Employed Yet Still Poor:
A Microdata Analysis of Working Poverty in Indonesia

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Abstract

This study aims to quantify the extent of working poverty in Indonesia and identify the demographic, geographic, and occupational factors associated with it, using microdata from the Survei Sosial Ekonomi Nasional (SUSENAS) 2022. The analysis employs logistic regression to determine the key determinants of working poverty among Indonesian laborers. The results reveal that older individuals, males, those with bank accounts, and those who use telephones and the internet are less likely to be in working poverty. These findings highlight the importance of age-related experience, gender-related economic advantages, financial inclusion, and digital connectivity in mitigating working poverty. Notably, education and formal sector employment did not show significant effects, suggesting that other factors may mediate their relationship with working poverty. The results emphasize the need for policies promoting financial and digital inclusion as part of poverty alleviation strategies. Enhancing access to banking services, telecommunication, and the internet, along with addressing gender disparities in the labor market, is crucial. Further exploration into the quality and market relevance of education is also recommended to design effective interventions tailored to the diverse needs of the working poor.

Keywords: working poor, working poverty, decent work

1. Introduction

Working poverty, where individuals remain impoverished despite being employment, presents a significant paradox in the economic landscape. The term "working poor" captures the essence of this predicament, emphasizing the disconnect between employment and adequate income levels (Feder & Yu, 2020; Khussainova et al., 2023). This phenomenon is intricately linked to several Sustainable Development Goals (SDGs), particularly SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequality). While employment is

traditionally associated with poverty alleviation, the working poor often earn insufficient income to escape poverty, which undermines progress toward SDG 1's aim to eradicate poverty in all its forms (United Nations, 2015). Furthermore, working poverty highlights failures in achieving SDG 8, which promotes inclusive economic growth and decent work for all. Low-wage, insecure jobs, especially prevalent in the informal sector, underscore gaps in decent work conditions and social protections that are essential for reducing poverty. Moreover, working poverty exacerbates social inequalities, disproportionately affecting marginalized groups, such as women and rural workers, thereby impeding progress on SDG 10 (United Nations, 2023). Addressing working poverty is crucial for achieving these interconnected SDGs, necessitating targeted policies to improve wage standards, enhance social safety nets, and ensure inclusive economic opportunities (United Nations, 2023).

Working poverty remains a critical issue in developing countries like Indonesia, where the labor market is characterized by a large informal sector, low wages, and limited social protections. These factors contribute significantly to the persistence of working poverty, which the International Labour Organization (ILO) highlights as a pressing concern (ILO, 2019). Despite Indonesia's economic growth and development efforts, many workers continue to earn insufficient incomes to meet their basic needs. As of 2023, around 50% of the poor in Indonesia were classified as the working poor, indicating that, despite being employed, they were unable to escape poverty due to inadequate earnings. The labor market structure exacerbates this issue, with a substantial portion of the workforce engaged in the informal sector. According to BPS - Statistics Indonesia (2023a), about 30% of the poor work in the informal sector, which is often marked by unstable employment, low wages, and a lack of access to social security and other benefits. Conversely, 20% of the poor work in the formal sector, which, while offering better job security and benefits, still fails to provide sufficient income for many workers. This dual challenge of low wages and inadequate social protections highlights the urgent need for comprehensive policy interventions aimed at improving labor market conditions and ensuring that economic growth translates into tangible benefits for all workers.

The analysis of working poverty in Indonesia can be effectively framed through the lenses of Dual Labor Market Theory and Human Capital Theory. Dual Labor Market Theory, developed by Doeringer and Piore (1971), distinguishes between the primary and secondary labor markets. The primary market comprises stable, well-paid jobs with benefits and advancement opportunities, while the secondary market consists of precarious, low-paid positions with minimal security and benefits. This phenomenon is evident in Indonesia, where a significant portion of the workforce is employed in the informal sector, characterized by unstable and low-paying jobs, making these workers particularly susceptible to working poverty. The lack of regulation and protection in the informal sector exacerbates workers' vulnerability, as they often receive wages insufficient to meet their basic needs and lack access to social safety nets (ILO, 2022).

Complementing this, Human Capital Theory, proposed by Becker (1964), posits that investments in education and skills enhance individuals' productivity and economic prospects.

