

Women in the COVID-19 Pandemic: Analysis of Economic Resilience of MSME's Actor's family in West Denpasar District.

Anak Agung Rika Prahastiwi, Ida Ayu Nyoman Saskara

ABSTRACT

MSMEs are assets that are owned to strengthen the foundation of the regional economy. United Nation Report (2020) states that MSMEs in the trade sector provide benefits for women in the post-COVID-19 recovery period. Not for women MSME in Bali. Supported by the characteristics of hardworking Balinese women, with a high work ethic, being in a cultural dress if work is a yadnya. The recommendation of this study is : reviewing how the economics resilience of MSME actors in facing the COVID-19 pandemic in West Denpasar District. The population is all MSME in Denpasar City with a non-proportional simple random sampling technique. Data analysis techniques used include descriptive analysis and binary logistic analysis. The results showed that the women MSME actors have stronger economic resilience than men MSME actors. In addition to the high work ethic, also because women tend to be more creatively innovative in overcoming economic conditions. The implications of the results of the study should be policies related to MSMEs more gender responsive.

Keywords: COVID-19, gender, microeconomic analysis of economic development

JEL Classification: I15, J16, O12

INTRODUCTION

According to the WTO (World Trade Organization, 2020) the Covid-19 pandemic that is sweeping the world is having a greater impact on women (in this case gender inequality). Women are more vulnerable to economic recession caused by income and education inequalities so most women work in the informal sector.

In the OECD report published in 2020, the COVID-19 pandemic has a significant influence on the economy, not only for large companies but also on

medium-sized businesses such as MSMEs that are vulnerable to business difficulties, whether in the tourism, culinary, or transportation sectors. Handayani (2020) mentioned that this pandemic caused countries to experience an economic recession. The existence of social distancing policies implemented causes people's economic activities to experience difficulties, especially for MSMEs (Apriyanti, 2020).

MSMEs or Micro, Small and Medium Enterprises play an important role in boosting the country's economy. MSMEs are a means of reducing the

poverty level of the community, equitable distribution of the economy of the lower middle class, as well as being a field of state income (Kumparan, 2017). Based on data obtained from the BPS in 2011, MSMEs are known to contribute to the economicly to the country by 61.9 percent as income in GDP through taxes paid.

MSMEs and women have a close relationship, as stated by Amalia as the Ministry of PP & PA that 96 percent of entrepreneurship actors are SMEs and 60 percent of the workforce in SMEs are women so it can be said that women drives the economy (Amalia, 2020).

The growth of MSMEs has spread to regions in Indonesia, no exception Province of Bali. The development of MSMEs in the province of Bali, especially in the city of Denpasar, is quite rapid. Suamba (2001) stated that Balinese women are hard workers with a high work ethic. This is also evidenced by the TPAK of Balinese women in 2019 which was 69.84 percent higher than Indonesia's 51.88 percent (BPS, 2019).

Based on data obtained from the Denpasar City Cooperative and MSME Office, it is known that the number of MSMEs in Denpasar City is 32,026 units, dominant in West Denpasar District as many as 11,042 units and at least located in East Denpasar District as many as 3,956 units. The occurrence of this pandemic caused MSME production to decrease and caused MSMEs to go bankrupt because their businesses were affected by the pandemic. In addition, many workers experience job cuts (layoffs) or decreased income so that it has an impact on people's purchasing power. As a result, many workers switch professions to survive. In an urgent situation, women are often required to be able to take solutions in order to survive in the midst of this pandemic despite the patriarchal Balinese culture that underestimates women and worships men as superiors (Simatupang and Purwanti, 2019).

Some of the studies related to this study include Dewi and Karmini (2012), which aims to find out the simultaneous influence of age variables, marital

status, and education on the income of informal sector female workers as well as differences in family income before and after women work. Suparyo Hugeng's research (2011), aims to find out the factors that affect the allocation of working time and the contribution of women to family income, Nur Rahmah Research, et al (2013), aims to find out the role of women in the public sector and the impact on family welfare. Dewi's research (2012) on the participation of the women workforce in increasing family income, and Handayani and Artini's Research (2009) on the contribution of the income of processed food makers to family income.

