

## Determinant factors of family welfare among Bogor online riders on pandemic COVID-19

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### ABSTRACT

COVID-19 pandemic impacted economic activity, including a decrease in the number of online motorcycle taxi passengers due to large-scale social restrictions. This study aimed to analyze the effect of determinant factors: work source of stress, self-efficacy, coping strategies, and symptoms of stress on the family welfare among online motorcycle taxi drivers. This study also analyzed the differences of all research variables according to years of service (less or more than two years). A cross-sectional design involving 120 online drivers in Bogor who were selected by convenience sampling was applied in this study. All research instruments used in data collection have good reliability. Data was collected by filling out a structured questionnaire shared with a google form, considering the pandemic conditions. Data was analyzed inferentially using SPSS and Smart PLS. Different test results showed that drivers who worked less than two years had lower earnings before and during the pandemic but performed higher coping strategies than those who worked more than two years. Self-efficacy positively affects online motorcycle taxi drivers' family welfare during the pandemic, objectively and subjectively. While work source of stress negatively affects subjective family welfare only.

### Introduction

In Early 2020 World Health Organization (WHO) declared Corona Virus Disease 19 (COVID-19) as a pandemic and was considered a Public Health Emergency that Concerned the World (Dong et al., 2020). The virus attacks the lungs with a high transmission rate originated from Wuhan, China (Yuliana, 2020) and then spread globally, including in Indonesia. The quick spreading of the virus has made the number of positive patients in Indonesia continue to increase. Therefore the Indonesian government has begun to implement physical restriction regulations to minimize interaction between communities by limiting the distance of one meter for each individual to reduce the spread of the virus.

This physical restriction policy affects people who use online motorbike transportation (Hapsari et al., 2021). This policy impacts declining community activity and mobilization in Jabodetabek and big cities, resulting in the declining number of passengers on various transportation modes such as airplanes, commuter trains, buses, public transportation, taxis, online taxis, and online motorbikes (Hadiwardoyo, 2020). Large-scale area restrictions in several areas caused by the pandemic COVID-19 make the passenger shuttle feature in the online motorbike application temporarily deactivated. Although other services such as food and beverages delivery are still in place, the number of customers decreases, reducing the income of online motorbike drivers and harming their family welfare. A study conducted by

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Sunarti et al. (2020) showed that the psychological well-being of the family affects family resilience to deal with the COVID-19 pandemic.

This study explored the determinant factors of family welfare, including work source of stress, self-efficacy, coping strategy, and stress symptoms. Stress is a person's response to an imbalance between external and internal events in the face of demands (Richardson & Rothstein, 2008). The high work demands trigger a person to feel depressed and anxious, but everyone reacts differently to work pressure. Workload includes work itself, conflicts between family and work, career development, organizational style, interpersonal relationships, and job roles (Wu et al., 2018). Riggio (2003) states that work stress is a physiological or psychological reaction to an event that individuals perceive as a threat.

A person's confidence in his ability to control situations and produce something beneficial is called self-efficacy. Zhao et al. (2015) also stated the importance of self-efficacy to reduce stress and build effective coping strategies. Effective coping depends on self-efficacy because it plays an important role in behavior transformation.

Generally, the coping strategies used in dealing with stress in the workplace focus on problems and emotions. Coping strategies that focus on problems are efforts to minimize the pressure by overcoming the problems faced and the environment around the triggers of the pressure. Emotional focus coping is applied to cope with stressful situations by regulating their emotions (Zakowski et al., 2001).

Working as an online motorcycle taxi may cause stress in the workplace, affecting the stability of the driver's mind and performance. The stress felt by online motorcycle taxi drivers is thought to affect the welfare of their families because it is directly related to meeting family needs and satisfaction. Online motorcycle taxi drivers are workers in non-formal fields. Families with unstable (informal) jobs have higher economic pressure, low physical security, welfare, and limited-time managing family resources (Sunarti, 2013). Therefore, this study aimed to analyze differences and influence of determinant factors including driver characteristics, family characteristics, job characteristics, work source of stress, self-efficacy, coping strategies, and symptoms of stress on family welfare among online motorcycle taxi drivers in the face of the COVID-19 pandemic.

## Method

### *Research Design*

This study used a cross-sectional design, known as a survey with data collection techniques through field surveys at a certain point and time (Notoatmodjo, 2007). The research location was chosen purposively in Bogor, West Java because it has a large population and has experienced quite high developments in the online transportation sector. The total population of Bogor by District is 5.4 million people in 2020 (Badan Pusat Statistik, 2020) and is a support area for Capital City.

