Full-Time Employment: An Empirical Study of the Impact of Internet use in Indonesia

Yunisvita*, Muhammad Teguh, Zulkarnain Ishak, Rahma Nida

Department of Economics Development, Faculty of Economics, Universitas Sriwijaya, Indonesia. *Email: yunisvita@unsri.ac.id

ABSTRACT

The impact of digital transformation era by utilizing the internet has achieved job market outcomes. This study aims to analyze full-time employment probability as a result of using the internet in his work. The data used 8,436 samples from the February 2023 National Labor Force Survey microdl.hilata sorted by formal sector employment. With the analysis technique of the logistic binary regression model, several dominant determinants of the probability to work full-time were obtained. The use of the internet for promotion and marketplace affects labor market outcomes measured by working hours. Probability for workers as full-time workers by using these two things becomes greater. This study also shows that several economic variables such as income, pension security and attending training significantly have a greater effect on workers' chances of working full-time (>40 h/week). In addition, the influence of demographic variables in the form of age, marital status and domicile of workers in Sumatra provides greater probability for full working hours.

Keywords: Hours of Work, Labor Income, Training, Internet Use
JEL Classifications: J11, J22, J24, J31

1. INTRODUCTION

The Great Recession and the recent experience of Covid-19 have stressed the importance of closely monitoring full-time employment. This is because it can provide additional information regarding economic performance. Full-time employment is an important feature of the labor market. Not only is full-time employment quantitatively important, the nature of its business cycle is also somewhat different. Full-time jobs are highly procyclical, while part-time jobs are acylical or slightly countercyclical. In times of expansion, workers switch from part-time to full-time, while in recessions there is a flow from full-time to part-time jobs. Similar labor market regularities have been documented by (Borowczyk-Martins and Lalé, 2019; 2020; Canon et al., 2014).

Economic performance can improve with the availability of the internet through inclusion, efficiency and innovation (World Bank, 2016). The availability of the internet accelerates the diffusion of ideas and information. This encourages competition that can lead to an increase in the innovative capacity of the economy as a whole. By lowering the cost of search and information, the Internet opens up new markets, increases the productivity of factors of production, and promotes inclusion in social interaction and in government service delivery systems.

The literature shows that most of the positive evidence about the impact of the internet on economic growth comes from developed countries (Czernich et al., 2011; Kolko, 2012; Kretschmer, 2012; Stanley et al., 2018). Developing and less developed countries experience a shortage of resources such as skilled labor, solid economic infrastructure, and the business environment necessary for potential returns from information and communication technology (ICT) (Kenny, 2003; Stanley et al., 2018) and reflected in economic growth indicators.

Advances in computer and telecommunications technology have become the main supporting elements of the development

of internet technology. The widespread use of the internet has provided various conveniences in doing business for economic activity actors. The internet plays an important and promising role in accelerating economic growth. Using regression analysis models for 59 countries, Stanley et al. (2018) found that in developed countries, the internet has an impact on economic growth. Through the low cost of search and information, the Internet has increased the productivity of production factors including labor. For workers, according to Krueger (2000) the internet has shifted *job search* and web-based switching recruitment. A negative effect on work is when the internet increases the likelihood of outsourcing routine tasks through digital workforce platforms (Graham et al., 2017). Digitalization for internet facilities in Indonesia shows positive developments during 2016–2022 (Figure 1). Information Communication Technology Development Index (ICT-DI) is a standard measure of the level of Information and Communication Technology (ICT) development in a region that can be compared across time and between regions. In addition, ICT-DI measures the growth of ICT development, measures the digital gap or digital divide between regions, and measures the potential of ICT development.

Previous studies have shown that the positive effects on the labor market from the internet are more likely to be experienced by high-skilled workers. The market expansion of internet-based business models is made possible through increased internet availability (Falck et al., 2015), and the accumulation of ICT skills is highly valued in the labor market (Falck et al., 2021; Vigdor et al., 2014). Meanwhile, negative employment effects for low-skilled workers are also possible as the internet replaces the performance of routine tasks through automation. We will use the following labor market outcomes: whether the job is full-time (labor market outcomes depend on being employed 40 h/week).

