

# Livelihood of street vendors in Yogyakarta amidst the COVID-19 pandemic

Agus Joko Pitoyo<sup>1,2\*</sup>, Akbar Abdul Rokhim<sup>2</sup>, Ikhwan Amri<sup>2</sup>, and Bagas Aditya<sup>2</sup>

<sup>1</sup>Center for Population and Policy Studies, Universitas Gadjah Mada, Yogyakarta, 55281, Indonesia

<sup>2</sup>Department of Environmental Geography, Universitas Gadjah Mada, Yogyakarta, 55281, Indonesia

**Abstract.** This study aims to find out the characteristics of street vendors in Yogyakarta City before and during the COVID-19 pandemic, the livelihood strategies performed by the street vendors during the COVID-19 pandemic, and the relationship between street vendors characteristics and their livelihood strategies during the COVID-19 pandemic. The authors used a quantitative method with a total of 83 respondents. The results indicated age characteristics ranging from 19-68 years, the last education completed by the street vendors was dominated by senior high school or equivalent, the status in the household was dominated by the head of the household, and the number of household members was 1 to 9 people. The COVID-19 pandemic induced significant impacts on the employment situation in the household, working hours, and income. The livelihood strategies performed by the street vendors amidst the COVID-19 pandemic were survival strategy (73.49%) and consolidation strategy (26.51%). This study found that the relationship between the characteristics of street vendors and livelihood strategies varied.

## 1 Introduction

The COVID-19 pandemic that has hit Indonesia since March 2020 causes a major impact on the Indonesian economy. The government policies related to social distancing and working from home (WFH) have weakened Indonesian economic activities and had an impact on all sectors, one of them is street vendors. As one of the crucial sectors, street vendors play a key role as an economic actor who rely on their activities based on human activities to meet their daily needs through buying and selling activities and simple equipment or technology, and thus when the activities stop, it becomes a blow to street vendors because the facilities they use to earn profits are reduced to the point where they are lost.

A study conducted by the Indonesian Institute of Sciences showed that 94.69% of macro, small and medium enterprises experienced a decline in income [1]. Micro-enterprises, which include street vendors, experienced a decrease in income of more than 75% by 43.3%. The number is relatively high since the possibility of losing their jobs and becoming poor is getting higher.

The Statistics Indonesia conducted a study related to socio-demographic conditions during the COVID-19 pandemic, showing that the sector experiencing the greatest impact was retail, including street vendors. The COVID-19 pandemic caused workers' conditions to fall into the worst condition, 2.52% of workers experienced layoffs and 22.74% did not work, and 70.53% of the population had low incomes of less than IDR 1,800,000 who had become the most affected ones by the COVID-

19 pandemic [2]. A preliminary study conducted in Indonesia also proved that the pandemic crisis disrupted the incomes of most informal workers [3, 4].

The locations of street vendors in Yogyakarta City are generally agglomerated in the area of tourism sites, monuments, palaces, station, and stadium. Besides, street vendors are also often found around formal sector areas, such as malls, large shops, schools, and offices [5]. The street vendors in Yogyakarta are often associated with tourist attractions since it is easy to find buyers, so the income is higher as well [6, 7]. Therefore, when the COVID-19 pandemic occurs which reduces community activities outside the home, especially in tourist locations, the impact felt by the street vendors is very big.

The impact of the COVID-19 pandemic has made street vendors need several strategies to meet their daily needs. The strategies must be carried out in order to meet and improve the life needs of street vendors both in the short and long term by regulating, selecting, and utilizing their capabilities [8]. The absence of social and health protection for street vendors and low-income groups makes them very vulnerable during a crisis.

The present study aims to (1) find out the characteristics of street vendors in Yogyakarta amidst the COVID-19 pandemic; (2) find out the livelihood strategies of street vendors in Yogyakarta amidst the COVID-19 pandemic; and (3) find out the relationship between the characteristics of street vendors in Yogyakarta and their livelihood strategies amidst the COVID-19 pandemic.

