HOW IS THE INTERNET USAGE PATTERN AMONG WOMEN SELF-EMPLOYED? AN ANALYSIS OF THE NATIONAL LABOR FORCE SURVEY (SAKERNAS)

Yuniarti Tri Suwadji

Pusat Penelitian dan Pengembangan, Kementerian Ketenagakerjaan RI Jl. Jendral Gatot Subroto Kav. 51, Jakarta Selatan, DKI Jakarta yuniartits85@gmail.com

ABSTRAK

Internet sebagai media digital saat ini tidak lagi digunakan hanya untuk menunjang aktivitas manusia sehari-hari, tetapi juga untuk mendukung kegiatan usaha. Keberadaan internet pun di satu sisi dapat memberikan peluang wirausaha, dan di sisi lain juga telah menghilangkan berbagai jenis pekerjaan akibat percepatan proses otomasi kerja. Kemajuan teknologi inilah yang kemudian membuka kesempatan kaum perempuan untuk memasuki dunia wirausaha karena menawarkan lebih banyak waktu di rumah sehingga mereka tetap bisa mendapatkan tambahan pemasukan sembari mengurus rumah tangga. Tujuan dari penelitian ini adalah untuk mengetahui pola penggunaan Internet yang dilakukan oleh perempuan yang berwirausaha yang sudah menikah. Studi ini menginyestigasi fenomena tersebut dengan menganalisis data Survei Angkatan Kerja Nasional (SAKERNAS) dan mereview berbagai literatur yang sudah ada sebelumnya khususnya mengenai perempuan yang berwirausaha yang memanfaatkan Internet sebagai alat teknologi digital dalam pekerjaannya guna menunjang kinerja usahanya, sedangkan penelitian sebelumnya hanya berfokus pada pengukuran frekuensi. mengakses aplikasi Internet dan mengabaikan status perkawinan mereka. Hasil penelitian menunjukkan bahwa karakteristik orang yang menggunakan Internet untuk melakukan pekerjaan utamanya kebanyakan berasal dari daerah perkotaan, tamat pendidikan tingkat SMA, terbilang muda, dan sudah menikah. Adapun perempuan yang berwirausaha baik yang sudah menikah maupun yang belum menikah memiliki kecenderungan mengakses internet agar dapat memberikan kemudahan bagi mereka dalam berkomunikasi dengan konsumen, mempromosikan produk mereka dan bertransaksi dengan konsumen.

Kata kunci: pola kerja, wirausahawati, penggunaan internet

ABSTRACT

The internet as a digital media is nowadays no longer used only for supporting human daily activity, but also for encouraging business activities. The existence of the internet, on the one hand can also provide entrepreneurial opportunities, and on the other hand can eliminated various types of jobs due to the acceleration of work automation process. This technological advancement then opens up opportunities for women to entry into self-employment because it offers more time at home so that they can still earn additional income while taking care of the household. The objective of this study is to determine the Internet usage pattern among married women self-employed. This paper investigates this phenomenon by analyzing The National Labor Force data and reviewing the prior literature especially for women self-employed who utilizing the Internet as the enhancement of digital technologies in their working to boost their perform, while previous research focuses only on measuring the frequency of accessing Internet applications and ignoring their marital status. Results suggest that the characteristics of people who use the Internet to do their primary job are mostly come from urban areas, have graduated from high school, fairly young, and already married. Both married and single women self-employed tend to access the Internet in order to make it easier for them to communicate with consumers, to promote their products and to deal with consumers.

Keywords: work pattern, women self-employment, internet usage

INTRODUCTION

development of The information technology or what is known as industry 4.0 has resulted changes in various fields including the manpower sector. The internet as a digital media is nowadays no longer used only for supporting human daily activity, but also for encouraging business activities, such as a production base and even marketing when business activities cannot be carried out physically. This could be happened for instance, when people have to stay at home to take care of their household or due to a pandemic situation like this current condition. Yuswohady, et al. (2020) stated that when the physical economy stagnates due to a pandemic, the digital economy could replace it; so that, the economy is still running. Meanwhile, a recent study released by The McKinsey Global Institute predicts that by the year of 2030, the digitization and automation under the Fourth will Industrial Revolution decrease approximately as much 800 million occupations that currently exist across the world as a result of job replacement by robots and Artificial Intelligence (AI). This finding is in line with what Gandini's (2016) found which stated that the implementation of digital technology in the work process accelerates the automation process, therefore endangers around 47% of jobs in various sectors. Thus, while hailing the internet can provide entrepreneurial opportunities, this technological advancement's product, on the other hand has also eliminated some types of jobs. Nevertheless, the presence of the internet can provide positive effects in making easier for women who especially want to have an extra income while carrying out their household chores.

