Young Workers with Disabilities and the Threat of Skill Traps Entering Job Opportunities

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Abstract
More than one billion people or 15 percent of the world's population are people with disabilities. Participation of people with disabilities in the labor force is important to prevent a decline in overall labor force participation rates in the future. The threat of a "skill trap" befalls them, especially in the era of digitalization, where access to training is limited. With the higher cost of living, workforce accessibility for people with disabilities has become essential. The research aims to identify factors that influence the employment opportunities of young workers with disabilities, including marital status, education, gender, employment sector, number of household members, area of residence, and skills. A quantitative approach with a cross-sectional research design was used to analyze secondary data from the 2022 National Labor Force Survey. Data analysis used binary logistic regression with the dependent variable being employment status, and independent variables covering the personal and family characteristics of the respondents. The variables include gender, age, education level, family type, parents' monthly income, parents' education and employment, employment sector, number of household members, and area of residence. Research shows that marital status, education level, gender, and employment sector have a significant positive influence on the employment opportunities of young workers with disabilities. However, the number of household members and area of residence have a negative influence on employment opportunities. Improving the skills of people with disabilities has a positive impact, emphasizing the importance of skills development in increasing their accessibility in the labor market.

Keywords: Skill Trap, Disability, Young Workers, Employment, Labor Market

Introduction

Background
One of the fundamental problems in the employment aspect in Indonesia is unemployment. This happens because of the lack of educated and trained workers due to low levels of education. Therefore, workers must receive training through education and work experience in order to be able to penetrate the job market because they will become better workers in terms of skills and experience at work (1). Likewise, people with disabilities also have the same rights as workers. As part of Indonesian citizens, it is appropriate for people with disabilities to receive special treatment (2). This special treatment is not a form of treatment that provides excessive assistance to people with disabilities, but as an effort to protect against various acts of vulnerability to discrimination by society and protection from violations of human rights (3).

In the field of employment, people with disabilities should enjoy equal opportunities and treatment related to access, maintaining and improving their careers in the world of work in accordance with the individual's abilities. So that healthy competition is created in the scope of work between people with disabilities and non-disabled people. However, it turns out that the absence of accurate data on the exact number of people with disabilities is also an obstacle to collecting data on the exact number of people with disabilities who can be allocated to work. However, based on data from a survey conducted by BPS, namely the 2020 National Labor Force Survey, it was recorded that for all of Indonesia it was 8.8% with a total of 17,952,509 people with disabilities in three categories (no, mild/moderate, severe) (4). Another problem that arises is the large digital economic potential that exists in Indonesia. So the government has a policy strategy called "Making
Indonesia 4.0” as one of the government's efforts to encourage digital economic growth and it is hoped that technological developments can increase employment opportunities by around 10 million new jobs (5). The development of online/application-based technology and innovation brings a breath of fresh air to business because it can increase productivity, efficiency and new job opportunities. However, this has not been tested empirically through scientific studies (6).

Expectations of technological developments have an impact on the emergence of new types of work that require certain skills. The emergence of new types of work is expected to give rise to new types of training and be able to improve workers' skills (7). So in future projections, the level of trained and educated workers will increase. On the other hand, the number of unskilled and uneducated workers who do repetitive work will decrease (8). Contrary to the hope of upskilling, there are concerns that young workers, especially those with disabilities, will experience deskilling. Degradation of the quality of work and employee wages can be classified as deskilling (9). This is what is thought to be happening to the workforce in Indonesia, namely the degradation of workers in the capitalist production relations pattern in the digital era. In general, deskilling is understood as a process of reducing workers' skills through a division of labor mechanism, workers only doing simple work and the use of new technology with the aim of increasing management control that does not pay attention to the process (8).

With the conditions explained above, it is necessary to conduct research and studies related to workforce disabilities. This research is also in accordance with the big topic of this research scheme, namely the development of a social system that encourages the increase, distribution and creation of creative human resources to face sustainable development (10). So this article aims to describe the influence of marital status on the employment opportunities of young workers with disabilities, describe the influence of education on the employment opportunities of young workers with disabilities, describe the influence of gender on the employment opportunities of young workers with disabilities, describe the influence of the employment sector on the employment opportunities of young workers with disabilities, describe the influence of the number household members on the employment opportunities of young workers with disabilities, describing the influence of the area of residence on the employment opportunities of young people with disabilities, and describing the influence of skills on the employment opportunities of young workers with disabilities.

