data, there are several methods, namely *(Fixed Effect*) and the approach with *(Random Effect).*

According to Sriyana (2014) and Widarjono (2013) use 3 techniques in panel data regression model estimation, namely:

a. *Pooled Lesser Square (Common Effect)*

In estimating panel data using *common effect* is a simple way, because in this model only combines time *series* and *cross section data* without looking at the difference in time and individuals or units so that it can use *the Ordinary Least Square* (OLS) Model in the panel data method. The following is a *common effect model* :

$$Yit = \beta o + \beta_1 X_1 it + \beta_2 X_2 it + \beta_3 X_3 it + \beta_4 X_4 it + \beta_5 X_5 it + eit$$

b. *Fixed Effect* Approach

According to Widarjono (2013), this *fixed effect model* is different from the common effect, the difference is that the *fixed effect model* assumes that there are effects that have differences between individuals so that when using this *fixed effect method*, the parameters are unknown which will then be estimated using the *dummy variable technique, then this dummy* variable will later be used

as a tool to estimate panel data owned by researchers, namely *the Least Square dummy Variables (LSDV) estimation model.* The following is the equation of the *Fixed Effect method* with the dummy variable technique

$$1nYit = \beta oi + \beta_1 1nX_1it + \beta_2 1nX2it + \beta_3 n1X_3it + \beta_4 n1X_4it + \beta_5 n1X_5it + \beta_5 D_1 i + \beta_6 D_2 i + \beta_7 D_4 i + \beta_8 D_5 i + eit$$

c. *Random Effect* Approach

According to Hakim (2014), in this method, *random effects* will be useful if there are several explanatory variables that remain constant over time. This *random effect estimation* measures the relationship based on time variations within a *cross-section unit* . One of the advantages of this *random effect model* is that it can include *time invariant variables* (eg gender variables). In *the fixed effect model*, these variables are absorbed by the intercept. The *random effect model* can be written as follows:

$$1nYit = (\beta_0 + \text{þui}) + \beta_1\ 1nX_1it + \beta_2 1nX_2it + \beta_3 1nX_3it + \beta_4 1n\ X_4it + \beta_5 1nX_5it + eit$$

2. Choosing the Right Model

a. *Chow Test*

This chow test is conducted to determine whether the *common effect model* or the most appropriate one is used. Before conducting the test, the hypothesis is determined first as follows:

H_0 : *Common effect* Model or *Pooled OLS* is appropriate to use

H_1: The correct *fixed effect is used*

In this Chow test model, it can be seen by comparing the F-statistic and the F-table as the basis for rejecting this hypothesis. If the F-statistic is greater than the F-table (f statistic > F-table) then it fails to reject H_0, meaning that the most appropriate *common effect* is used. Meanwhile, if the F-statistic is smaller than the F-table (F-statistic < F-table) then H_0 is rejected so that the most appropriate model to use is the *fixed effect model.*

The following is the Chow test equation:

$$f = \frac{(RRS_1 - RRS_2)/m}{(RRS_2)/(n - k)}$$

Where RRS_1 and RSS_2 are the residual sum of square techniques without *dummy variables* and the fixed effect technique with *dummy variables* .

b. Hausman test

After the chow test above is conducted, the hausman test is conducted to choose whether the *fixed effect* or *random effect model* is most appropriate to use. If the results of the Chow test that has been conducted have the most appropriate common effect model to use, then there is no need to conduct this Hausman test. However, if the results of the Chow test choose the most appropriate *common effect model* to use, then it is necessary to conduct another test using this hausman test. In choosing which model is most appropriate to use between *fixed effect* and *common effect* , the test that needs to be conducted is by using the Hausman test with the following hypothesis:

H_0 : *Random Effect* which is appropriate to use

H_1 : Correct *Fixed Effect to use*

fixed effect model is most appropriate to use when H_0 in the Hausman test statistic value is greater when compared to its critical value, while the *random effect* model is most appropriate to use when it fails to reject H_0 where the Hausman statistic value is smaller when compared to its critical value. The following is the equation of the Hausman test.

$$Var[\hat{\beta} - \hat{\beta}_{GLS}] = Var[\hat{\beta}] + Var[\hat{\beta}_{GLS}] - Cov[\hat{\beta}, \hat{\beta}_{GLS}]'$$

3. Hypothesis Testing

In this study, the hypothesis testing used was the determination coefficient test (R2 test), the simultaneous regression coefficient test (F test), and the partial regression coefficient test (t test).

a. T-test (Individual Regression Coefficient Test)

The T-test is conducted to determine the magnitude of the influence of each independent variable on the dependent variable individually, assuming that the

other independent variables are considered constant. The hypothesis in testing using the t-test is as follows:

1) Level of education

   $H_0 : \beta_1 = 0$, meaning that the education level variable has no influence on the open unemployment variable.

