



COPING STRATEGIES TOURISM WORKER HOUSEHOLD DURING COVID-19 PANDEMIC, EVIDENCE IN GIANYAR, BALI

Ni Ketut Budiningsih¹ Putu Tara Saraswati²

Abstract

Keywords:

coping strategies;
tourism worker;
Covid-19 pandemic;
Gianyar;
Linear Probability Model;

This study analysis the coping strategies of the tourism worker household during Covid-19 pandemic in Gianyar, Bali. The data of this study comes from the answer of the online survey. The respondent is the tourism worker from Gianyar regency in Bali. The data estimates using Linear Probability Model with fixed effects to solve endogeneity problem between urban area and rural area. Education household head are the important characteristics of the household head which affects the coping strategies of the household. Further, child adult ratio and social network are also the important characteristics of the household which determine the coping strategies of the household. Social network important in Indonesia. Consequently, in promote the policy, the government can utilize the social group in the community. There are limited number of research analyses the coping strategies of the Gianyar tourism worker. Further, the previous researches use qualitative analysis or descriptive statistics. This study contributes on the research in coping strategies of the Gianyar tourism worker and estimates using econometrics analytical tool.

Kata Kunci:

strategi penanggulangan;
pekerja pariwisata;
pandemi Covid-19;
Gianyar;
Model Probabilitas Linear;

Abstrak

Penelitian ini menganalisis strategi penanggulangan rumah tangga pekerja pariwisata selama pandemi Covid-19 di Gianyar, Bali. Data penelitian ini berasal dari jawaban survei online. Responden adalah pekerja pariwisata yang tinggal di Kabupaten Gianyar Bali. Estimasi data menggunakan Model Probabilitas Linear dengan *fixed effects* untuk menyelesaikan permasalahan endogenitas antara wilayah perkotaan dan perdesaan. Pendidikan kepala rumah tangga merupakan karakteristik penting kepala rumah tangga yang mempengaruhi strategi penanggulangan rumah tangga. Selain itu, rasio anak dewasa dan jaringan sosial juga merupakan karakteristik penting rumah tangga yang menentukan strategi penanggulangan rumah tangga. Jejaring sosial penting di Indonesia. Oleh karena itu, dalam menjalankan suatu kebijakan, pemerintah dapat memanfaatkan kelompok sosial yang ada di masyarakat. Penelitian yang menganalisis strategi penanggulangan pekerja pariwisata Gianyar masih terbatas. Sedangkan penelitian-penelitian sebelumnya menggunakan analisis kualitatif atau statistik deskriptif. Penelitian ini memberikan kontribusi pada penelitian strategi penanggulangan pekerja pariwisata Gianyar dan estimasi menggunakan alat analisis ekonometrika.

Koresponding:

Fakultas Ekonomi dan Bisnis,
Universitas Udayana, Bali,
Indonesia
Email:
budiningsih@unud.ac.id

INTRODUCTION

Gianyar is one of the nine regencies/cities in Bali Province, which well-known with the art, tourism, and culture. Gianyar Regency consists of seven sub-districts, namely Payangan, Tegallalang, Tampaksiring, Ubud, Sukawati, Blahbatuh, and Gianyar. In 2021, the population of Gianyar Regency is 519,500 people. Tourism is the important activity in Gianyar Regency. According to Statistics Indonesia (2022) data, business field of providing accommodation and food and drink give the largest contribution to the Gross Regional Domestic Product (GRDP) according to 2021 current price in the amount of 18,07 percent. The second largest was agriculture, forestry, and fisheries at 13.42%.

Covid-19 pandemic directly impact on tourism sector since tourism main activity is people movement. The international tourist arrival drastically decreases, from 1.272 in January 2019 become 160 in April 2020 (Ministry of Tourism and Creative Economy, 2021). Central Bureau of Statistics counted that the international tourist arrival growth is -75 percent compare to 2019. The decrease of the international tourist certainly effects on occupancy rate of the hotels. The occupancy rate in Bali in 2019 is 59,57 percent. Then, in 2020, the occupancy rate is 15,62 percent, which there is loss in the amount of 43,95 percent. From the BPS data in November 2020, in total, the amount of the worker has decreased 409.000 on 9 categories of the tourism sector or negatively grow 0.69 percent (Statistics Indonesia, 2021). Loses of the work hour in tourism sector also impact on 939.000 people temporarily laid off from 49.50 million worker due to the pandemics, while 12,91 million workers reduced the work hours compared to before pandemics (Ministry of Tourism and Creative Economy, 2021).