RESEARCH METHODS

The analysis of the economic resilience of MSME actor's family in West Denpasar District was carried out by binary logistic regression analysis. This study uses primary data obtained through observation, interviews, and distributing questionnaires to respondents. The dependent variable is the family's economic resilience. While

the independent variables are divided into interest variables and control variables. The interest variable is gender which is a dummy variable (female = 1 and male = 0). The control variables are the availability of housing as measured by a dummy (own house = 1 and not own house = 0), family income expressed in rupiah, cost adequacy children's education as measured by a dummy (enough = 1 and less = 0), saving is measured by a dummy variable (having savings = 1 and has no savings = 0), health insurance is measured by a dummy (having insurance = 1 and has no = 0), the respondent's education is expressed in years, and the spouse's education is measured in years. The MSMEs population of 11,042 was calculated using the Slovin formula, so the number of samples in the study was 100 MSMEs, which were selected randomly through the simple random sampling method.

RESULTS AND DISCUSSION

Respondents in this study were MSME actor's in West Denpasar District during the COVID-19 pandemic. Data was

obtained by distributing questionnaires through online media. Based on the results of the study, the characteristics of the research respondents were obtained as follows.

Table 1: Characteristics of Respondents of MSMEs in Denpasar

No	Category	Number of Respondents		
		Person	Percentage	
1	Gender	Woman	58	58
		Man	42	42
	Amount	100	100	
2	Age	20 – 25 years	14	14
		26 – 30 years	25	25
		31 – 35 years	8	8
		36 – 40 years	3	3
		41 – 45 years	9	9
		46 – 50 years	17	17
		51 – 55 years	15	15
Amount		100	100	
Lanjutan Table 1: Characteristics of Respondents of MSMEs in Denpasar				
3	Last education	Junior High School (SMP)	1	1
		High School (SMA)	38	38
		College	61	61
		Amount	100	100
4	Number of Family Members	1 – 2 people	26	26
		3 – 4 people	56	56
		4-5 people	43	43
		6 – 7 people	2	2
		8 – 9 people	1	1
		Amount	100	100
5	Business fields	Culinary	37	37
		Fashion	20	20
		Automotive	5	5
		Agribusiness	2	2
		Education	2	2
		Other	34	34
Amount		100	100	
6	Long Running Business	< 1 year	22	22
		15 years	32	32
		6 – 10 years	24	24
		> 10 years	22	22
		Amount	100	100

No	Category	Number of Respondents		
		Person	Percentage	
7	Total manpower	< 5 people	95	95
		5 - 10 people	2	2
		11 - 20 people	1	1
		> 20 people	2	2
		Amount	100	100
8	Digital Technology	Instagram	37	37
		Whatsapp	25	25
		Facebook	13	13
		Website	5	5
		Amount	100	100
9	Operating revenues per month	20 - 25 years	14	14
		26 - 30 years	25	25
		31 - 35 years	8	8
		36 - 40 years	3	3
		41 - 45 years	9	9
Amount	100	100		

Lanjutan Table 1: Characteristics of Respondents of MSMEs in Denpasar

10	Spouse Income	< Rp. 1,000,000	6	6
		Rp. 1,000,000- Rp. 1,999,999	3	3
		Rp. 2,000,000- Rp. 2,999,999	10	10
		Rp. 3,000,000- Rp. 3,999,999	9	9
		Rp. 4,000,000- Rp. 4,999,999	11	11
		> Rp. 5,000,000	61	61
Amount	100	100		

Data source: primary data processed, 2021

Based on Table 1, it shows that most respondents are between the ages of 26-30 years, which is as many as 25 respondents (25 percent). This age is a productive age at work that triggers the entrepreneurial spirit to start and develop a business. The number of

woman respondents was 58 respondents (58 percent) more than the man respondents, which was 42 people (42 percent). This indicates that MSME actor's in West Denpasar district are dominated by women. Based on the age of respondents, the most number are in

the age range of 26-30 years who usually still prefer to be productive at work and more innovative to the business developed. The study respondents were mostly college graduates with 61 respondents (The observations found that respondents with family members of 3-4 people amounted to 56 respondents and followed by 43 respondents who had a family of 4-5 people, indicating that most of the respondents were nuclear families who had children. Judging from the business field, 37 percent of respondents are culinary entrepreneurs, and continued with fashion business as much as 20 percent.

Based on the length of business, it is known that the length of business carried out by business actor's in West Denpasar District is very diverse, starting from the new open business to a business that has been running for decades. In running its business, the majority of MSMEs in West Denpasar District have a workforce of less than 5 people, and the majority already use digital technology by 37 percent

through Instagram. A total of 59 percent of respondents have a total of business income per month >Rp 5.000.000 and as much as 61 percent of respondent's spouse income has an income of >Rp 5,000,000, indicating that most respondents are people with upper middle class income groups that have incomes high enough to be able to meet the needs of families.