Research reviewed from the period 1967–1995 revealed gradual progress towards 40 h, while over the past decade most governments maintained limits on working hours according to existing laws and some changes towards imposing shorter limits on working hours. As a result, evidence from 2005 confirms that the 40-h limit is now the dominant standard. The shift to a 40-h week in the Republic of Korea, for example, is widely referred to in policy debates as the introduction of a "5-day week", as this is a method that is expected to be realized in practice (Messenger et al., 2007).

Figure 1: Indonesia's ICT Development Index (ICT-DI) 2016-2022
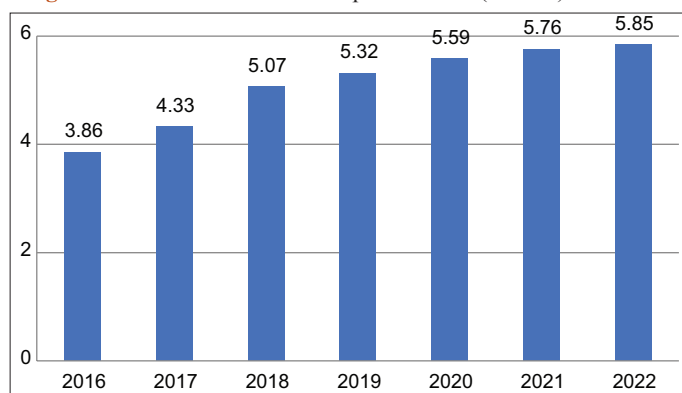
Source: BPS, 2022

One important implication that can be drawn here is that the development of the working hour is much more complex than is usually understood. Economic development and income growth are important in reducing working hours, but the speed at which reductions are achieved differs widely across countries. In some cases, working hours may increase despite economic growth and income. European experience actually shows that institutional frameworks in states and the power of trade unions are far more important in determining working hours (Lehndorff, 2013). Unions in Europe tend to place emphasis on shorter working hours to protect workers' health, increasingly to maintain or create jobs, and more recently to address work-life balance. In contrast, overall such efforts are generally not strong in Anglo-Saxon countries. However, a more complicated picture emerges when considering other parts of the world, especially developing countries and transitional economies. Because the effects of the Internet on the labor market tend to differ across subgroups of workers, the impact of Internet use on labor market outcomes is the focus of this study.

2. LITERATURE REVIEW

Standard microeconomic theories of labor supply suggest that workers seek to maximize their utility (which is a function of both labor—including goods that can be purchased at lowered wages—and leisure). Basic theory allows workers to choose the number of hours worked (and free time) to supply depending on their budget constraints (i.e. based on their potential wages and decent consumption of goods); However, this view naively assumes that all potential hours are available to workers. In reality, most workers can only work the specified full-time hours offered by their employers; Although, workers are allowed to work part-time or flexi-time. Likewise, many models of labor demand are empirically not discussed regularly. This means that when testing the distribution of working hours in many countries, there is a large spike of about 35-40 h and a smaller spike for part-time workers of about 15–20 h a week. This perspective is naïve in many other important respects, namely: (1) The output of every hour of the day of a worker is considered constant and the worker is not tired or a member of a trade union, (2) there are no scheduling problems, (3) there are no endogenous technological advances or imperfect competition or monopsony problems, and (4) there are no consequences of fewer work hours or overtime (Rubin and Richardson, 1997). It is generally known that in many countries there is little or no autonomy of workers in the choice of working hours. Eurofund sources show that in Latvia, Hungary, Slovakia, Greece, Bulgaria, Romania, Portugal, and Crete, more than 80% of people say that their companies set working time conditions in their jobs and there is little or no possibility for change (Eurofound, 2017).

In 1935, the ILO adopted a convention of a 40-h working week, citing the need to spread work more evenly across the population. Workers typically choose to work full-time approximately 40 h/week even when they have the option of working an alternative schedule (Mas and Pallais, 2017). In the survey, Americans expressed limited interest in sacrificing income in exchange for reduced working time, despite working more than the average person in most European countries.

Aguiar and Hurst (2007) document the increasing spread of work and leisure across highly and low-educated individuals. Men with a high school diploma spent about 8 more hours in leisure time per week in 2003 than those with a college degree or more.