The impacts of the Covid-19 pandemic show the vulnerability of the tourism workers, although the level of financial vulnerability is different among the workers. The workers employment vulnerability is high if the worker more vulnerable to lay-off while hard to back after a job loss or earn additional income to supplement their reduced earnings. This condition said as low coping capability of the workers who have high level of the financial vulnerability (Sun et al., 2021). Understanding how different household cope with pandemic is important for policy design aiming at design a relief program in the crisis. Furthermore, the impact of the pandemic varies across different socio - demographic groups (Xu et al., 2022). The rich one has more resources to cope with the negative shocks. Coping capabilities strongly related with the job characteristics of the workers, which are sector and region specific. In addition, women, youth, low income, low-skilled group face higher unemployment rate can higher pay cut than their counterpart in the pandemic Covid-19.

There are few quantitative research analyses the coping strategies of the Balinese tourism worker in Gianyar. Study Rindrasih (2022), using qualitative method, categorized the community in Ubud, Gianyar, Bali, strategies to survive during pandemic in Ubud, Bali. First, the entrepreneur who already have enough property and financial guarantees, for example savings and deposits choose to waiting the end of the pandemic. Second, in other hand, worker who do not have savings choose to wait the end of the pandemic passively. They choose to borrow money from other families, sell things, or rely on government support. The low-income workers and relatively lower-level jobs choose to use this strategy. Third, some workers choose to having alternative job in tourism, for example choose to do take away food service or choose the online platform. Forth, the most widely done option by the community is looking for non-tourism jobs, such as farming, gardening, building porters, house cleaner, etc.

Widiastini et al., (2021) choose to analyse the resilience of the tourism worker during the Covid-19 pandemic in Bali focus on women. In contrast to Awirya et al., (2022) and Rindrasih (2022) research, which use quantitative analysis, this study is qualitative research using case study approach. This study result shows that women who were laid off were happened in almost all hotel in Bali. Women have creative strategy regarding how to overcome this problem. Women who had experience

in food beverage division choose to cook several food products. Then, they sell it online by Whats App, Instagram, and Facebook.

Study Awirya et al., (2022) analysis the impact and the tourism worker adaptation in Bali using both primary and secondary data. The primary data is collected from 198 respondents from tourism worker. The secondary data is Sakernas for the August 2020 period in the Bali sub-province. The analytical tools used is descriptive statistics. The result shows that mostly the tourism workers do not work, although they are temporarily housed or laid off. Those who laid off 16,4 percent was opening a personal business, while another working in other companies, helping relative business, or other strategy. Another tourism workers who choose to migrate in other sector, choose to work in financial sector, service sector, trade sector, or manufacturing sector. The adaptation strategy used also differentiate by gender. Female tourism worker mostly chooses to opening a personal business, while male tourism worker mostly chooses to helping relatives or friends or neighbour's business.

While, some researches also did in some tourist place in Indonesia. Kristiana et al., (2021) analyse the adaptation strategies of the tourism stakeholder in Tanjung Puting. This qualitative research shows that tourism actor skill in other field will determine kind of job they take during pandemic. The actors who don't have skill in other field tend to have no choice, thus work based on physical activities, then back to work in tourism when tourism getting back to normal. Sunarti et al., (2022) research try to focus broadly on Indonesian family during one year of the Covid-19 pandemic. This study is a quantitative study using cross sectional study design. This study chooses to focus on food coping strategies used in the household, whether the pandemic cause the household to reduce their food purchase, reduce the purchase of food sources of the animal protein, reduce the frequency of meals, or reduce food portion. This study shows that mostly the household reduce significantly on recreation cost, purchase of clothes, and reduce the cosmetics and selfcare. While, the strategy of the food coping strategies mostly choose are reducing the purchase of food, buying cheap food. One of five families even choose to reduce the portion of their meal. This study concludes that food security become one of serious problem during pandemic, especially for lower income family.

