ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Disability and Household Poverty: Challenges in Achieving Social Inclusion in Indonesia

Sosmiarti[1]; Rio Zulhandinata[2]; Muhammad Kivlan Reftreka Nugraha[3]

[1,2,3] Department Economics, Faculty of Economics and Business, Universitas Andalas

Publication Date: 2025/07/03

Abstract: This study aims to evaluate how disabilities experienced by household heads affect household poverty status, as well as to identify the determining factors influencing poverty in households led by persons with disabilities. Utilizing primary data from the March 2022 National Socio-Economic Survey (Susenas) and employing the binomial logistic regression method, the study finds that households headed by persons with disabilities are more likely to experience poverty compared to those led by non-disabled household heads. Further findings reveal that household heads with hearing and/or communication impairments, as well as difficulties in self-care, face a higher risk of poverty than those with physical disabilities. Conversely, household heads with visual impairments tend to have a lower likelihood of being poor compared to those with physical disabilities. Additionally, households led by heads with severe disabilities are more prone to falling into poverty than those whose heads experience mild disabilities. Based on these findings, this study emphasizes the importance of designing poverty alleviation policies that are more inclusive and tailored to the specific conditions faced by persons with disabilities.

Keywords*: Disability, Poverty, Household.*

How to Cite: Sosmiarti; Rio Zulhandinata; Muhammad Kivlan Reftreka Nugraha (2025) Disability and Household Poverty: Challenges in Achieving Social Inclusion in Indonesia. *International Journal of Innovative Science and Research Technology*, 10(6), 2336-2347. https://doi.org/10.38124/ijisrt/25jun1635

I. INTRODUCTION

Poverty and economic development are two closely related issues. Economic development can help reduce poverty by improving access to education, healthcare, and economic opportunities. On the other hand, poverty can also hinder the development process by decreasing productivity and investment (Mansi et al., 2020). Poverty itself is understood as a condition of welfare deprivation (World Bank, 2000), which has broad impacts on quality of life and imposes socio-economic burdens on society (Gunartha & Utama, 2020). Poverty eradication is a priority in the Sustainable Development Goals (SDGs), particularly in the first goal, "no poverty" (UNDP, 2003), which emphasizes the importance of inclusive development for all groups, including persons with disabilities.

Persons with disabilities are a group that is more vulnerable to poverty compared to the general population (United Nations, 2019). This vulnerability is not only due to physical, intellectual, mental, or sensory limitations (Law No. 8 of 2016) but also due to limited access to education, decent employment, and equal social participation (Alabshar et al., 2024; Berie et al., 2024). These conditions further reinforce their vulnerability to poverty, which is often triggered by unemployment, low levels of education, informal employment, and inadequate wages (Berie et al., 2024). Previous studies have shown that disability status significantly increases the risk of poverty, particularly when persons with disabilities are the heads of households (Banks et al., 2021; Bella & Dartanto, 2018; Mpuure et al., 2025).

Based on the capability approach (Saleeby, 2007), the vulnerability of persons with disabilities to poverty is influenced by personal factors such as the type of disability (Kavanagh et al., 2015), severity level (Mussida & Sciulli, 2024), gender (Pujiwati et al., 2024), age (Kang, 2014), education (Poudel, 2024), employment status (Nopiah, 2024), marital status, and household size (Bella & Dartanto, 2018), as well as environmental factors such as place of residence (Banks et al., 2021). However, studies in Indonesia that comprehensively examine the impact of disability on poverty—particularly those that consider the type and severity of disability—are still limited. Most existing studies, such as those by Alabshar et al. (2024), Nopiah (2024), and Sritutur (2022), have not yet explored the variations in type and severity of disability in detail, while the study by Bella & Dartanto (2018) is one of the more comprehensive works in this context.

Data from Susenas in March 2022 show that the poverty rate among households headed by persons with disabilities in Indonesia (5.95%) is higher than among households headed by non-disabled persons (5.61%). This indicates that

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

disability contributes to an increased risk of poverty at the household level. Disability and poverty are mutually reinforcing issues, especially for heads of households with disabilities who bear a double burden: they are responsible for their families while simultaneously facing social and structural barriers to accessing economic opportunities (Alabshar et al., 2024; Banks et al., 2021; Mpuure et al., 2025). Therefore, inclusive, evidence-based policies that consider the specific characteristics of this group are urgently needed.

Poverty has various definitions, generally referring to a condition of material deprivation and the inability to meet basic needs for survival (Ramphoma, 2014; Nyasulu, 2010). In Indonesia, poverty is measured based on the average per capita expenditure that falls below the poverty line (Badan Pusat Statistik, 2022), which includes essential needs such as clothing, food, shelter, education, employment, healthcare, and social services (Law No. 13 of 2011). Chambers (1983) highlights five dimensions of poverty: poverty itself, physical weakness, isolation, vulnerability, and powerlessness. Poverty is generally classified into absolute and relative poverty. Absolute poverty reflects the inability to meet minimum living needs (Todaro & Smith, 2020; World Bank, 2010), while relative poverty refers to an income level that is lower than that of other societal groups, even if it is above the poverty line (Haughton & Khandker, 2009). Measuring poverty is essential for policy formulation, poverty mapping, and the evaluation of programs and institutions aimed at poverty alleviation (Haughton & Khandker, 2009).

At the micro level, poverty is analyzed at the household level by considering household income, the number of family members, and the number of income earners (Mizoguchi, 1990). A poor household is defined as one that cannot meet its basic needs according to the poverty line (Febrianty & Pahlevi, 2020). Vulnerability is a key factor in understanding household poverty, as low consumption levels can increase the risk of falling deeper into poverty in the future (Cafiero & Vakis, 2006). Common characteristics of poor households include a high proportion of female-headed households, rural domicile with employment in the informal sector, and many coming from minority groups (Todaro & Smith, 2020).

Poverty is influenced by various factors, one of which is disability status. Disabilities increase economic vulnerability and limit individuals' access to education, employment, and basic services (Alabshar et al., 2024; Mpuure et al., 2025; Bella & Dartanto, 2018). The type of disability also plays an important role, where mental and intellectual disabilities are often associated with higher poverty rates due to physical and social barriers such as discrimination and limited accessibility (Kavanagh et al., 2015; Reavley & Jorm, 2011; Kang, 2014). In addition, the severity of the disability affects economic opportunities, with individuals experiencing severe disabilities facing a higher risk of poverty compared to those with mild disabilities (Carr & Namkung, 2021; Meyer & Mok, 2019; Mussida & Sciulli, 2024).

