

Analysis of Household Poverty Risk Factors

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Abstract

The study aimed to identify and analyze the stimulating poverty risk factors in urban households, South Sulawesi Province, which included demographic, social, and economic characteristics. The population was poor households in urban areas in South Sulawesi Province. This research used a logistic regression analysis method. The results of data analysis exhibited that social characteristics, such as the quality of human resources, were the main stimulus factor for household poverty risk. Meanwhile, the aspects of economic and demographic did not contribute to the stimulus factors in reducing household poverty risk in urban residents in South Sulawesi Province. Education alone was not enough to increase individual income but rather decisive work experience.

Abstrak

Penelitian ini bertujuan untuk mengidentifikasi dan menganalisis faktor risiko kemiskinan yang merangsang pada rumah tangga perkotaan, Provinsi Sulawesi Selatan, yang meliputi karakteristik demografis, sosial, dan ekonomi. Penduduknya adalah rumah tangga miskin di daerah perkotaan di Provinsi Sulawesi Selatan. Penelitian ini menggunakan metode analisis regresi logistik. Hasil analisis data menunjukkan bahwa karakteristik sosial, seperti kualitas sumber daya manusia, menjadi faktor stimulus utama risiko kemiskinan rumah tangga. Sementara itu, aspek ekonomi dan demografi tidak berkontribusi pada faktor stimulus dalam mengurangi risiko kemiskinan rumah tangga pada penduduk perkotaan di Provinsi Sulawesi Selatan. Pendidikan saja tidak cukup untuk meningkatkan pendapatan individu melainkan pengalaman kerja yang menentukan.

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1. Introduction

Poverty is a multidimensional problem that involves not only economic factors, but also social, demographic, and cultural factors. Poverty even not only a number but also qualitative matters (Thorbecke, 2013). Poverty problems occur in almost all countries around the world today, including Indonesia, which is a developing country. Indonesia is also a large archipelago country with the fourth largest population in the world. As a result, poverty is difficult to ease from this country due to uneven development in all regions in Indonesia (Miranti and Resosudarmo, 2005). South Sulawesi Province is located in eastern Indonesia, precisely on Celebes Island, which is one of the largest islands in Indonesia. That poverty rate is the highest among provinces on this island. This Province is classified as the most advanced infrastructure development compared to other regions in Eastern Indonesia. Interestingly, the Central Statistics Agency data also revealed that the poverty depth index and poverty severity index in South Sulawesi Province have increased in urban areas and decreased in rural areas.

The problem of poverty in urban areas is underlying and complex (Rosida, 2018). So this problem is always in the national spotlight. The government has issued some regulations and policies to reduce poverty. Poverty reduction programs that focus directly on the problem of poverty are likely to be more effective, both in the short and long term. Besides, the government should have a deep and sufficiently detailed understanding of the characteristics of poor households so that policies are formulated on target. An understanding of the characteristics of poor households can be obtained through the Central Statistics Agency data. However, macro-scale data is less precise if it is implemented operationally for targets in small areas. Hence, this study only focuses on the context of households in urban poverty so that the results of the research will be more implementation.

Previous research has examined various causes of poverty, including demographic, social, and economic characteristics (Hafizd, Anis, and Triani, 2018; Indrawati, Ermawati, and Istiqamah, 2020). However, the results of previous studies were still diverse and inconsistent. Besides, each of the earlier studies focused on the context of the respective research location. Thus, previous research findings cannot be directly generalized to other regions.

Therefore, this study aims to analyze the factors that influence poverty, such as the demographic, social, and economic characteristics of urban households in South Sulawesi Province.