From the previous researches have been done, this study identifies some research gap. First, there are still few researches about the coping strategies of tourism workers in Gianyar during the crisis. Second, there is no research use the econometrics method in Indonesia, especially in Bali. Thus, this research will analyse the coping strategies of the Balinese tourism worker family during Covid-19 pandemics. This study has spread questionnaire for 6 months for the tourism worker who stay in Gianyar Regency. Then, the data analysed using descriptive statistics and econometrics method. This study analyses the decision of the tourism workers household to choose different coping strategies. The coping strategies differentiate into two big categories, namely the internal coping strategies and the external coping strategies.

METHODOLOGY

This study will use Linear Probabiliy Model (LPM). Linear Probability Model (LPM) is a linear regression model which dependent variable is binary or dichotomous. Gujarati (2004:582) describes the model as follow:

$$Y_i = \beta_1 + \beta_2 X_i + u_i$$

Dependent variable Y_i in the equation above is the binary or dichotomous variable. This model is referred as LPM because the conditional expectation Y_i to X_i . $E(Y_i|X_i)$ is the conditional probability that an event will be occurred with the value X_i , which is $\Pr(Y_i = 1|X_i)$. Then, LPM is described as follow:

$$E(Y_i|X_i) = \beta_1 + \beta_2 X_i$$

LPM assumes that $E(u_i) = 0$ to get unbiased estimator. P_i is the probability of an event is occurred $Y_i = 1$ and $(1 - P_i)$ is the probability that an event is not occurred or $Y_i = 0$. Y_i has Bernoulli probability distribution. In general, the expectation of a Bernoulli random variable is the probability that random variable is equal to 1.

Gujarati (2004:584-587) mentions that LPM poses some problems. First, the disturbances do not have normal distribution because the disturbances also follow Bernoulli distribution. However, this problem does not affect the unbiasedness properties of OLS. Increase the sample size will make the OLS estimators tend to be normally distributed. The statistical inference of the LPM will follow OLS procedure under normality assumption. Second, the disturbances might suffer from heteroscedasticity problem. This problem also does not affect the unbiasedness properties of OLS, although the estimators are not efficient. This problem can be solved by some methods to treat the heteroscedasticity problem. Third, there is no guarantee that the estimated conditional probability lies between 0 and 1. This problem is the real problem of the OLS estimation of the LPM. Forth, the value of R2 as a measure of goodness of fit is questionable. However, this study wants to solve the time invariant unobserved heterogeneity that may appear in the difference between rural versus urban area using fixed effects.

Here is the model use in this study.

$$P(\text{cope}_h = 1) = \alpha + \gamma X_h + \delta_c + \varepsilon_{hc}$$

On the left-hand side, cope_{hc} is a dummy, indicating whether the household h has used the coping strategy in the Covid-19 period. Later, the coping strategies will be differentiate into two, internal resources and external resources. On the right-hand side, α is a constant. γX_h capture some household characteristics might determine the household coping strategies. These include gender of the household head, age household head, education of household head, and child adult ratio. This study

Table 1.
The Categorization of The Coping Strategies During Covid-19 Pandemic in Indonesia

Coping Strategies	Coping Strategies included in this Category
Saving	Use saving or time deposit
Work in agriculture	Work in agriculture, either in respondent own land or others land
Work in non-agriculture	Work in non-agriculture, for example: trade, construction, etc
Reduce expenditure	Reduce expenditure in general
Food business	Sell food
Non-food business	Sell non-food products
Sell asset	Sell asset, for example: land, motorbike, jewelry
Loan	Get loan
Family transfer	Get transfer or help from the family
Government assistance	Receiving government assistance such as cash transfers, small enterprises support, or food packages program

Source: This study

also includes household monthly expenditure as proxy of the level of wealth. Further, this study also includes social network variable. Lastly, the model also includes area fixed effects δ_c , in this case is rural urban area fixed effects to control all time-invariant characteristics specific to each area, which might affect the choice of coping strategies. These may include, for example different facilities, or social norm in coping strategies in different area. Standard error is captured by ε_{hc} .