Gender is another significant factor affecting poverty. Women, especially those who are heads of households, tend to have a higher likelihood of falling into poverty compared to men (Alabshar et al., 2024; Bella & Dartanto, 2018; Mdluli & Dunga, 2022). In the context of disability, women with disabilities have a higher risk of multidimensional poverty (Pinilla-Roncancio et al., 2020), although Kang (2014) found that men with disabilities are also vulnerable to poverty. The study by Pujiwati et al. (2024) further emphasized that female heads of households with disabilities are more likely to fall into poverty.

Education plays a crucial role in reducing the risk of poverty. Higher educational attainment can increase income opportunities and reduce the likelihood of poverty among both the general population and persons with disabilities (Alabshar et al., 2024; Bilenkisi et al., 2015; Islam et al., 2017; Lekobane & Seleka, 2014; Kang, 2014; Poudel, 2024; Lamichhane et al., 2014; Bella & Dartanto, 2018). Education not only improves the quality of life for persons with disabilities (Singal, 2011), but also serves as a key asset in breaking free from poverty.

Age is a significant factor that influences various aspects of life, including health, education, employment, and social well-being. For persons with disabilities, the impact of age becomes even more complex as it not only reflects the passing of time but also interacts with the limitations posed by their disabilities, affecting their overall quality of life (Mitra et al., 2013). Previous studies have generally shown that as people grow older, their likelihood of being poor tends to decrease (Maloma & Dunga, 2023; Alabshar et al., 2024; Cherif et al., 2024; Sugiharti & Primanthi, 2017). However, this pattern does not always apply to persons with disabilities. For them, increasing age, particularly between 30 and 65 years, often correlates with a higher risk of poverty (Belzunegui-Eraso et al., 2018; Kang, 2014). Employment status also plays a crucial role in shaping poverty outcomes. Individuals who are employed, whether in the formal or informal sectors, generally face a lower risk of poverty than those who are unemployed (Maloma, 2016; Sugiharti & Primanthi, 2017). Unfortunately, persons with disabilities typically have fewer job opportunities, making them more vulnerable to falling into poverty (Mont, 2014). Nevertheless, when persons with disabilities are engaged in employment, their risk of poverty significantly decreases (Kang, 2014; Nopiah, 2024). Marital status further influences economic well-being. Married household heads tend to be less susceptible to poverty (Islam et al., 2017), although this relationship is not always statistically significant across studies (Cho & Kim, 2017). Interestingly, in the case of persons with disabilities, marriage may actually increase the likelihood of poverty, as indicated by Bella and Dartanto (2018). Additionally, the place of residence is another determining factor. People living in rural areas, especially those with disabilities, face greater poverty risks due to limited access to jobs, education, and essential public services (Pinilla-Roncancio, 2015; Kang, 2014; Banks et al., 2021; Bella & Dartanto, 2018). Studies have consistently shown that individuals and households in rural areas are generally more prone to poverty than those in urban settings (Alabshar

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

et al., 2024; Andrianarison et al., 2022). Finally, household size is a key consideration. A larger household typically means a heavier economic burden, which increases the probability of poverty (Andrianarison et al., 2022; Maloma & Dunga, 2023; Alabshar et al., 2024). This effect is particularly concerning for households headed by persons with disabilities, where an increase in family size often worsens poverty conditions due to the compounded financial strain (Mitra et al., 2013; Bella & Dartanto, 2018; Nopiah, 2024).

Various previous studies have shown that poverty among persons with disabilities is influenced by individual factors, household factors, and disability characteristics. Kang (2014) found that age, gender, education, health status, employment status, position as head of household, household size, domicile, and mental disabilities significantly affect the poverty status of persons with disabilities. However, that study used the HGLM method, while this research applies binomial logistic regression within the Indonesian context. Kavanagh et al. (2015) highlighted that persons with disabilities tend to have higher economic vulnerability due to low income, limited educational attainment, and predominance in informal employment, with those having mental and intellectual disabilities facing the greatest disadvantages. While their study focused on socioeconomic disparities across disability types, this research emphasizes the determinants of household poverty where the head of the household is a person with a disability. Bella and Dartanto (2018) also found that households headed by persons with disabilities are more likely to be poor, especially when the disability is related to self-care difficulties. Their study used Susenas 2012 data, while this research uses Susenas 2022 data and introduces an additional variable, the severity of disability. Sritutur (2022) revealed that individuals with visual disabilities tend to have a lower likelihood of experiencing poverty, but the study focused solely on visual impairments, whereas this research explores a wider range of disability types. Nopiah (2024) identified that demographic factors such as age, domicile, and household size influence the economic well-being of persons with disabilities in Bengkulu, along with education, IT skills, employment status, and social assistance programs. This research provides a broader scope by covering all regions of Indonesia and specifically examines the impact of disability on household poverty. Meanwhile, Alabshar et al. (2024) found that disability significantly contributes to extreme poverty, although their study did not specifically analyze individuals with disabilities. This research expands the analysis by incorporating both disability types and severity levels. Poudel (2024) also confirmed that gender, education, working hours, work experience, assistive device usage, disability type, and severity significantly influence the well-being of persons with disabilities in Nepal. Unlike this study, Poudel's research used primary data and multiple linear regression, whereas this study uses secondary data with binomial logistic regression and measures poverty using per capita expenditure as a proxy.

Poverty remains a key issue targeted in development agendas, as reflected in the first goal of the Sustainable Development Goals (SDGs): no poverty, with the aim of eradicating poverty in all its forms by 2030. Achieving this target requires effective poverty alleviation policies based on a deep understanding of its characteristics, particularly at the micro level and among vulnerable groups such as persons with disabilities. According to the capability approach and previous studies (Mitra et al., 2013; Kavanagh et al., 2015; Bella & Dartanto, 2018), persons with disabilities are more prone to poverty due to personal and environmental factors. This study focuses on personal factors, including disability characteristics (disability status, type of disability, severity of disability) and household head characteristics (gender, age, education level, employment status, marital status), as well as environmental factors such as place of residence and household size. Therefore, this research aims to examine the impact of disability on poverty and identify the characteristics of household heads with disabilities who are most vulnerable to household poverty.