The stereotype of women's role and position in their life tends to lead them to face domestic activities such as managing the household. Although this constraint can hinder gender progress, women are still trying to enter to the employment for various reasons. One of the reasons is because of its women's main roles that make them prefer to find the flexible job to get extra money. Therefore, they still can manage the households and earn additional income. In addition, specific problems are

common to females all over the world regardless of their belongingness to any culture including family responsibilities, limited physical strength and lack of availability of finance in many countries. Marriage and childbearing also make some women leave from both women's participation and formality of employment. Cameron (2018) found that the growth of Female labour Force Participation (FLFP) will continue to be slow or non-existent unless policies are developed to allow support married women to juggle family and work responsibilities. She accounted that more than 40% of women are not working one year after the birth of their first child. This circumstance could be happened because formal sector is not equipped to retain women once they have a family (and is possibly not even trying to retain However, current developments illustrate that the role of women is more developed and supports the implementation of gender equality. It is indicated by the growing acceptance of mothers' labor force participation which represents support for gender equality more generally (Demberger, et, al, 2020). They continue found that this gender attitude shifts because people recognized family need two incomes to anticipate adverse events that might occur, such as losing a job. Therefore, this gender attitude has now shifted due to maximizing household income and reducing economic uncertainty by having both working

Generally, both education and age are some kinds of two factors that influence women's decisions to work. The higher women's education level, the higher their chance to enter the workforce. According to World Bank, in 2018, females constitute 50% of total population of the world. However, their contribution to economic activities is still low. This is due to either family restrictions or labour distribution channel issues caused by male chauvinism in many societies. In particular, Patrick, C., Stephens, H., & Weinstein, A. (2016) stated that there are more progressive gender attitudes which pull married women to entry into self-employment, while household burdens associated with children push them to entry into self-employment.

The improvement of technology likes internet makes them who want to work from

home while taking care their households become easier. Thus, the existence of the internet makes it easier for people, especially married women, to work without being limited to one particular time and space basis. According to Michelle O'Brien in 2011, the increasing usage number of digital and mobile media proves that there is a need for finding physical and techno-social spaces through new forms of social interaction and professional engagement (Gandini, A., 2016). In line to those statements, Dy, Angela Martinez, Susan Marlow, and Lee Martin (2016) found that the a neutral platform internet is entrepreneurship, and supports their thesis stated that offline inequality, in the form of marked bodies, social positionality and associated resource constraints, is produced and reproduced in the online environment. In addition, Schwab, K. (2016) and Gandini, A. (2016) stated that the internet also brings changes in employment in terms of production and marketing bases. The changes in employment that occur because of the Internet presence refers to Schwab, K (2016) include: First, most people around the world are getting to use social media platforms to interact, learn, and change information. Second, various producers and competitors can easily access to digital marketing, sales and distribution platforms. Third, consumers will become increasingly involved not only in the production circle, but also distribution chain. According to Gandini, A. (2016), digital technology allows everyone to do various forms of work apart from the usual workplace, such as factories or offices; so that, they can turn alternative jobs into conventional jobs. He argued that this condition in line with the fact that the industrial revolution began with the movement of workers from one place to another which creates a major transformation namely digital production as a new paradigm in the production process.

In some recent years, based on National Statistic Board (BPS) data, the number of internet users in Indonesia has shown an encouraging increase. The bar chart below shows the number of people who use the Internet in Indonesia in the year of 2016. Even the number of people who use the internet less than they who do not use the internet, people still using the Internet as their own needs.

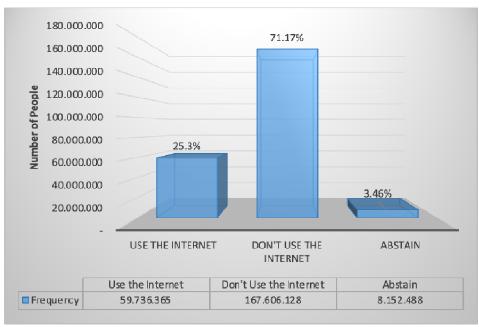


Diagram 1. The Number of Internet Users in Indonesia Year of 2016

Source: National Survey of Social Economics, 2016

The growth of internet users' number in Indonesia is also increasing every year. Based on a survey conducted by *Asosiasi Penyelenggara Jasa Internet Indonesia*/The Indonesian Internet Service Providers Association (APJII), until the year of 2017, there were 143.26 million Indonesian citizens using the internet. Thus, it can be seen that from 2016 until 2017, the number of internet users has more than doubled compared to the previous year.