### *Participants*

The sample of the study is 120 online motorbike drivers in Bogor. The average age of online motorbike drivers who became respondents in this study was in the early adult phase, with an average age of 32.46 years.

### *Procedure*

Due to the COVID-19 pandemic and the current situation, we need to reduce outside activities and restrictions on physical contact. Data on family characteristics, online motorbike job characteristics, sources of stress, self-efficacy, coping strategies, stress levels, and family welfare were collected from respondents by filling in online structured questionnaires distributed by social media and carried out from May to June 2020.

## ***Instruments***

Family welfare in this study is divided into objective and subjective and is measured using two different measuring instruments. Objective welfare was measured using a questionnaire with eight questions and the Cronbach alpha of .608 (Sunarti, 2001). Subjective welfare was measured using a questionnaire based on physical-economic, social, and psychological dimensions with 29 questions and the Cronbach alpha of  $\alpha = .877$  (Sunarti, 2001). The questions asked are. Data scoring for each answer uses a satisfaction level ranging from 1 to 7.

Sources of online motorbike drivers' work stress were measured using the Job Stress Scale based on the job itself, role management, interpersonal relationships, organization style, career development, and family work conflict dimensions (Wu et al., 2018). The scale consists of 20 items with Cronbach alpha = .734. The score applied for each answer are 0 = no; 1 = yes.

The modified Bandura General Self Efficacy Scale (Born et al., 1995) measured self-efficacy. The scale consists of 10 items in a Likert scale (0 = never; 1 = rarely; 2 = often; 3 = always), with the Cronbach alpha of  $\alpha = .868$ .

The Ways of Coping Strategy Questionnaire (Lazarus & Folkman, 1984) used a Likert scale (0 = never; 1 = rarely; 2 = often; 3 = always) to measure coping strategy. The questionnaire consists of two dimensions, focusing on problems and emotions with a value of  $\alpha = .708$ .

Stress symptom variables were measured using a questionnaire by Mirowsky & Ross (2002) with a value of  $\alpha = .920$ . Questions are measured on a Likert scale (0 = never; 1 = rarely; 2 = often; 3 = always), with two dimensions: malaise and mood.

## ***Data analysis***

Microsoft Excel, Statistical Package for Social Science (SPSS), and Smart Partial Least Square (smart PLS) were used in data processing and analysis. The analysis carried out included descriptive analysis, difference test, and PLS effect test, analyzing data based on the research purpose.

In PLS-SEM, the measurement model is often referred to as the outer model, and the structural model is termed the inner model (Hair et al., 2014). Test the outer model divided into convergent validity, discriminant validity, and composite reliability. Testing the measurement model through the loading factor determines the validity of the indicator by looking at the indicators' value convergent validity. Each indicator in the model must meet outer loading  $>.7$ , average variance extracted (AVE)  $>.5$ , and a construct said to be reliable if the composite reliability value is above .60. Then the inner model test is based on the R-Square test and the significance of T statistics.

## **Results**

Table 1 shows the results of the average and different tests of the characteristic variable of online motorbike drivers. The results show a significant difference between drivers who work  $\leq 2$  years and  $> 2$  years. Drivers who work  $\leq 2$  years have a lower average age than drivers who work  $> 2$  years. Overall, the average age of Bogor online motorbike drivers is in the early adult category. Different test results also show a significant difference in the wife's age of online motorcycle taxi drivers. The wives of online motorbike drivers who work  $\leq 2$  years have an average age lower than those of online motorbike drivers who work  $> 2$  years. In addition, significant differences were also found in family size per capita income during the pandemic and the income of online motorbike drivers before or during the pandemic.

**Table 1**  
*Average and Different of Demographic Data Test Based on Length of Time Worked*

Family Characteristic	Length of time worked		p-value
	≤ 2 years	>2 years	
Husband's age (year)	32.19	34.52	.006***
Wife's age (year)	28.72	31.62	.016***
Husband's education (year)	10.72	10.97	.412
Wife's education (year)	10.35	10.74	.675
Family amount	3.28	3.98	.000***
Income per capita (before the pandemic)	1187114.19	1638320.70	.000***
Income per capita (during the pandemic)	361456.78	351623.73	.709
Husband's income (before the pandemic)	3427777.78	6006818.00	.000***
Husband's income (during the pandemic)	897222.22	1142000.00	.046**

\*\*\*significantly different at  $p \leq .01$ ; \*\*at  $p \leq .05$ ;

Table 2 shows that among six dimensions of work of stress source, the differences among online motorbike drivers who work  $\leq 2$  years and  $> 2$  years were found only in the dimensions of family-work conflict. There is no significant difference for drivers who worked  $\leq 2$  years and  $> 2$  years in self-efficacy, stress symptoms, and family welfare. However, there are differences in emotional focus coping strategies for online motorbike drivers who work  $\leq 2$  years and  $> 2$  years. The average emotion focus coping strategy for online motorbike drivers who worked  $\leq 2$  years was higher than the average coping strategy for online motorbike drivers who worked  $> 2$  years.