1) Research Results

1. Model fit test

Hosmer and Lemeshow's test results obtained a chi-square value (X^2) calculated by $14.627 < X^2$ table 15.507 with a probability of significance of $0.067 < level\ of\ significant$ of 0.05. Thus, it can be concluded that there is no difference between the predicted classification and the observed classification, so that the logistic regression model used can already explain the data and can be used for further analysis.

Nagelkerke R Square's test results obtained a *Nagelkerke R Square* value of 0.768 meaning 76.8 percent of the

family's economic resilience was affected by gender, ownership of residence, family income, adequacy of child education financing and education of respondents, the remaining 24.2 percent explained by other factors not mentioned in the model.

2. Simultaneous Test Results

The first test is done without entering the control variable.

Table 2: Omnibus Tests Of Model Coefficients

		Chi-square	df	Sig
Step 1	Step	26,228	1	,003
	Block	26,228	1	,003
	Model	26,228	1	,003

Source: primary data processed, 2021

The result shows that the value of X^2 is (26,228) > X^2 table (3,841) with a significance value of 0.003 < 0.05, it can be interpreted that the addition of independent variables can have a

significant effect on the model, or in other words the model is declared fit and better than no additional independent variables.

Next test by entering a control variable

Table 3: Omnibus Tests Of Model Coefficients

		Chi-square	df	Sig
Step 1	Step	77,994	8	,000
	Block	77,994	8	,000
	Model	77,994	8	,000

Source: primary data processed, 2021

The result shows that the value of X^2 is (77.994) > X^2 table (11.070) with a significance of 0.000 < 0.05, it can be interpreted that the addition of

independent variables can have a significant effect on the model, or in other words the model is declared fit

and better than no additional independent variables.

The first test without entering control variables.

3. Partial Test Results

Table 4: Variables in Equation

		B	SE	Wald	df	Sig.	Exp(B)
Step 1a	X	2,447	,532	21,152	1	,004	11,556
	Constant	-,288	,312	,851	1	,356	,750

Source: primary data processed, 2021

Based on the test results, the logistic regression equation can be arranged as follows:

$$Li = Ln \frac{P_i}{1 - P_i} = -,288 + 2,447 X$$

Li = Family Economic Resilience

-,288 = intercept

2,447 = parameters gender

The test results show that the value of significance gender (X) is 0.004 < 0.05, this means that the gender variable has a significant positive effect on the probability of economic resilience of

MSME actor's family in West Denpasar District In line with Priminingtyas' research (2010) that the contribution of the MSME sector to GDP is inseparable from the important role of women in developing MSMEs, both as business actors and as workers. Supported by the results of observations in table 1 which shows that 58 percent of business actors are women, so it can be said that women dominate the MSME sector in increasing family economic resilience.

Subsequent testing by entering control variables.

Table 5: Variables in Equation with Control Variables

		B	SE	Wald	df	Sig.	Exp(B)
Step 1a	X	4,985	1,582	9,931	1	,002	16,232
	K1	3,336	1,422	5,505	1	0.019	2,809
	K2	,001	,000	4,760	1	0.029	1,000
	K3	4,509	1,681	7,192	1	,007	1,808
	K4	5,496	6,448	,000	1	,191	5,366

K5	9,410	5.594	,000	1	,388	6,755
K6	,439	,214	4,205	1	0.040	1.551
K7	-,112	,231	,236	1	,627	,894
Constant	-50.035	9,307	0.004	1	,998	,002

Source: primary data processed, 2021.

Based on the test results, the logistic regression equation can be arranged as follows:

$$Li = Ln \frac{P_i}{1-P_i} = -50,035 + 4,985X + 3,336 K_1 + 0,01K_2 + 4,509K_3 + 5,496K_4 + 9,410K_5 + ,439K_6 - ,112K_7$$

Description :

- Li = family's economic resilience
- $-50,035$ = intercept
- $4,985X_1$ = parameter of gender
- $3,336K_1$ = parameter of residence ownership
- $0,04K_2$ = parameter of income family
- $4,509K_3$ = parameter of adequacy child education costs
- $5,496K_4$ = parameter of savings ownership
- $9,410K_5$ = parameters of health insurance ownership
- $,439K_6$ = parameters of educational respondent
- $,112K_7$ = parameters of spouse education

Based on the test results obtained 3 variables with a significant value greater than 0.05 and 5 variables with a significance value below 0.05 so that it can be interpreted that 5 variables

(gender, residence ownership, family income, adequacy of children's education costs, education) have an effect on positive and significant impact on the economic resilience of MSME actor's family in West Denpasar District. The influence of each variable can be explained as follows:

1. Gender

The value of B1 coefficient is 4.985 with a significance of 0.002 (<0.05), that means gender has a positive and significant effect on the probability of economic resilience of MSME actor's family in West Denpasar District. The coefficient of B1 is positive, indicating that the economic resilience coefficient of B1 is positive, indicating the economic resilience opportunities of a female family is 16.232 times stronger than that of a male family. Supported by the results of observations which found that 58 percent of MSME actor's were women.