The citizens usually use the Internet like social media because it can give quick electronic content communication. It brings many benefits particularly for women who difficulties faced the to manage communication both in work and household. Mcphee, Chris, Haven Allahar, David Coghlan, and Erik Lindhult (2019) suggested that the rise of digital social media that is very important for working and business environments, perhaps could make it easier for women to manage both work and family communication. This may improve their wellbeing at work and help women towards equality at work. So that, it can be concluded that women self-employed tend to use the Internet especially social media that includes personal information, documents, videos, and photos not only to take a digital opportunity advantages by becoming a self-employed, but also by becoming housewives who are able to properly take care the household.

In contrast, the development of internet technology, according to Standing, G. (2011), will bring new exploitation. He found that the creation of new jobs facilitated by the internet digital could produce precariat workers, including new entrepreneurs. According to him, these precariat workers have the characteristics of lacking access to capital, have not obtained labor securities, and do not have written work agreements; so that, their jobs cannot guarantee their welfare. Here is the data that presents the number of people who use the Internet as the primary job in Indonesia in the year of 2018. Even though the number of man who use the Internet exceeds the women, it is still very fruitful for women to engage with the Internet while they have more than one roles in their

11.924.694
10.000.000
10.000.000
4.000.000
2.208.254
2.000.000
Use the Internet

Don't Use the Internet

Diagram 2. The Number of People who Use the Internet to Do Their Primary Job Year of 2018

Source: National Statistic Boards, 2018

Based on the explanation above, the objective of this study is to determine the Internet usage pattern among married women self-employed. The Internet accessibility that has been considered able to be accessed by everyone, however how this opportunity can be utilized by self-employed women is still not much discussed. This paper investigates this phenomenon by analyzing The National Labor Force data and reviewing the prior literature especially for women self-employed who utilizing the Internet as the enhancement of digital technologies in their daily activities. There is not many studies which have discussed about the internet usage pattern among women both married and unmarried self-employed. The existing literature mostly only discusses on measuring the frequency of accessing Internet applications, ignoring what the Internet use for and their marital status. Furthermore, the Government can also get input in its effort to empower women self-employed who use the Internet for their business. Last but not least, this study will be written systematically as follows: Chapter 1. Background, Chapter 2. Literature Review, Chapter 3. Methodology, Chapter 4. Results and Discussion, Chapter 5. Conclusion and Recommendation.

METHODOLOGY

This study using quantitative approach in order to describe the phenomena studies. The data used in this study is collected from the secondary data of The National Labor Force Survey (SAKERNAS) provided by National Statistic Board in 2018. SAKERNAS is a specifically designed to collect employment data that can describe the general state of employment as well as the shifting in employment structure from some enumeration periods in Indonesia. In addition, some other data and information are also collected from several prior literature reviews. To process the statistical data collected, the author utilizes Statistical Package for the Social Sciences (SPSS) tools. Hence, the analysis method used in this study is descriptive analysis method. Last but not least, here the term of women selfemployed are used to refer to those women self-employed who carries with them a mission to be successful entrepreneurs by utilizing the Internet as the main medium assistant utilities.

There are several limitations in this study. The internet usage pattern in this article is related to the internet functions often used by someone in accordance with that person's social identity. Based on the results of the National Statistics Board survey, these patterns are namely to communicate with consumers, to promote their products and to deal with consumers

Moreover, women self-employed in this study is women self-employed who usually use the internet to support their business activities, because the Internet is such a tools that promising to provide greater opportunities for women to start digital entrepreneurship. It is in line to what Fuch found in 2014 which stated that the internet can also be used as a production base for both goods and services including marketing. According to him, social media users like Facebook, Twitter, YouTube, and Google, are not only act as information consumers, but also as productive consumers. He continued, when they post their status messages or fill the comments column which its content then is disseminated through the internet, furthermore these actions could help to spread the product information. So that, unconsciously, the unifying process of these various components at the same time on the Internet can be a useful value to market the product with a simple and high-speed ways.

RESULTS AND DISCUSSION

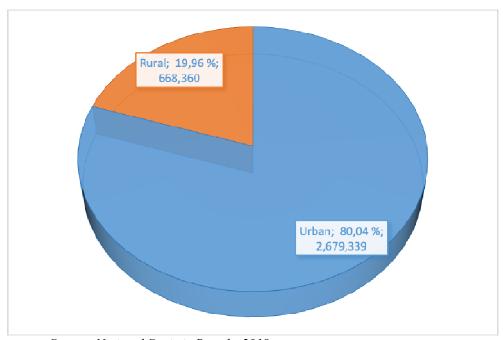
A. The Characteristics of People Using the Internet in Their Primary Job

Wahid (2005) argues that according to the Indonesian Internet Service providers, the number of Internet customers in Indonesia in recent years has increased quite rapidly; from 400,000 customers in 2000 to 1.08 million at the end of 2004. On the user side, in 2000 the number of Internet users only reached 1.9 million, but it had rocketed become more than 11.2 million at the end of 2004. The difference between these customers and users calculation numbers is because one internet subscription is used by more than one user,

such as an internet subscription in an office and an internet cafe (*warnet*).