In Indonesia, this theory explains why workers with higher education and vocational training are more likely to secure well-paying formal sector jobs, while those with lower educational attainment are typically confined to low-income informal employment. The disparity in educational access and quality contributes significantly to working poverty, as individuals lacking adequate education and skills are less competitive in the labor market and more prone to accepting insecure, poorly compensated jobs (Brown & James, 2020; Indrawati & Kuncoro, 2021). Therefore, these theories collectively highlight both the structural nature of the labor market and individual educational deficits as key drivers of working poverty in Indonesia, emphasizing the need for policy interventions that address both labor market inequalities and educational disparities to mitigate working poverty effectively.

Numerous studies have examined working poverty across various contexts. Wagle (2017) analyzed working poverty in developing countries and found that inadequate social protections play a crucial role in perpetuating this issue. In Indonesia, research by Adhikari (2020) and Benavides et al. (2022) emphasized the impact of informal employment on working poverty, with informal workers facing higher risks of poverty due to unstable incomes and lack of access to social security. Meanwhile, studies by Soseco et al. (2022) focused on the gender dimensions of working poverty, showing that women are disproportionately affected because of their concentration in low-wage, informal jobs. Le & Chung (2020) examined the socio-economic factors influencing working poverty, identifying education and regional disparities as critical determinants. They found that lower educational attainment correlates with higher rates of working poverty, as less educated individuals are more likely to engage in low-wage informal work. Moreover, research by Whillans & West (2022) underscored the role of educational attainment in reducing working poverty, noting that individuals with higher education levels are more likely to secure formal sector jobs with better pay and benefits. This aligns with Human Capital Theory, which posits that investments in education enhance individuals' productivity and economic opportunities (Becker, 1964).

Beyond individual education, working poverty also reflects broader labor market dynamics. The wage disparity between formal and informal sectors is a key factor in perpetuating working poverty, as informal sector workers typically earn significantly less than those in formal employment (Ozgur et al., 2021). This wage gap is exacerbated by the lack of enforcement of minimum wage laws and the prevalence of casual or temporary work arrangements that offer little job security or benefits. Informal workers in Indonesia often earn below the national minimum wage, with many engaged in subsistence-level economic activities that barely cover their daily needs (Dartanto et al., 2020; Akbar, 2022). Poor working conditions, including long hours and hazardous environments, further aggravate the situation. These factors collectively contribute to the persistence of working poverty, as workers are unable to accumulate savings or invest in their futures due to the instability and inadequacy of their earnings (Balboni et al., 2022).

Gender disparities significantly influence the experience of working poverty. In Indonesia, women are disproportionately represented in low-paying and informal jobs, which contributes to

higher poverty rates among female workers (Cuesta & Pico, 2020; Shrider et al., 2021). Feminist economic theories highlight how gender biases in labor markets result in unequal pay, limited career advancement opportunities, and restricted access to resources for women (Kabeer, 2021). Additionally, women often bear the burden of unpaid care work, limiting their ability to participate fully in the labor market and secure better-paying jobs (Dutta, 2022). Addressing these gender disparities requires targeted policies promoting gender equality in employment, improving access to education and vocational training for women, and providing support to balance work and family responsibilities (Dorfleitner & Nguyen, 2024).

Regional disparities in economic development and access to resources further exacerbate working poverty in Indonesia. The country's vast geographical diversity leads to significant variations in economic opportunities and living standards across different regions, with rural areas and provinces in eastern Indonesia often experiencing higher rates of poverty than urban centers (Purwono et al., 2021; Sugiharti et al., 2022). These disparities are driven by factors such as limited access to markets, inadequate infrastructure, and lower levels of educational attainment in rural areas, which restrict economic opportunities and perpetuate poverty. Urbanization and migration patterns also play a role in regional disparities, as many workers migrate to cities in search of better employment opportunities but often end up in low-paying, informal jobs (Khanna, 2020). Addressing these regional disparities requires targeted interventions to improve economic opportunities and living standards in underserved areas, including investments in infrastructure, expanding access to education, and promoting regional development policies (Cattaneo et al., 2022).