This study aims to analyze how disability affects household poverty status in Indonesia and to identify the factors influencing poverty vulnerability among households headed by persons with disabilities. The results of this study are expected to contribute to the design of more effective, well-targeted, and inclusive poverty alleviation policies for persons with disabilities.

II. RESEARCH METHODS

This study employs a quantitative approach using cross-sectional secondary data from the March 2022 National Socio-Economic Survey (Susenas) conducted by Statistics Indonesia (BPS). The analyzed data are sourced from the KOR and KP modules, covering variables such as disability status, gender, age, education, employment status, marital status, family relationships, place of residence, household size, as well as household and per capita expenditure. This research focuses on analyzing the impact of disability on poverty and the factors influencing household poverty among households headed by persons with disabilities. The first sample consists of 96,852 observations, representing approximately 68.3 million households nationwide, while the second sample is a subsample focusing on 13,307 observations of households headed by persons with disabilities. Sample selection is based on the per capita poverty line as defined by BPS (2022), emphasizing the critical role of household heads in determining the economic status of their families, as also highlighted by Bella and Dartanto (2018). The data analysis employs binomial logistic regression to identify the influence of disability and other characteristics on the probability of household poverty. This method was chosen because it does not require assumptions of linearity, normality, or homoskedasticity (Latan, 2014), and it is capable of modeling the probability of poverty status as a binary outcome (Hosmer & Lemeshow, 2000).

In this study, the dependent variable follows a Bernoulli distribution with the probability function

$$f(y) = \pi y(1-\pi)1-y, where\ y = 1$$

Indicates a poor household and y=0 indicates a non-poor household. Poverty status is determined based on the national poverty line calculated by BPS (2022), with

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

households classified as poor if their per capita expenditure falls below this threshold. The logistic regression model used estimates the probability of poverty with the equation

$$\pi(x) = P_i = \frac{e^{\alpha+\beta_1 x_1+\cdots+\beta_n x_n}}{1 + e^{\alpha+\beta_1 x_1+\cdots+\beta_n x_n}}$$

Which is further transformed into a logit form for easier analysis. The regression model refers to Bella & Dartanto (2018) and is applied to two samples. For the full household sample, the model examines the effects of disability status, household size, domicile, gender, age, marital status, education, and employment status on the probability of poverty. Meanwhile, for the subsample of households headed by persons with disabilities, the model is specifically extended by including types of disabilities (visual, hearing or communication, concentration, emotional or behavioral, and personal care), the severity of the disability, along with the same control variables. This model enables the estimation of poverty risk in a measurable, probabilistic approach without requiring assumptions of linearity or homoscedasticity (Latan, 2014).

This study employs descriptive statistics and econometric analysis techniques. Descriptive analysis, using cross-tabulation, is applied to provide a clear overview of the factors influencing household poverty status, particularly those with heads of households with disabilities. Econometric analysis is conducted through binomial logistic regression to answer the research questions. Prior to estimation, several diagnostic tests are performed, including goodness of fit, simultaneous, and partial tests. The goodness of fit is assessed using the Pearson chi-square test (Gujarati & Porter, 2009) and the Receiver Operating Characteristic (ROC) curve, which evaluates the model's ability to distinguish between successful and unsuccessful events (Hosmer & Lemeshow, 2000). A ROC area above 0.7 indicates acceptable discrimination, while an area above 0.9 shows outstanding discrimination. Simultaneous significance of independent variables is tested using the Likelihood Ratio test (G-statistic), which follows the chi-square distribution (Gujarati & Porter, 2009). Partial significance of each independent variable is examined using the Wald test, where significance is indicated by a p-value below the alpha level. The interpretation of the regression coefficients is supported by odds ratio analysis, which measures the likelihood of an event when an independent variable changes from 0 to 1 (Hosmer & Lemeshow, 2000). An odds ratio greater than one indicates a positive relationship, while a value less than one indicates a negative relationship. The relationship between regression coefficients and odds ratios is expressed as $e^{\beta n}$, which reflects the change in the odds of poverty when the independent variable increases by one unit.

Average Marginal Effects (AME) represent the average partial derivatives of the binomial logistic regression equation with respect to each independent variable in the model. AME quantifies the average change in the probability of the dependent variable for every one-unit change in an independent variable (Wooldridge, 2013). For dummy variables, AME reflects the discrete change in probability when the independent variable shifts from 0 to 1, while for continuous variables, it measures the instantaneous rate of change. In this study, AME is used to interpret the logit model and to reduce the impact of unobserved heterogeneity. According to Mood (2010), AME captures the average effect of independent variables on the probability of the dependent event [P(y = 1)], calculated using the logistic probability distribution function across all observations. Unlike regression coefficients, AME is not influenced by unobserved heterogeneity unrelated to the independent variables, making it suitable for comparisons across samples, models, groups, and time periods (Mood, 2010).

This study uses several variables to analyze the determinants of household poverty status. The dependent variable is household poverty status, measured based on the March 2022 poverty line set by BPS, with a dummy variable of 1 for poor households (expenditure < IDR 505,469 per capita per month) and 0 otherwise, following Alabshar et al. (2024) and Bella & Dartanto (2018). The key independent variable is disability status, which indicates whether the head of household has a long-term physical, intellectual, mental, or sensory impairment, coded as 1 for disabled and 0 otherwise, as used in Alabshar et al. (2024), Bella & Dartanto (2018), and Mpuure et al. (2025).

Other household head characteristics include gender (1 = female, 0 = male), which is expected to have a positive relationship with poverty status (Alabshar et al., 2024; Mdluli & Dunga, 2022; Pujiwati et al., 2024), and age (continuous), which is expected to have a negative relationship with poverty (Alabshar et al., 2024; Sugiharti & Primanthi, 2017). Educational attainment is measured as a dummy variable (1 = senior high school or higher, 0 = junior high school or lower), where higher education is expected to reduce the risk of poverty (Alabshar et al., 2024; Bella & Dartanto, 2018; Lekobane & Seleka, 2014). Employment status is also included (1 = employed, 0 = unemployed) and is expected to have a negative association with poverty (Sugiharti & Primanthi, 2017; Biyase & Zwane, 2017). Marital status is coded as 1 for married and 0 for others, where marriage is hypothesized to reduce poverty risk (Islam et al., 2017; Bella & Dartanto, 2018).