\* Corresponding author: [aguspit@ugm.ac.id](mailto:aguspit@ugm.ac.id)

## 2 Method

The data were collected using a survey by conducting online (via google form) and offline structured interviews. The survey results obtained 83 street vendors in Yogyakarta City, Indonesia. The street vendors are those with the status of business owners and not only workers (laborers), sellers of goods and/or services in temporary or non-permanent buildings [9, 10]. The sampling technique was non-probability sampling in the form of convenience sampling. Convenience sampling is part of non-probability sampling which is commonly used by selecting samples based on the ease of accessing samples that meet the basic criteria for the sample to be used [11, 12].

The authors used a quantitative descriptive method by describing the characteristics of street vendors before and during the COVID-19 pandemic, the livelihood strategies performed by street vendors, and the relationship between the characteristics of street vendors and their strategies amidst the COVID-19 pandemic. The characteristics of street vendors are age, last education level, status in the household, number of household members, number of household members who worked before and during the COVID-19 pandemic, number of working hours before and during the COVID-19 pandemic, and their income before and during the COVID-19 pandemic.

This study adopts White's theory to classify livelihood strategies, i.e., survival, consolidation, and accumulation. The survival livelihood strategies performed by the street vendors are those in the form of prioritizing food needs, looking for side jobs, and utilizing social assistance. The variables in the consolidation strategy are in the form of double earning patterns and priority health needs, while the accumulation livelihood strategies are mostly carried out by wealthy entrepreneurs who have a lot of resources so that they can increase their assets significantly.

## 3 Results and discussion

### 3.1 Characteristics of street vendors

Table 1 presents the characteristics of street vendors in Yogyakarta before and during the COVID-19 pandemic. The age of street vendors varies from 19 years old to 68 years old. Street vendors included in the age group of 53 to 58 years or older tend to do their work permanently in one place, while the age group of 19 to 35 years or younger tend to move their activities from one place to another. The age group of 53 to 68 years has a fairly large proportion compared to that of the age group of 19 to 35 years. This indicates that being a street vendor is still in demand by the elderly because of the ease of doing the work and does not require a big amount of workforce [13].

The last education level of senior high school or equivalent had the largest proportion which was then followed by junior high school or equivalent, elementary school or equivalent, academy/diploma/university, and those who did not

attend a school or did not complete their education at elementary level. The education level of street vendors in Yogyakarta tends to be low. This shows that the street vendors in Yogyakarta are workers with low education and have limited abilities and skills.

The status of street vendors in the household consists of the head of household, wife or husband, parent/parent-in-law, and son/daughter, which was dominated by the head of the household consisting of 59 street vendors. The number of household members of the street vendors ranged from 1 to 9 members with the most number of households group was 1-3, i.e., 49 street vendors.

The number of working household members shows the more income that the household gets, so it has an impact on increasing the fulfillment of household needs. The number of household members who worked with only one person is the largest proportion both before the COVID-19 pandemic and during the COVID-19 pandemic, i.e., 39.76% and 46.99%. It shows that street vendors are a vulnerable sector in terms of income and economic independence [14].

The number of working hours shows the level of productivity of street vendors which is closely related to their income. The street vendors who work for less than 11 hours per day have the largest proportion both before and during COVID-19, i.e., 72.29% and 83.13%. It indicates that the street vendors have the same working hours as formal workers.

The street vendors who chose to reduce their working hours due to the implementation of the WFH policy and social distancing have caused a decrease in the number of buyers. Meanwhile, the street vendors who chose to increase their working hours are generally those who work only at certain times, e.g., at night or in the morning, thus increasing their working hours by selling their products from morning to noon or afternoon and starting selling from noon or evening for the street vendors who usually sell at night. Besides, the street vendors who increased their working hours had a work location that is not far from their homes.

The monthly income earned by street vendors in Yogyakarta before and during COVID-19 was still dominated by low income under the Regional Minimum Wage of Yogyakarta, i.e., IDR 2,004,000 [15]. The largest proportion before the COVID-19 pandemic ranged from IDR 1,000,001 to IDR 2,000,000, while the monthly income during the COVID-19 pandemic was under IDR 1,000,000. It confirms that street vendors are very vulnerable economic actors even before the COVID-19 pandemic. During the COVID-19 pandemic, there have been no street vendors who have an income above IDR 4,000,000.