Everyone uses the Internet according to their individual needs no matter they leave in rural or urban. Urban society which tends to be demanded to fulfill all their fairly high life needs while maintaining good communication with its surroundings creates women to be able to keep all of those needs properly (Trisilowaty, 2012). The diagram below shows the number of people who use the internet to support their primary job both in rural and urban.

Diagram 3. The Number of People Using the Internet in Their Primary Job Based on Living Location Year of 2018



Source: National Statistic Boards, 2018

The pie chart above points that based on living location, most of people who use the Internet to do their primary job come from urban (2,679,339) while the remains come from rural (668,360). Dwiana and Barus (2017) argue that some rural women are just only become passive internet users because they do not have the tools and to use the Internet. skills circumstances could be happened because the people along the border are generally poor with low levels of welfare and live-in isolated areas making it difficult for them to access the internet. Therefore, it is because the Internet ownership itself that made women do not necessarily have full access to this kind of devices. Besides the easiness access to the technology, Dy,

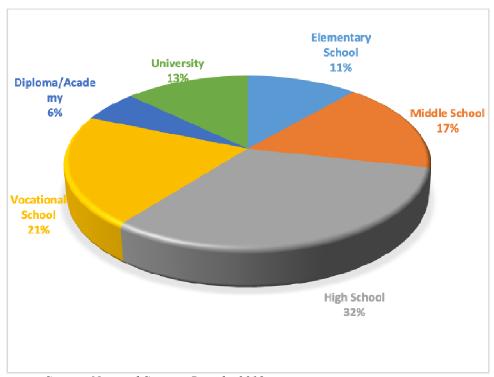
Marlow, Martin, (2016) argue that digital businesses need several social conditions that support these businesses, such as financial conditions. technological knowledge and competence, and work experience. Furthermore, it can be concluded that there is a gap between rural and urban people in the ease of accessing the Internet (Zhang, 2018). In his paper, Zhang (2018) states that education and residence have significant effects on the relationship between Internet use and people's sense of social equity. Its effects could be relatively flat for the higher educated people and urban people, whereas for less educated people and rural people, the effect is steep.

Currently, there are several factors that determine women to entry into selfemployed. Allen, Curington (2014) stated that by becoming self-employment, it gives women to get more time at home; while other researches argue that women become self-employed because of their work experience and encouragement from partners (Taniguchi: 2002); local business climate and individual character (Patrick, Stephens, Weinstein: 2016), and flexible working hours (Jeon, Ostrovsky: 2019). Another research found that women with entrepreneurship are greater than women who work as employees (Maguire, Winters: 2017). In addition, Masroor, Hussanin (2018) said that the digital economy is an opportunity for women to be involved in moving the economy. In the United Kingdom, according to Dy, Marlow, Martin (2016) one's position in the social hierarchy such as: class, gender and social class greatly influences one's potential in utilizing the internet; meanwhile, access to the internet itself is greatly influenced by aspects such as: financial condition, technical capabilities and competencies, and prior work experience. It is more complex especially for color-skinned women and Asian women, because there is a self-representation challenge on the internet that often clashes with hegemonic social constructions that are already enduring in the virtual social world.

Furthermore, according to Simoes, N., Crespo, N., & Moreira, S. B. (2016), there are some determinant factors that influence women to entry into self-employment. Some of those factors are education, age, gender, and marital status. They found that the influence of education on the transition to self-employment is significant. Here follows the number of people who use the internet to do their primary job.

Diagram 4. The Number of People Using the Internet in Their Primary Job
Based on Education Level
Year of 2018

Elementary



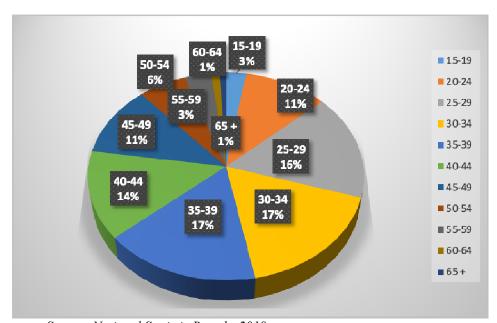
Source: National Statistic Boards, 2018

The pie chart above indicates that based on the level of education, from the total number of 3,347,699 people who use the Internet to do their primary jobs, there are respectively accounted as many 1,073,151 (32%) whom graduated from high school, 694,076 (21%) people with vocational school education, and 573,345 (17%) other users who are middle school graduates. It is possible to conclude that the more educated people, the more

opportunity-driven especially in utilizing the Internet.