Household characteristics include residential location (1 = rural, 0 = urban), which is expected to positively correlate with poverty (Andrianarison et al., 2022; Bella & Dartanto, 2018; Mpuure et al., 2025), and household size (continuous), where a larger household size is expected to increase poverty likelihood (Alabshar et al., 2024; Andrianarison et al., 2022; Maloma & Dunga, 2023).

This study uses household poverty status as the dependent variable, determined based on the March 2022 poverty line set by BPS, where households with per capita expenditure below IDR 505,469 per month are categorized as poor (Kang, 2014; Sritutur, 2022; Nopiah, 2024). The characteristics of the household head's disability include several types: visual disabilities, which are estimated to increase the risk of poverty (Bella & Dartanto, 2018; Sritutur, 2022); communication and hearing disabilities, which are

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

also positively associated with poverty (Bella & Dartanto, 2018); as well as concentration and emotional disabilities, which tend to increase economic vulnerability (Kavanagh et al., 2015; Kang, 2014). Self-care disabilities are expected to further worsen the household's economic condition (Bella & Dartanto, 2018). The severity of the disability, categorized as severe or mild, is also assumed to influence poverty probability, with severe disabilities potentially increasing the risk significantly (Mussida & Sciulli, 2024; Poudel, 2024).

The observed characteristics of the household head include gender, with the hypothesis that female heads of households with disabilities face a higher risk of poverty compared to males (Pinilla-Roncancio, 2020; Pujiwati et al., 2024). The age of the household head, measured continuously, is estimated to have a positive association with poverty (Bella & Dartanto, 2018; Kang, 2014). Higher levels of education are expected to reduce the risk of poverty (Bella & Dartanto, 2018; Nopiah, 2024), while employment status is predicted to have a negative effect on poverty likelihood (Kang, 2014; Nopiah, 2024). Marital status is hypothesized to increase poverty risk in households with disabilities (Bella & Dartanto, 2018).

At the household level, residential location is a significant factor, with rural households estimated to be more vulnerable to poverty compared to urban households (Banks et al., 2021; Bella & Dartanto, 2018; Pinilla-Roncancio, 2015). Additionally, larger household size is assumed to increase the likelihood of poverty (Bella & Dartanto, 2018; Nopiah, 2024).

III. RESULTS AND DISCUSSION

This study includes all individuals identified as household heads as the research sample, divided into two groups: the full sample of all household heads and a sub-sample of household heads with disabilities. Using weighted data, the total number of observations for all household heads is 96,852, representing a population of 68,274,277 households. Meanwhile, the sub-sample of household heads with disabilities consists of 13,307 observations, representing a population of 7,388,709 households with disabilities.

Table 1. Population Distribution of Household Heads Based on Household Poverty Status

Household Poverty Status	Population	Percentage (%)
Non-Poor	64,422,501	94.36%
Poor	3,852,276	5.64%
Total	68,274,277	100%

Source: Processed from Susenas March 2022

Table 2. Population Distribution Based on Household Poverty Status with Household Heads with Disabilities

Household Poverty Status with Household Heads with Disabilities	Population	Percentage (%)
Non-Poor	6,949,161	94.05%
Poor	439,548	5.95%
Total	7,388,709	100%

Source: Processed from Susenas March 2022

Table 1. shows that 5.64% of all household heads are classified as poor, while the remaining 94.36% are non-poor. This figure represents the aggregate household poverty condition without distinguishing disability status. However, as shown in Table 2., among households specifically headed by persons with disabilities, the poverty rate is slightly higher at 5.95%. Although the difference seems small, it indicates greater economic vulnerability for households with disabled heads compared to those without disabilities.

This condition suggests that disability status is closely linked to household economic status. Persons with disabilities often face barriers in accessing education, employment, and public services, which can reduce productivity and household income (Hosmer & Lemeshow, 2000; Gujarati & Porter, 2009). These limitations can increase the risk of poverty. While the statistical difference is not significant, this finding highlights the importance of inclusive policies and targeted interventions for households headed by persons with disabilities in Indonesia.

The descriptive statistical analysis in this study uses weighted data to ensure that the sample accurately represents the actual population. The weighting variable is applied to reflect the broader population structure.

For the full household head sample, this section presents the distribution of all independent variables, both categorical and continuous, based on household poverty status as the dependent variable. The descriptive analysis provides an overview of the key independent variables and control variables across poor and non-poor household groups in the total sample (Gujarati & Porter, 2009).

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Table 3. Cross Tabulation of Disability Status

Main Independent Variable	Category	Household Poverty Status		Total
		Non-Poor	Poor	
Disability Status	Non-Person with Disabilities	57,473,340 (94.39%)	3,412,728 (5.61%)	60,886,068 (100%)
	Person with Disabilities	6,949,161 (94.05%)	439,548 (5.95%)	7,388,709 (100%)

Source: Processed from Susenas, March 2022.

Table 3 shows that, proportionally, the percentage of poor individuals is higher among household heads with disabilities compared to those without disabilities. This finding aligns with Cribb et al. (2022) who reported that poverty rates among people with disabilities in the UK tend to be higher than those without disabilities. According to the capability approach, this situation may be explained by the "earning handicap," which leads to capability deprivation, and the "conversion handicap," which results in functioning deprivation.

The distribution of all independent variables both categorical and continuous, based on the poverty status of households with a household head who has a disability, which serves as the dependent variable in this study. Thus, this descriptive analysis provides an overview of each main independent variable and other control variables within poor and non-poor households for the subsample of households headed by persons with disabilities.

Table 4. Cross-tabulation of Disability Types (Subsample of Household Heads with Disabilities)

Main Independent Variable	Category	Household Poverty Status	Total
		Non-Poor	Poor
Type of Disability	Visual Impairment	3,090,890 (95.25%)	154,236 (4.75%)
	Hearing or Communication (Speech) Impairment	750,241 (89.75%)	85,661 (10.25%)
	Concentration Impairment	611,377 (91.81%)	54,566 (8.19%)
	Physical Impairment (reference/benchmark)	1,927,861 (94.74%)	107,041 (5.26%)
	Emotional or Behavioral Impairment	377,741 (93.59%)	25,861 (6.41%)
	Self-Care Impairment	191,051 (94.01%)	12,183 (5.99%)

Source: Processed from Susenas, March 2022.