**Table 2**  
*Average and Different of Variables Test Based on Length of Time Worked*

Variable	Length of time worked		p
	≤ 2 years	>2 years	
Work of stress source	67.04±15.87	64.39±15.07	.415
Job Itself	90.74±12.88	90.15±13.06	.777
Role management	36.57±35.25	29.55±33.08	.234
Interpersonal relationship	25.93±35.35	21.97±32.96	.580
Organizational style	68.52±32.96	74.24±27.72	.435
Career development	95.11±16.68	89.94±24.05	.410
Family-work conflict	73.65±19.87	66.94±23.87	.082*
Self-efficacy	70.39±18.36	66.97±17.98	.378
Coping Strategy	67.70±12.89	62.76±14.03	.039**
Problem focused	68.74±13.59	67.59±16.53	.705
Emotion focused	66.65±18.14	57.00±16.51	.002***
Stress symptoms	35.94±19.08	31.80±20.73	.317
Malaise	35.81±18.70	31.59±20.81	.328
Mood	35.81±24.89	32.32±24.38	.407
Objective welfare	53.22±28.49	58.37±23.33	.552
Subjective welfare	58.44±13.39	65.72±15.55	.678
Physic-economic	55.06±15.58	52.09±17.40	.189
Social	84.09±14.75	84.14±19.49	.414
Psychology	79.07±16.23	79.26±20.05	.891

\*\*\*significantly different at  $p \leq .01$ ; \*\*at  $p \leq .05$ ;

Table 3 shows that self-efficacy has a significant positive direct effect on objective family welfare ( $\beta = .195$ ;  $t > 1.96$ ) and on subjective welfare ( $\beta = .294$ ;  $t > 1.96$ ). This result indicates the more self-efficacy, the more objective and subjective welfare of the online motorcycle taxi workers who participated in this study. The source of work stress has a significant negative effect ( $\beta = -.218$ ;  $t > 1.96$ ) on subjective welfare, which means that the

higher the source of stress for online motorcycle taxi workers, the family welfare level is getting low.

**Table 3**  
*The Results of the SEM-PLS Analysis*

Variable	Direct effect	Indirect effect	Total effect
Work stress source → Objective welfare	-.091	.013	-.077
Self-efficacy → Objective welfare	.195*	-.005	.189
Coping strategy → Objective welfare	-.011	.005	-.006
Stress symptoms → Objective welfare	.020	-	.020
Work stress source → Subjective welfare	-.218*	.007	-.211*
Self-efficacy → Subjective welfare	.294*	-.074	.220*
Coping strategy → Subjective welfare	.174	.023	-.152
Stress symptoms → Subjective welfare	.089	-	.089

\*significance at  $t > 1.96$

Figure 1 shows each determinant factor's direct and indirect effect on objective and subjective family welfare. SEM-PLS results show that the *R-square* value of objective welfare was .150 and subjective well-being was .114. These results indicate that the variables of family characteristics, sources of work stress, self-efficacy, coping strategies, and symptoms of stress affect objective well-being and subjective well-being by 15% and 11.4%, respectively.