**Literature Review**

**Labor Theory**

The workforce includes the working age population. Labor is every person who is able to do work to produce goods or services either to meet their own needs or for the community. According to Article 1 number 3 of Law Number 13 of 2003 (11) concerning Employment, workers are "Any person who works by receiving wages or other forms of compensation". In connection with poaching or labor law, it is not people who work alone but people who work for other parties, because the statement is too broad, restrictions are made. Labor law is part of the regulations that regulate all basic things in terms of regulating work relations between workers and companies or employers in all forms of work relations. In short, labor can be interpreted as part of the population, in this case the population of working age (12).

**Definition of Persons with Disabilities**

According to the KBBI, someone who experiences physical limitations or has a disability, which means disability or disability. The provisions in the Human Rights Law state that people with disabilities are a group who have very vulnerable limitations but have the right to obtain the same rights without discrimination, and there must be special protection for their limitations (10).

**Deskilling Concept and Skill Trap**

The beginning of the deskilling phenomenon was seen in inter-country migrant workers. Even though they have a fairly good education, they find it difficult to get jobs that match their educational standards in the country of migration destination (13,14). The status, title and position they have in their country of origin do not really affect the type of job they get in their destination country. Deskilling basically occurs because of the segmentation of the types of jobs available in the destination country, and not because of their educational status. This results in a high educational status not guaranteeing the size of the salary or job
position they get as migrant workers (7).

Deskilling can be explained as a process of weakening the position of workers through several stages, including: making work easier to do, limiting the need for skilled labor by simplifying work, reducing the level of work, and replacing training with technology that controls worker behavior (8). In this context, the concept of skill trap is also used. Skill traps occur when workers have limited skills due to working in low-skilled jobs, there is no incentive to pursue further education, and there is a lack of training that improves the worker's qualifications (15). Skill traps are also associated with jobs that have low wages and little opportunity for workers to improve their qualifications as workers (16). Countries with limited capabilities in providing education and training produce many unskilled workers, while countries with good capabilities in providing education and training produce many skilled workers (17).

**Materials And Methods**

**Research Methods**

This research uses a quantitative approach with a cross sectional research design. Participants in this research were school graduates with an age range of 18 to 25 years. The dependent variable of this research is employment. The variable was measured as “Yes”, i.e. engaged in work, which refers to working in a competitive job/self-employment/family business, either full-time or part-time; and “No”, that is, not engaged in work, which refers to working in a supportive/sheltered employment environment or being unemployed (18). For this reason, participants were asked to respond to the description of the workplace listed in the answer choices that were read to them. Competitive employment is described as employment in a competitive, integrated environment, where the majority of employees do not have disabilities, whereas supported/protected employment environments refer to the employment of young adults in employment settings/environments that provide covered supervision and support services that include employment in employment programs in communities, child care centers, or sheltered workshops. The independent variables are the respondents' personal characteristics (gender, age, and education level), their family characteristics (family type, parents' monthly income, parents' education and employment).

**Data and Measurement**

The data used in this research is secondary data sourced from survey results from the Central Statistics Agency. In this research, the data used is the 2022 National Labor Force Survey. Based on this, this research will use the appropriate analysis method, namely the logistic regression analysis model (19). The procedure is almost the same as multiple linear regression, except that the response variable is binomial (19). Thus, the logistic regression analysis used in this research is a binary logistic regression model.

**Research Models**

A binary logit regression analysis model with 2 categories was used to analyze the 2022 National Labor Force Survey data with the following details:

\[ \text{Yit} = \beta_0 + \beta_1 \text{Dit} + \beta_2 \text{Regit} + \beta_3 \text{Exit} + \epsilon_i \]

Where:

- P(Y) 2022 : Employment Status
- P(Y=0) : Not involved in work
- P(Y=1) : Involved in work
- \( \beta_i \) (i=1,...,12) : Estimated parameters
- \( \epsilon_i \) (i=1,...,4) : Error/residue
- Dit : Respondent characteristic variables
- Regit : Regional variable
- Exit : Family characteristic variables

After the model and hypothesis in this research are formed, they will then be classified according to the model that has been determined using Logistic Regression and analyzed using Stata 15.