Concerning age group, this study found that there are more young people who utilize the Internet than elder. Some reasons that perhaps can justify this condition are by using the Internet, people can do flexible employment situations, and they also have choice to leave the labor market to entry to self-employed by utilizing the Internet.

Diagram 5. The Number of People Using the Internet in Their Primary Job Based on Age Group Year of 2018



Source: National Statistic Boards, 2018

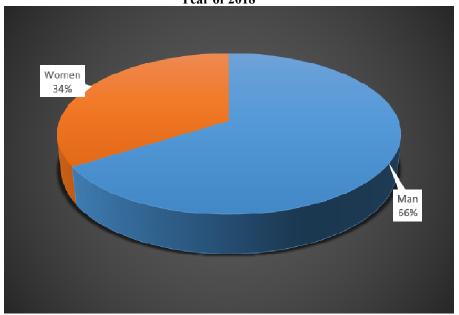
The pie chart above describes that 50% of people who use the Internet to do their primary job is fairly young, ranging from 25 years to 39 years (1,687,488). This figure is relatively higher than the population of other age groups. The presence of the millennial generation is currently one of the undeniable spearheads of internet penetration in Indonesia. This is not only because they were born and raised together in this digital era where information is completely open, but also, they can accept the understanding of digital literacy easier than those belonging to the

other age groups. The millennial generation who are much more familiar with technology and because of the various conveniences offered by the internet allows them to learn various business models that must be undertaken more quickly and practically. In detail, the three-age group of people who mostly use the Internet to do their primary jobs are in the age group of 25-30 (550,055), 30 - 34 (574,206) and 35 - 39 (563,227). In general, those who are classified as young people prefer the internet to do their main job probably because they are the only generation that

can take full advantage of the internet, especially for those who are trying to start their own business and build their own products.

The internet as a technology product is also in great demanded by various groups of both men and women. It is because the rapid development of the Internet in human life itself is able to simplify and lighten all human tasks. Therefore, both men and women certainly need the presence of the Internet to do their main daily work. The diagram 6 as follows shows the number of people who use the Internet to do their primary job.

Diagram 6. The Number of People Using the Internet in Their Primary Job Based on Gender Status Year of 2018



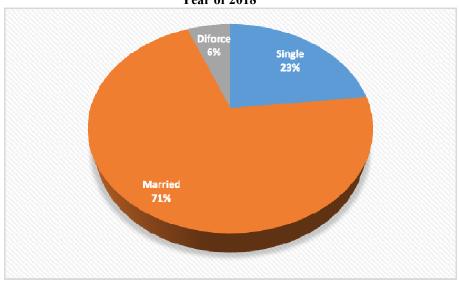
Source: National Statistic Boards, 2018

The pie chart above shows that based on gender status, the majority of people who use the Internet to do their primary job is male (2,208,254) as accounted 60% outreach the remaining as much 1,139,445 (40%) are female. Overall, Woldbank (2018) found that in the context of internet penetration, men are superior to women. However, there are areas where female internet penetration outnumbers men. In line to what Simoes, N., Crespo, N., & Moreira, S. B. (2016) found, this circumstance could be happened because women are tend to more risk averse than men, and also both women and men are predominantly engaged in different sectors.

In addition, N., Crespo, N., & Moreira, S. B. (2016) also found that

marital status influences labour market outcomes, so that when individual is married, the wealth of potentially selfemployed person will increase. Technological advances that are growing rapidly make the internet becomes a daily primary need that must be fulfilled by the household. Furthermore, to better take advantage of the existence of this internet. those who are married must understand how to get money from the internet so that they can support their increasing fulfillment after marriage. The internet according to Fuch (2014) and Gandini (2016) can be used as a production base for both goods and services as well as a marketing base that can make money. They argue that the advantage of the internet as a production base is not only to cut production costs, but also to respond the market more quickly. The following diagram shows the number of people using the internet as their main occupation based on their marital status.

Diagram 7. The Number of People Using the Internet in Their Primary Job Based on Marital Status Year of 2018



Source: National Statistic Boards, 2018

From the pie chart above we can conclude that based on the marital status, more people who have married (2,372,960) who use the Internet to do their primary job than single (776,471) and divorce (198,268). Married people tend to using more internet to do their primary job probably since they have to play role both in social life and households, so that if they are able to take advantage of the presence of the internet optimally, it is possible for them to reach more benefits from doing business through the internet.