The dependent variable is the coping strategies chosen by the household. Table 1 captures the categorization of the coping strategies during Covid-19 Pandemic in Indonesia. From the previous

literatures, there are some coping strategies, which are familiar to be used in Indonesia. These coping strategies such as saving, work in agriculture, work in non-agriculture, reduce expenditure, food business, non-food business, sell asset, loan, family transfer, and government assistance.

RESULT AND DISCUSSION

In this study, respondents can choose more than one coping strategy. The most coping strategies used by tourism worker household is reducing expenditure. This strategy chooses by 67,35 percent of the respondent. While 46,94 percent respondent are also getting government assistance during pandemics. Using saving or deposit is also important coping strategies choose by respondent. While another coping strategy chooses by the respondent are sell the asset, apply for a loan, friend transfer, family transfer, working in agriculture, working in the non-agriculture, move to another tourism job, doing the food business and doing the non-food business.

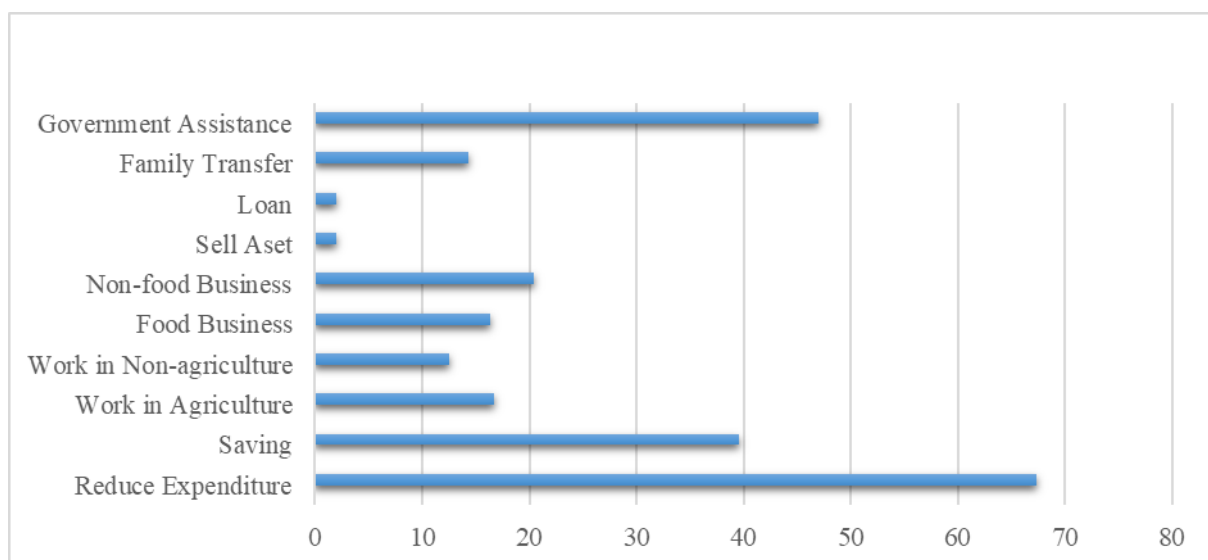


Figure 1.
Coping Strategies Chosen by Tourism Worker Household (in Percentage)

Reducing expenditure is the main coping strategies chose by the respondent. Figure shows specifically the reducing expenditure strategies chose during Covid-19 pandemic. More than 80 percent respondent chose to reduce clothing expenditure. Reducing entertainment expenditure is another main reducing expenditure strategies used by 80 percent of the respondent. Another respondent also reduces cosmetic and self-care expenditure, in the amount of 50 percent. Almost 40 percent of the respondent also choose to reduce food expenditure. Reducing expenditure is the response of decline in income. This is triggered by declining company productivity so the ability to pay employees is decreasing (Awirya et al., 2022).

Table 2 shows the econometrics estimation result. This study shows that in Gianyar there is no difference in the coping strategies used based on gender of the household head. This result is different with Xu et al. (2022) that there is gender difference in household coping strategies for Covid-19 pandemic.