**Result And Discussion**

**Descriptive Analysis**
The statistical results show that as many as 27 percent of young workers with disabilities have received employment opportunities. This figure illustrates the small number of people with disabilities who are employed. This can be caused by limiting quotas for workers with disabilities in certain companies. Apart from that, there are gaps in the rights of workers with disabilities, companies that employ people with disabilities still do not fully pay attention to internal and external factors in the recruitment process, and difficulties experienced in pursuing formal or informal education to support entry into the world of work are thought to be the reasons. Limited absorption of workers with disabilities (20). Furthermore, young workers with disabilities who are married are only around 10.8 percent. This number indicates that the majority of young disabled workers are still not married. In general, young workers will complete their education first after deciding to get married, including people with disabilities. Furthermore, the education level that dominates young workers with disabilities is shown at the high school level, namely 20 percent. This number is then followed by junior high school, elementary school, vocational school, university and finally diploma levels. The lack of supporting facilities in public spaces often becomes an obstacle for people with disabilities to continue their education. Meanwhile, the number of young male workers with disabilities reached 50.7 percent. This proves that gender stereotypes between men and women are still attached. Men will always feel they have greater responsibility in economic activities than women. Therefore, men will try to get a job even with the physical limitations they experience. If we look at the employment sector, only 9.7 percent of disabled young workers work in the formal sector. According to (21) the majority of people with disabilities are employed in the informal sector such as motorcycle taxi drivers, street vendors and entrepreneurs assisted by temporary/family/unpaid workers. Meanwhile, young workers with disabilities have an average of 4 family members living together. Furthermore, the majority of young workers with disabilities live in rural areas. Statistical results show that only 44.3 percent of people with disabilities live in urban areas. This is due to job competition in rural areas which is not too high, making it possible for people with disabilities to enter the world of work. Meanwhile, young workers with disabilities who have skills are only around 9.7 percent. The low skills possessed by people with disabilities will be an obstacle in finding decent work. In this regard, it is necessary to improve skills to support the ability of people with disabilities to compete with non-disabled people.

<table>
<thead>
<tr>
<th>Job Opportunities</th>
<th>Odds Ratio</th>
<th>Coeff</th>
<th>T-value</th>
<th>p-value</th>
<th>[95% Conf Interval]</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>1.875</td>
<td>.628</td>
<td>3.76</td>
<td>0</td>
<td>1.351 - 2.601</td>
<td>***</td>
</tr>
<tr>
<td>Elementary_school</td>
<td>1.682</td>
<td>.52</td>
<td>3.07</td>
<td>.002</td>
<td>1.206 - 2.345</td>
<td>***</td>
</tr>
<tr>
<td>Junior_high_school</td>
<td>1.641</td>
<td>.495</td>
<td>3.06</td>
<td>.002</td>
<td>1.195 - 2.253</td>
<td>***</td>
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<tr>
<td>Senior_high_school</td>
<td>2.414</td>
<td>.881</td>
<td>5.61</td>
<td>0</td>
<td>1.774 - 3.286</td>
<td>***</td>
</tr>
<tr>
<td>Vocational_high_school</td>
<td>2.8</td>
<td>.875</td>
<td>3.93</td>
<td>0</td>
<td>1.551 - 3.713</td>
<td>***</td>
</tr>
<tr>
<td>Diploma</td>
<td>5.119</td>
<td>1.648</td>
<td>3.56</td>
<td>0</td>
<td>2.1 - 12.686</td>
<td>***</td>
</tr>
<tr>
<td>University</td>
<td>2.469</td>
<td>.904</td>
<td>2.30</td>
<td>.022</td>
<td>1.141 - 5.34</td>
<td>**</td>
</tr>
<tr>
<td>Man</td>
<td>1.802</td>
<td>.589</td>
<td>5.16</td>
<td>0</td>
<td>1.441 - 2.254</td>
<td>***</td>
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<tr>
<td>Formal_sector</td>
<td>81.015</td>
<td>4.395</td>
<td>13.76</td>
<td>0</td>
<td>43.333 - 151.474</td>
<td>***</td>
</tr>
<tr>
<td>Household_members</td>
<td>1.911</td>
<td>-.094</td>
<td>-2.60</td>
<td>.009</td>
<td>.849 - .977</td>
<td>***</td>
</tr>
<tr>
<td>Urban</td>
<td>.43</td>
<td>-.845</td>
<td>-7.03</td>
<td>0</td>
<td>.339 - .544</td>
<td>***</td>
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<tr>
<td>Skill</td>
<td>1.471</td>
<td>.386</td>
<td>1.94</td>
<td>.052</td>
<td>.997 - 2.17</td>
<td>*</td>
</tr>
<tr>
<td>Constant</td>
<td>.202</td>
<td>-1</td>
<td>-7.95</td>
<td>0</td>
<td>.137 - .3</td>
<td>***</td>
</tr>
</tbody>
</table>

| Mean dependent var      | 0.270      | 0.248 | 0.248   | 2448.000 | 2448.000 | 0.444 |
| Mean dependent var      | 0.270      | 0.248 | 0.248   | 2448.000 | 2448.000 | 0.444 |
| Chi-squared             | 707.666    | .000  | 0.000   | 9.737    | 9.737    | 0.000 |
| Akaike crit. (AIC)      | 2176.036   | 2251.475 | 2251.475 | 2251.475 | 2251.475 | 2251.475 |