Most OECD countries guarantee 20–25 paid vacation days (PTO). Given the time pressures and examples of these other countries, one option is to require U.S. employers to offer a minimum of four weeks (20 days) per year of Paid Time Off (PTO) to all full-time employees. Individuals are expected to work most intensively at the age when they have the greatest family responsibilities, with limited options for taking time off for family care or retraining (Sawhill and Guyot, 2020).

The impact of the Internet on entrepreneurship and its mechanisms using China Family Panel Studies (CFPS) data in 2014 and 2016 showed that the Internet had a significant and positive influence on entrepreneurship, and the results remained strong even after addressing endogenocity. In addition, heterogeneous examinations show that the Internet is more beneficial for opportunistic entrepreneurship and in rural areas. Further analysis shows that the Internet promotes entrepreneurship primarily through facilitating entrepreneurs to access information and helping entrepreneurs obtain informal financing (Tan and Li, 2022).

Using data collected in the 2017 China Household Finance Survey (CHFS), Yin et al. (2019) studied the impact of mobile payments on household entrepreneurship possibilities. In an empirical analysis using two-stage least squares regression (2SLS) to address the endogeneity of mobile payments, the study found that mobile payments significantly could not increase the likelihood of household entrepreneurship.

Zhao et al. (2022) focused on whether internet use has a moderating effect on labor wage distortions and mechanisms. Based on a 2016 national survey of China Family Panel Studies using a *stochastic frontier* approach, the study showed that the average wage distortion rate in the labor market ranged from 45.02% to 55.24%, while internet use reduced wage distortion by 3.76% overall through matching education, job security, and job expectations.

3. DATA AND METHODOLOGY

This study measures how large the proportion of *labor market outcomes* in the form of the composition of working hours in Indonesia and estimates the most dominant determinants determine the probability of workers working *full time* or *part time* due to internet use. The data used was obtained from the National Labor Force Survey (Sakernas) conducted throughout the territory of the Republic of Indonesia in February 2023 (Statistics Indonesia, 2023). The target number of the February 2023 Sakernas sample is 75,000 households, and is intended to produce estimates up to the provincial level. This publication uses a weighing of the results of population projections for 2010–2035. The sample data used is labor data both men and women including residents aged 15 years and over. Sample selection method is probability sample. The provincial sample estimation is a subsample of the district/city estimation and is selected using the two-stage stratified sampling

method. Phase 1: systematically select 7,500 census blocks from 30,000 district/city estimated census blocks. At this stage the main employment strata are used as implicit stratification. Phase 2: selecting 10 households from the update by *systematic sampling*. In this study, after sorting based on formal employment sectors, from Sakernas micro data, 8,436 samples were obtained.

The probability determination of full-time workers using the Internet is estimated using the binary logistic regression method. Systematically the logistic regression probability function is denoted $P(H=1|X) = p$. The general form of the logistic regression probability model with the explanatory variable p, is formulated as follows:

$$Ln\frac{H}{1-H} = Zi$$

$$Prob\left[Full\_Time_{il}\right] = \frac{e^{\delta}}{1+e^{\delta}} \, if \, Full\_Time_{il} = 0$$

$$Prob\left[Full\_Time_{il}\right] = \frac{e^{\delta}}{1+e^{\delta}} \, if \, Full\_Time_{il} = 1$$

$$\begin{aligned} where \; e = \; & \alpha + \beta_1 Internet\_promotion_i \\ & + \beta_2 Internet\_marketplace_i \\ & + \beta_3 Age_i + \beta_4 Age^2_i + \beta_5 Gender_i \\ & + \beta_6 Married_i + \beta_7 Education_i \\ & + \beta_8 Training_i + B_9 Union_i \\ & + \beta_{10} Contract_i + \beta_{11} Minimum\_Wage_i \\ & + \beta_{12} Pension_i + \beta_{13} Sumatra_i \\ & + \beta_{14} lIncome_i + \varepsilon_i \end{aligned}$$

where: H is Working hours (Full-time = *Full time* = >40 h/week); $\pi(x)$: Probability of a successful event with a probability value of $0 \leq \pi(x) \geq 1$; Zi is a set of independent variables namely the use of the internet for promotion, the use of the internet for *the marketplace*, age, age squared, dummy gender (1 if male; 0 if other), dummy marital status (1 if married; 0 if other), education (number of years of education completed by the worker), dummy training (1 if ever attended training; 0 if not); dummy union member (1 if a member of a union; 0 if no), dummy employment contract (1 if under contract; 0 if not), dummy minimum wage guarantee (1 if receiving wages above the provincial minimum wage; 0 if not), dummy pension guarantee (1 if obtaining pension guarantee; 0 if not), dummy domicile (1 if domiciled on the island of Sumatra; 0 if other) and income (the amount of income in rupiah received by workers per month).

