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Impact of the COVID-19 Pandemic on Unemployment in Province of Bali, Indonesia

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The COVID-19 outbreak that hit the world and Indonesia in 2020, marked by a decrease in foreign tourist arrivals to Bali in 2020, continued in 2021, cause increasing unemployment in Bali. The research aim are (1) to analyze the impact of the Covid-19 pandemic on disturbances in the province of Bali; (2) Analyzing the impact of the Covid-19 pandemic on unemployment by regencies/cities in Bali Province. Sources of data are secondary sources namely the Central Statistics Agency of Bali Province and the Population and Employment Service of the Province of Bali and Regencies throughout Bali. The data analysis methods were descriptive statistics, before and after/on the Covid-19 pandemic, and qualitative descriptive methods. The results showed that (1) the Covid-19 pandemic had an impact on increasing unemployment in Bali Province by 106,150 people (321.80%), from 32,990 people in pre-Covid-19 (September 2019-February 2020) to 139,140 people at the peak of Covid-19 (March 2020-February 2021); (2) The Covid-19 pandemic had an impact on increasing unemployment in nine districts/cities of Bali Province. However, of the

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nine districts/cities that were affected, three regencies/cities in Bali's tourism development centers, namely Badung, Gianyar and Denpasar. The novelty of the research is that the Covid-19 pandemic has an impact on increasing unemployment in Bali. The results of the study suggest that various social assistance and facilities have been provided by the government so that it is right for the target recipients, the government needs to provide agricultural skills training and other facilities for workers who switch from tourism to agriculture.

Keywords: COVID-19; employment; unemployment.

1. INTRODUCTION

The Covid-19 pandemic that hit the world in 2020 continued the discovery of the delta variant, followed in November 2021 the appearance of the Omicron variant for the first time in South Africa which has spread to several countries in Europe and Asia, and the rapid spread of the Covid-19 outbreak from person to person another (epidemic) and from one country to many countries in the world (pandemic) has become a frightening terror. The world's population is worried about contracting the Covid-19 outbreak, because this disease is similar to a deadly flu and people in the world are very afraid of death, so in various ways they try to avoid the attack of Covid-19. According Helmi et al. [1] "Education and training are very critical in the Emergency COVID-19 Hospital. The process has become a major challenge due to regular changes of staff. Information and communication technologies remain a more recommended alternative to the traditional onsite face-to-face method of education and training delivery as to prevent the spread of this virus. The training and education program in the National COVID-19 Emergency Hospital Wisma Atlet have received major supports from several Government agencies, and national private/non-government organizations". However Kool [2] states that "the COVID-19 outbreak impacts both physical and mental health. Due to the concerns of direct contact with an exposed individual, prolonged job duties without good rest, and disrupted wake and sleep phases, phobia with being contaminated has increased the likelihood of tension and worrying among healthcare workforces. Because mental disorders have been revealed to influence protection, the effects may be troubling, increasing the risk of catching the virus. Whereas the current disease outbreak is affecting the population of the world, it may have a deeper impact on healthcare employees due to direct exposure to the victims of the pandemic, and in some cases, the absence of community social support. The empirical analysis of this work has helped to support this

observation and confirm the hypothesis that COVID-19 could have a significant impact on mental health of workers".

In an effort to protect their people from the Covid-19 attack, the governments of countries around the world have taken various mitigations for the spread of Covid-19. According to Kooli et al. [3], "the COVID-19 crisis has imposed certain changes on the organization and the economy at large. In order to stop the rapid progress of the virus and protect public health, most of the world's governmental authorities were under enormous pressure to make necessary but difficult decisions. While some countries moved quickly to close their territories, stopped international flights, and ordered the general confinement of the population. The crisis has sharply changed the traditional work practice into a greater remote and flexible setting. Employees' health and safety should be management's top priority as they are the key factor in building and sustaining performance in the organization. This work showed that through the appreciation of the advent of technology, organizations must adopt innovative platforms for collaboration, socialization, and learning to fit the current economic situation. Adaptability in terms of job design, health and safety, and employee well-being will be a key attribute of the post COVID-19 work setting".

