Analysis of Factors Affecting the Income
of Street Seller at Karangpandan

Mika Febriani and Eni Setyowati(✉)

Faculty of Economics and Business, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia
es241@ums.ac.id

Abstract. This study intends to identify and examine the factors that affect micro-enterprises' income in Karangpandan using various linear regression analysis tools. The area around the Karangpandan Bus Terminal is an example. The data were examined using open-ended questionnaire data collection methods and Ordinary Least Square (OLS) analysis techniques. The sample was 30 respondents. The analytic tool uses EViews 10 with various tests. Based on the analysis of the results, the study concludes that variable capital, working hours, and length of business are significant influencing factors on the income of street vendors in the Karangpandan Bus Terminal area. All three have a solid favorable impact on street vendors' earnings. Variable factors like age and education level have little to no effect on street vendors who make much money.

Keywords: Informal Sector · Street Vendors · Age · Capital · Hours of Work · Length of Business · Education Level

1 Introduction

In recent years, the unorganized sector has gained much popularity. Because the informal sector has expanded quickly recently, the activities of the contemporary informal sector are instrumental in summarizing the economic realities of a region or country. The informal sector is currently seen as one of the economic sectors that take in labor that the formal sector cannot fully absorb. The informal sector in cities results from a more significant labor force than the cities' legal employment sector [1]. We cannot disregard the informal sector's presence in the economy's growth because its business operations have great potential and are crucial in creating jobs and self-absorbing labor [2]. A street seller is an illustration of the unorganized sector.

The phrase "street seller" describes someone conducting business on public streets. Street sellers contribute strategically to the regional economy as tiny and micro businesses. They may carry out the informal sector's trade in strategic locations like roadway medians or sidewalks; some set up shops in popular tourist destinations. There are now several street vendors in every city facility that the city administration provides. Due to the intense rivalry, traders had to be skilled at managing their companies, especially when creating ventures that may increase revenue. Street vendors must therefore be able to endure even under the most trying circumstances. Street sellers and other informal

sector members need help to increase their income. We must foster the ability to run a successful business to boost street sellers' income [2].

According to Karanganyar Regency BPS data (2021), more people are working there than in 2020. According to BPS data for the Karanganyar Regency, the number of workers will reach 515,145 in 2020 and 517,787 in 2021. This situation needs to be balanced, as the sector employed 484,423 persons in 2020 and 487,270 in 2021.

One of the bus terminals in Karanganyar Regency is the Karangpandan Bus Terminal. The bus station, situated along the primary route between Solo and Tawangmangu, is constantly congested with travelers and vendors who set up shop within the terminal or on the sidewalks from morning to evening. Some even stay open until late at night. Even after the bus operating hours have ended, locals and visitors alike still throng the Karangpandan terminal to take advantage of the nocturnal gastronomic treats that line the pavements. The Karangpandan Bus Terminal attracts a large number of visitors due to the rise in the number of vendors. There are issues when there need to be more locations available to accommodate street sellers. The merchants' goal is to generate revenue to support their families and contributes to the family economy, according to the findings of interviews with several street vendors, food and beverage stalls, and other sellers in Karangpandan Village.

A firm's sale of goods or services creates income. Income plays a crucial role in a company because it indicates whether or not the enterprise is growing. We can view the business as progressing if its income is high. Age, operating capital, working hours, business length, and education level are all aspects of the trading business that might determine how much income is generated.

The problem posed in this study is: Does capital, working hours, age, length of business, and business location partially and simultaneously affect the income of street vendors in the sidewalk area of the Karangpandan Bus Terminal? This formulation of the problem is based on the research background mentioned above. This study aimed to determine the partial and simultaneous effects of capital, working hours, age, length of operation, and business location on street vendors' income in the Karangpandan Bus Terminal's sidewalk area.