B. Internet Usage Pattern Among Women Self-employed

In general, the internet is considered to provide equal opportunities for everyone, especially in terms of providing opportunities to start digital businesses. This is because the internet is considered as something that neutral and can provide opportunities for all people equally. Whilst, Dy, Marlow, Martin (2016), in their article, criticized the assumptions which have assumed that the virtual environment

negates the marginalization that often occurs in the social world. According to them, one's position in the social hierarchy such as gender, race and class will affect their ability to access resources that can encourage them to carry out sustainable digital businesses. In addition, Indonesian Internet Service Providers Association (APJII) in 2017 noted that the number of internet user penetration was based on the economic level, namely those who belonged to 93.10% of the upper socioeconomic class, 82.95% of the middle socioeconomic class, 58.55% of the lower socioeconomic class, 21.72% of very low socio-economic class. From the description of those social positions based on gender, race and class, it can also explain the implications of social position with the opportunities provided by the internet in starting such a digital entrepreneurship. Therefore, the opportunities provided by the internet to those especially women who become self-employed are important considering that most popular discourses ignore these things.

Women according to Dy, Marlow, Martin (2016) are often disadvantaged because of the real situation in their social world. In such conditions, the Internet is promising to provide greater opportunities for women to start digital businesses. Women self-employed usually use the internet to support their business activities. Based on the data processed from SAKERNAS, it is clear that there are several internet usages patterns among women self-employed, for instance, to communicate with consumers, to promote their products and to deal with consumers. What is interesting, however, is that while those who use the Internet for these three purposes are married women selfemployed. Moreover, most of those women self-employed who use the internet belong to the same sector group like Wholesale Trade and Retail; Car Repair and Maintenance: Manufactured Industry; and Accommodation Provision and Food & Beverage in respectively. Here following is a detailed explanation of the Internet usage pattern among women self-employed, and in what sectors usually they use the Internet a lot.

First, women self-employed utilized the Internet to communicate with their consumers. The internet has not only revolutionized the way in which women interact through distance, space and time, but also comes with its own culture that can influence women's character communication. Thus, Fardiah (2012) stated that the Internet has been considered to create a new reality known as virtual reality in a virtual world. Furthermore, Trisilowaty (2012) argues that one of the reasons for women to choose social media to establish communication is because of the distance and time that has been caused by their high mobility.

The Number of Women Self-806.549 1,000,000 800,000 600,000 124.429 400,000 181,174 Married 27,293 200,000 Single Use the Internet Don't Use the Internet ■ Single ■ Married

Diagram 8. The Number of Women Self-Employed Who Use the Internet to Communicate with Consumers

Year of 2018

Source: National Statistic Boards, 2018

It is shown at diagram 6 that until 2018, not all of women self-employed utilizes the Internet to communicate with costumers in their daily business. However,

the number of women self-employed who use the internet to communicate with consumers is the highest number of among other internet usage patterns (987,723 or

86.68%). That number of women selfemployed who use the internet to communicate with consumers outpaces the opposite (151,722 or 13.32%).

Next, women self-employed utilized the Internet to make promotion to their customers. That data is shown in the diagram 9. They can use the internet to expand their product market by offering products in online system, so that it can be reached by consumers wherever they are. They can take advantage of the Internet in doing self-employment for marketing purposes, for example by using social media, market places, or market places owned by local governments. Several studies have shown that the power of social media outperforms market places in terms of marketing. Q. Ayuni, H. Cangara and Arianto (2019) found that there is a significant increase on sales level accounted as much 60.2%, when female entrepreneurs use digital media to promote their products. What is meant by the use of digital media in their research is such a kind of promotional activities on social media carried out by disseminating promotional content in the form of information, sales promotions educational messages. In addition, the type of social media that they use the most to do these activities is Instagram (74.1%), then other digital media. The reason why they prefer Instagram in creating promotional content is because they can easily edit their product images and videos in order to make it look more attractive, and it is very fruitful especially for the type of business that prioritizes visual appearance on social media

Online promotion is such a kind of internet marketing. Therefore, using the Internet is an effective way to build product brands since it can also make women self employment's businesses known by many people. However, everyone who want to promote their products to consumers through the Internet, they should pay more attention to some kind of things, for instance producers must be able to maintain the quality and originality of the products so that the consumers do not feel hesitate to buy the products that are promoted on the internet. In addition, by selling their products through the Internet, women selfemployed do not have to think about the amount of available stock because they do not need to display their products and also no longer need a warehouse to store their inventory stuffs.