4. RESULTS AND DISCUSSION

4.1. Crosstabulation
Based on Table 1, the following observations can be made: the age range of 25-34 years is the most common for individuals to engage in both full-time and part-time work, accounting

Table 1: Cross-tabulation results of variable determinants working full-time

Variable	Employment		Total
	Part-Time Workers	Full-Time Workers	
Age			
15–24	224	1.115	1.339
	12.42%	16.81%	15.87%
25–34	579	1.935	2.514
	32.11%	29.17%	29.80%
35–44	554	1.932	2.486
	30.73%	29.13%	29.47%
45–54	302	1.288	1.590
	16.75%	19.42%	18.85%
55–64	138	333	471
	7.65%	5.02%	5.58%
65 years and older	6	30	36
	0.33%	0.45%	0.43
Education			
SD	121	356	477
	6.71%	5.37%	5.65%
Junior	164	555	719
	9.10%	8.37%	8.52%
SMA	829	2.816	3.645
	45.98%	42.45%	43.21%
Diploma	135	558	693
	7.49%	8.41%	8.21%
Bachelor	506	2.139	2.645
	28.06%	32.25%	31.35%
S2	46	198	244
	2.55%	2.99%	2.89%
S3	2	11	13
	0.11%	0.17%	0.15%
Income			
Less than Rp1.000.000	750	555	1.305
	41.60%	8.37%	15.47%
IDR 1,000,000 – IDR 3,300,000	658	3.117	3.775
	36.49%	46.99%	44.75%
IDR 3,301,000-IDR 6,600,000	334	2.399	2.733
	18.52%	36.17%	32.40%
IDR 6,600,001-IDR 9,900,000	39	339	378
	2.16%	5.11%	4.48%
More than Rp9.900.000	22	223	245
	1.22%	3.36%	2.90%
Internet for Promotion			
Not using the internet for promotion	1.555	5.427	6.982
	86.25%	81.82%	82.76%
Using the internet for promotion	248	1.206	1.454
	13.75%	18.18%	17.24%
Internet for *Market Place*			
Not using the internet for *Market Place*	1.773	6.352	8.125
	98.34%	95.76%	96.31%
Using the Internet for *Market Place*	30	281	311
	1.66%	4.24%	3.69%
Gender			
Female	693	2.689	3.382
	38.44%	40.54%	40.09%
Male	1.110	3.944	5.054
	61.56%	59.46%	59.91%
Marital Status			
Not married	470	2.062	2.532
	26.07%	31.09%	30.01%
Married	1.333	4.571	5.904
	73.93%	68.91%	69.99%
Labor Union Participation			
Not a union member	1.455	5.100	6.555
	80.70%	76.89%	77.70%
Union member	348	1.533	1.881
	19.30%	23.11%	22.30%

(Contd...)

Table 1: *(Continued)*

Variable	Employment		Total
	Part-Time Workers	Full-Time Workers	
Guaranteed minimum wage (UM)			
Didn't get UM	1.176	4.325	5.501
	65.22%	65.20%	65.21%
Get UM	627	2.308	2.935
	34.78%	34.80%	34.79%
Employment contract			
No employment contract	365	1.369	1.734
	20.24%	20.64%	20.55%
There is an employment contract	1.438	5.264	6.702
	79.76%	79.36%	79.45%
Pension Security			
No pension guarantee	1.431	4.782	6.213
	79.37%	72.09%	73.65%
Pension guarantee	372	1.851	2.223
	20.63%	27.91%	26.35%
Domicile			
Does not live in Sumatra	185	1485	1670
	10.26	22.39	19.80
Living in Sumatra	1618	5148	6766
	89.74	77.61	80.20
Training			
Did not attend training	1.039	3.310	4.349
	57.63%	49.90%	51.55
Attend training	764	3.323	4.087
	42.37%	50.10%	48.45%
Total	1.803	6.633	8.436
	100%	100%	100%