Table 4 shows that, in absolute terms, household heads with disabilities most commonly experience visual impairments, while the least commonly reported disability is self-care impairment. Household heads with visual impairments have the lowest poverty rate, even lower than those with physical impairments. In contrast, household heads with hearing and/or communication impairments have the highest poverty rate, exceeding that of those with physical impairments. This situation may occur because employment opportunities for individuals with visual impairments—such as blindness—are more readily available in Indonesia, particularly in the informal sector, such as working as massage therapists.

Table 5. Cross-Tabulation of Disability Severity Levels (Subsample of Household Heads with Disabilities)

Main Independent Variable	Category	Household Poverty Status	Total
		Not Poor	Poor
Disability Severity Level	Mild	5,714,614 (94.24%)	349,022 (5.76%)
	Severe	1,234,547 (93.17%)	90,526 (6.83%)

Source: Susenas March 2022 (processed data)

The table 5. shows that the poverty rate among households headed by individuals with severe disabilities is higher compared to those headed by individuals with mild disabilities. This situation may occur because people with severe disabilities face greater challenges in obtaining and maintaining employment (Carr & Namkung, 2021). This directly affects their ability to earn a living, resulting in significantly limited household income.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Table 6. Simultaneous Test Results for the Full Sample of All Household Heads

Output	Household Poverty Status
Number of Observations	96,852
Wald chi2(8)	4,394.83
Prob > chi2	0.0000
Pseudo R2	0.1201
Decision	Reject H0
Source	Stata Output, 2025 (processed data)

Source: Stata Output, 2025 (processed data)

Table 7. Simultaneous Test Results for the Subsample of Household Heads with Disabilities

Output	Household Poverty Status
Number of Observations	13,307
Wald chi2(13)	541.76
Prob > chi2	0.0000
Pseudo R2	0.1036
Decision	Reject H0

Source: Stata Output, 2025 (processed data)

Based on the outputs in Table 6 and Table 7, the prob > chi2 values in both samples are 0.0000. Using significance levels of 0.01, 0.05, or 0.1, the results indicate that prob > chi2 is smaller than the significance thresholds, leading to the decision to reject H0. This means that, at 90%, 95%, or 99% confidence levels, at least one independent variable significantly influences the dependent variable. Therefore, all independent variables in this study, across both samples, jointly affect household poverty status. This confirms that the binomial logistic regression model is appropriate for further analysis (Stata Output, 2025).

This test aims to examine the individual or partial effects of each independent variable on the dependent variable in the model. The statistical method used for this test is the Wald Test.

Table 8. Partial Test Results for the Full Sample of All Household Heads

Independent Variables	Household Poverty Status
	Coef
Disability Status	0.334
Gender	0.399
Age	-0.0235
Educational Attainment	-0.795
Employment Status	-0.144
Marital Status	0.0696
Place of Residence	0.814
Number of Household Members	0.512
Constant	-4.372

Source: Stata Output, 2025 (processed data)

Based on the Wald Test results at a 99% confidence level (margin of error = 1%), the independent variables that significantly influence the probability of household poverty are disability status, gender, age, educational attainment, place of residence, and household size. Employment status is significant at the 95% confidence level (margin of error = 5%), while marital status does not have a significant effect in the model. Therefore, the binomial logistic regression model is considered appropriate for further analysis.

$$\ln\left(\frac{P_i}{1-P_i}\right) = -4.372 + 0.334Disability_{Status} + 0.399Gender - 0.0235age - 0.795Education - 0.144employmen\_status + 0.0696Marital\_Status + 0.814Domisili + 0.512HH\_Size + u_i$$

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Table 9. Logit Estimation Results, Odds Ratio, and Average Marginal Effects (Full Sample of All Household Heads)

Dependent Variable:	(1) Logit	(2) Marginal Effects	(3) Odds Ratio
disability_status	0.334***	0.014***	1.396***
	(0.0499)	(0.0022)	(0.0697)
gender	0.399***	0.0173***	1.4902***
	(0.0932)	(0.004)	(0.139)
age	-0.0235***	-0.001***	0.9768***
	(0.0017)	(0.00007)	(0.0016)
education	-0.795***	-0.0344***	0.4514***
	(0.0364)	(0.0016)	(0.0164)
employment_status	-0.144**	-0.0062**	0.8662**
	(0.0718)	(0.0031)	(0.0622)
marital_status	0.0696	0.003	1.072
	(0.0885)	(0.0038)	(0.0949)
residence	0.814***	0.0353***	2.258***
	(0.0382)	(0.0017)	(0.0862)
household_size	0.512***	0.0222***	1.6689***
	(0.0092)	(0.0004)	(0.0154)
_cons	-4.372***		0.013***
	(0.143)		(0.0018)

N = 96,852
Robust standard errors in parentheses
p < 0.10, ** p < 0.05, *** p < 0.01
Log pseudolikelihood = -16,637.715
Wald $chi^2(8)$ = 4,394.83. Prob > chi^2 = 0.0000. Pseudo R^2 = 0.1201.
Source: Stata Output, 2025 (processed data)

The results in Table 9. show that disability significantly increases the likelihood of household poverty. Households with a disabled head are 1.396 times more likely to be poor compared to those without disabilities. The average marginal effect indicates that disability increases the probability of household poverty by 1.4%. These findings are consistent with Bella & Dartanto (2018) and Mpuure et al. (2025), who emphasize the role of disability in increasing household deprivation. Sen (2009) supports this through the concepts of the "earning handicap" and "conversion handicap," where people with disabilities face both income limitations and additional costs that further restrict their ability to achieve well-being, increasing their economic vulnerability and social inequality.

Household head characteristics, such as gender, age, education, and employment status, significantly influence poverty status. Female-headed households are more likely to experience poverty, confirming previous studies by Bella & Dartanto (2018) and Mdluli & Dunga (2022). This aligns with Todaro & Smith (2020), who argue that women generally have lower income potential and fewer resources. Age negatively correlates with poverty, meaning older household heads are less likely to be poor, in line with Cherif et al. (2024), Maloma & Dunga (2023), and Sugiharti & Primanthi (2017). As age increases, so does work experience and asset accumulation (Borjas, 2016). Higher educational attainment significantly reduces poverty risk by 3.44%, which supports findings from Bilenkisi et al. (2015), Islam et al. (2017), and Lekobene & Seleka (2014), aligning with human capital theory that higher education provides access to better-paying jobs. Employment status also reduces the likelihood of poverty, reinforcing studies by Maloma (2016) and Sugiharti & Primanthi (2017) that working household heads have greater financial capacity to meet basic needs. However, marital status does not have a statistically significant effect on household poverty, similar to Cho & Kim's (2017) findings.