   $H_1 : \beta_0 > 0$, meaning that the education level variable has a positive influence on the open unemployment variable.

2) Regional Minimum Wage (UMR)

   $H_0 : \beta_1 = 0$, meaning that the UMR variable has no influence on the open unemployment variable.

   $H_1 : \beta_0 > 0$, meaning that the UMR variable has a positive influence on the open unemployment variable.

3) GDP Deflator

   $H_0 : \beta_1 = 0$, meaning that the GDP Deflator variable has no influence on the open unemployment variable.

   $H_1 : \beta_0 > 0$, meaning that the GDP Deflator variable has a positive influence on the open unemployment variable.

4) Economic growth

   $H_0 : \beta_1 = 0$, meaning that the economic growth variable has no influence on the open unemployment variable.

   $H_1 : \beta_0 > 0$, meaning that the economic growth variable has a positive influence on the open unemployment variable.

5) Life Expectancy

   $H_0 : \beta_1 = 0$, meaning that the life expectancy variable has no influence on the open unemployment variable.

   $H_1 : \beta_0 > 0$, meaning that the life expectancy variable has a positive influence on the open unemployment variable.

b. F Test (Joint Regression Coefficient Test)

This F test is conducted to determine whether the independent variables as a whole are significant and affect the dependent variable. If the calculated F value is greater than the critical F value (calculated F > critical F), then it indicates that H_0 is rejected, meaning that all independent variables influence the dependent variable (Widarjono, 2013).

The hypothesis used is as follows:

$H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$

H_1: there is at least one regression coefficient that has a value that is not equal to zero.

If the result of the prob-f statistic value is greater than α 5%, it means that the independent variables together do not have a dependent variable. Whereas if the prob-f statistic value is less than α 5%, it means that the independent variables together influence the dependent variable.

c. Determination Coefficient Test ($R2^{Test}$)

The determination coefficient ($R2^{)}$ is used to determine the extent of the influence of the independent variables of Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, and Life Expectancy. The determination coefficient ($R2^{)}$ also explains how much percentage of diversity in the dependent variable is explained by the independent variable. ($R2^{)}$ has a value ranging from 0-1. The greater the value of (R2), the better the quality of the model, because it can explain the influence of the dependent variable and the independent variable (Gurajati, 2013). The determination coefficient ($R2^{)}$ has the following advantages:

a) As a measure of the accuracy of the regression line made from the estimation results of a number of observation data. R2, which has a better regression line, means it has a larger R2 value. Likewise, the smaller the R2 value, the less precise the line that represents the observation data.

b) The regression model explains the proportion/percentage size of the amount of variation, and measures how much contribution variable X makes to variable Y.

CHAPTER IV

RESULTS OF ANALYSIS AND DISCUSSION

A. Research Data Description

This study uses a quantitative research approach with the type of data used being secondary data. Descriptive statistics, as can be seen in Table 4.1 below, are used to describe the data in the study in the form of average values (mean), maximum values, minimum values, and standard deviations (Nazarrudin & Basuki, 2015)

Table 4.1

Descriptive Statistics

Description	Min	Max	Mean	. Median	Std. Dev	Sum
Unemployment	0.32	9.99	3.726556	3.82	1.396137	838,475
Education	6.67	11.66	8.339022	8.17	0.98345	1876.28
Minimum Wage	1.13458	3.662312	2.411716	2.476543	0.731199	506,4604
GDP Deflator	105,677	221,243	145,369	141,5786	26.67415	30527.62
Growth	3.0433896	6.615375	4.519723	4.472991	0.827225	63.27613
Life Expectancy	64.64	73.82	69.35195	69.39	1.882961	14563.91

Based on the analysis above and the results of descriptive statistics in Table 4.1, it can be seen that the maximum value shows the largest range of values in the study, while the minimum value shows the smallest range of values in the study. The average value shows the range of values from the total of each variable divided by the number of samples, while the standard deviation shows the deviation of the data in the study.

a. The Unemployment variable has a minimum value of 0.32%, indicating that the lowest value of unemployment is in Sukamara Regency (2012), and the highest

value of unemployment is 9.9% in South Barito Regency (2015). The average unemployment in Central Kalimantan is 3.7%.