2   Related Work

A trader must have the necessary funds to launch their firm. Every business needs capital because people can implement it with any money. Most street vendors operate without a fixed location and with limited means, setting up shop under overhangs or in storefronts, along roadsides, on sidewalks, above sewers, in parks, along riverbanks, in parking lots, and other congested areas [2]. Compared to daily capital, the capital used in the firm is the most significant initial capital. This initial investment is partially used to cover the cost of supplies like raw materials and equipment like carts, and it is also partly set aside for reserves. With this capital reserve, it is possible to use it when revenue is less abundant to compensate for a shortfall in capital.

The age of the traders themselves is the following variable that may have an impact on their revenue. The number of years a person has lived since birth is their age. Their age can describe a person's productivity, and as they age, they become less of a trader,

impacting their revenue. The income traders receive as they age predicted to decrease over 40 [3]. Traders are anticipated to have a productive period and be able to read the market and seize opportunities to boost their revenue [4].

One of the variables that help traders enhance their income is their working hours. The number of hours a street seller works can impact their income. Because more time is spent waiting for customers to arrive, the prospect of earning more money increases as trading hours are increased [5]. The business's length can impact the income of street sellers in addition to working hours. The knowledge, intelligence, and abilities of a trader will rise the longer they run their firm, increasing their income [6]. Long-term business owners will have a more developed and focused approach to managing, producing, and promoting their goods because business owners who work long hours will have experience, expertise, and the ability to make decisions in all circumstances [2].

Education Level is an additional consideration. The education level has a noticeable impact on the increase in income. It implies that individuals with higher levels of education will have more opportunities to earn large sums of money [7]. The amount of money someone makes at work will depend on their education level. The more highly educated a person is, the more productive they will be. Increasing production will boost income. Poverty can be decreased with increased revenue [8].

According to research by Febrianto (2020) using scatter diagram analysis and coefficient regression, the relationship between the informal sector and the growth of the economy in Indonesia resulted in the formation of the letter U in the country's western region and an inverted letter U in the country's eastern part. Differences in the relationship between the proportion of the informal sector and economic growth in each Indonesian area demonstrate that government cannot apply policies to achieve optimal economic growth uniformly across the country [9]. Then the research conducted by Fauzi (2020) in the city of Pematangsiantar says that the development of internal factors in the informal sector consists of some factors, strengths, and weaknesses. Variable strengths from the informal sector are motivation, creativity, many type or type business, small capital as well as experience in work. The weak informal sector's weaknesses are the level of education, no permission, availability of ingredient raw materials, facilities and infrastructure, and source of capital [10].

According to research by Nariswari (2020), who employed the Treatment Effect Model technique, workers in the informal sector typically have poor incomes, which ties the sector to poverty. This issue is because workers in the informal sector have a level inclined productivity poor, which is demonstrated by the elements such as level of pay, types of gender, and level of education that cause workers to enter the sector [11]. Hanum Research (2017), using analysis equality multiple linear regression, explains that capital, working hours, and business length simultaneously affect street vendors' positive and significant income in Kuala Simpang [2]. Like their study, Ernawati, Rochmah, and Apriliyani (2020) also indicate that working hours and business length substantially impact income but that the mode variable has no effect on income for street vendors [12]. In contrast to previous research, Siagian's (2021) study found that capital impacted payment for street vendors in Grogol, West Jakarta. Temporary working hours had little impact on street vendors' income [13].

Based on multiple linear regression findings, Inderianti, Hardiani, and Rosmeli's research (2020) explain that fixed capital, operating capital, working hours, business length, and location substantially impact the income of traders of sweets. Only using capital variables and working hours, as opposed to variable, fixed capital, business term, and location, substantially impact income for sweets traders, according to partial analysis [14]. In the research, Septiawan, Nurjanah, and Mustika (2019) used multiple linear regression analysis to explain how variables such as capital, age, and working hours substantially impact street vendor income [3]. The following study by Wibowo, Kaukab, and Putranto (2021) explains previous research indicating capital, length of business, location of the company, and working hours show a favorable influence on earnings for street sellers [6]. Solikha & Penangsang's (2021) findings using multiple linear regression analysis demonstrate how variable capital, working hours, and business length favor the income of street sellers in coastal Surabaya and Kenjeran [15]. The study by Yuniarti (2019) then explains that venture capital affects a positive and significant level of income for merchants, and fee affects the income level of traders. Working hours or time sincere effort trade is very influential to traders' income, level of education does not affect level-income traders, and length of business does not affect level-income traders [16]. Using revenue analysis and break-even analysis, Akhmad, Romadhoni, and Malik's research (2019) reveal that, on average, fruit merchants in Makassar, Indonesia, make enough profit to meet their needs and those of their families. They also discovered that some fields suffer fruit losses, but these losses are still far below the wages they receive [1].