Household characteristics such as place of residence and household size also significantly influence poverty status. Living in rural areas increases the likelihood of poverty, supporting Andrianarison et al. (2022), who found that rural households face limited job opportunities and poor access to public facilities. Additionally, a larger household size increases poverty risk by 2.22%, confirming previous research by Andrianarison et al. (2022), Maloma & Dunga (2023), and Alabshar et al. (2024), which highlight the burden of more dependents amid limited income.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Overall, the most vulnerable households are those headed by persons with disabilities, women, younger individuals, those with low education, the unemployed, rural residents, and large family sizes—consistent with the poverty group characteristics described by Todaro & Smith (2020).

Table 10. Logit Estimation Results, Odds Ratio, and Average Marginal Effect (Subsample of Household Heads with Disabilities)

Independent Variables	(1) Logit	(2) Marginal Effects	(3) Odds Ratio
poverty_status			
visual	-0.231**	-0.0094**	0.793**
	(0.112)	(0.0045)	(0.089)
hearing_communication	0.304**	0.0123**	1.356**
	(0.136)	(0.0055)	(0.1841)
concentration	-0.025	-0.001	0.975
	(0.169)	(0.0068)	(0.1644)
emotional_behaviour	0.013	0.0005	1.013
	(0.206)	(0.0083)	(0.2089)
personal_care	0.526**	0.0212**	1.692**
	(0.225)	(0.0091)	(0.381)
severity	0.189*	0.0076*	1.2079*
	(0.108)	(0.0044)	(0.131)
gender	0.423**	0.0171**	1.526**
	(0.195)	(0.0079)	(0.2979)
age	-0.002	-0.00008	0.9978
	(0.005)	(0.0002)	(0.0049)
education	-0.727***	-0.0294***	0.4835***
	(0.125)	(0.0051)	(0.0605)
employment_status	-0.159	-0.0064	0.8527
	(0.124)	(0.0049)	(0.1054)
marital_status	0.361*	0.0146*	1.435*
	(0.195)	(0.0079)	(0.279)
residence	0.848***	0.0342***	2.335***
	(0.107)	(0.0044)	(0.2493)
household_size	0.429***	0.0173***	1.535***
	(0.023)	(0.001)	(0.035)
_cons	-5.147***		0.0058***
	(0.4431)		(0.0025)

Robust standard errors in parentheses
*p < 0.10, ** p < 0.05, *** p < 0.01*
Log pseudolikelihood = -2186.786
Wald chi2(13) = 541.76, Prob > chi2 = 0.0000
Pseudo R^2 = 0.1036
Source: Stata Output, 2025 (processed data)

Before interpreting the effects of disability types, it is important to note that physical disabilities were excluded from the estimation model and used as the reference category to avoid multicollinearity and to allow for clearer comparisons across disability types.

Based on the results in Table 10., the types of disabilities that significantly influence household poverty among heads of households with disabilities are hearing and/or communication impairments, personal care difficulties, and visual impairments. Concentration impairments and emotional or behavioral disabilities were found to have no statistically significant effect. The discussion focuses on the significant variables as they are the key highlights.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

Hearing and/or communication impairments have a positive and significant effect on household poverty. The average marginal effect shows that this type of disability increases the likelihood of poverty by 1.23%, while the odds ratio indicates that households headed by individuals with hearing or communication impairments are 1.356 times more likely to be poor compared to those with physical disabilities. This result aligns with Bella & Dartanto (2018), who found that hearing or communication impairments significantly increase poverty risk among disabled households. Communication barriers often limit job opportunities since many occupations require effective interaction. According to Sen's capability approach, this situation reflects an "earning handicap" caused by "capability deprivation" (Sen, 2009), where communication limitations severely restrict access to employment and social inclusion.

Individuals with hearing or communication disabilities face distinct challenges in the labor market, especially where there is limited availability of sign language interpreters or inclusive communication systems. These barriers often push them toward informal sectors, where individual work such as tailoring or crafts can minimize communication hurdles. In contrast, individuals with physical disabilities often benefit from assistive devices like wheelchairs, which enable physical mobility and allow them to access more formal employment opportunities, especially as many workplaces now accommodate physical accessibility. While physical barriers can be addressed with environmental modifications, communication barriers are more complex and require systemic social support, making individuals with hearing or communication impairments more economically vulnerable.

Personal care difficulties also significantly increase poverty risk. The average marginal effect shows that personal care impairments raise the probability of poverty by 2.12%, and the odds ratio suggests these households are 1.692 times more likely to be poor than those headed by individuals with physical disabilities. This finding is consistent with Bella & Dartanto (2018) and Smith (2007), who highlighted that individuals requiring frequent personal assistance are less likely to work and more prone to unemployment. Personal care difficulties often involve dependence on caregivers for basic activities like bathing, dressing, and eating. This dependence reduces the individual's capacity to work and diverts household resources toward caregiving, further worsening their economic conditions.

Interestingly, visual impairments have a statistically significant negative effect on poverty status. Households headed by individuals with visual impairments are 0.94% less likely to be poor compared to those headed by individuals with physical disabilities. This result is supported by Bella & Dartanto (2018). Cross-tabulation analysis from Tables 9 and 10 reveals that most heads of households with visual impairments in the dataset experience mild or manageable impairments, often corrected with glasses or medical procedures like LASIK. Additionally, 85.81% of heads of households with visual impairments are employed, compared to only 59.41% among those with physical disabilities. This indicates that heads of households with visual impairments tend to have better employment opportunities, which helps explain their lower poverty rates.

In summary, households headed by individuals with hearing/communication impairments and personal care difficulties are more likely to experience poverty, while those headed by individuals with visual impairments tend to have better economic outcomes. These findings highlight the nuanced relationship between disability types and poverty risks and emphasize the importance of targeted policies to address specific barriers faced by different disability groups (Bella & Dartanto, 2018; Smith, 2007; Sen, 2009).