This study aims to achieve several key objectives: (1) To quantify the extent of working poverty in Indonesia using recent microdata; and (2) To identify demographic, geographic, and occupational factors associated with working poverty. The novelty of this research lies in its comprehensive microdata analysis approach. Unlike previous studies that have focused primarily on macroeconomic indicators or specific demographic groups, this study examines a broad spectrum of factors at the micro level. This approach allows for a more detailed identification of the drivers of working poverty and the differential impacts on various population segments. The study also contributes by offering policy recommendations tailored to the Indonesian context, informed by empirical evidence. The study offers policy recommendations tailored to the Indonesian context to mitigate working poverty, grounded in empirical evidence from local labor market dynamics. It suggests enhancing labor market regulations to improve wages and job security, expanding social protection to cover informal sector workers, and promoting educational and vocational training to increase workers' employability and transition to better-paying jobs. These targeted interventions aim to address structural inequalities, support economic stability, and ultimately reduce the prevalence of working poverty in Indonesia.

2. Research Method

The research method for analyzing the working poverty condition using the microdata from the Survei Sosial Ekonomi Nasional (SUSENAS) 2022 involves the application of logistic regression. This dataset encompasses 510,394 labor observations, providing a robust foundation for statistical analysis. The logistic regression model is employed due to its suitability in handling binary dependent variables, in this case, the working poverty condition (1 if in poverty, 0 otherwise). The independent variables encompass a range of socio-demographic conditions, including age, gender, education level, employment sector (formal or informal), bank account ownership, and the ability to use telephone and internet services. These variables are selected to comprehensively capture the multifaceted nature of factors influencing working poverty. The logistic regression model can be mathematically expressed as follows:

$$\log\left(\frac{P(Y=1)}{1-P(Y=0)}\right) = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 Education + \beta_4 Sector + \beta_5 Account + \beta_6 Telephone + \beta_7 Internet + \varepsilon \tag{1}$$

In this model, P(Y=1) represents the probability of an individual being in working poverty. The coefficients β_1, β_2, β_3, β_4, β_5, β_6, and β_7 correspond to the impact of each independent variable on the likelihood of experiencing working poverty. For instance, a negative coefficient for the education variable would indicate that higher education levels reduce the probability of being in working poverty, holding other factors constant.

The classification of individuals as poor or not is determined based on the poverty line set by BPS - Statistics Indonesia, which, as of September 2022, was established at Rp 535,547.00 per capita per month (BPS - Statistics Indonesia, 2023b). This threshold serves as a benchmark to evaluate whether an individual's income is sufficient to meet basic needs. Workers earning wages below this poverty line are categorized as the working poor, highlighting their vulnerability despite being employed. Conversely, those earning above this threshold are classified as not poor, reflecting a minimum level of income adequacy.

Further, the model is examined through stratified analyses to uncover more nuanced insights. Specifically, the working poverty condition is analyzed separately by gender (male and female) and region (rural and urban). This classification allows for the identification of distinct patterns and effects within these subgroups. For example, the impact of education on working poverty may differ between males and females, or the influence of internet access might vary between urban and rural residents. Such stratified analyses help in understanding the differential effects of socio-demographic factors on working poverty across diverse segments of the population.

3. Results and Discussion

3.1. Overview from the Working Poor and Otherwise

From the data provided, we can observe differences in working poverty rates across different groups. For instance, males constitute a higher number of the working poor compared to females, 22,749 and. 9,912 subsequently. Additionally, education appears to play a crucial role; individuals with lower education levels (not graduated elementary school) have higher rates of working poverty (5,080) compared to those with higher education levels. Moreover, rural areas exhibit a higher number of working poor (21,163) than urban areas (11,498), and the informal job sector has more working poor (14,988) compared to the formal sector (17,673). Bank account ownership, telephone usage, and internet usage also show notable differences, with those lacking these resources more likely to be in working poverty.

Table 1. Descriptive Statistics of the Observation

	Working Poor	Otherwise	Total
Observation	32.661	477.733	510.394
Gender			
Male	22.749	324.002	346.751
Female	9.912	153.731	163.643
Education			
Not graduated elementary school	5.080	71.555	76.635
Elementary school	8.111	122.567	130.678
Junior high school	5.970	83.577	89.547
Senior high school	9.613	138.646	148.259
Diploma I-III	697	10.734	11.431
Diploma IV/Bachelor	3.022	47.347	50.369
Profession	25	307	332
Master	129	2.780	2.909
Doctoral	14	220	234
Region			
Rural	21.163	281.510	302.673
Urban	11.498	196.223	207.721
Job Sector			
Formal	17.673	264.082	281.755
Informal	14.988	213.651	228.639
Bank Account Ownership			
Yes	14.570	235.690	250.260
No	18.091	242.043	260.134
Telephone Usage			
Yes	23.593	356.996	380.589
No	9.068	120.737	129.805
Internet Usage			
Yes	19.404	291.484	310.888
No	13.257	186.249	199.506