Source: Sakernas, 2023 (Data processed)

for 29.80 percent of the total workforce. Of this group, 32.11 percent work part-time, while 29.17 percent are employed full-time. This age range represents a key period for individuals to become active workers and start benefiting from their educational achievements. The age of 25–34 years is the most age range to work in full and part-time working hours with a total percentage of workers of 29.80%. 32.11% of them became part-time workers and 29.17% worked full-time. The age range of 25–34 years is the right time to become an active worker and start enjoying the results of what has been done since completing education. There is an increase in the number of full-time workers, especially at the high school level, but contrary to the number of workers at the Diploma and Bachelor, S2 and S3 levels. This condition occurs because the demand for labor with this qualification is small, requires experience, and high abilities. Full-time work is dominated by workers with an income of IDR 1,000,000 to IDR 3,300,000 which is 46.99%. This nominal income is the average regional minimum wage throughout Indonesia. Four-fifths of workers do not use the internet for promotional activities and market places in their business. Married men are often found working in full-time jobs due to the family's economic expenses. Workers who participated as trade union members accounted for 22.30% of respondents. About the same number of them are full-time workers. A small percentage of full-time workers are guaranteed a minimum wage, are bound by an employment contract and have a guaranteed pension at work. In contrast, half of full-time workers have had training aligned with their job.

Table 2: Descriptive Statistics of Research Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Work full time	8.436	0,786	0,409	0	1
Use of the internet for promotion	8.436	0,172	0,377	0	1
Use of the internet for *market places*	8.436	0,036	0,188	0	1
Age	8.436	36,514	10.865	15	77
Age2	8.436	1451.296	840.406	225	5929
Gender (male=1)	8.436	0,599	0,490	0	1
Marital status (married=1)	8.436	0,7	0,458	0	1
Education	8.436	4,603	1,252	2	8
Attend training	8.436	0,484	0,5	0	1
Labor union members	8.436	0,223	0,416	0	1
There is a contract in the work	8.436	0,794	0,404	0	1
Income (natural logarithm)	8.436	14,73	0,805	10,82	18,06
Guaranteed to get UMP	8.436	0,348	0,476	0	1
Guaranteed pension	8.436	0,264	0,441	0	1
Domiciled in Sumatra	8.436	0,802	0,398	0	1

Source: Sakernas, 2023 (Data processed)

Table 3: Model feasibility test results

Chi-square	Df	P-value
(1)	(2)	(3)
6,05	8	0,641

Source: Data processed, 2023

4.2. Statistical Description Results

Referring to Table 2, the average age of respondents was 36.5 years, meaning most respondents were in productive age. This is in line with the condition of the Indonesian population which is in the demographic bonus period. However, there are still elderly respondents who are still working with a maximum age of 77 years. The average education of respondents was to complete high school with a natural logarithm of average income of 14.73.

4.3. Determinants of *Probability of Labor Market Outcomes* (Full-Time Workers)

4.3.1. Goodness of Fit Test

Based on Table 3, the Hosmer and Lemeshow Goodness of Fit Test resulted in a chi-square value of 6.05, which is smaller than the critical chi-square value of 14.067 at the given significance level. With a p-value of 0.641 (greater than 0.05), the results indicate no significant difference between the model and the data, suggesting that the regression model used in this study is appropriate for predicting the observed values. The results of the *Hosmer and Lemeshow Goodness of Fit Test* obtained *a chi-square* value of 6.05 smaller than *the table chi square* of 14,067 with a significance level of 0.641. The probability value (P-value) is 0.641 > 0.05, so there is no significant difference between the model and the data so that the regression model in this study is suitable for predicting the observation value.

4.3.2. Estimation Results of the Labor Market Outcomes Logistics Model

The estimation of the Logistics equation to test the probability of full-time or part-time workers can be seen in Table 4 below.