In an effort to mitigate the spread of Covid-19 and "flatten the curve" of Covid-19 infection, Garza, et al. [4] reported that schools, businesses, and sports venues were closing in Texas and the rest of the country. Texans braced themselves for a hurricane rather than a year-long event that would turn their business and daily lives upside down. While Verma et al. [5] informed that more than 80 countries in the world have locked down the entry and exit of people into the country, large-scale social restrictions or imposed restrictions on community activities, which means confining millions of citizens in their homes, closed businesses and stopped almost all activities of producing goods and services, the

further impact of the loss of many job opportunities, which meant increased unemployment. The world's top ten economies such as the United States, China, Japan, Germany, Britain, France, India, Italy, Brazil and Canada are on the verge of complete collapse. In addition, stock markets around the world have been rocked, and sources of tax revenue have fallen off a cliff.

"The global economy has been expected to shrink by more than 3.0% in 2020, the sharpest slowdown since the Great Depression of the 1930s. The Covid-19 pandemic has pushed the global economy into recession, meaning the economy has started to shrink and growth has stalled. In the US, Covid-19-related disruptions have caused millions of people to apply for unemployment benefits. In April alone, the figure stood at 20.5 million, and is expected to increase as the pandemic's impact on the US labor market worsens. As Reuters reports, since March 21, 2020, more than 36 million have applied for unemployment benefits, representing almost a quarter of the working age population" [6]. While Kool and Lock Son [7] stated that "most economic downturns have stemmed from inefficiencies in the economic system. As firms prepare for the growth that will follow this downturn, M&A will enable companies to look into a future infused with technology and structurally different business models. This research paper thus captures the deliberate transformation occurring in the deal world to discuss the possible outlook of the M&A deal market in the post-pandemic world".

"The Covid-19 pandemic puts heavy pressure on Indonesia in 2020, not only on health and humanitarian aspects, but also on social and economic aspects. The Large-Scale Social Restriction Policy and the Implementation of Restrictions on Community Activities to mitigate the spread of Covid-19 have reduced economic performance, resulting in Indonesia's economic growth in 2020 contracting -2.07% compared to 2019" [8]. The government, Bank Indonesia, and relevant authorities strengthen policy synergies to mitigate the extraordinary impact of Covid-19. Various policies are implemented in stages for economic recovery in 2021 while maintaining macroeconomic and financial system stability.

The Covid-19 pandemic not only has a negative impact on the performance of the national economy, but also has an impact on the regional economy of Bali, which incidentally is a subsystem of the national economic system. Bali

as the world's favorite tourist destination and its economy is dominated by tourism service activities. Based on data from BPS Bali [9] for the last five years (2016-2020), the highest economic growth in Bali was achieved in 2016 of 6.33%. In 2017 Bali's economic growth was 5.56%. Bali's economy grew again in 2018 and then again experienced a slowdown in 2019 with a growth of 5.60%. The impact of the Covid-19 Pandemic in 2020 which limited the mobility of people traveling to Bali or in other words the declining tourist visits to Bali in 2020 had reduced the activity of the service sectors related to tourism services, finally Bali's economy contracted by 9.33% in 2020.

The pandemic is not only a health crisis, but also an economic crisis that wreaks havoc on small, medium and large industries, which continues to use labor. The lockdowns, quarantines and other restrictions come with significant fiscal implications and while the economy is as strong and diverse as the Chinese or American economies, it is not immune to the unprecedented uncertainty of the situation due to Covid-19. Wilmont [10] states that all industrial sectors in any part of the world have been affected by the pandemic to some degree, but some have struggled more than others to make a recovery, some refer to it as a "K-shaped recovery" - where different sectors, industries and employee groups have diverged, so some industries are recovering and others remain in recession. Some of the industries most affected by the pandemic are leisure and hospitality service providers, restaurants and bars, retailers, airlines and hospitals.

The Covid-19 pandemic has ravaged the world economy and Indonesia, because the production of goods and services has decreased and some have even stopped because they have to implement health protocols. When the Covid-19 outbreak broke out in 2020, it was marked by a decrease in foreign tourist visits to Bali. Based on data from BPS Bali [11], the development of foreign tourist visits to Bali over the last five years (2015-2019) shows an increase every year, from 4,001,835 people in 2015 to 6,275,210 in 2019 or on average grew 12.17% per year during 2015-2019. Even though in terms of numbers there is an increase in visits, when viewed from the side of the growth rate, it actually experiences a slowdown every year, from growing as high as 23.14% in 2016 against 2015 to only growing as high as 3.37% in 2019 compared to 2018.