Source: SUSENAS 2022, Processed

3.2. Estimation Results

The logistic regression results in Table 2 provide insights into the factors influencing the likelihood of being in working poverty. The constant term is -1.5162, which serves as the baseline log odds of working poverty when all independent variables are zero. Age has a coefficient of -0.0205, indicating that as age increases, the probability of being in working poverty decreases, and this effect is statistically significant (p < 0.001). Gender has a coefficient of -0.1007, suggesting that being male (coded as 1) reduces the likelihood of working poverty compared to being female (coded as 0), also significant at the 1% level.

Education's coefficient of -0.0013 is not statistically significant (p = 0.370), implying that within this model, education level does not significantly impact the probability of working poverty. Similarly, working in a formal job has a coefficient of -0.0079, which is also not significant (p = 0.509). Conversely, bank account ownership significantly reduces the likelihood of working poverty with a coefficient of -0.0995 (p < 0.001). Telephone and internet usage are significant predictors with coefficients of -0.1548 and -0.1962, respectively, indicating that access to these resources substantially lowers the probability of being in working poverty.

While the Pseudo R² value is modest (0.0091), the model still provides valuable insights into the significant factors influencing the dependent variable, such as age, internet usage, and account ownership. In social research, particularly in logistic regression models, modest Pseudo R² values are not uncommon and do not diminish the relevance of the findings. These findings highlight critical relationships that align with the study's objectives, giving insights on the dynamics that shape the probability of working poverty. By identifying these key predictors, the results offer meaningful contributions to the literature and provide a foundation for further research and policy discussions aimed at addressing the issues explored in this study.

Table 2. Estimation Results of All Observation

Independent Variables	Coef.	Std err.	z	P>|z|	[95% Conf. Interval]	
Constant	-1.5162	0.0275	-55.14	0.000*	-1.5701	-1.4623
Age	-0.0205	0.0004	-42.4	0.000*	-0.0215	-0.0196
Gender	-0.1007	0.0126	-7.96	0.000*	-0.1256	-0.0759
Education	-0.0013	0.0014	-0.90	0.370	-0.0042	0.0015
Formal job	-0.0079	0.0120	-0.66	0.509	-0.0316	0.0156
Account ownership	-0.0995	0.0130	-7.64	0.000*	-0.1250	-0.0739
Telephone usage	-0.1548	0.0172	-9.00	0.000*	-0.1885	-0.1210
Internet usage	-0.1962	0.0170	-11.48	0.000*	-0.2297	-0.1627
Observation	510.394					
Prob > chi2	0.0000					
Pseudo R2	0.0091					

Source: SUSENAS 2022 Processed

Human capital theory asserts that investments in education improve individuals' economic outcomes by enhancing their skills and productivity. While the coefficient of education in the model mentioned (-0.0013, p = 0.370) suggests that education level does not significantly impact

the likelihood of working poverty, this finding partly contrasts with extensive research highlighting education's role in poverty reduction. For instance, a study by Chankseliani et al. (2021) found that each additional year of schooling generally leads to higher earnings and reduced poverty rates across various contexts. This relationship is particularly pronounced in developing countries, where education can significantly improve individuals' chances of escaping poverty. However, the non-significant coefficient observed in the current study may reflect several factors. Firstly, the quality of education and its relevance to labor market demands are critical. For example, studies have shown that vocational training and education aligned with market needs tend to have a more substantial impact on employment and income (Dougherty & Ecton, 2021). Additionally, the field of study can influence employment outcomes, with STEM (Science, Technology, Engineering, and Mathematics) fields often leading to higher wages and lower poverty rates compared to non-technical fields (Jelks & Crain, 2020).

Next, age is a critical factor in understanding working poverty, often viewed through the lens of lifecycle theories. Younger workers typically experience lower earnings due to limited work experience and skills acquisition. Research by Ng et al. (2024) found that younger individuals are more likely to be in low-wage jobs, which increases their vulnerability to poverty. As workers age and gain experience, their earning potential generally improves, contributing to reduced poverty rates over the lifecycle (Han & Lee, 2020).