2. Method

The data was including secondary and primary data. The purposive sampling method performed to select the sample. About 300 households, i.e., 150 households in Makassar city, 100 households in Parepare city, and 50 households in Palopo city, were being sampled in this study. The dependent variable of this study was the household poverty status. The poverty status of households was categorized into two, namely very poor households and poor households. The poor category consisted of six criteria among the eight existing World Bank criteria (1998), such as the house area per capita less than 8 square meters, the widest type of house floor was land, did not have access to a source of clean drinking water (drinking water source other than bottled water, piped water, pumps, protected wells, and protected springs), no access to latrines (use of latrine facilities at public facilities and no such facilities at home), no assets (valuables in the form of furniture, jewelry, agricultural land, shops, workshops, or other businesses), and had not been present at events or social events in the last three months. Households met a minimum of four criteria out of the six principles that were classified as very poor households. Meanwhile, families reached a maximum of three out of the six principles were classified as poor households. The household poverty as a dependent variable in this study was a categorical variable where the number 1 for very poor households and 0 for poor households.

The independent variables of this study include the demographic, social, and economic characteristics of the head of the household. The head of the household is someone responsible for fulfilling the daily needs of household members or being appointed as the head of the family. Demographic, social, and economic characteristics, i.e. : 1). Age of head of household-scale ratio; 2). The number of household members on a nominal scale, 1 for households consisting of less than five

and 0 for households with more than four members; 3). The education background of heads of household on a nominal scale, 1 for elementary school or never attended any school, and 0 for junior high school and above; 4). Main occupation sector of the head of household on a nominal scale, 1 for the primary sector (agriculture and mining) and the secondary sector (manufacturing, electricity, gas, clean water, and construction), and 0 for the broadcast sector (trade, hotel, restaurant, transportation, financial institutions, and services); 5). The main work status of the head of household was operationalized by number 1 for self-employment and 0 for others; 6). The marital status of the head of household was operationalized by number 1 for the unmarried/single head of household or single parent and 0 for the other condition.

The equation of the logistic regression model in this study was as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_{21} + \beta_3X_{31} + \beta_4X_{41} + \beta_5X_{42} + \beta_6X_{51} + \beta_7X_{61} + \epsilon$$

Note:

- Y : Household poverty status
- X1 : Age of the head of household
- X2 : Number of household members
- X3 : Education background of the head of the household
- X4 : Main occupation sector of the head of household
- X5 : Profession status of head of household
- X6 : Marital status of head of household.

3. Results and Discussion

According to the primary data tabulation obtained through questionnaire distribution, about 300 respondents in this study consisted of 21.67% of very poor households and 78.33% of poor households. Table 1 shows that the majority of household heads were in productive age. Most of the respondents were also married. Interestingly, the average respondent had 2-4 family members. Data from respondents in this study also revealed that the majority of the head of households did not enter any junior high school education.

Low education levels and lack of skills have made it difficult for the poor to access employment opportunities. Therefore, it is not surprising that fishermen and farmers dominated the respondents of this study. As a result, the per capita household income of the sample population was less than Rp. 120000.

Table 1. Characteristics of Respondent's Households

Characteristics	n = 300	%
Age		
< 39 years	48	16.00
40 - 64 years	173	57.67
> 64 years	79	26.33
Number of Household Members		
1	83	27.67
2-4	172	57.33
> 4	45	15.00
Occupation		
Farmers	67	22.33
Fishermans	122	40.67
Labor/handyman	65	22.00
Trader	45	15.00
Marital Status		
Not yet married/single	29	9,67
Married	180	60,00
Divorce	91	30,33
Education		
Not completed the elementary school	195	65.00
Graduated from elementary school	82	27.33

Characteristics	n = 300	%
Graduated from junior high school	23	7.67
Income per capita		
< Rp. 120.000	169	56.33
Rp. 120.000 – 180.000	87	29.00
> Rp 180.000	44	14.67

The results of the logistic regression analysis in Table 2 shows that only the age and the primary occupation sector of the head of the family obtained a significance of less than a 10% significance probability. Meanwhile, other variables do not have a significant impact on household poverty status. The results of the logistic regression analysis also show that the main occupation sector of the head of the household was the variable with the highest coefficient, which means it has the greatest influence compared to other variable.