However, the COVID-19 pandemic, which was followed by the implementation of social restrictions and community activities, has reduced tourist visits to Bali in 2020 to 1,069,473 people, or decreased by -82.96% compared to 2019 [11]. The continued impact of the decline in tourist arrivals in 2020 was followed by a decrease in the level of tourist arrivals, hotel occupancy and the decline in tourism transportation activities, finally starting to lay off some hotel employees, and closing many restaurants, this means that Bali tourism is experiencing a slump. The further impact is the decreasing or even non-existent demand for agricultural products and small and medium-sized industries by tourism and tourism-related sectors such as agriculture, thereby reducing the absorption of labor by the tourism sector and tourism-related sectors. So there are indications of increasing unemployment and working people aged 15 years and over, and unemployment in every district in Bali. While the hope is the low or declining unemployment in the province of Bali. In this regard, it is necessary to conduct research on "The Impact of the Covid-19 Pandemic on unemployment in the Province of Bali. Aim of the research are: (1) Analyzing the impact of the Covid-19 Pandemic on unemployment in Bali Province, Indonesia; (2) Analyzing the impact of the Covid-19 epidemic on unemployment by regencies/cities in Bali Province, Indonesia.

2. RESEARCH METHODS

2.1 Location of the Research

The research location in the Province of Bali, is one of the 37 Province in Indonesia, which was determined purposively, was based on several considerations, including: (1) Bali is one of the favorite tourist destinations in the world, (2) The Covid-19 pandemic in 2002 has bankrupted Bali tourism, followed by an increase in overall unemployment in Bali.

2.2 Type of Data

The types of data collected are quantitative data and qualitative data. The types of quantitative data are unemployment rates before and during the Covid-19 Pandemic (2019, 2020, 2021), Balinese working people aged 15 years and over before and during the Covid-19 Pandemic (2019-2020-2021), Balinese residents who work by age 15 years and over according to business field or sector in Bali Province, unemployment by regency/city in Bali Province 2019-2021, and

Balinese residents who work by age 15 years and over by Regency/City in the Province of Bali. While the types of qualitative data are policies and programs for handling the unemployment rate by the Bali Provincial Government, and tourism recovery policies and programs in an effort to restore by land the tourism sector which absorbs a lot of manpower in Bali.

2.3 Sources of Data

Research data can be sourced from primary and/or secondary sources [12-14]. The main data sources of this research are secondary sources that produce secondary data, namely data in the form of documents / publications / other reports sourced from second parties or government agencies related to this research, namely: Central Bureau of Statistics of Bali Province, Bali Provincial Development Planning Agency, Population and Manpower Agency, Trade and Industry Agency, Cooperatives and MSMEs Agency, Manpower Agency, and other services within the Bali Provincial Government. Primary data sources that produce primary data, namely data and information sourced from the first party or obtained directly from MSME actors in tourism, agriculture and micro-small-medium industries spread across production centers in Bali, which before the pandemic absorbs a relatively large number of workers.

2.4 Method of Data Collecting

The data collection method is documentation, namely studying documents or archives or publications or reports available in secondary sources or various government agencies, such as the Bali Provincial Statistics Agency, the Bali Provincial Development Planning Agency, and the Bali Provincial Government Technical Offices. Interviews with tourism actors such as hotel owners, MSME actors, suppliers of agricultural products to hotels and impromptu traders driving on the roadside around Denpasar City. Observation, namely conducting field visits, especially to several tourist destinations that were usually visited by many tourists before the Pandemic such as Kuta, Ubud, Nusa Dua, etc., to MSME centers in several regencies in Bali, and to vegetable production centers in Bali. such as Bedugul and Kintamani as suppliers of vegetables for the needs of hotels in tourism centers around Badung and Denpasar City.