2) Residence ownership

The of B2 coefficient is 3.336 with a significance of 0.019 (<0.05) then residence ownership has a significant positive effect on the probability of economic resilience of MSME actors in West Denpasar District. The coefficient value of the B2 is positive, indicating the economic resilience opportunities for families who have their own place to live is 2.809 times stronger than the economy of families who do not have their own place to live. Supported by observations which found that the average income of respondents above Rp. 5,000,000 makes it easier to allocate funds to meet family needs without having to pay house rent.

3) Family income

The Value of B3 coefficient is 0.001 with a significance value of 0.034 (<0.05), family income has a positive and significant effect on the probability of economic resilience of MSME actor's family in West Denpasar District. The value of the coefficient B3 is positive, it can be interpreted that the economic resilience opportunity of families with

family incomes is 1,000 times stronger than the economic resilience of families without family income. This is because income is a means of fulfilling daily needs. Sufficient family income indicates a strong family's economic resilience. This is in line with the research of Fadillah and Dewi (2016) which found that family income will affect the economic resilience of the family.

4) Adequacy of children's education costs.

The Value of B4 coefficient is 4.509 with a significance of 0.007 (<0.05), then the adequacy of children's education costs has a significant positive effect on the probability of economic resilience of MSME actor's family in West Denpasar District The value of the coefficient B4 is positive, meaning that the opportunity for family economic resilience to be fulfilled by the cost of children's education is stronger at 1.808 times the economic resilience of families who are unable to fulfill the costs of children's education. Supported by the results of observations which found that

respondents in the dominant study were able to meet the adequacy of children's education costs including monthly school fees, educational accommodation and additional school tutoring costs. Therefore, the adequacy of children's education costs has a positive and significant relationship to the family's economic resilience opportunities.

5) Savings ownership

The Value of B5 coefficient is 5.496 with a significance value of 0.191 (> 0.05), then savings ownership has a positive and insignificant effect on the probability of economic resilience of MSME actor's family in West Denpasar District. This is because MSME actor's have not considered the importance of savings ownership to be used as emergency funds for other future needs (Priyadi and Hidayat, 2016).

6) Health insurance ownership

The Value of B6 coefficient is 9.410 with a significance value of 0.388 (> 0.05), then the health insurance ownership has a positive and no significant effect on the probability of

economic resilience of MSME actor's family in West Denpasar District This is because MSME actor's do not feel the need to have health insurance either for themselves or their families, so that health insurance does not have a significant effect on the economic resilience of MSME actor's family in West Denpasar District.

7) Respondent's education

The Value of B7 coefficient is 0.439 with a significance value of 0.040 (> 0.05), the respondent's education has a significant positive effect on the probability of economic resilience of MSME actor's family in West Denpasar District. The value of the B7 coefficient is positive, it can be interpreted that the greater the year of successful education of respondent, the chance of family economic resilience will be 1.551 times stronger than the economic resilience of families who have relatively small years of educational success. Education influences their decisions in dealing with problems. According to Lontaan and Kusmiyati (2014) the higher a

person's education, the more rational decision-making is made.

8) Spouse Education

The Value of B8 coefficient is - 0.112 with a significance value of 0.627 (> 0.05), so the couple education

variable had no significant effect on the probability of economic resilience of MSME actor's family in West Denpasar District This is indicated by the results of the survey of couple education relatively lower compared to the education of respondents.