b. The Education Level variable shows that the lowest length of schooling is 6.67 in Sukamara Regency (2011) and the maximum value in Palangkaraya City (2024) is 11.66 with an average level of education in Central Kalimantan of 8.3 which means junior high school class 2.
c. Regional Minimum Wage (UMR) Variable. The UMR in Central Kalimantan is IDR 1.135 million in seven districts (2011), and the highest value of IDR 3.66 million is in North Baroro Regency (2024). The average value of UMR is IDR 2.41 million.
d. The GDP Deflator variable has a minimum value of 105.67. This value shows that the lowest inflation value is in West Kotawaringin Regency, and the highest inflation value is in Gunung Mas Regency. The average inflation value (deflator) is 145.36.
e. The economic growth variable has the lowest value in Palangkaraya City (2020) at -3.18 and the highest economic growth value was achieved by East Kotawaringin Regency (2017), which was 7.95%.
f. The Life Expectancy variable has a minimum value of 64.64 in Katingan Regency (2011), while the maximum value is 73.82 in Palangkaraya City (2024). The average life expectancy in regencies throughout Central Kalimantan is 69.35.

Regression Results and Analysis

1. Results

Panel data regression has three regression models, namely common effect, fixed effect, and random effect. To have the most appropriate regres sion model, the Chow Test and the Hausman Test are performed.

a. Chow Test

Chow test is conducted to select which model is most appropriate to use, namely between the common effect model and the fixed effect model, with the following hypothesis:

H_0: common effect model or pooled OLS

H_1: fixed effect

To test the selection of estimates with common effects or fixed effects, you can do it by looking at the p-value. If the p-value is significant, namely $\alpha \leq 5\%$

then the model used is fixed effect . Meanwhile, if the p-value is not significant, namely $\alpha \geq 5\%$, then the model used is common effect.

Table 4.2

Chow Test Results

Redundant Fixed Effects Tests
Equation: FEM
Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	1.507470	(13,191)	0.1175

Cross-section fixed effects test equation:
Dependent Variable: UNEMPLOYMENT
Method: Panel EGLS (Cross-section weights)
Date: 06/05/25 Time: 23:20
Sample: 1 210
Periods included: 15
Cross-sections included: 14
Total panel (balanced) observations: 210
Use pre-specified GLS weights

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.508731	3.053943	-0.166582	0.8679
EDUCATION	0.469560	0.095617	4.910820	0.0000
Minimum Wage	0.961768	0.238386	4.034496	0.0001
GDP_DEFLATOR	-0.016914	0.006531	-2.589961	0.0103
ECONOMIC_GROWTH	0.007609	0.010060	0.756360	0.4503
LIFE_EXPECTANCY	0.004679	0.047140	0.099265	0.9210

Weighted Statistics

		Mean dependent	
R-squared	0.235839	variable	3.972975
Adjusted R-squared	0.217109	SD dependent var	1.629098
SE of regression	1.260796	Sum squared residual	324.2799
F-statistic	12.59187	Durbin-Watson stat	1.938366
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.200203	Mean dependent variable	3.727452
Sum squared residual	337.1210	Durbin-Watson stat	1.936350

From the estimation results in Table 4.2 above, it can be concluded that the statistical value of 1.507470 with a probability value of 0.1175 is smaller than α 5%, meaning it is significant, so that H_0 is rejected. So the most appropriate model to use is fixed effect. Then, a test is carried out to select the most appropriate fixed effect or random effect model to use by conducting the Hausman test.

Hausman test

The Hausman test is carried out as a basis for consideration in choosing the most appropriate fixed effect or random effect model to use. If the p-value ≤ α 5% means it is significant, so the correct model to use is fixed effect. Meanwhile, if the p-value ≥ α 5% means it is not significant, so the model used is a random effect. The hypothesis is as follows:

H_0: random effect

H_1: fixed effect

Table 4.3

b. Hausman Test Results

Correlated Random Effects - Hausman Test

Equation: REM

Cross-section random effects test

Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross section	11.406879	5	0.0439

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
EDUCATION	0.489977	0.505270	0.000465	0.4784

Minimum Wage	1.455693	1.047344	0.720653	0.6305
GDP_DEFLATOR	-0.012462	-0.019701	0.000087	0.4379
ECONOMIC_GROWTH	0.010278	0.008862	0.000009	0.6402
LIFE_EXPECTANCY	-0.012342	-0.011904	0.000051	0.9512