2.5 Method of Data Analysis

The data analysis method used in this research is descriptive statistics, qualitative descriptive,

and to determine the impact of the Covid-19 pandemic, the before and after/on pandemic comparison method is used, with the following formula:

$$I \text{ (real)} = EICP - EICP_{-1}$$

$$I \text{ (percent)} = \frac{EICP - EICP_{-1}}{EICP_{-1}} \times 100\%$$

I = Impact of the Covid-19 Pandemic

$EICP$ = Employment Indicator the- i during the Covid-19 Pandemic

(Assuming the pandemic period = data period: March 2020-February 2021)

$EICP_{-1}$ = Employment Indicator the- i pre-Covid-19 Pandemic (September 2019-February 2020)

3. RESULTS AND DISCUSSION

3.1 Impact of the Covid-19 Pandemic on Total Unemployment in Bali Province

The Covid-19 pandemic which devastated tourism and resulted in the contraction of Bali's economic growth to reach -9.33% in 2020 and even in 2021 the Balinese economy was still contracting to negative growth (-2.74%) [8], has caused many workers to lose their jobs in tourism, and small and medium industries. Based on data published by BPS Bali [15] and BPS Bali [16] as presented in Table 1 and Fig. 1, the working age population is all people aged 15 years and over. The cumulative working age population in August 2019 was 3,338,767 people, in February 2022 it increased to 3,477,740 people, or for three years it increased by 138,973 people (4.15%). Most of the working age population is in the workforce, namely 2,466,230 people consisting of 2,428,679 people working and 37,551 unemployed in August 2019, increasing to 2,682,840 people consisting of 2,553,060 people working and 129,780 unemployed in February 2022.

The COVID-19 pandemic (assuming the Covid-19 pandemic period = data period: March 2020-February 2021) has caused the number of open unemployment to increase. During the pre-Covid-19 pandemic (September 2019-February 2020) the number of unemployed in Bali Province was only 32,990 people (1.52% of the total workforce). During the peak of the Covid-19 pandemic (March 2020-February 2021), the number of unemployed increased to 139,140 people (5.42% of the total workforce in the same

year). So the Covid-19 pandemic has an impact on increasing unemployment in Bali Province by 106,148 people or an increase of 321.80% compared to pre-pandemic (Table 1 and Fig. 1). This increase in unemployment was caused by a decrease in economic activity in the Province of Bali and a decrease in economic activity due to a decrease in tourist arrivals. The implementation of the lockdown abroad and in parts of Indonesia, including in Bali and the implementation of strict procedures during the Covid-19 pandemic, caused foreign tourist visits to Bali (March 2020-February 2021) to decrease drastically, even all foreign tourists who had been in Bali returned. returning to their home countries, followed by a decrease in hotel room occupancy rates in several tourism destinations such as Kuta, Nusa Dua, Sanur, and several other destinations, the laying off of some hotel employees, and the closing of many restaurants.

The worst impact of the pandemic occurred in the tourism sector, especially hotels, travel and other tourist service activities, where many tourism workers lost their jobs, due to the absence of tourist visits to Bali during the Covid-19 pandemic. Many tourism workers change professions to become traders using impromptu cars that are hung on the roadsides around Denpasar City. From the results of interviews with several impromptu car dealers, they admitted that they previously worked as guest deliverymen, and workers in hotels. They admit that because they have four-wheeled vehicles and to make a living, they are forced to work as traders using cars, they say, which is important halal.

However, along with the easing of the Covid-19 outbreak and the opening of direct international flights to Bali and the loosening of requirements for tourists visiting Bali, such as having to quarantine in hotels for 10 days and swab and antigen requirements, Bali tourism began to squirm and economic activity began to rise, or in other words, the Balinese economy began to recover although it had not fully recovered, which was marked by a decrease in the open unemployment rate of only 129,780 people (4.48%), or a decrease of 9,360 people (-6.73%)(March 2021- February 2022). This is a good thing. So there has been a recovery process for the Bali economy marked by the revival of various Balinese economic activities including tourism, small-medium industries and agriculture, so that they are able to re-absorb the workforce affected by COVID-19, or in other

words, the decline in the open unemployment rate after the Covid-19 pandemic.

The COVID-19 pandemic in 2020 had a macro impact on the economic contraction of Bali and Indonesia. The Bali economy in 2020 experienced a contraction of -9.33% compared to 2019 (BPS Bali, 2020) and this contraction was more severe than the Indonesian economy which only contracted -2.07% in 2020 [8]. Bali's economic contraction is caused by the limited mobility of people and the decline in tourist visits to Bali in 2020, ultimately reducing service sector activities related to tourism services [17]. The recovery process carried out by the central government and the Bali regional government through the National Economic Recovery Program (PEN) with various aid and loan schemes has shown results marked by starting to stimulate the national economy and Bali has grown positively, based on data from BPS Bali BPS Bali [18] in the first quarter and II in 2022, growing 1.45% and 3.04% (y-o-y), respectively.