700.000 610.106
600.000
500.000
400.000
320.872
200.000
153.737
Use the Internet
Single Married

Diagram 9. The Number of Women Self-Employed Who Use the Internet for Promoting the products to Consumers

Year of 2018

Source: National Statistic Boards, 2018

From the bar chart above we can see that the total number of women self-

employed who use the Internet for promotion is accounted as many 763,843

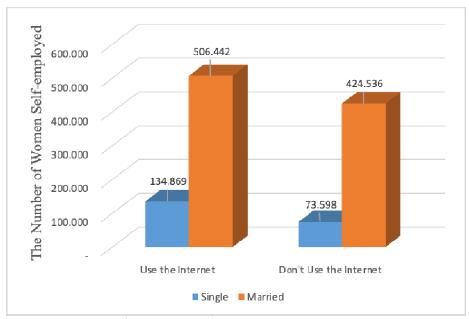
people (67.04%). It could be because it is easier and cheaper to promote the product in the Internet. Furthermore, through the Internet, they can offer products not only in the form of goods, but also offer their products in the form of services through the internet. Therefore, they can offer any kind

of service related to their expertise via the Internet.

Last but not least, women selfemployed is also using the Internet to deal with consumers as can be seen in the below diagram.

Diagram 10. The Number of Women Self-Employed Who Use the Internet to Deal with Consumers

Year of 2018



Source: National Statistic Boards, 2018

From the bar chart above we can see that the total number of women selfemployed who use the Internet to make online transaction with their customers is almost the same as those who do not utilizes it. The presence of the Internet can be able to facilitate transactions with consumers because it can reach various consumers located all over the world even though the seller and the consumers are in different time zones. Women selfemployed who use the Internet to deal with their consumers is accounted as much 641,311 people (56.28%) whereas they who do not use the Internet reach 498,134 people (43.72%). According to Wahid and Iswari (2007) the lack of information technology adoption in micro small enterprises is caused by a lack of

understanding regarding to the information technology strategic role play accordance to the new marketing approaches, dealing with consumers, and even the development of their products and services. Due to the many important roles of the internet for women self-employed, therefore, it is necessary to optimize the utilization of information technology.

CONCLUSION AND RECOMMENDATION

A. Conclusion

There are some conclusions that can be drawn from the results of the discussion above:

- 1. One of the positive things created by the presence of the Internet is that people can use it to do their primary job. The characteristics of people who use the Internet to do their primary job are mostly come from urban areas, have graduated from high school, fairly young, and already married.
- 2. The study results suggest that both married and single women self-employed tend to access the Internet in order to make it easier for them to communicate with consumers, to promote their products and to deal with consumers. And the number of married women self-employed exceeds the number of single women self-employed in using the Internet for those three functions.

B. Recommendation

Here are some recommendation that could be benefit for government to more empower women self-employed who utilize the Internet to increase their business income:

- 1. Creating as much as possible of new women entrepreneurs not only to aid their family financial condition, but also to make the unemployed women entry into labor force;
- 2. Such an e-business application is needed to be built as a good prospective solution to tackle the barriers faced by the women self-employed which are further confirmed by the results;
- 3. It is necessary for Government to provide entrepreneurship learning and digital marketing training, for instance in making social media and photography to facilitate product's marketing in online system that perhaps could expand women self-employed business' profit.
- 4. Further research may also explore in more detail to determine the Training Need Assessment (TNA) for empowering women self-employed in the digital era since application and digital skill have to collaborate to

create additional value through better usage of the Internet.

ACKNOWLEDGEMENT

I thank Mr. Sapto Setyodhono (Manpower Research and Development Center) and Mrs. Ratna (PRAKERTI) for the kindly assistance in constructing this paper. This work was supported by the Manpower Research and Development Center, Ministry of Manpower.

REFERENCES

Amit, R., & Muller, E. (1995). 'Push' and 'pull' entrepreneurship. *Journal of Small Business and Entrepreneurship*, 12(4), 64–80.

doi: 10.1080/08276331.1995.10600505.

- Allen, W David, and William P Curington. 2014. "The SelfEmployment of Men and Women: What Are Their Motivations?" Labor Research 35(2): 143–161.
- Asosiasi Penyelenggara Jasa Internet Indonesia/The Indonesian Internet Service Providers Association (APJII) (2017) Indonesian Internet User Penetration and Behavior infographic. https://cdn-report.dailysocial.id/Laporan_Survei_APJI I v1 3.pdf
- Aronson RL (1991) Self-employment: A labor market perspective. ILR Press, Ithaca
- Blau DM (1985) Self-employment and self-selection in developing country labor markets. South Econ J 52(2):351–363
- Blau, D. (1987) A time-series analysis of selfemployment in the United States. *Journal* of Political Economy, 95(3), 445– 467. http://www.jstor.org/stable/1831972.
- Boden RJ Jr (1999) Flexible working hours, family responsibilities, and female self-employment. Am J Econ Sociol 58(1):71–83
- Boden, R. (1999). Flexible working hours, family responsibilities, and female self-

- employment: Gender differences in selfemployment selection. *American Journal* of Economics and Sociology, 58(1), 71– 83. doi: 10.1111/j.1536-7150.1999.tb03285.x.
- Bruce, D. (1999). Do husbands matter?