Cross-section random effects test equation:
Dependent Variable: UNEMPLOYMENT
Method: Panel Least Squares
Date: 06/05/25 Time: 23:33
Sample: 1 210
Periods included: 15
Cross-sections included: 14
Total panel (balanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.259900	4.387232	-0.287174	0.7743
EDUCATION	0.489977	0.105289	4.653634	0.0000
Minimum Wage	1.455693	0.893201	1.629749	0.1048
GDP_DEFLATOR	-0.012462	0.012065	-1.032879	0.3030
ECONOMIC_GROWTH	0.010278	0.012710	0.808644	0.4197
LIFE_EXPECTANCY	-0.012342	0.050865	-0.242647	0.8085

Effects Specification

Cross-section fixed (dummy variables)

		Mean dependent	
R-squared	0.299499	variable	3.727452
Adjusted R-squared	0.233484	SD dependent var	1.420136
		Akaike information	
SE of regression	1.243342	criterion	3.359601
Sum squared residual	295.2667	Black criterion	3.662434
Log likelihood	-333.7581	Hannan-Quinn critter.	3.482025
F-statistic	4.536787	Durbin-Watson stat	2.197322
Prob(F-statistic)	0.000000		

From the estimation results in Table 4.3 above, it can be concluded that the chi-square statistic value is 14.406879 with a probability value of 0.0439. smaller than α 5% means significance, so H_0 is rejected, so the most appropriate model to use is the fixed effect

c. Fixed Effect Result Estimation

There are three models used in the panel data regression process in this study, including common effect, fixed effect, and random effect. Based on the Chow test and the Hausman test that have been carried out, the random effect test is used in this study. The results of the fixed test analysis are as follows

Table 4.4

Fixed effect estimation results

Cross-section fixed effects test equation:
Dependent Variable: UNEMPLOYMENT
Method: Panel EGLS (Cross-section weights)
Date: 06/05/25 Time: 23:20
Sample: 1 210
Periods included: 15
Cross-sections included: 14
Total panel (balanced) observations: 210
Use pre-specified GLS weights

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.508731	3.053943	-0.166582	0.8679
EDUCATION	0.469560	0.095617	4.910820	0.0000
Minimum Wage	0.961768	0.238386	4.034496	0.0001
GDP_DEFLATOR	-0.016914	0.006531	-2.589961	0.0103
ECONOMIC_GROWTH	0.007609	0.010060	0.756360	0.4503
LIFE_EXPECTANCY	0.004679	0.047140	0.099265	0.9210

Weighted Statistics

		Mean dependent	
R-squared	0.235839	variable	3.972975
Adjusted R-squared	0.217109	SD dependent var	1.629098
SE of regression	1.260796	Sum of squared residual	324.2799
F-statistic	12.59187	Durbin-Watson stat	1.938366
Prob(F-statistic)	0.000000		

Based on Table 4.4, it can be seen the influence of independent variables (UMR, PDBR, Education Level, Number of Living Figures, and Economic Growth) partially (t-test), and (f-test), as well as the Determination test to determine the magnitude of the influence of the

independent variables on the dependent variables. The tests will be explained in the following discussion.

2. Hypothesis Testing

a. Partial Test (t-Test)

The results of the t-statistic test can be seen in the table of results of the estimated random effect model.

1. The Influence of Education Level on Unemployment Rate

   The results of the calculation on the random effect model, the variable of the Education Level has a regression coefficient result of 0.469560 and has a probability value of 0.0000 which is smaller than alpha 0.05 (0.0000 <0.05) this means that the level of education has a negative effect on the unemployment rate in Central Kalimantan which cannot be accepted or is not proven.

2. The Influence of Regional Minimum Wage Variables on Unemployment Rates in Central Kalimantan

   From the calculation results on the fixed effect, the population variable has a regression coefficient value of 0.961768 and has a probability value of 0.0001 which is smaller than alpha 0.05 (0.0001 <0.05), this means that the minimum wage rate increases by 1 unit will reduce unemployment by 0.961768 units. Thus, the second hypothesis states that the minimum wage has a significant and positive effect on the unemployment rate in Central Kalimantan is accepted or proven.

3. The Influence of GDP Deflator Variable on Unemployment Rate in Central Kalimantan.

   From the calculation results on the fixed effect model , the GDP Deflator variable has a regression coefficient value of -0.16914 and has a probability value of 0.0103 which is smaller than alpha 0.05 (0.0103 <0.05), this means that the GDP Deflator increases by 1 unit will decrease the unemployment rate by -0.16914 units. Thus, the third hypothesis stating that the Inflation Rate has a significant and negative effect on the Unemployment Rate in Central Kalimantan can be accepted or proven.