Figure 1. Regression Result

The Influence of Marital Status on the Employment Opportunities of Young Workers with Disabilities

Based on the logistic regression model, it was found that marital status had a significant positive influence at a significance level of 0.1. The odds ratio value from this test is 1.875. So it can be concluded that if young workers with disabilities are married, their chances of getting employment opportunities are 1.875 greater than those who are not married. These results are in accordance with research conducted by (22) that someone who is married will increase the probability of people with disabilities being employed. This is due to the increasing economic needs of people with disabilities who have families, so they have to enter the world of work in order to obtain income that supports their economy. After marriage, household needs will
increase. Both men and women are likely to accept any job even with low wages. This situation becomes major if the disabled person takes responsibility as head of the household, which means having to support the rest of the family economically, not just for himself. In fact, people with disabilities require greater costs than other individuals. Apart from supporting the family's economy, the decision of young workers with disabilities to enter the world of work is because they are faced with meeting their needs in terms of care and recovery.

The Influence of Education on the Employment Opportunities of Young Workers with Disabilities
Based on testing the regression model, it can be seen that the education variable has a significant positive effect on job opportunities. These results conclude that the higher the educational attainment of young workers with disabilities, the greater their chances of getting employment opportunities. In this study, people with disabilities who have a diploma education have a greater chance of entering the world of work, with an odds ratio of 5.19 times compared to other levels of education. Then the second opportunity is shown to people with disabilities with a university education level. This is because Diploma graduates often have specific skills. With these skills, Diploma graduates will find it easier to find work because there are special job demands that require prospective workers to have certain skill qualifications. These results are supported by research (23) which states that increasing education can increase the opportunities for people with disabilities to enter the labor market. Improving education by disabled workers can prove that they are able to compete in the world of work. People with disabilities who have a low level of education can be an obstacle to getting more decent work, which can result in low wages (21).

The Influence of Gender on the Employment Opportunities of Young Workers with Disabilities
Based on testing the model, the gender variable has a positive and significant influence on the employment opportunities of people with disabilities. The odd ratio value shown is 1.807. From these results it can be concluded that male young workers with disabilities have 1.8 times greater odds than female workers. The tendency for men with disabilities to get job opportunities is related to gender stereotypes experienced by men and women. In general, male workers tend to be more flexible than female workers. Changing status from before marriage to after marriage will improve the quality of work because they feel they have greater responsibility to support family income (24). The results of this research are supported by (23) who states that men with disabilities have a greater chance of working in the formal and informal sectors. This is caused by the decision of women's participation in the workforce in Indonesia which is driven by family factors and their responsibilities for household activities. Based on Central Statistics Agency data, the male labor force participation rate is still far above the female labor force. This is enough to prove that men with disabilities have a greater chance of getting employment opportunities.

The Influence of the Employment Sector on the Employment Opportunities of Young Workers with Disabilities
Based on testing this model, the employment sector has a significant influence on the employment opportunities of young workers with disabilities. The odds ratio value shown in the model is 81.015. From these results, it can be interpreted that if young workers with disabilities work in the formal sector, their chances of getting employment opportunities in the future are 81.01 times greater than those who work in the informal sector. Work experience in the formal sector can be an asset for someone to find another job in the future. The formal sector will provide high wages for workers in return for the productivity that has been spent in their work operations. The high wage levels that occur among young workers with disabilities can encourage motivation to increase the participation of young workers with disabilities in the labor market. This can help meet economic needs and improve the quality of life. Meanwhile, Indonesia itself has a protection and empowerment program for disabled workers in the formal employment sector. In Law Number 8 of 2016 article 52 requires both central and regional governments to guarantee equal access for people with disabilities to obtain employment benefits and social security. Furthermore, article 53 paragraph 1 states that State-Owned Enterprises and Regional-Owned Enterprises are required to employ at least 2 percent of workers with disabilities from the total number of employees. This is an effort to avoid discrimination against people with disabilities in finding work. Furthermore, research by (21) states that there is a positive relationship between the formal sector and employment opportunities for people with disabilities. However, the research revealed that only 17 percent of people with disabilities were able to
work in the formal sector. This indicates that access to the labor market is often limited for people with disabilities, resulting in limited access to entering the world of work.