Table 2. Result of Logistic Regression Model Analysis

Stimulus Variables	B	S.E.	Wald	df	Sig.	Exp (B)
Age of the head of household (X1)	-.022	.011	3.689	1	.055	.978
Number of Household Members <5 people (X2)	.464	.423	1.201	1	.273	1.590
Education ≤ elementary school (X3)	-.625	.419	2.229	1	.135	.535
Primary sector (X4)	.917	.461	3.959	1	.047	2.502
Secondary sector (X4)	-.201	1.129	.032	1	.859	.818
Independent workers (X5)	-.174	.383	.206	1	.650	.840
Marital Status (X6)	.285	.455	.392	1	.531	1.329
Constant	-.910	.577	2.492	1	.114	.402

Table 2 shows that the age of the head of the household obtained a significance of 0.055, which was less than the 10% significance probability. This result means that the age of the sample had a significant adverse effect on the poverty status of urban residents. The more age of the household head then the lower risk of being classified as an impoverished household. These results were in line with previous research findings which also reveal that the age of the head of the household was a determinant factor in the poverty status of family (Adugnaw and Endeshaw, 2019; Demissie and Kasie, 2017; Islam, Sayeed, and Hossain, 2017; Muhammad and Ali, 2017; Noah, Job, and Gideon, 2019; Rahman, Chaudhry, and Farooq, 2018; Shah, Chaudhry, and Farooq, 2020; Wulandari, Harafah, and Saenong, 2016). The age generally describes the knowledge and work experience of the head of te household. The older, the more experienced the head of the family so that the productivity of his work is also higher (Adugnaw & Endeshaw, 2019). High work productivity has implications for high earnings. As a result, the risk of household poverty is getting lower.

The number of household members is a potential economic resource of a household, but on the other hand, it is also a burden on the household economy. Commonly, the more household members, the more household consumption expenditure. As a result, the head of the household has higher demands to meet the needs of all household members.

The results indicated that the significance of the variable number of household members was more than 10% of the level of tolerated significance. It means that the number of household members did not significantly influence household poverty status. This also means that households with less and more than five members had the same risk of being trapped in poverty. Those results were not in line with previous research findings, which reveal that the number of household members had a significant correlation with poverty levels (Demissie and Kasie, 2017; Noah et al., 2019; Shah et al., 2020). However, the findings of this study were in line with (Adugnaw & Endeshaw, 2019), which also found that household size did not affect the probability of a household becoming poor.

Table 2 shows that the regression coefficient of the formal educational background of household heads was negative. It means that the higher education of the household head, the lower probability of the household would being poor, and vice versa. However, the significance probability of these variables was more than 10% of the significance level. Therefore, the findings of this study were that the formal educational background of the head of the household was not determinants of household

poverty status. This finding is contradictory to human capital theory. Becker stated that human capital in the form of an individual's knowledge would encourage the person's work productivity, and in turn, that person might receive a remuneration (income) that was assumed to be equal to the value of marginal productivity of labor (Becker, 1994). However, this study revealed that household poverty level with low education (only elementary school graduates and below) family leader was no significantly different from households with junior high school graduates and above the family leader. The results of this study are not in line with previous findings (Indrawati et al., 2020; Jacobus, Kindangen, and Walewangko, 2019; Putri, Azhar, and Putri, 2019; Wulandari et al., 2016). Some previous studies conducted in Indonesia revealed that education was one of the most influential poverty levels. Besides, the results of previous studies conducted outside Indonesia also showed similar results that school had an impact on household poverty (Adugnaw and Endeshaw, 2019; Islam et al., 2017; Lekobane and Seleka, 2017; Shah et al., 2020). The findings of this study were different from those previous studies, which indicated that education did not always contribute to competence, work efficiency, diverse income, and makes the head of the household responsible for educating their generation to be better in the future to improve the family life quality.