For comparison, Ettlinger [19] reports that the course of the United States economy since February 2020 is influenced by the prevalence of

Covid-19 and the response of the federal government. The outbreak of the Covid-19 pandemic in early 2020 caused massive job losses in the US. The economy started to bounce back as infection cases began to decline, and businesses and people adjusted. However, in the second half of 2020 to January 2021, cases rose again and federal government support stalled, leading to a slowdown in economic progress. As strong measures by the federal government take effect in February and March 2021 and optimism about the health situation grows, the US economy is regaining positive momentum. However, in September 2021 the spread of Covid accelerated and the economic recovery slowed. The hope is that as cases drop again, this progress will be renewed and push the economy to the end of a recession due to Covid. Lundblad and Quimet [20] informs that small US companies have been involved in a series of direct layoffs of up to 6.6 million people. Small businesses in the hospitality and leisure industry have laid off more than 40% of their workforce. Given the current employment in small businesses in the hospitality and leisure sector is more than 10 million, this means 4.3 million workers are displaced and accounted for most of the first wave of layoffs.

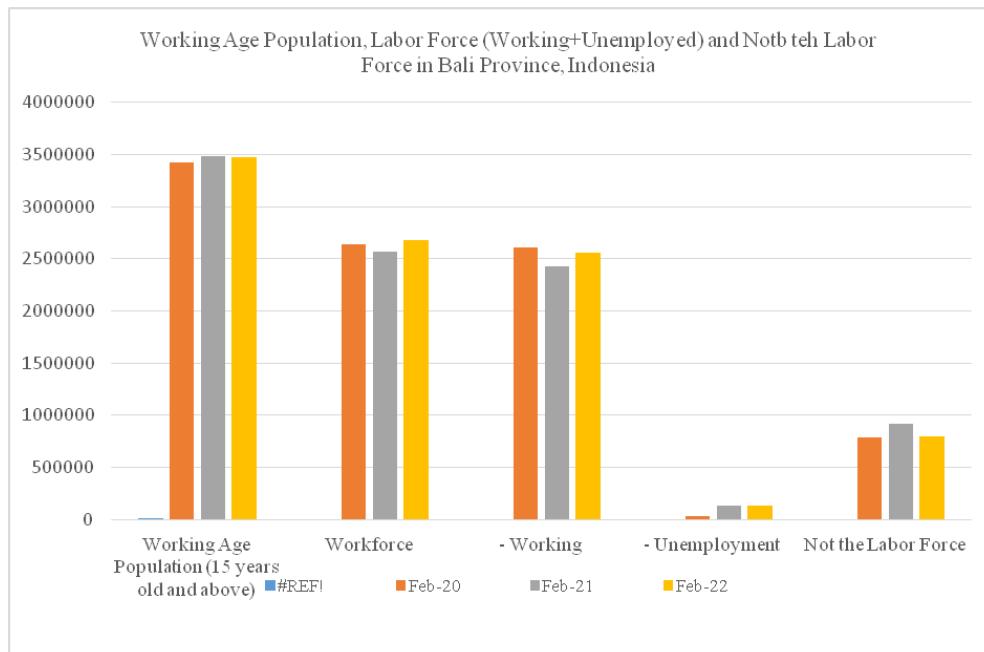


Fig. 1. Working Age Population, Labor Force, Working, Unemployed and Non-Working Forces in Bali Province, 2019, 2020, 2021

(Source: The graph is drawn based on the data of Table 1)

Table 1. Impact of the Covid-19 Pandemic on Total Unemployment in the Province of Bali, Indonesia