4. The Influence of Economic Growth on Unemployment Rates in Central Kalimantan.

   From the calculation results on the fixed effect model, the Economic Growth variable has a coefficient value of 0.007609 and has a probability value of 0.4503, which is greater than alpha 0.05 (0.4503 <0.05). This means that the level of economic growth affects the unemployment rate in Central Kalimantan, which cannot be accepted or is not proven.

5. The Influence of Life Expectancy Variable on Unemployment Rate in Central Kalimantan

   From the calculation results on the fixed effect model, the Economic Growth variable has a coefficient value of 0.004679 and has a probability value of 0.9210 greater than alpha 0.05 (0.9210 <0.05), which means that a 1 unit increase in Life Expectancy will decrease the unemployment rate by 0.004679. Thus, the fifth hypothesis states that the Health Level associated with Life Expectancy has a significant and positive effect on the Unemployment Rate in Central Kalimantan.

b. Simultaneous Test

The F-statistical test basically shows whether the independent variables included in the model have a simultaneous influence on the dependent variables. The results of the F test can be shown in the fixed effect model table above. This test aims to determine whether or not there is an influence of the variables of Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, Life Expectancy together on the Unemployment Rate in Central Kalimantan. By comparing the F probability with an alpha value of 0.05 , it can be seen whether or not there is an influence of the variables of Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, Life Expectancy, together on the Unemployment Rate in Central Kalimantan.

Table 4.5

F Test Results

F-statistic	4.53 6768
Prob(F-statistic)	0.000000

Based on the results of the estimated fixed effect model, in Table 4.5, it shows that the f-statistic value is 4.53 6768 with a significant/probability level

of 0.000000 <0.05. These results can be concluded that the regression model together with the independent variables (Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, Life Expectancy), has an effect on the dependent variable (Unemployment Rate in Central Kalimantan) in the period 2011-2024. These results indicate the influence of individuals from cross-section data (13 Regencies in Central Kalimantan Province) on the constants of the research model.

c. Determination Test

Based on the calculation results shown in the fixed effect model table above, the magnitude of the influence of the independent variable on the related variable can be interpreted as follows:

Table 4.6

Results of Determination Coefficient

R-squared	0.299499
Adjusted R-squared	0.233484

Based on Table 4.6 above, it can be explained that the correlation/relationship value R is 0.299499. And this value shows that the percentage of the influence of the independent variable on the dependent variable is very large. The coefficient of determination value (R2) is also obtained)as 0.233484 or 23% of the dependent variable (Unemployment Rate in Central Kalimantan) can be explained by the independent variables (Education Level, Regional Minimum Wage, GDP Deflator, Economic Growth, Life Expectancy), and the remaining 77% is explained by other variables outside the model.

3. Discussion and Analysis

The level of education on the island of Kalimantan has increased every year, and based on the results of the data analysis above, it shows that the level of education does not have a significant effect on the unemployment rate in all districts in Central Kalimantan. This condition indicates that the level of education in Central Kalimantan has not been able to reduce the unemployment rate. This may be because the supply of labor from education in Central Kalimantan has not been able to meet the demand for labor available in Central Kalimantan.

The results of this study support the opinion of Simanjuntak (1998) who stated that the labor market is also influenced by the level of education. In this statement, Simanjuntak divides the labor market into two, namely: (1) educated labor market: a labor market that requires requirements with special qualifications that are usually obtained through formal education (2) uneducated labor market: a labor market that offers and requests labor that does not require special qualifications and a relatively low level of education. This finding is not supported by the article by Asrina (2025) and the article by Mpendulo and Mang'unyi (2018)

The Regional Minimum Wage in Central Kalimantan Province has increased every year and based on the results of the analysis above, it shows that the Regional Minimum Wage is significant to unemployment in Central Kalimantan Province. The Regional Minimum Wage has a positive relationship. So when the Regional Minimum Wage increases, it will increase the unemployment rate in Central Kalimantan. This is also not in line with the results of research on the analysis of factors influencing educated unemployment in the city of Pekanbaru (Fahmi, 2022) and in Indonesia (Ramadhan et al., 2024). However, this finding is supported by research in Turkey (Yaln, MA, & Yaln, E, 2024), in the Visegrad countries, namely the Czech Republic, Hungary, and Poland (Kadeřábková, B., & Jašová, E. (2019).