Gender differences in working poverty rates reflect broader socio-economic disparities. Women, in many contexts, face significant challenges in accessing employment opportunities, achieving pay parity, and benefiting from social protections compared to men. Research shows that women are more likely to be employed in informal sectors with lower wages and limited job security, which contributes to higher rates of working poverty (Olu-Owolabi et al., 2020; Rodriguez-Loureiro et al., 2020). Policies aimed at reducing gender gaps in labor market participation and ensuring equal pay for equal work are crucial in addressing these disparities.

The significant negative coefficients for variables like bank account ownership, telephone, and internet usage underscore the importance of financial and digital inclusion in poverty reduction efforts. Access to financial services enables individuals to save, invest, and access credit, which is critical for economic mobility and resilience (Salignac et al., 2022). Similarly, digital technologies facilitate access to information, job opportunities, and financial services, thereby enhancing economic opportunities for marginalized populations (Nguimkeu & Okou, 2021; Agwu, 2021). Policies promoting financial literacy, expanding banking services, and improving digital infrastructure play a pivotal role in reducing poverty and promoting inclusive growth.

Table 3. Estimation Results Classified by Region

Independent Variables	Urban			Rural		
	Coef.	z	P>|z|	Coef.	z	P>|z|
Constant	-1.7025	-30.64	0.000	-1.5487	-47.04	0.000
Age	-0.0193	-22.50	0.000	-0.0199	-33.26	0.000
Gender	-0.0477	-2.31	0.021	-0.1186	-7.36	0.000

Independent Variables	Urban			Rural		
	Coef.	z	P>|z|	Coef.	z	P>|z|
Education	-0.0046	-1.74	0.082	0.0044	2.50	0.012
Formal job	0.0070	0.33	0.738	0.0050	0.34	0.735
Account ownership	-0.1515	-6.85	0.000	-0.0513	-3.18	0.001
Telephone usage	-0.0965	-2.76	0.006	-0.1749	-8.83	0.000
Internet usage	-0.1556	-4.72	0.000	-0.1677	-8.31	0.000
Observation	207.721			302.673		
Prob > chi2	0.0000			0.0000		
Pseudo R2	0.0070			0.0089		

Source: SUSENAS 2022 Processed

The logistic regression analysis, separated by urban and rural regions, provides distinct insights into the factors influencing working poverty in these different settings. In urban areas, age, gender, account ownership, telephone usage, and internet usage are significant predictors. Specifically, age (coefficient: -0.0193) and gender (coefficient: -0.0477) indicate that older individuals and males are less likely to be in working poverty. Account ownership (coefficient: -0.1515), telephone usage (coefficient: -0.0965), and internet usage (coefficient: -0.1556) all significantly reduce the probability of working poverty, emphasizing the importance of financial and digital inclusion in urban areas. Interestingly, education is nearly significant with a p-value of 0.082, suggesting a potential but not definitive influence on working poverty in urban settings.

In rural areas, similar patterns emerge with age (coefficient: -0.0199) and gender (coefficient: -0.1186) being significant, indicating that older individuals and males are less likely to experience working poverty. However, education in rural areas shows a positive coefficient (0.0044) and is significant (p = 0.012), which may imply a different interaction between education levels and working poverty compared to urban areas. Financial inclusion (account ownership coefficient: -0.0513), telephone usage (coefficient: -0.1749), and internet usage (coefficient: -0.1677) are also significant factors in reducing working poverty in rural regions. The insignificance of the formal job variable in both regions suggests that job sector classification alone may not adequately capture the complexities of working poverty.

The results align with theoretical expectations and empirical findings on the determinants of working poverty, particularly the importance of age and gender. Lifecycle theories suggest that older workers accumulate more experience and skills, reducing their poverty risk, while gender disparities highlight systemic issues that often disadvantage women economically. The stronger gender effect in rural areas might reflect more pronounced gender inequalities in access to resources and opportunities compared to urban areas. These findings underscore the need for gender-sensitive policies in poverty alleviation efforts.