**Table 1.** Characteristics of street vendors before and during the COVID-19 pandemic

Characteristics	Number	Proportion	Characteristics	Number	Proportion
<b>Age</b>			<b>Number of Household Members</b>		
• 19-35	19	22.89%	• 1-3	49	59.04%
• 36-52	41	49.40%	• 4-6	29	34.94%
• 53-68	23	27.71%	• 7-9	5	6.02%
<b>Last Education</b>			<b>Status in the Household</b>		
• No schooling completed	5	6.02%	• Head of household	59	71.08%
• Elementary school/equivalent	12	14.46%	• Wife/husband	18	21.69%
• Junior high school/equivalent	15	18.07%	• Parent/parent-in-law	1	1.20%
• Senior high school/equivalent	44	53.01%	• Son/daughter	5	6.02%
• Academy/diploma/university	7	8.43%			
<b>Number of Household Members who Worked Before the COVID-19 Pandemic</b>			<b>Number of Household Members who Worked during the COVID-19 Pandemic</b>		
• 1	39	46.99%	• 1	33	39.76%
• 2	27	32.53%	• 2	31	37.35%
• 3	11	13.25%	• 3	14	16.87%
• 4	6	7.23%	• 4	5	6.02%
<b>Daily Working Hours Before the COVID-19 Pandemic</b>			<b>Daily Working Hours During the COVID-19 Pandemic</b>		
• <11	60	72.29%	• <11	69	83.13%
• 11-15	21	25.30%	• 11-15	12	14.46%
• >15	2	2.41%	• >15	2	2.41%
<b>Monthly Income (IDR) Before the COVID-19 Pandemic</b>			<b>Monthly Income (IDR) During the COVID-19 Pandemic</b>		
• ≤1,000,000	19	22.89%	• ≤1,000,000	52	62.65%
• 1,000,001-2,000,000	31	37.35%	• 1,000,001-2,000,000	20	24.10%
• 2,000,001-3,000,000	17	20.48%	• 2,000,001-3,000,000	9	10.84%
• 3,000,001-4,000,000	8	9.64%	• 3,000,001-4,000,000	2	2.41%
• >4,000,000	8	9.64%	• >4,000,000	0	0.00%

### 3.2 Livelihood strategies performed by street vendors during the COVID-19 pandemic

The livelihood strategies performed by street vendors in Yogyakarta are presented in Table 2. It shows that 61 respondents were classified as street vendors who used survival strategies and 22 respondents are classified as street vendors who used consolidation strategies. They were classified as the street vendors who used survival strategy due to limited access to selling, whether to get raw materials or for marketing. The government policies during the COVID-19 pandemic have made people's activities outside the home very limited, resulting in a decrease in income [16]. Also, the absence of street vendors who were included in the accumulation strategy shows that the COVID-19 pandemic has greatly impacted the lives of street vendors. The results were in line with a study conducted by Armansyah et al. which confirms that street vendors in normal conditions are

dominated by groups with survival strategies and it is difficult to improve their livelihood strategies, i.e., to enter into a consolidation strategy [17].

**Table 2.** Livelihood strategies performed by street vendors

Livelihood Strategies	Number	Proportion
Survival	61	73.49%
Consolidation	22	26.51%
<b>Total</b>	<b>83</b>	<b>100.00%</b>

Table 3 shows that 61 street vendors who prioritized food needs, four street vendors who did side jobs, and 39 street vendors who used social assistance. This is in line with a study conducted by Wildayana et al. which shows that the group of survival strategy prioritizes the income to fulfill their primary needs to survive [18]. The side jobs included massage therapists, parking officers, boarding house guards, and craftsmen. The side jobs are still included in the informal sector.

**Table 3.** Survival strategy

Strategy	Activity	Number	Proportion
Survival (n = 61)	Fulfilling primary needs as a priority	61	100%
	Doing side job	4	6.6%
	Using social assistance	39	63.93%

Table 4 presents the main strategies performed in the consolidation strategy, i.e., prioritizing health needs carried out by 19 street vendors and double earning pattern carried out by 15 street vendors by prioritizing the fulfillment of health needs since the fulfillment of basic needs, especially food, has been met. Besides, it increasingly raised people’s awareness to maintain and prioritize their health over work. The income of the consolidation strategy tended to be stable due to the availability of sufficient money deposits and investments made in trading.