Based on the regression results, it shows that the ICT variable is the use of the internet for promotion has a non-significant effect on full-time workers, but on the contrary the use of the internet for *marketplaces* shows statistically significant results at alpha

Table 4: Results of marginal effect estimation

Variable	Full-time workers (=1)
Use of the internet for promotion	0,045
	(0,086)
Use of the internet for *market places*	0,364*
	(0,215)
Age	−0,090***
	(0,021)
Age2	0,0006**
	(0,0002)
Gender (male=1)	0,055
	(0,061)
Married (yes=1)	−0,283***
	(0,086)
Education	0,023
	(0,026)
Attend training (yes=1)	0,509***
	0,077
Labor union members (yes=1)	0,160*
	0,083
There is a contract in the work (yes=1)	−0,050
	(0,078)
Income (natural logarithm)	1,485***
	(0.048)
Guaranteed to get UMP (yes=1)	0,072
	(0,069)
Guaranteed pension (yes=1)	−0,592***
	(0,085)
Domiciled in Sumatra (yes=1)	−0,607***
	(0,094)
Constant	−17,455***
	(0,770)

Source: Data processed, 2023
Remarks: *=10%; ** = 5%; = 1%

10% of the opportunities of full-time workers. Demographic factors affecting the opportunity to outvote working hours are Sumatra domicile, age, and marital status. From an economic aspect, income and workers who are members of trade unions are statistically influential in addition to pension security.

4.4. Determinants of Demographic and Economic Variables to Probability *Labor Market Outcomes*

The use of the internet has helped a lot in various fields including work. Workers today can do *personal branding* only through mobile phones. Promotions made by workers after work no longer

significantly affect the chances of working full-time compared to the recruitment process with the application of technology such as website-based, job street, and social media. Similarly, for entrepreneurs, the opportunity to work full-time is smaller than part-time because by utilizing internet media to do *advertising, sales promotion, direct marketing,* and *personal selling* of their products on the internet can be done quickly. Entrepreneurs feel enormous benefits by using internet media compared to conventionally because it can reduce the amount of costs and time spent in the product sales process (Zinkhan, 2002).

Internet use in addition to promotion is also used for *marketplaces. Marketplace* is a platform with the task of being an intermediary between sellers and buyers to process product transactions online. Products sold in the *marketplace* have a new business model by providing access between service sellers and service seekers via the internet. *Marketplaces* that have been operating in Indonesia are *Sribu, Gobann, Traker, Sribulance, Freelancer, Elance-oDesk* and so on. Service seekers in this case workers are free to choose the job they want and receive wages as they expect through *e-wallets*. The estimation results show that the opportunity to work full-time is greater than working part-time for workers who use the internet for marketplaces. In line with Anwar and Graham (2021), workers in the *marketplace* are people whose working hours are flexible. They are more likely to work more than 40 h/week. This is because to stick with the internet to do various online activities ranging from checking timelines on social media, email to buying and selling. They have the freedom of working hours as long as they want depending on the amount of income they want.

Age is a major factor in determining the outpouring of working hours. This is related to the productivity of workers. Full-time workers are absorbed in formal employment. The young age group dominates because at this time it is a time of high labor productivity. Productive age is also the most active time for socialization, so that many, relationships, and networks are interconnected. As we get older, the chances of working full-time (>40 h/week) are greater than part-time. The age between young and old age, namely the age of 30-44, has a 66% chance of becoming *a full-time* worker when compared to those who are older (Mahmuda, 2020). Hasmayuli and Arif (2022) also explained that young people are more part-time workers because of the lack of work experience.

Based on data from Sakernas, the number of people aged 25-34 dominates to be full-time workers. This age is the age between young age and old age. This is in line with the backward bending curve, which is as workers get older they will increase their productivity to achieve better welfare. However, as workers age, their productivity decreases so that the possibility of becoming a part-time employee increases for several reasons, such as workers prefer to increase free time compared to work time (Andiany and Aloysius, 2022).

Men who work full-time reached 6,633 people which shows that the Labor Force Participation Rate (LFPR) of men is higher than women, but based on the results of regression the chances of men working full-time are no different from women. Through the demand side, men and women are given the opportunity to cooperate greatly with women, mainly due to the compulsion of family economic conditions. Like a poor family who needs *double income* for living needs. Different findings from this study, that men tend to work full-time because men are heads of households who have the obligation to provide the main income so they choose jobs that have a fixed salary while women's opportunities to work will decrease if they already have children (Yunisvita et al., 2017). Consistent with the research of Andiany and Aloysius (2022) that men will choose to work full-time in addition to the demands of the role, from the demand side, jobs usually also open more risky job vacancies so that male workers are needed more than female workers.