According to research by Khaeruddin, Nawawi, and Devi (2020) using Confirmatory Factor Analysis (CFA), ten factors affect MSME income during the Covid-19 pandemic. This global phenomenon is not an exception to the list of factors that can affect leading street vendors in their activity trade offline or online. The social distance factor, the PSBB factor, the raw material factor, the sales factor, the technology factor, the fund aid factor, the influencer factor, the banking factor, the consumption factor, and the structural policy factor are all examples of factors [17]. Rosita, Irmanelly, and Ermaini (2020) explained that event simultaneous and partial variable packaging, capital, and time trade take effect significant to income street vendors (Study Case Singles Park Tour Kotabaru Jambi Post Covid-19 pandemic [18]. Then, using split validation and a confusion matrix to assess the results, Nave Bayes classification of the datasets from the object research was used, and the accuracy level was 75% or above. The recall is 66.7%, and Temporary Precision is 100% [19].

Taufik & Armansyah's research (2021) employed a qualitative methodology using observational and interview-based data collecting. Analysis of the data used, including data display, data reduction, and conclusion. According to the study, the informal sector was more prevalent during the COVID-19 pandemic than offline [20]. The informal online industry is the best action for long-term effort and fulfilling family requirements. The research by Darmawan, Irdiana, and Ariyono (2022) using interactive model data analysis and presented by descriptive explains the need for strategy in the face of the COVID-19 pandemic. According to research findings, the Covid-19 outbreak caused a very significant income loss for street sellers in Lumajang Square. However, they recovered and protected their businesses even though the income did not come back. The

Lumajang Square street vendor's approach to sustaining its efforts amid the Covid-19 outbreak includes using social media to increase market share, creating new products, and collaborating with other street vendors [21]. According to research by Bastiana, Agustang, Jumadi, and Najamuddin (019), street vendors in the Makassar City area typically come from outside the city of Makassar and even from outside Sulawesi Island. There are also more men than women among the traders, and the highest level of education is high school [22].

The 2019 research by Setiawan reveals differences in the factors that affect workers in the formal and unofficial sectors of Semarang City. Working hours, individual roles, and career growth are factors that affect the likelihood that stressful events will affect employees in the formal sector in Semarang City. Age, years of service, workload, interpersonal relationships, individual roles, and career growth all affect the likelihood that stressful events will occur for workers in the informal sector [23].

3 Methods

This study used descriptive quantitative research, which is research that collects data in the form of statistics or qualitative data that is calculated. The population of this study consisted of 55 street vendors that were present in the Karangpandan bus area. This study analyzed the data using Ordinary Least Square (OLS) methods and open-ended questionnaires. There are 30 respondents in the sample, all of them are merchants [24], which is then formulated as follows: For measure considerable influence age, capital, working hours, length of business, and level of education to great income trader street food in the Karangpandan Terminal Sidewalk area, Kabupaten Karanganyar.

$IN = \beta_0 + \beta_1 A + \beta_2 C + \beta_3 WH + \beta_4 LB + \beta_5 EDUC + \varepsilon.$

Where:

IN = Income Traders in the Culinary Industry (Rupiah Per Day).

A = Age (Years).

C = Capital (Rupiah in one day).

WH = Working Hours (Hours in one day).

LB = Length of Business (Year).

EDUC = Education (Year).

B_0 = Constant.

$B_1 \ldots \beta_5$ = coefficient regression independent variable.