**Table 4.** Consolidation strategy

Strategy	Activity	Number	Proportion
Consolidation (n = 22)	Prioritizing health needs	19	86.36%
	Double earning pattern	15	68.18%

The double earning pattern was also the reason the income of street vendors in the consolidation strategy group was relatively more stable and secure. This is in line with a study conducted by Wildayana et al. which states that increasing livelihood strategies to a higher level is always followed by various sources of income [18]. Besides, a study conducted by Widodo explains that the double earning pattern in the consolidation strategy aims to develop the household economy [19].

### 3.3 The relationship between characteristics of street vendors and their livelihood strategies

Table 5 shows that the age group of 53-68 years was dominated by 18 street vendors using survival strategy, while the consolidation strategy was only used by five street vendors. In line with a study conducted by Wildayana et al., older people tend to use survival strategy because of their low level of survival and their low productivity due to relatively weak physical conditions and tends not to live with family members [18].

This study found that the 36-52 years old group who adopt a survival strategy has a fairly high proportion because the COVID-19 pandemic has a direct impact on the economy. However, in relative terms, the proportion of survival strategy in the older group is higher than that of the other groups. The present study is similar to the study conducted by Alfana which shows that the older age group dominates the survival strategy due to the decrease in physical abilities [20]. Besides, the age group of 19-35 years and 36-52 years tend to have higher resilience in trading during the crisis due to their

physical strength and other strategic activities that can be carried [21].

**Table 5.** The relationship between age and livelihood strategies of street vendors

Age		Livelihood Strategies	
		Survival	Consolidation
19-35	Number	13	6
	% of Total	15.66	7.23
36-52	Number	30	11
	% of Total	36.14	13.25
53-68	Number	18	5
	% of Total	21.69	6.02
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

Table 6 shows that the street vendors with the last education level of not attending school/not completing elementary school were included in the group with a survival strategy. It shows that the last education completed by the street vendors affected the livelihood strategies they used. The higher the education, the more the strategy will increase because it has more information and more developed capabilities so as to increase competition in trading [22, 23].

**Table 6.** The relationship between education and livelihood strategies of street vendors

Last Education		Livelihood Strategies	
		Survival	Consolidation
No schooling completed	Number	5	0
	% of Total	6.02	0.00
Elementary school/ equivalent	Number	9	3
	% of Total	10.84	3.61
Junior high school/ equivalent	Number	11	4
	% of Total	13.25	4.82
Senior high school/ equivalent	Number	31	13
	% of Total	37.35	15.66
Academy/ diploma/ university	Number	5	2
	% of Total	6.02	2.41
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

The existence of street vendors with an academic/diploma/university as their last education

level which was included in the group with a survival strategy shows that education does not always influence livelihood strategies. This is in line with a study conducted by Armansyah et al. that the final education level of street vendors did not necessarily improve their livelihood strategies [17].

Table 7 shows that more than 70% of the status in street vendors' households was the head of the household. The status of the head of the household affects the choice of livelihood strategies since it bears the burden of meeting the household life needs, and the larger the household members, the greater the needs needed, so the livelihood strategies become an option [24]. The status of the household as a son or daughter was included in a consolidation strategy even during the COVID-19 pandemic because it is not too burdensome to meet the needs of the household life.

**Table 7.** The relationship between status in the household and livelihood strategies of street vendors

Status in Household		Livelihood Strategies	
		Survival	Consolidation
Head of household	Number	43	16
	% of Total	51.81	19.28
Wife/ husband	Number	16	2
	% of Total	19.28	2.41
Parent/ parent-in-law	Number	1	0
	% of Total	1.20	0.00
Son/ daughter	Number	1	4
	% of Total	1.20	4.82
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

Table 8 shows that the livelihood strategies performed by household members consisting of 1-3 people were dominated by survival strategy during the COVID-19 pandemic since it only consisted of a small family with the head of the household working alone, so meeting the necessities of life is quite difficult.

In contrast, the number of household members consisting of 4-6 people and 7-9 people that used the consolidation strategy was higher than the number of household members consisting of 1-3 people because there were more household members who worked, so the fulfillment of household needs had been shared. A high number of household members can lead to a double earning pattern and domestic workers so as to improve the livelihood strategies [25, 26].