The results in Table 10 show that the severity of disability significantly affects the poverty status of households headed by persons with disabilities. The average marginal effect (AME) of 0.0076 indicates that severe disabilities increase the probability of poverty by 0.76%. Additionally, the odds ratio of 1.2079 suggests that households headed by individuals with severe disabilities are 1.21 times more likely to be poor compared to those headed by individuals with mild disabilities. These findings align with studies by Mussida & Sciulli (2024) and Poudel (2024), which confirmed that disability severity significantly influences poverty. Kang (2014) and Pinilla-Roncancio et al. (2020) also emphasized that poverty rates are generally higher among those with severe disabilities. This study further reveals that the poverty rate for households headed by persons with severe disabilities is 6.83%, compared to 5.76% for those with mild disabilities.

Carr & Namkung (2021) argue that individuals with severe disabilities face greater barriers to securing and maintaining employment, which limits their ability to earn income and increases household vulnerability to poverty. From the perspective of the capability approach, severe disabilities lead to "earning handicaps"—reduced ability to generate income—and "conversion handicaps"—additional costs required for care, treatment, and assistive devices. Poor households are often unable to meet these extra costs, making them more susceptible to poverty.

In addition, household head characteristics such as gender, educational attainment, and marital status significantly affect the poverty status of households headed by persons with disabilities. However, age and employment status were not statistically significant. Female-headed households are 1.53 times more likely to experience poverty than male-headed ones (Pujiwati et al., 2024). This is partly due to gender-based discrimination and the double burden faced by women with disabilities, who must balance domestic responsibilities with the need to earn a living. Their earning opportunities are further limited by disability-related constraints, increasing their vulnerability to poverty.

Educational attainment plays a crucial role in reducing poverty risk. The AME of -0.0294 indicates that higher education reduces the probability of household poverty by 2.93%. This supports previous studies by Bella & Dartanto (2018), Kang (2014), Lamichhane et al. (2014), and Poudel (2024), which consistently show that low education among

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

household heads with disabilities increases poverty risk. According to human capital theory, education expands employment opportunities and income potential (Bella & Dartanto, 2018), but disabilities often impede educational attainment and limit access to decent jobs (Queirós, 2012). Consequently, heads of households with disabilities who have low education levels typically rely on the informal sector, which offers low and unstable income and lacks social protection.

Marital status also influences poverty likelihood. Married household heads with disabilities are 1.435 times more likely to experience poverty, as they often bear a greater economic burden to support family members. Bella & Dartanto (2018) also found that married heads of households with disabilities tend to face a higher poverty risk due to this double burden.

Interestingly, employment status was not a significant determinant of poverty among households headed by persons with disabilities in this study. This finding contrasts with Kang (2014) and Nopiah (2024), who reported a significant relationship between employment and poverty. The discrepancy may be due to the large number of heads of households with disabilities working in the informal sector, where poverty rates remain high despite employment (Duc & Tin, 2022). As Mont (2014) notes, persons with disabilities often face limited opportunities to enter the formal labor market. Therefore, whether or not they are employed does not significantly change their poverty status when the work is primarily low-income and unstable.

Based on the results in Table 10, household characteristics such as place of residence and the number of household members significantly influence the poverty status of households headed by persons with disabilities. Households headed by persons with disabilities living in rural areas are 2.335 times more likely to experience poverty compared to those in urban areas. This finding aligns with Bella & Dartanto (2018), who found a positive correlation between rural residence and poverty among households with disabled heads, and supports the capability approach, which emphasizes the role of environmental factors in shaping the welfare of persons with disabilities (Saleeby, 2007). Living in rural areas often limits access to education, employment, and disability-friendly infrastructure (ILO, 2011), increasing the risk of poverty.

Furthermore, the greater the number of household members, the higher the likelihood of falling into poverty. Each additional household member increases the probability of poverty by 1.73%. This result is also supported by Bella & Dartanto (2018), who highlighted the heavier economic burden faced by disabled-headed households with more members. Persons with disabilities who head households often face limited access to decent work and stable income (Saran et al., 2019). Within the framework of the capability approach, they experience both “the earning handicap” due to insufficient income and “the conversion handicap” due to additional costs such as medical care and assistive devices. When their income is not enough to cover these extra expenses, the household’s vulnerability to poverty increases significantly.

IV. CONCLUSION

This study demonstrates that disability significantly influences household poverty status, even after controlling for factors such as gender, age, education, employment status, marital status, place of residence, and household size. Households headed by persons with disabilities are more likely to experience poverty compared to non-disabled-headed households. Significant factors include the type of disability (visual, hearing/communication, and self-care difficulties), severity of disability, being female, low education, married status, rural residence, and larger household size. These characteristics should guide the formulation of targeted poverty reduction policies.

The study implies that poverty alleviation efforts must address the specific needs of each type of disability. The government is encouraged to provide vocational training tailored to the skills of persons with disabilities, such as sewing, handicrafts, or massage therapy, while promoting inclusive employment through fiscal incentives for the private sector (ILO, 2011; Saleeby, 2007). Special attention should also be given to female-headed households with disabilities by improving access to education, job training, social protection, and economic support (Saran et al., 2019).

Geographical disparities between rural and urban areas must also be addressed by ensuring equitable access to basic services and developing disability-friendly infrastructure. Establishing inclusive village models using village funds can be an effective strategy. Targeted social protection for large households headed by persons with disabilities is also necessary. The government should provide assistance such as subsidized assistive devices, accessible healthcare, and inclusive skill training programs to reduce the "earning handicap" and "conversion handicap" faced by persons with disabilities.

This study has limitations, including the exclusion of the number of disabled individuals within a household as a potential internal factor affecting poverty. Additionally, poverty measurement is limited to the national poverty line based on per capita expenditure. Future research is recommended to adopt a more comprehensive approach, such as the Multidimensional Poverty Index (MPI), to better capture the complexities of poverty experienced by households headed by persons with disabilities.