The logistic regression analysis results in Table 2 shows that household heads working in the primary sector, such as agriculture, fisheries, and class C mines, had a higher risk of becoming very poor households compared to household heads working in the secondary and tertiary sectors. The study also revealed that there was no significant difference between the poverty level of household heads working in the secondary sector, which was including the processing industry, electricity, gas, and clean water, and household heads working in the tertiary sector consisting of trade, hotels, homes food, transportation, financial institutions, and services.

The findings of this study were in line with previous studies. Shah et al. found that household leaders working in the primary sector had a high probability of being classified as poor households (Shah et al., 2020). The results of this study indicated that workers who work in the primary sector have low productivity compared to workers in the secondary and tertiary sectors. Low productivity leads to lower-income earned. Besides, the primary sector is not a leading sector in urban areas. Thus, urban households that work in the primary sector are being identical to very poor and poor households.

This study revealed that the primary job status of the head of the household did not have a significant effect on household poverty status. This was indicated by the significance level of the primary work status variable, which was more than 10% of the significance probability. However, the relationship between the main employment status and poverty was negative. Even so, the findings revealed no difference in the risk of poverty between household heads working independently and those employed by others.

The result of this study is not in line with the other study results (Putri et al., 2019), which revealed that heads of households working in the informal sector had a chance of very poor risk compared to heads of households working in the formal sector. This was due to informal sector workers who work independently generally get irregular income. However, the results indicated no significant differences between the income of household heads work individually and those employed by another person in urban areas.

This study revealed that the marital status of the household leader did not significantly influence the poverty status of the household at a significance level of 10%. Even so, the correlation of marital status of household heads to poverty status was positive. In the context of this study, these results mean that the head of the household was not married had a tendency to be poor. However, the results of this study were not in line with the previous research (Islam et al., 2017). The marital status of the head of the household had economic implications for the income level of the household leader (Adugnaw & Endeshaw, 2019). Therefore, the head of the family who was married and had a big responsibility to finance the wife/husband and children was suspected of earning a higher income than the head of the household who was single or widowed. However, this hypothesis was rejected, and this finding verified previous research that revealed the same thing (Adugnaw and Endeshaw, 2019; Shah et al., 2020). This result indicated that there was no difference in poverty levels between

individuals who are married and not married. It may be caused by differences in the number of dependents, type of work, and income of each individual.

4. Conclusion

This study revealed that in the term of demographic characteristics, the age and main occupation sector of the head of household were the main essential factors in stimulating the risk of poverty in urban households, particularly in South Sulawesi Province. Meanwhile, social and economic characteristics were not determinants of poverty levels for families in urban areas of South Sulawesi Province. The findings of this study implied that education alone was not enough to increase individual income but rather decisive work experience. Moreover, these results also indicated that an individual's income, whether working independently or not, was relatively the same.

The results of this study contribute to the government in policy arrangement related to poverty reduction, especially in South Sulawesi Province. The government needs to improve the education system with a focus on skills improvement to obtain appropriate and competitive compensation in any sector. In addition, the government also needs to consider minimum wage payment policies, both for the workers in the formal and informal sectors.