Employment Status	August 2019 (Person)	February 2020 ¹⁾ (September 2019- February 2020) Pre-Covid-19	February 2021 ¹⁾ (March 2020- February 2021) Peak of Covid-19	February 2022 ²⁾ (March 2021- February 2022) Phase Recovery	Changes Feb 2020–Feb 2021		Changes Feb 2021–Feb 2022	
		(Person)	(Person)	(Person)	(Person)	(Percent)	(Person)	(Percent)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Working Age Population (15 years old and above)	3,338,767	3,427,160	3,481,600	3,477,740	54,440	1.59	-3,870	-0.11
Workforce	2,466,230	2,639,910	2,566,430	2,682,840	-73,490	-2.78	116,410	4.54
- Working	2,428,679	2,606,930	2,427,290	2,553,060	-179,640	-6.89	125,770	5.18
- Unemployment	37,551	32,990	139,140	129,780	106,150	321.80	-9,360	-6.73
Not the Labor Force	872,537	787,250	915,180	794,900	127,930	16.25	-120,280	-13.14
	Percent	Percent	Percent	Percent	Percent points		Percent points	
Labor Force Participation Rate (LFPR)	73.87	77.03	73.71	77.14	-3.32		3.43	
- Man	-	83.38	78.95	83.92	-4.43		4.96	
- Woman	-	70.65	68.45	70.37	-2.20		1.92	

Source: Data for 2019 is BPS Bali [15]

Data for 2020, 2021 and 2022 are BPS Bali [16]

Information: 1) Calculations using the population projections of the 2015 SUPAS results

2) Calculation using interim population projection weights

Note: February 2020 Pandemic Peak February 2021 starting to subside February 2022 recovery

The Covid-19 pandemic has not only increased unemployment in Indonesia and Bali, but also in several member countries of the Organization for Economic Cooperation and Development (OECD). Feuer [21] a journalist for the New York Post reports that around 22 million jobs were lost in 2020 due to the Covid-19 pandemic in 37 OECD member countries and more than 110 million fewer jobs were lost worldwide. Of the 22 million jobs lost in 2020 across the OECD, 8 million are workers considered unemployed and 14 million are not actively looking for work. Many of the jobs that have been lost during this pandemic crisis will be irreversible. Stephane Carcillo, head of the OECD's jobs and revenue division, told a virtual briefing about the data. The United States, Britain, Japan, Mexico, Canada, Spain, Germany, and many of the world's largest economies are members of the OECD. Notably, India, Russia and China are not members. The OECD noted that job retention schemes launched during the height of the pandemic saved about 21 million jobs.

According to the Congressional Research Service [22] report, the COVID-19 pandemic has had a significant effect on labor market metrics for every state, economic sector, and major demographic group in the United States. The report shows the following: (1) In April 2020, the unemployment rate stood at 14.8% -- the highest level observed since data collection began in 1948. In July 2021, unemployment remained higher (5.4%) than earlier February 2020 (3.5%); (2) The labor force participation rate fell to 60.2% in April 2020 -- a level not seen since the early 1970s -- then began to recover partially in May 2020. The labor force participation rate was 61.7% in July 2021, 1.7 percentage points below levels in January 2020, before the pandemic and economic recession; (3) Nonfarm payrolls lost 22.1 million jobs between January 2020 and April 2020, with employment falling to 86% from pre-recession levels. In July 2021, aggregate employment remained 5.4 million jobs below pre-recession levels; (4) The COVID-19 pandemic has impacted economic sectors differently. The leisure and hospitality sectors lost the largest number of jobs since January 2020, and people last worked in the sector consistently exhibited some of the highest unemployment rates during the pandemic. In addition, the education and services sector as well as the government sector have shown the second and third largest job losses since January 2020, despite the relatively low unemployment rate among people last worked in these sectors; (5) The Covid-19

pandemic has impacted demographic groups differently. Although all demographic groups are affected, people who identify as black or Hispanic and younger workers generally experience relatively high peaks of unemployment and relatively sharp declines in labor force participation during the pandemic. In addition, people with lower levels of education generally experience relatively higher unemployment rates and lower labor force participation during a pandemic.

UNCTAD analysis shows that early steps to curb the spread of the virus first hit jobs dominated by women, such as personal services. At the start of the pandemic, a higher prevalence of the virus correlated with a higher rate of female unemployment. However, what is more worrying is the impact of the pandemic on women's participation in the labor market. Available data reveal that even in countries where the unemployment rate of men exceeds that of women, more women will leave the labor market completely by 2020 [23].