REFERENCES

[1]. Alabshar, M., Salim, R., Bloch, H. & Dong, Y., 2024. Disability and Extreme Poverty: Evidence from Cross-country Analysis. *International Journal of Development Issues*, 23(1), pp. 34-51.
[2]. Andrianarison, H. A., Nguimkeu, P. & Sarr, L. R., 2022. Household Size and Poverty: Evidence from Sub-Saharan Africa. *Review of Development Economics*, 26(4), pp. 2412-2434.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jun1635

[3]. Banks, L. M., Kuper, H. & Polack, S., 2021. Poverty and Disability in Low- and Middle-Income Countries: A Systematic Review. *PLOS One*, 16(12), pp. 1-19.
[4]. Bella, E. & Dartanto, T., 2018. Disability and Household Poverty in Indonesia: Evidence from Susenas 2012. *Economics Development Analysis Journal*, 7(4), pp. 456-469.
[5]. Berie, E. M., Kebede, F. G. & Fenta, H. M., 2024. The Socio-Economic Status of Persons with Disabilities in Ethiopia. *Journal of Disability Policy Studies*, 34(1), pp. 14-28.
[6]. Bilenkisi, M. A., Elhorst, J. P. & Nijkamp, P., 2015. Education and Regional Poverty Reduction: Evidence from Indonesia. *Asian Economic Journal*, 29(2), pp. 155-176.
[7]. Borjas, G. J., 2016. *Labor Economics*. 7th ed. New York: McGraw-Hill Education.
[8]. Carr, S. & Namkung, E. H., 2021. Employment and Poverty Risks among Persons with Severe Disabilities. *Journal of Disability Policy Studies*, 32(1), pp. 39-49.
[9]. Cherif, E., Soualmia, M. & Yahia, K. B., 2024. Age, Employment and Poverty Dynamics in North Africa. *African Journal of Economic Policy*, 31(1), pp. 21-38.
[10]. Cho, Y. & Kim, S., 2017. Family Structure and Poverty among Households with Disabilities. *Journal of Social Policy Studies*, 9(2), pp. 77-89.
[11]. Cribb, J., Norris Keiller, A. & Waters, T., 2022. Living Standards, Poverty and Inequality in the UK: 2022. *Institute for Fiscal Studies Report*.
[12]. Duc, N. H. & Tin, T. N., 2022. Informal Employment and Poverty in Vietnam: Evidence from Household Data. *Journal of Asian Economics*, 80, pp. 1-14.
[13]. Gujarati, D. N. & Porter, D. C., 2009. *Basic Econometrics*. 5th ed. New York: McGraw-Hill Education.
[14]. Hosmer, D. W. & Lemeshow, S., 2000. *Applied Logistic Regression*. 2nd ed. New York: Wiley.
[15]. ILO, 2011. *Disability in the Workplace: Company Practices*. Geneva: International Labour Organization.
[16]. Islam, A., Maitra, P. & Smyth, R., 2017. The Role of Education in Reducing Poverty in Bangladesh. *Journal of Development Studies*, 53(1), pp. 160-176.
[17]. Kang, H. J., 2014. Disability and Poverty: Evidence from South Korea. *Social Science Research*, 46, pp. 118-132.
[18]. Kavanagh, A. M., Krnjacki, L., Aitken, Z., LaMontagne, A. D., Beer, A., Baker, E. & Bentley, R., 2015. Intersections between Disability, Type of Impairment, Gender and Socioeconomic Disadvantage. *Social Science & Medicine*, 135, pp. 34-42.
[19]. Lamichhane, K., Yamamoto, Y. & Sawada, Y., 2014. Returns to Education for People with Disabilities: Evidence from Indonesia. *Oxford Development Studies*, 42(3), pp. 409-426.
[20]. Lekobane, K. R. & Seleka, T. B., 2014. Determinants of Household Welfare and Poverty in Botswana. *Botswana Journal of Economics*, 12(1), pp. 45-60.
[21]. Maloma, D. & Dunga, S. H., 2023. Age, Employment and Poverty in Eswatini: A Multidimensional Analysis. *Journal of Social and Economic Development*, 25(2), pp. 306-323.
[22]. Maloma, D., 2016. Employment and Poverty: The Experience of Households in South Africa. *Journal of Economic and Financial Sciences*, 9(1), pp. 245-263.
[23]. Meyer, B. D. & Mok, W. K. C., 2019. Disability, Earnings, Income and Consumption. *Journal of Public Economics*, 171, pp. 51-69.
[24]. Mont, D., 2014. Disability and Poverty: A Survey of the Literature. *World Bank Social Protection Discussion Paper*, 0805.
[25]. Mood, C., 2010. Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do about It. *European Sociological Review*, 26(1), pp. 67-82.
[26]. Mpuure, M., Kyeremeh, E. & Aikins, E. D., 2025. Disability and Wellbeing Deprivation in Ghana: Evidence from National Survey Data. *Journal of Disability Policy Studies*, 35(1), pp. 12-24.
[27]. Mussida, C. & Sciulli, D., 2024. Disability and Poverty in Europe: New Evidence from EU-SILC Data. *Social Indicators Research*, 170(3), pp. 1159-1181.
[28]. Nopiah, M., 2024. The Socioeconomic Vulnerability of Persons with Disabilities in Bengkulu, Indonesia. *Journal of Social Policy Studies*, 11(1), pp. 43-56.
[29]. Pinilla-Roncancio, M., 2015. The Impact of Disability on Employment and Income: The Case of Peru. *World Development*, 70, pp. 115-128.
[30]. Pinilla-Roncancio, M., Peckham, E., Strain, L., Hurst, R. & Law, J., 2020. Disability and Multidimensional Poverty in Low- and Middle-Income Countries: A Review. *Disability and Health Journal*, 13(3), pp. 1-10.
[31]. Poudel, M. P., 2024. Determinants of Wellbeing for Persons with Disabilities in Nepal: Evidence from a National Survey. *Asia Pacific Disability Rehabilitation Journal*, 35(2), pp. 120-135.
[32]. Pujiwati, N., Oktaviani, L. & Rachmawati, E., 2024. Female-Headed Households with Disabilities and Poverty Risk in Indonesia. *Journal of Gender and Social Inclusion*, 6(1), pp. 25-39.
[33]. Queirós, F., 2012. Disability, Education and the Labour Market: Evidence from Portugal. *Portuguese Economic Journal*, 11(2), pp. 71-90.
[34]. Saran, A., White, H. & Kuper, H., 2019. Evidence Gap Map of Interventions to Improve Economic Self-Sufficiency for People with Disabilities. *Campbell Systematic Reviews*, 15(1), pp. 1-35.
[35]. Sen, A., 2009. *The Idea of Justice*. Cambridge: Harvard University Press.
[36]. Smith, D. L., 2007. Disability, Employment and Poverty: The Need for Holistic Policy Approaches. *Rehabilitation Counseling Bulletin*, 50(4), pp. 194-203.
[37]. Todaro, M. P. & Smith, S. C., 2020. *Economic Development*. 13th ed. Boston: Pearson.