The significant impact of financial and digital inclusion across both urban and rural areas supports existing literature that emphasizes the role of access to financial services and technology in improving economic outcomes. Financial inclusion, represented by bank account ownership, enables individuals to save, invest, and access credit, thereby reducing poverty. Similarly,

telephone and internet usage facilitate access to information, markets, and employment opportunities. The unexpected positive coefficient for education in rural areas could indicate that the type or quality of education available in these regions may not be aligned with local labor market demands, suggesting a need for tailored educational programs that better meet regional economic needs.

Table 4. Estimation Results Classified by Gender

Independent Variables	Male			Female		
	Coef.	z	P>|z|	Coef.	z	P>|z|
Constant	-1.5426	-47.14	0.000	-1.5387	-31.46	0.000
Age	-0.0190	-33.20	0.000	-0.0239	-26.40	0.000
Education	-0.0023	-1.35	0.178	-0.0005	-0.20	0.839
Formal job	-0.0108	-0.76	0.446	-0.0313	-1.35	0.178
Account ownership	-0.1612	-10.31	0.000	0.0461	1.94	0.053
Telephone usage	-0.1514	-7.40	0.000	-0.1905	-5.93	0.000
Internet usage	-0.1946	-9.83	0.000	-0.1792	-5.27	0.000
Observation	346.751			163.643		
Prob > chi2	0.0000			0.0000		
Pseudo R2	0.0090			0.0100		

Source: SUSENAS 2022 Processed

The logistic regression analysis split by gender reveals that age, telephone usage, and internet usage are significant predictors of working poverty for both males and females. For males, older age (coefficient: -0.0190), bank account ownership (coefficient: -0.1612), telephone usage (coefficient: -0.1514), and internet usage (coefficient: -0.1946) significantly reduce the likelihood of being in working poverty. For females, older age (coefficient: -0.0239), telephone usage (coefficient: -0.1905), and internet usage (coefficient: -0.1792) are significant, but bank account ownership shows a positive coefficient (0.0461) and is marginally significant (p = 0.053). Education and having a formal job do not show significant effects for either gender.

The results align with lifecycle theories and previous empirical findings on the determinants of working poverty. The significant negative coefficients for age for both males and females suggest that older individuals, likely due to accumulated work experience and skills, are less vulnerable to poverty (Jedwab, et al., 2023). The gender-specific analysis underscores that digital inclusion, through telephone and internet usage, plays a crucial role in reducing poverty for both men and women. This supports existing literature that emphasizes the importance of access to information and communication technologies in improving economic opportunities and outcomes.

The unexpected positive coefficient for bank account ownership among females, although marginally significant, might indicate complexities in how financial inclusion affects different genders. This could be due to various factors, such as the quality of financial services available to women, their ability to leverage these services effectively, or broader socio-economic constraints that limit the benefits of financial inclusion. Previous studies often highlight the transformative potential of financial inclusion, but these findings suggest that more nuanced, gender-specific

approaches might be necessary to fully understand and harness its benefits. This emphasizes the need for policies that not only promote financial and digital inclusion but also address underlying gender-specific barriers to economic empowerment.

Overall, the logistic regression analysis highlights the multifaceted nature of working poverty and the importance of contextual factors. Policies aimed at reducing working poverty must consider regional differences and focus on enhancing financial and digital inclusion, addressing gender disparities, and aligning educational programs with local economic conditions. These targeted interventions can more effectively address the specific needs of vulnerable populations in both urban and rural settings.

4. Conclusion and Recommendations

This study reveals key determinants of working poverty among Indonesian laborers. Significant variables include age, gender, bank account ownership, and the usage of telephone and internet services. Older individuals, males, those with bank accounts, and those who use telephones and the internet are less likely to be in working poverty. These findings suggest that age-related experience, gender-related economic advantages, financial inclusion, and digital connectivity are crucial factors in mitigating working poverty. Surprisingly, education and employment in the formal sector did not show significant effects, indicating that other factors might mediate their relationship with working poverty.

These results underscore the importance of promoting financial and digital inclusion as part of poverty alleviation strategies. Policies aimed at enhancing access to banking services, telecommunication, and the internet can provide substantial benefits in reducing working poverty. Additionally, addressing gender disparities in the labor market remains critical. Although education did not show a significant direct impact in this model, it is essential to explore further how educational quality and relevance to market needs influence economic outcomes. This multifaceted approach can help design effective interventions tailored to the diverse needs of the working poor.

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