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References

- Adugnaw, Z., & Endeshaw, M. (2019). Assessment of the Determinants of Urban Household Poverty in North Shewa Zone, Ethiopia: Evidence from Debre Berhan Town. *Journal of Poverty, Investment and Development*, 50, 21–43. <https://doi.org/https://doi.org/10.7176/JPID>
- Becker, G. S. (1994). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*, Third Edition. The University of Chicago Press.
- Demissie, B. S., & Kasie, T. A. (2017). Rural Households' Vulnerability to Poverty in Ethiopia. *Journal of Poverty*, 21(6), 528–542. <https://doi.org/10.1080/10875549.2017.1348425>
- Hafizd, A., Anis, A., & Triani, M. (2018). Analisis Faktor Penyebab Kemiskinan di Kabupaten Kerinci dari Dimensi Kultural. *EcoGen*, 1(3), 503–510.
- Indrawati, I., Ermawati, E., & Istiqamah, R. (2020). Pengaruh Pendidikan dan Pekerjaan Terhadap Kemiskinan Rumah Tangga dengan Lingkungan Sebagai Variabel Moderating di Kecamatan Bolano Kabupaten Parigi Moutong. *Jurnal Ilmu Ekonomi Dan Bisnis Islam*, 1(2), 38–69. <https://doi.org/10.24239/jiebi.v1i2.11.38-69>
- Islam, D., Sayeed, J., & Hossain, N. (2017). On Determinants of Poverty and Inequality in Bangladesh. *Journal of Poverty*, 21(4), 352–371. <https://doi.org/10.1080/10875549.2016.1204646>
- Jacobus, E. H., Kindangen, P., & Walewangko, E. N. (2019). Analisis Faktor-Faktor yang Mempengaruhi Kemiskinan Rumah Tangga di Sulawesi Utara. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah*, 19(7). <https://doi.org/10.35794/jpekd.19900.19.7.2018>
- Lekobane, K. R., & Seleka, T. B. (2017). Determinants of Household Welfare and Poverty in Botswana, 2002/2003 and 2009/2010. *Journal of Poverty*, 21(1), 42–60. <https://doi.org/10.1080/10875549.2016.1141381>
- Miranti, R., & Resosudarmo, B. P. (2005). Understanding regional poverty in Indonesia: is poverty worse in the East than in the West. *Australasian Journal of Regional Science*, 11(2), 141–153.
- Muhammad, F., & Ali, A. (2017). Impact of Socio Economics Variables on Poverty: An Empirical Analysis for District Chitral of KPK Pakistan. *Journal of Social and Development Sciences*, 8(3), 46–53. <https://doi.org/10.22610/jsds.v8i3.1975>
- Noah, K., Job, L., & Gideon, O. (2019). Logistic regression analysis on factors influencing income-poverty among smallholder French bean farmers in Kirinyaga County, Kenya. *Journal of Development and Agricultural Economics*, 11(12), 272–285. <https://doi.org/10.5897/JDAE2019.1075>

- Putri, R. Y., Azhar, Z., & Putri, D. Z. (2019). Analisis Kemiskinan Berdasarkan Gender di Provinsi Sumatera Barat. *Jurnal Kajian Ekonomi Dan Pembangunan*, 1(2), 603. <https://doi.org/10.24036/jkep.v1i2.6285>
- Rahman, S., Chaudhry, I. S., & Farooq, F. (2018). Gender Inequality in Education and Household Poverty in Pakistan: A Case of Multan District. *Review of Economics and Development Studies*, 4(1), 115-126. <https://doi.org/10.26710/reads.v4i1.286>
- Rosida, L. (2018). Rural and Urban Poverty in Developing Countries. *MEDIA BINA ILMIAH*, 13(1), 835. <https://doi.org/10.33758/mbi.v13i1.144>
- Shah, S. Z. A., Chaudhry, I. S., & Farooq, F. (2020). Poverty Status and Factors Affecting Household Poverty in Southern Punjab: An Empirical Analysis. *Journal of Business and Social Review in Emerging Economies*, 6(2), 437-451. <https://doi.org/10.26710/jbsee.v6i2.1151>
- Thorbecke, E. (2013). Multidimensional Poverty: Conceptual and Measurement Issues. In *The Many Dimensions of Poverty* (pp. 3-19). Palgrave Macmillan UK. https://doi.org/10.1057/9780230592407_1
- Wulandari, N. R., Harafah, H. L., & Saenong, Z. (2016). Faktor-Faktor yang Mempengaruhi Kemiskinan Rumah Tangga di Kota Kendari Tahun 2014. *Jurnal Progres Ekonomi Pembangunan*, 1(1), 111-119. <https://doi.org/http://dx.doi.org/10.33772/jpeb.v1i1.875>