4 Result and Discussion

A survey was distributed to 30 street sellers near the Karangpandan Bus Terminal. Data collection for the period will be done in October 2022. The study's influencing variables for street vendors' revenue in the Karangpandan Bus Terminal region include their age, wealth, working hours, operation length, and education level. Their daily income is a dependent variable. The questionnaire results were used to collect data for the second variable, which was then analyzed using equality multiple linear regression to determine the influences of age, capital, working hours, duration of business, and degree of education on income traders (per day). The EViews 10 program is used to calculate the data, and the findings are as follows.

Table 1. Equality Multiple Linear Regression.

IN $= -127.207 - 12,580$ A $+ 1.364$ C $+ 133,252$ WH $- 24,922$ LB $- 7,299$ EDUC
(0.851) (0.391) (0.000) (0.024) (0.095) (0.795)
$R^2 = 0.922$; DW-Stats. $= 1,899$; F-Stats. $= 57.453$; Prob. F-Stats. $= 0.000$
Diagnostic Test
(1) Multicollinearity (VIF)
A $= 1.544$; C $= 1.334$; WH $= 1.196$; LB $= 1.274$; EDUC $= 1.081$
(2) Normality Residual
JB(2) $= 28,360$; Prob. JB (2) $= 0.000$
(3) Autocorrelation
X^2 (2) $= 1.562$; Prob. X^2 (2) $= 0.457$
(4) Heteroscedasticity
X^2 (10) $= 20.270$; Prob. X^2 (10) $= 0.026$
(5) Linearity
F(1.23) $= 1.729$; Prob. F(1.23) $= 0.201$

Sources: Primary data, EViews 10, 2022

Table 1 shows that age is a score regression variable of 12,580. (sig. 0.391). Age has a significant value of 0.391 and above, prominent from a substantial level of 0.1 (10%). Therefore, age has no bearing on a street vendor's significant income. Age is a variable whose coefficient is denoted by a (-), which means that as a trader's age increases, so does the likelihood that their income will decline.

1.364 is the operational capital variable (sig. 0.000). Significant value of 0.000 is smaller than the 0.1 (10%) score significant threshold. Thus, the capital variable does indeed affect a merchant's income. The operational capital coefficient variable with a plus sign (+) denotes a tendency or possibility that income traders will experience growth if the daily capital expenditures made by street sellers rise.

There are 133,252 variable working hours (sig. 0.024). A significant level of 0.1 (10%) was exceeded by a less substantial value of 0.024. So, the theory that the capital variable impacts income merchants could be adopted. The longer the working hours used by the merchant, the more likely their income will increase, as indicated by the Coefficient Variable Working Hours marked (+).

24,922 is the variable length of effort (sig. 0.095). The significant number is 0.095 less than the 0.1 (10%) score considerable level. The inference is that different levels of effort affect a merchant's income. The variable coefficient length of action, denoted by a minus (-), represents a tendency or likelihood that traders who have more firsthand experience will face a decline in income the younger their business is.

Education at a variable level is 7.299. (sig. 0.795). The significant value of 0.795 is larger than the significant level of 0.1 (10%) of the score. No one accepts it, and a merchant's income is unaffected by education level. Therefore, the demographic-educational aspect of the buyer (elementary, junior high, high school, graduate school, or college height) has no bearing on a street vendor with a high income.

A. Classic assumption test

The VIF test is used as a multicollinearity test. The research model's VIF test findings showed that multicollinearity was not a problem. When residual normality using the Jarque Bera (JB), the test yields a 0.000 (0.01) result. It is concluded that the residual distribution is not normal, and H0 is not accepted. The Breusch Godfrey (GD) test also revealed an autocorrelation result of 0.457 (> 0.10). This result concludes that there is no autocorrelation in the estimated model. White's test is used to check for heteroscedasticity, and the results for the X2 test are 0.026 (0.10). This result shows that H0 cannot be accepted, and heteroscedasticity has a problem in the estimated model. The study's estimated model's accuracy specification or linearity was tested using the Ramsey Reset, and the results were 0.201 (> 0.10); hence, H0 was acceptable.