Household heads who graduated from university have lower probability 0.47 to use the government assistance during pandemic. The household which has higher child adult ratio tend to

have higher probability 0.57 to sell asset during pandemic. This result is in line with Palma & Araos (2021) that household with the presence of the children has limitation in reducing expenses. The household are more likely to use income generating strategies, such as selling asset.

Table 2.
Estimation Results for Household Internal Strategies

	Household Internal							
	Saving	Work in	Work in Non	Reduce	Food	Non	Sell	Loan
	(0/1)	Agriculture	Agriculture	Expenditure	Business	Food	Asset	Loan
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male Headed Household (0/1)	0.07 (0.33)	0.12 (0.21)	0.19 (0.23)	0.34 (0.30)	-0.13 (0.25)	0.31 (0.27)	-0.28 (0.23)	0.06 (0.10)
Household Head Age	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	0.01 (0.01)	0.00 (0.00)
Household Head SMP	-0.21 (0.33)	-0.31 (0.21)	0.09 (0.23)	-0.08 (0.30)	0.05 (0.25)	-0.22 (0.27)	-0.16 (0.23)	-0.01 (0.10)
Household Head SMA	0.03 (0.24)	-0.24 (0.15)	-0.00 (0.17)	-0.00 (0.22)	0.01 (0.19)	-0.01 (0.20)	-0.04 (0.17)	0.06 (0.07)
Household Head PT	0.02 (0.27)	-0.04 (0.17)	0.09 (0.19)	0.06 (0.24)	-0.08 (0.20)	0.15 (0.22)	0.13 (0.19)	0.03 (0.08)
Child-adult Ratio	0.01 (0.32)	-0.23 (0.20)	-0.10 (0.22)	-0.10 (0.29)	-0.14 (0.25)	-0.08 (0.27)	0.57** (0.23)	-0.07 (0.10)
Social Network (0/1)	-0.13 (0.29)	0.53*** (0.18)	0.13 (0.20)	-0.16 (0.26)	0.16 (0.22)	0.05 (0.24)	0.07 (0.21)	0.05 (0.09)
Household Expenditure	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Constant	-0.22 (0.71)	-0.48 (0.45)	-0.06 (0.49)	0.10 (0.64)	0.06 (0.54)	0.20 (0.59)	-0.01 (0.50)	-0.13 (0.21)
Area Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	48	48	48	48	48	48	48	48
R-squared	0.12	0.40	0.06	0.19	0.11	0.12	0.23	0.07

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 3.
Estimation Results for Household External Strategies

	External-Family/Network	
	Family Transfer (0/1) (9)	Government Assistance (0/1) (10)
Male Headed Household (0/1)	0.12 (0.23)	0.02 (0.33)
Household Head Age	-0.01 (0.01)	0.01 (0.01)
Household Head SMP	-0.15 (0.23)	0.01 (0.33)
Household Head SMA	-0.06 (0.17)	-0.39 (0.24)
Household Head PT	0.06 (0.19)	-0.47* (0.26)
Child-adult Ratio	-0.11 (0.23)	0.16 (0.32)
Social Network (0/1)	-0.14 (0.20)	-0.08 (0.29)
Household Expenditure	0.00 (0.00)	0.00 (0.00)
Constant	0.33 (0.50)	0.23 (0.70)
Area Fixed Effects	Yes	Yes
Observations	48	48
R-squared	0.15	0.16
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Social network is the important variable, especially in Indonesia. The household which join social network have higher probability to work in Agriculture 0.53. This result support some studies research finding that social networks have prominent roles in agriculture development in Bali. Baharuddin et al. (2021) emphasizes that social network is a contribution of social capital because social network will facilitate the flow of information and communication

CONCLUSION AND POLICY RECCOMENDATION

Covid-19 pandemic directly impact on tourism sector since tourism main activity is people movement. The coping strategies is important to analyse because the impacts of the Covid-19 pandemic show the vulnerability of the tourism workers. This study shows that some factors are essentials in affect the coping strategies of the household to survive during pandemic. Education of the household head also important to determine the coping strategies. Child-adult ratio show how many dependent in the family. Social network is the important variable. Those important variables become benchmark to propose policy recommendation. The government in setting the policy in the crisis period should give deeper attention to the vulnerable group. Consequently, in promote the policy, the government can utilize the social group in the community.

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