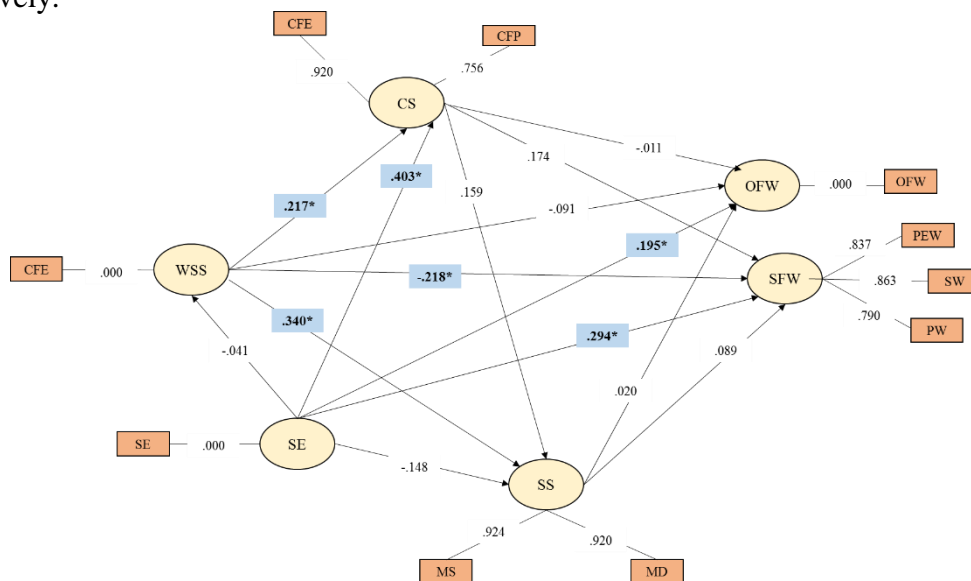


Figure 1. SEM Analysis

**Discussion**

Currently, non-formal jobs are an alternative work widely chosen by society, including online motorcycle taxis. Easy requirements and flexible working time make a lot of people interested in this job. The average age of online motorbike drivers who became respondents in this study was in the early adult phase, with an average age of 32.46 years. Even though in non-formal jobs, education level is not the main requirement, half of the respondents in this study complete education until graduating from high school, which means they have a good level of education. Based on Firdaus and Sunarti's (2009) research, a high level of education allows someone to have the ability to be considered more by society. This point of view provides a greater chance to get a job.

Even though it is categorized as a non-formal job, the income as an online motorbike driver is quite high. The income of online motorbike drivers is 57.5% above the district minimum wage of Bogor is Rp. 4,169,806.58. However, during the pandemic COVID-19, online motorbike drivers' income has fallen below the district minimum wage of Bogor. Social restrictions were imposed during the pandemic, impact the number of passengers, and the working hours of online motorbike drivers, so reducing their income.

The correlation test results indicate that the source of work stress has a significant positive relationship with stress symptoms. This result shows that the higher the source of stress felt, the higher the stress symptoms experienced. Moreover, the results show a significant correlation between self-efficacy with work stress. Someone with high self-efficacy tends to like challenges and solve problems to have a low-stress level (Alwisol, 2009). Someone with low self-efficacy tends to be easily stressed and has doubts about their potential and abilities than someone with high self-efficacy (Rodebaugh, 2006). The results showed that the mean value of self-efficacy was at a high index of 68.50%.

In this study, self-efficacy has a significant positive effect on subjective welfare. The high self-efficacy of online motorbike drivers during the COVID-19 pandemic affects the welfare of their families. Moreover, self-efficacy has a direct effect on objective family welfare. The study results show that the overall welfare index, both objective and subjective, is moderate, indicating that the family welfare will be better with good self-efficacy.

Several previous studies support the findings in this study. Previous research stated a significant positive relationship between self-efficacy and psychological well-being (Chudzicka-Czupala & Zalewska-Łunkiewicz, 2020). Other studies also obtained similar results, that there is a significant positive relationship between self-efficacy and subjective well-being of employees in rehabilitation centers (Hanjani et al., 2016). Sinidikoro and Siswati's (2018) research shows a significant relationship between certified teacher self-efficacy and psychological well-being.

The online motorcycle taxi drivers who participated in this study have high self-efficacy, affecting their subjective welfare during the COVID-19 pandemic. Research conducted by Chan et al. (2017) shows that someone who has high self-efficacy tends to be more able to balance between their work and their family. Hence, the work is less disturbing to the family and has good psychological well-being. Research conducted by Cicognani (2011) states that the higher the self-efficacy, the higher the subjective welfare of the family. Dunn and O'Brien (2013) stated that workers who have high self-efficacy would find it easier to manage work and family balance, improving psychological well-being.

Limitation of this study: only two variables significantly impact family welfare. Self-efficacy affected family welfare, both objective and subjective. While work source of stress significantly affected subjective family welfare. The other variables have no significant relationship with family welfare. Further research is expected to use the interview method to reduce the possibility of misunderstanding in understanding the questionnaire. In addition, extracting information from the wife's point of view will further enrich the research data.

## Conclusion

Self-efficacy and work of source stress affected family welfare among online motorbike taxi drivers. Self-efficacy directly affects objective family welfare, while on subjective family welfare, the effect of self-efficacy was found directly and indirectly. Therefore the higher self-efficacy, the higher family welfare will be, and vice versa. Work source of stress, directly and indirectly, affected subjective family welfare; the higher work source of stress, the lower subjective family welfare will be, and vice versa. Among all variables, only coping strategy among online motorbike taxi drivers is impacted by the length of work, in which the longer length of work, the higher the coping strategy.

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