B. Model Quality Check

Table 1 shows that the estimated model's p-value, probability, or significant empirical F statistic is 0.000 (0.01); as a result, the conclusion that the estimated model exists is not accepted by H0. R-Squared or R2 coefficient determination demonstrates the predictability of the predicted model. According to the Estimation Results table, R2 has a score of 0.922, which indicates that variables like Age (A), Capital (C), Working Hours (WH), Length of Business (LB), and Education Level can explain 92.2% of the variation in Income Merchants (INCOME) (EDUC). 7.8% of the data is affected by variables or other non-model-inputted elements.

Results of the validity test are presented in Table 2 for all independent variables.

C. Interpretation influences variable independent

The three variables that significantly affect Income Traders (INCOME) according to the validity test are Capital (C), Working Hours (WH), and Length of Business (LB). Age (A) and education level (EDUC) have little impact.

133,252 with a t-table value of 0.024, the working hours variable is highly significant to income traders in this study (PP). While the F test results in a larger F-count of 1,729 from the f-table, indicating that this 0.201 value has changeable free significance and influence favorable to income traders (PP). While the R2 test result of 0.922 shows a significant 92.2% influence from the independent variable to the Variable (PP) dependent variable, the remaining 7.8% is influenced by other variables outside the variable under consideration.

Table 2.   Validity Test Results Influence Variable Independent.

Variable	Sig. t	Criteria	Influence Conclusion
Age	0.391	>0.10	Not significant
Capital	0.000	0.01	Significant at = 0.01
Working Hours	0.024	0.05	Significant at = 0.05
Business Length	0.095	0.01	Significant at = 0.01
Level of education	0.795	>0.10	Not significant

Source: EViews 10, 2022

5   Conclusion

Based on the investigation findings, it was possible to conclude that variable capital, working hours, and length of operation are key influencing factors on the income of street vendors in the vicinity of the Karangpandan Bus Terminal. All three significantly increase a street vendor's revenue.

Based on the test results, the operational capital variable favors a business's income. Capital impacts revenue; the more money, the higher the pay. This issue suggests that working capital substantially affects income traders and has been proven true. According to research, venture capital has a favorable effect on income, which is in line with a study by Yunita (2021). This situation is considered the case because wealth can affect payment since traders with access to more capital tend to have higher incomes [25]. Inderianti, Hardiani, and Rosmeli's research (2020) on the impact of operating capital on income traders of sweets are comparable. This issue is because traders of sweets employ working capital to purchase capital goods for resale. The income will likewise grow as long as there is operational capital [14].

Based on the test results presented above, it is possible to conclude that varied working hours positively impact a merchant's income. Trading hours significantly affect every consumer who comes in; if trading hours are extended, more customers will come in while the business is still open. The hypothesis that working hours significantly impact income traders is correct. This research's findings are consistent with those of Septiawan, Nurjanah, and Mustika's (2019) study, which demonstrates that working hours affect income traders in the same way for every form of effort, resulting in the same working hours for every sort of effort [3]. According to Wibowo, Kaukab, and Putranto (2021), working hours benefit income. Working longer hours results in a higher daily sales turnover than a merchant who starts selling in the afternoon [6].

Based on the test findings stated above, a flexible length of operation has a favorable impact on a merchant's income. The longer a firm operates, the more individuals will become aware of it and eventually become customers. Customers want products that merchants can produce with the most excellent efficiency and that they are confident will be in moderate demand on the market. The hypothesis that protracted efforts take considerable to income traders is correct. Results from a similar study by Siagian (2021) revealed that street vendors in Grogol, West Jakarta, who only earn a portion of their income, had a meaningful (substantial) impact [13]. The variable business length has a positive effect on revenue as of 2021. This issue happens because the longer a business runs, the more customers one gets to know and understand their personalities [25].

Street vendors' income is significantly impacted by variable operating hours. Tradesmen's working hours have a significant impact on all customers that come into their store. If a trader extends their hours, more customers will come in while the store is still open—street vendors with variable business length and significant income impact. Long-term business operations will increase public awareness of the effort made and, ultimately, lead to customer satisfaction. Customers appreciate products from merchants who can grow their businesses to their fullest potential while also being aware of the market's most likely median level of demand.

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