3.2 Impact of the Covid-19 Pandemic on Unemployment by Regency/City in Bali Province, Indonesia

In Table 1 previously discussed cumulative unemployment per February 2020, February 2021 and February 2022 based on data from BPS Bali [16], while in this subsection discussed unemployment by district/city based on BPS Bali [24] which is the total unemployment per calendar year 2019, 2020 and 2021. If we look closely at the total unemployment in Bali in the same year, there is indeed a slight difference, due to the use of different month calculations in the same year. The advantage of Table 2 is that unemployment by district/city can be identified, so that by using the 2019-2021 time series data, it can be seen the impact of the Covid-19 pandemic on unemployment in each district/city.

In Table 2 and Fig. 2. it appears that all regencies/cities in Bali Province were affected by the Covid-19 pandemic which reached its peak in 2020, indicated by an increase in unemployment in 2020 compared to the pre-pandemic in 2019, even continuing until 2021 since it began to loosen. implementation of Health Protocols and mobility of goods and people. However, of the nine regencies/cities, three regencies/cities as tourism development centers, namely Badung, Gianyar and Denpasar, were most severely affected by the pandemic, indicated by the

relatively large increase in unemployment compared to the other six regencies. Unemployment in Badung Regency increased by 25,781 people (1.671%) compared to unemployment in 2019 which was only 1,543 people. In Gianyar Regency, the impact of the pandemic on unemployment increased by 17,522 people (389%) compared to 2019, which was only 4,506 people. In Denpasar City, the impact of the pandemic on unemployment increased by 29,057 people (237%) compared to the number of unemployed in 2019 which was only 12,277 people. In the other six districts, the impact of the pandemic on unemployment is still below tens of thousands, even in some districts the additional unemployment is only under five thousand.

So in general, the Covid-19 pandemic, which will peak in 2020 and continue until 2021, has an impact on increasing unemployment in nine districts/cities of Bali Province. However, of the nine regencies/cities that were affected, three regencies/cities in Bali's tourism development centers, namely Badung, Gianyar and Denpasar, were severely affected compared to the other six regencies in Bali. This is due to the fact that in the three regencies/cities that were severely affected, many workers in tourism services experienced layoffs or were laid off by the company where they worked, or independent tourism workers did not receive work orders due to the absence of tourist visits requiring them to do so. tourism service workers.

Table 2. Unemployment by Regency/City in Bali Province, Indonesia

Regency/City	Number of Unemployment by Regency/City in Bali Province (Persons)		
	2019 (Pre Covid-19)	2020 (Peak of Covid-19)	2021 (Recovery Phase)
Jembrana	2,102	7,485	7,354
Tabanan	3,527	11,663	10,939
Badung	1,543	27,324	28,027
Gianyar	4,506	22,028	20,064
Klungkung	1,679	5,794	5,577
Bangli	1,104	2,727	2,659
Karangasem	1,590	6,284	6,099
Buleleng	10,960	19,861	20,234
Denpasar	12,277	41,334	37,716
Provinsi Bali	39,288	144,500	138,669

Source: BPS Bali [24]

Note: The number of unemployed in Bali Province in Table 2 is slightly different from Table 1, because BPS Bali uses different month calculations in the same year.

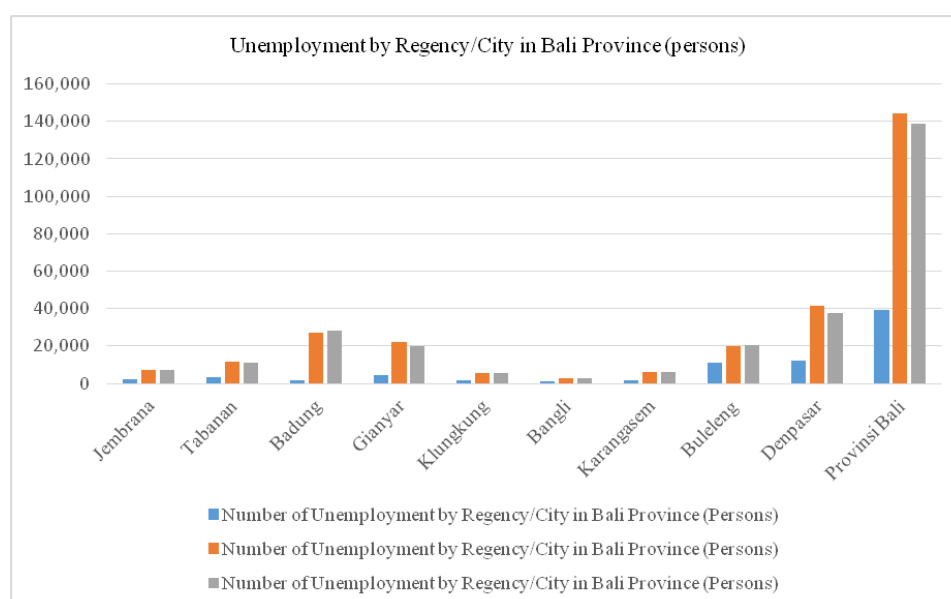


Fig. 2. Unemployment by Regency/City in Bali Province (persons)