**The Influence of the Number of Household Members on the Job Opportunities of Young Workers with Disabilities**

The estimation results of the regression model show a negative relationship between the number of household members and the employment opportunities of young workers with disabilities. The odd ratio value obtained was 0.911. This means that the greater the number of household members living with people with disabilities, the chances of getting a job opportunity will decrease by 0.911 times. The large number of household members can be a reason for the decline in employment opportunities for people with disabilities. Family members who care about the existence of people with disabilities will sacrifice their time to earn income that can support their family's economy. In addition, other family members may have to allocate their resources to meet the needs of the person with a disability, such as responsibility for care and recovery. Employers tend to be avoidant and restrictive when it comes to employing people with disabilities. The existence of additional costs related to empowering disabled workers is one of the factors that employers are concerned about. Some of these employers also do not have sufficient understanding of how to deal with meeting the special needs of people with disabilities in the work environment (22).

**The Influence of Area of Residence on Employment Opportunities for Young Workers with Disabilities**

Based on the estimation of the regression model, it can be concluded that the area of residence has a negative relationship with employment opportunities, with an odds ratio value of 0.43. These results show that if young workers with disabilities live in urban areas, their chances of getting employment opportunities are smaller compared to those who live in rural areas. In rural areas, the number of highly educated people with disabilities is still far below non-disabled individuals. In (25) it is stated that people with disabilities in rural areas have much higher job opportunities than those in urban areas. This fact indicates that the high level of education pursued by people with disabilities does not guarantee easy access to jobs in urban areas. Meanwhile, in rural areas, people with disabilities do not need higher education to be able to work in certain sectors. Job opportunities in rural areas are better than in urban areas. The large opportunities in rural areas to enter the workforce can be caused by the availability of employment opportunities, for example in the agricultural sector and family workers. In general, urban areas provide more adequate facilities and diverse employment opportunities than rural areas. Many of the workforce are urbanizing in order to get more decent work opportunities. The level of competition in terms of finding work tends to be higher in urban areas. This becomes an obstacle for young workers with disabilities to compete with other individuals. This is in accordance with research (23) which states that there is a connection between the area of residence and employment opportunities for people with disabilities. Apart from that (22) also revealed that individuals who live in urban areas will reduce the probability of people with disabilities being employed. Individuals who live in urban areas have a tendency to pursue advanced education before entering the world of work. This is different from individuals in rural areas who may enter the labor market more quickly. Thus it can be concluded that individuals who live in urban areas will spend more time outside the workforce compared to those who live in rural areas.

**The Influence of Skills on the Employment Opportunities of Young Workers with Disabilities**

Based on the results of the logistic regression, it was found that there is a positive influence between skills and job opportunities. The resulting odds ratio value is 1.471. From these results it can be concluded that if young workers with disabilities improve their skills, their chances of getting employment opportunities are 1,471 times greater than those without skills. Improving skills for people with disabilities is very necessary to be able to compete in the labor market. Having skills capital allows people with disabilities to get opportunities that suit their abilities. These skills will also help in adapting to various types of work undertaken. The quality of life for people with disabilities will increase if it is balanced with skill development (26). The results of this research are supported by research (27) which states that people with disabilities who have basic skills will increase their job opportunities. In this research, basic skills were divided into literacy, numeracy and oral communication, where literacy skills did not have a significant effect. However, people with disabilities who have oral communication skills have a greater chance of being
employed than those who have numeracy and literacy skills.

Conclusion
In the context of employment opportunities for young workers with disabilities, this research has provided valuable insights into the factors that influence their participation in the labor market. Marital status, education level, gender, employment sector, number of household members, and area of residence are proven to have a significant influence on employment opportunities. The research results highlight the importance of efforts to create inclusive policies and supportive work environments, as well as increasing the accessibility of specialized training.

Suggestions that the author can give are that inclusive policies need to be created and implemented in the workplace, including incentives for companies that implement inclusive practices, there is a need to encourage women's participation in the formal and informal sectors through special programs, the identification and development of special skills needs to be improved, according to with market needs, the need for family support programs to support the needs and aspirations of young workers with disabilities, it is necessary to carry out further research to explore certain aspects that have not been revealed in this research.

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