2) Discussion of Research Results

Table 6: Binomial Logit Estimation

Lanjutan Table 6: Binomial Logit Estimation					Chi-Square
Binomial Logit Estimation without Control Variables					
X (Gender)	11,556	0.532	0.004	0.327	26,228
Binomial Logit Estimation with Control Variables					
X (Gender)	16,232	1.563	0.002	0.768	77,994
K1 (Residence Ownership)	2,809	1,421	0.019		
K2 (Family income)	1,000	0.009	0.029		
K3 (Adequacy Children's Education Costs)	1,808	1,636	0.007		
K4 (Savings Ownership)	5,366	6,448	0.191		

Advanced Table 6: Binomial Logit Estimation

Economic Resilience	odds. Ratio	Std. error	Robust P> Z	Nagelkerke R Square	Chi-Square
K5 (Health Insurance Ownership)	6,755	5.594	0.388		
K6 (Respondents Education)	1.551	0.214	0.040		
K7 (Spouse Education)	0.627	0.231	0.627		

Source: primary data processed, 2021

Robust test was carried out by including several control variables, the results were still stable and better. It is shown by before adding the control variables 0.020 and after adding the control variables the result becomes 0.001 more significant.

The data show that women are stronger in economic resilience than men. This is in line with research conducted by Shimomura, N., & Qibthiyah, RM, 2020 which explains that there are more female MSME owners (32% before the pandemic, 47% after the pandemic) than male MSME owners (25% before the pandemic, 40%). after the pandemic) in the online marketplace.

Women-owned MSME are more enthusiastic and agile to seize every opportunity in this crisis with 34% of women saying that they have ever diversified their products or services, while only 23% of men have done so and Women entrepreneurs are increasing the prices of products or services that are in high demand to earn more a lot of profit (Pelupessy et al, 2020).

The control variables in this study were used to control the interest variables in the study. The test results found that from the 7 control variables there were 4 significant variables including, home ownership which had a positive and significant effect on the probability of economic resilience of MSME actor's family in West Denpasar District of 0.019. The family income variable has a significant positive effect on the probability of economic resilience of MSME actor's family in West Denpasar District of 0.029. The higher the family income, the higher the family's economic resilience (Lutfhi, 2020).

The variable of adequacy of children's education costs has a positive and significant effect on the probability of economic resilience of MSME actor's family in West Denpasar District, which is 0.007 which means the family is able to meet the needs of children's education, both school fees, book fees, transportation and other needs for school purposes. The respondent's education variable has a significant positive effect on the probability of

economic resilience of MSME actor's family in West Denpasar District of 0.040. Education is related to people's mindset, perception, and behavior. The higher the level of education, the more rational the decisions taken (Lontaan and Kusmiyati, 20140).

Three control variables that have no effect include the savings ownership variable with a significance of 0.191. This result is in line with Amalia research (2020) which finds that ownership of savings and debt has no significant effect on the economic resilience of MSME actor's family in West Denpasar District. The residence ownership variable has a significant value of 0.388, which means it has no effect on the economic resilience of MSME actor's family in West Denpasar District. Based on the survey results, many respondents who already have but in the last 2 years have not paid for the health insurance, then all of the respondents' income is allocated to the family's economic needs.

The last variable is spouse education with a significance of 0.627 indicating

that the spouse education has no significant effect on the economic resilience of MSME families in West Denpasar District.

CONCLUSION

1) From the results of the survey and analysis described in the previous section, the COVID-19 pandemic has a positive impact on MSMEs, especially MSMEs managed by women. A number of women's MSMEs managed to survive and even increase their turnover during the pandemic due to good innovation and adaptation capabilities, such as product diversification and technology utilization. This is indicated by the fact that women MSME actor's have stronger economic resilience than men MSME actor's. This is indicated by a significance value of 0.004. After adding the control variable, the significance value is getting better, which is 0.002.

2) The control variables that have a significant effect in this study are home ownership which has a significance value of 0.019, family income has a significance value of 0.029, the adequacy of children's education costs has a significance value of 0.007 and the respondent's education has a significance value of 0.040. The control variables that have no significant effect in this study are savings ownership which has a significance value of 0.191, health insurance ownership has a significance value of 0.388 and spouse's education has a significance value of 0.627.

SUGGESTION

1) Based on the results of this study, the government is expected to pay more attention to handling and providing the right stimulus in improving the economy, especially during the COVID-19 pandemic. And the government is expected to be responsive to gender equality in improving the economy, especially during the COVID-19 pandemic. It is

hoped that gender equality will be able to provide working capital for women, provide job opportunities for women, and work regulations that support women in balancing their dual roles as housewives and as MSME actor's.

2) The government needs to synergize between ministries and institutions (Coordinating Ministry for Economic Affairs, Ministry of Cooperatives and MSMEs, Ministry of Social Affairs, Ministry of Manpower, Bappenas), BUMN, BUMD, BUMDes to become a buffer for the MSME sector by strengthening MSME access, capacity, and connectivity.

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