The higher the educational attainment, the lower the chance to become *a marginal part-time* worker. A higher level of education is associated with higher chances of getting a full-time job. Consistent with Mahmuda's (2018) research which shows, workers with higher education, post-secondary, and upper secondary education have 61%, 37%, and 7% chances of getting full-time employment, respectively. Based on *Human Capital Theory*, formal education is an investment for higher employment opportunities. This is because of the scarcity of higher education graduates, so the level of competition to get suitable jobs is also more difficult, so workers with higher education will prefer to work full-time. The results of this study are also in line with the research of Hasmayuli et al., (2022) and Sulistyowati (2021) explaining that workers with low education tend to be part-time workers in informal fields such as agriculture.

Married workers are more likely to become full-time workers. Marital status positively affects the chances of working full-time. For married people, of course, the needs that must be met will be more than for unmarried people. This encourages married workers to choose full-time work with a stable salary and job to fulfill their responsibilities in the family (Mahmuda, 2020). If they work part-time, it is difficult to get enough wages and vulnerable to termination of employment due to the absence of a contract. Full-time jobs also provide benefits and leave that are very helpful for married workers to play and gather with their families.

In addition to education, Becker (1964) states that training is also an investment in human capital. Training can improve the skills and quality of workers. Workers who have attended training tend to be looked at by companies which means the opportunity to work is greater than those who do not attend training.

Unions have various benefits for their members such as encouraging higher wages, making it easier to get benefits and pensions, and providing job protection. Employment contracts contain information regarding the rights and obligations of employees, including salaries, benefits, working hours, leave, and other important aspects. Thus, the contract provides clarity regarding what the worker expects and what will be received in return for his work. Full-time jobs usually provide a contract of employment in contrast to part-time workers which often occur in informal jobs. Jobs that have contracts can also provide a feeling of security to workers. This type of work is certainly more profitable than odd or part-time jobs. It is also supported

if bound by a contract, usually workers get a guarantee that they will get wages at least reaching the applicable minimum wage. Wages are compensation received by one work unit in the form of the amount of money paid. High and low wages are an important factor that determines people's standard of living. Therefore, wage guarantees above the provincial minimum wage affect the outpouring of working hours. This is in line with the results of research by Akmal (2020), namely that the higher the minimum wage, the smaller part-time workers will be, because workers prefer to work full-time to improve the standard of living/welfare of these workers. Antonie et al. (2020) also mentioned that part-time wages are lower than full-time wages. However, in this study, the three variables showed no difference in workers' opportunities to work full-time or part-time.

Everyone needs income to meet their own needs and their families when working or not working. Unexpected costs can arise in old age when a person is no longer working and the cost of living is still high (Liu and Hu, 2022; Newgard et al., 2021). Therefore, pension security is one of the important factors for a person in determining the outpouring of working hours. Pension security provided by full-time employment and not provided by part-time workers is an attraction for prospective workers. Pension programs are one of the best methods to prepare for income in retirement which aims to keep beneficiaries and/or their heirs at a good standard of living by providing income after the individual reaches retirement age, suffers from permanent total disability, or dies.

Demographic factors other than age and marital status that have a significant effect on the opportunity for working hours can also be seen from the geographical characteristics or distribution of residences in urban, rural, provincial and district areas. In this study, the domicile of workers is differentiated according to the place of residence on the island of Sumatra with outside Sumatra. It is shown that there are differences that determine the opportunity for working hours based on the domicile. Workers in Sumatra are more likely to work full-time than workers outside Sumatra. Other domicile characteristics based on Gesti (2016) reveal that workers who live in urban areas have a higher income level than in rural areas.

5. CONCLUSION

The Internet has increased the productivity of factors of production, including labor. The impact of the digital transformation era by utilizing the internet has reached *labor market outcomes*. In this case, the outpouring of working hours because utilizing the use of the internet helps workers flexibility so that work can be completed faster. The use of the internet for promotion and *marketplace* affects *labor market outcomes* measured by working hours. The opportunity for workers as full-time workers by using these two things becomes greater. This study also shows that several economic variables such as income, pension security and attending training significantly have a greater effect on workers' chances of working full-time (>40 h/week). In addition, the influence of demographic variables in the form of age, marital status and domicile of workers in Sumatra provides greater opportunities for full working hours. A negative effect on work is when the internet increases the likelihood of outsourcing routine tasks of labor.

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