GDP Deflator in Central Kalimantan Province has increased every year and based on the results of the data analysis above, it shows that GDP Deflator has a negative and significant effect on unemployment in Central Kalimantan Province. GDP Deflator or inflation has a significant negative relationship because when GDP Deflator increases, it will decrease the unemployment rate and vice versa. In the Philip curve, it is explained that when inflation increases (GDP Deflator) unemployment decreases because a growing economy and increasing inflation can create new jobs and increase employment opportunities. This study is in line with research conducted by Khoiro (2020), which states that inflation has a negative and significant effect. This means that in this study when inflation rises, unemployment falls. In accordance with Philips' theory which describes the relationship between inflation and the unemployment rate on the assumption that inflation is a reflection of an increase in aggregate demand. With the increase in aggregate demand, then according to the theory of demand, if demand increases, prices will increase. With high (price) inflation, to meet this demand, producers increase their production capacity with the assumption of adding labor which is the only input that increases output. As a result of the demand for labor with increasing prices (inflation), unemployment decreases. This finding is also supported by research in the G-6 group of countries (Korkmaz, & Abdullazade, 2020), in Jordan (Alhabarneh & Al-Sawaie 2024), but is not supported by the case in Türkiye (Gülener, 2024)

Economic growth has increased every year and based on the results of the analysis above, it shows that economic growth has a significant effect on the Unemployment Rate in Central Kalimantan Province. So when Economic Growth increases, it does not affect the unemployment rate in Central Kalimantan Province. This may be because more of Central Kalimantan's production is sent outside the province of Central Kalimantan. The production of plantations, forestry and mining in Central Kalimantan is sent outside the province so that the increase in production in these sectors does not encourage increased economic activity in Central Kalimantan. As a result, increased production (as indicated by regional GDP growth) has no effect on the unemployment rate. This finding is supported by research in MENA (Haririan, Bilgin, & Karabulut, 2010), but is not supported by the results of research in Jordan by Kreishan (2011), Hjazeen , Seraj and Ozdeser (2021), in India (Sahoo & Sahoo, 2019)

Life Expectancy has increased every year and based on the analysis results above, it shows that Life Expectancy has a negative effect on the Unemployment Rate in Central Kalimantan Province. Increasing the number of Life Expectancy can also increase community productivity. Healthy and long-lived people can be more productive and have better and better job opportunities and improve the quality of work so that it can reduce the unemployment rate in Central Kalimantan. This finding is supported by research in 136 developing countries (Monsef & Shahmohammadi, 2018).

The regression results above show that together the independent variables of Education Level, Minimum Regional Wage, GDP Deflator, Economic Growth, and Life Expectancy have an effect on the dependent variable of the Unemployment Rate in Central Kalimantan Province for the period 2011-2024.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

A. Conclusion

Based on the results of data analysis and discussion, the following conclusions were obtained:

1. Education level does not affect unemployment. This means that increasing education has no impact on the open unemployment rate.
2. Regional Minimum Wage has a significant negative effect on unemployment. This means that increasing wages will increase open unemployment.
3. GDP Deflator (Inflation Rate) has a significant negative effect on unemployment. This means that increasing inflation will affect open unemployment.
4. Economic growth has no effect on unemployment. This means that increasing economic growth does not affect the open unemployment rate.
5. Health level has a significant positive effect on unemployment. This means that improving health will reduce open unemployment.

B. Recommendation

Based on the conclusions of this study, several recommendations can be put forward as follows:

1. Education Level, formal education must be adjusted to the demand for labor in Central Kalimantan.
2. Regional Minimum Wage can encourage increased labor productivity related to regional products and can be enjoyed by the residents of Central Kalimantan.
3. Regional governments can control the rate of inflation by facilitating the flow of goods and adequate supplies of necessary goods.

4. Economic growth can encourage development in the province of Central Kalimantan to open up employment opportunities in Central Kalimantan.
5. The local government continues to encourage access to health and improve health facilities in Central Kalimantan.

C. Research limitations:

1. Further research
    a. It is possible to add several other independent variables for other research areas because the situation in Central Kalimantan province is different from other areas.
    b. Can conduct the same research for other areas, but using longer period data, for example, the last 17 periods.
2. Government

Although this study still has limitations, the results of this study can be used as a reference and consideration in determining policies on unemployment problems that occur in Central Kalimantan in 13 districts in Central Kalimantan Province so that it can create community welfare, especially in Central Kalimantan Province.

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