(Source: The graph is drawn based on the data of Table 2)

In Bali, the increase in unemployment spreads across nine regencies/cities, while in the US unemployment also spreads to every state. Wilmont [10] further details the impact of the Covid-19 pandemic on unemployment in the US by region. In April 2020, the number of residents in the metropolitan area who were employed and self-employed fell 21% compared to April 2019. Outside of these areas, the decline was only 13%. In the following months, the decline in the metropolitan area continued to outweigh the decline outside the metropolitan area. The New York City area of the US saw a 44% decline in April 2020. The Los Angeles area didn't hit bottom until July 2020, with a 36% decline. Like the New York City area, the Chicago area hit its lowest point in April 2020, but with a decline of only 16%.

According to Garza et al. [4], the pandemic is not only a health crisis, but also an economic crisis that wreaks havoc on small companies and large industries. All industrial sectors in Texas U.S. have been affected by the pandemic to some degree, but some are fighting more than others for a recovery that some call a "K-shaped recovery" - in which different sectors, industries, and employee groups have different rates. , some recovered and others remain in recession. Some of the industries most affected by the pandemic are leisure and hospitality providers, restaurants and bars, retailers, passenger airlines and hospitals.

The Covid-19 pandemic that led to historic labor market disruptions in the spring of 2020 and the federal government stepped up an equally historic legislative response, the American Enterprise Institute surveyed 3,518 adults of working age at the end of July 2020. The results showed many households experienced job disruptions immediately after pandemic. More than half of working-age adults with pre-pandemic jobs in the household reported at least one negative work interruption in their household such as job loss, time off, or reduced working hours. Occupational disorders affect households with and without children to the same extent. However, working-age adults from low-income households experience the highest rates of job disruption and report their income has declined in recent months. More than half of working-age adults who lost a job in their household also reported that their former employer had asked someone in the household to return to work at the end of July 2020. Most of those asked by their employer to return to work were accepted [25].

4. CONCLUSIONS AND RECOMMENDATION

4.1 Conclusion

Starting from the research objectives and based on the results of the analysis and discussion, it can be concluded, namely:

1. The Covid-19 pandemic has an impact on increasing unemployment in Bali Province by 106,150 people (321.80%), from 32,990 people in pre-Covid-19 (September 2019-February 2020) to 139,140 people at the peak of Covid-19 (March 2020-February 2021). Unemployment increased because workers lost their jobs in several sectors, such as tourism, small-medium industry, and agriculture. But the most affected are workers in the tourism sector. The absence of tourist visits results in termination of employment or the laying off of hotel workers, travel and other tourist service activities. In the recovery phase (February 2021-February 2022) the Balinese economy has not been able to recover normally in terms of employment or in other words, unemployment is still occurring as a result of the Covid-19 pandemic.
2. The Covid-19 pandemic, which peaked in 2020 and continues until 2021, has an impact on increasing unemployment in nine regencies/cities of Bali Province. However, of the nine regencies/cities that were affected, three regencies/cities in Bali's tourism development centers, namely Badung, Gianyar and Denpasar, were severely affected compared to the other six regencies in Bali due to the loss of job opportunities in the three regencies/cities.

4.2 Recommendation

1. Various social assistances such as direct cash assistance, assistance in kind (rice) and the provision of various assistance facilities have indeed been carried out by the central government and local governments (provincial and district) to workers who have been laid off or furloughed and this assistance is very useful by the community. However, it is necessary to pay attention to the accuracy of targeting community groups from these assistance and facilities.

2. In the recovery phase, the government has indeed relaxed various health care requirements for tourists visiting Bali tourist destinations. However, other strategies need to be implemented, such as increasing number of visa-free countries for tourist visits to Indonesia and Bali, considering that Bali tourism is the driver of Bali's economy.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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