Table 9 shows that there were three household members who worked that mostly used survival strategy. It indicates that the number of household members who worked during the COVID-19 pandemic might not necessarily improve their livelihood strategies. This is in line with a study conducted by Khatiwada et al. that there are other factors in the form of the high number of household members which will

further increase the burden to meet the needs of the household [22].

**Table 8.** The relationship between the number of household members and livelihood strategies of street vendors

Number of Household Members		Livelihood Strategies	
		Survival	Consolidation
1-3	Number	39	10
	% of Total	46.99	12.05
4-6	Number	19	10
	% of Total	22.89	12.05
7-9	Number	3	2
	% of Total	3.61	2.41
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

**Table 9.** The relationship between the number of household members who worked and livelihood strategies of street vendors

Number of Household Members		Livelihood Strategies	
		Survival	Consolidation
1	Number	30	9
	% of Total	36.14	10.84
2	Number	20	7
	% of Total	24.10	8.43
3	Number	9	2
	% of Total	10.84	2.41
4	Number	2	4
	% of Total	2.41	4.82
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

Table 10 shows that an increase in the number of working hours during the COVID-19 pandemic did not improve livelihood strategies because the COVID-19 pandemic causes very limited activities that are extremely different from normal conditions. This is in contrast to a study conducted by Widjajanti et al. [5] and Samosir [27] that the longer working hours, the better the livelihood strategies. The street vendors who increased their working hours were classified as the group of 9-14 hours and the group of 15-20 hours, so they could improve their livelihood strategies by being sellers who opened their shop near their homes that had been dominated by food vendors.

Table 11 shows that the income of the street vendors was dominated by 52 street vendors with a proportion of 62.64% and it was then categorized as a survival strategy, i.e., 49 street vendors (59.04%) and a consolidation strategy, i.e., three street vendors (3.61%).

The street vendors with income under IDR 1,000,000 were classified as a group with consolidation strategy since their status in the household is son or daughter. Therefore, the income they got was used for personal needs only. Table 11 also shows that income affected the livelihood strategies they used. This is in line with a study conducted Alfana that income affects the level of livelihood strategies that are performed for their own needs [20].

**Table 10.** The relationship between the number of working hours and livelihood strategies of street vendors

Daily Working Hours		Livelihood Strategies	
		Survival	Consolidation
2-8	Number	36	13
	% of Total	43.37	15.66
9-14	Number	24	7
	% of Total	28.92	8.43
15-20	Number	1	2
	% of Total	1.20	2.41
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

**Table 11.** The relationship between daily incomes and livelihood strategies of street vendors

Incomes		Livelihood Strategies	
		Survival	Consolidation
≤1,000,000	Number	49	3
	% of Total	59.04	3.61
1,000,001-2,000,000	Number	10	10
	% of Total	12.05	12.05
2,000,001-3,000,000	Number	2	7
	% of Total	2.41	8.43
3,000,001-4,000,000	Number	0	2
	% of Total	0.00	2.41
<b>Total</b>		<b>83</b>	
<b>%</b>		<b>100.00</b>	

## 4 Conclusion

This study captured an overview of the impact of the COVID-19 crisis on 83 street vendors in Yogyakarta. In general, the characteristics of age ranged from 19-68 years old, the last education had been dominated by senior high school or equivalent, the status in the

household had been dominated as the head of the household, and the number of household members was 1 to 9 people. The pandemic has caused real socio-economic disturbances to the livelihoods of street vendors, as evidenced by the dynamics of the numbers of workers in a household, daily working hours, and monthly incomes.

The livelihood strategies of street vendors in Yogyakarta consisted of the survival strategy performed by 61 street vendors (73.49%) which had been dominated by the fulfillment of food needs, the use of social assistance, and side jobs. Meanwhile, the consolidation strategy was performed by 22 street vendors (26.51%) which had been dominated by the fulfillment of health needs as a priority and double earning pattern.

The relationship between livelihood strategies and characteristics of street vendors in Yogyakarta including age, education, status in the household, and the number of household members varied. Meanwhile, the number of household members who worked during the COVID-19 pandemic had decreased and they had used a survival strategy. Also, the number of working hours and income had decreased. The fewer the number of working hours and income, the more likely it is to be classified as a survival strategy.

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