 Married women entering selfemployment. *Small Business Economics*, 13(4), 317–329.
 doi: 10.1023/A:1008179214572.
- Cameron, L (2018). Women's Labour Market Transitions. University
- Clain, S. H. (2000). Gender differences in fulltime self-employment. *Journal of Economics and Business*, 52(6), 499-513.
- Connelly R (1992) Self-employment and providing child care. Demography 29(1):17–29CrossRefGoogle Scholar
- Cromie S (1987) Motivations of aspiring male and female entrepreneurs. J Occup Behav 8:251–261<u>CrossRefGoogle Scholar</u>
- Dernberger, B. N., & Pepin, J. R. (2020). Gender Flexibility, but Not Equality: Young Adults' Division of Labor Preferences. Sociological Science, 7, 36-56.
- Dwiana, Ressi and Barus, Rehia K. I. (2017). Internet Literacy in Rural Women. Journal of Social Sciences Education of Universitas Medan Area.
- Dy, Angela Martinez, Susan Marlow, and Lee Martin. (2016). "A Web of Opportunity or the Same Old Story? Women Digital Entrepreneurs and Intersectionality Theory." Human Relations: 1–26.
- Evans DS, Leighton LS (1989) Some empirical aspects of entrepreneurship. Am Econ Rev 79(3):519–535
- Fardiah, Dedeh. (2012). Interrelation of Women and the Internet. *Observasi* Journal of BPPKI Bandung Ministry of Communication and Information.
- Faridi, M., Chaudhry, I. S., & Malik, M. (2011). Why Women are self-employed?

- Empirical Evidence from Pakistan. International Journal of Economics and Finance.
- Fölster, S. (2000). Do entrepreneurs create jobs? *Small Business Economics*, 14, 137–148. doi: 10.1023/A:1008141516160.
- Fuchs, C. (2014). Digital Labour and Karl Marx. Routledge.
- Fujii ET, Hawley CB (1991) Empirical aspects of self-employment. Econ Lett 36(3):323–329.
- Gandini, A. (2016). The reputation economy: Understanding knowledge work in digital society. Springer.
- Georgellis Y, Wall HJ (2005) Gender differences in self-employment. Int Rev Appl Econ 19(3):321–342
- Georgellis, Y., & Wall, H. (2004). Gender Differences in Self-Employment . FEDERAL RESERVE BANK OF ST. LOUIS.
- Gianelli, G. C. (1996). Women's transitions in the labor market: A competing risk analysis on German panel data. *Journal of Population Economics*, 9, 287–300. doi: 10.1007/s001480050019.
- Gimenez-Nadal JI, Molina JA, Ortega R (2012) Self-employed mothers and the work-family conflict. Appl Econ 44(17):2133–2147
- Harahap, J. (2014). Analisis Makro Tenaga Kerja Perempuan Dalam Pembangunan di Indonesia (Macro Analysis of Women Workers in Development in Indonesia) 1980-2010. Publikauma: Jurnal Administrasi Publik Universitas Medan Area, 2(1), 40-45.
- Hisrich, R., Peters, M., & Shepherd, D. (2013). Entrepreneurship. McGraw-Hill Publications.
- Wahid, Fathul and Iswari, Lizda. (2007). Adoption of Information Technology by Small and Medium Enterprises in

- Indonesia. Proceedings of the 2007 National Information Technology Application Seminar (SNATI 2007).
- Jawad, S. (2010). Women & Small Business entrepreneurship in Pakistan. Research Gate.
- Karoly LA, Zissimopoulos J (2004) Selfemployment among older U.S. workers. Mon Labor Rev 2004:24–47Google Scholar
- Khan, A. (2007). Women and Paid Work in Pakistan. Pathways of women's empowerment, south Asia research program, Pakistan scoping paper.
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-933.
- Lombard KV (2001) Female self-employment and demand for flexible, nonstandard work schedules. Econ Inq 39(2):214–237<u>CrossRefGoogle Scholar</u>
- Lombard, K. V. (2001). Female self-employment and demand for flexible, nonstandard work schedules. *Economic Inquiry*, 39(2), 214–237. doi: 10.1111/j.1465-7295.2001.tb00062.x.
- Loscocco, K. A., & Robinson, J. (1991).

 Barriers to women's small-business success in the United States. *Gender and Society*, 5, 511–532. doi: 10.1177/089124391005004005.
- Macpherson DA (1988) Self-employment and married women. Econ Lett 28(3):281–284<u>CrossRefGoogle Scholar</u>
- Martinez Dy, A., Martin, L., & Marlow, S. (2018). Emancipation through digital entrepreneurship? A critical realist analysis. *Organization*, 25(5), 585-608.
- Maguire, Karen, John V Winters, and Karen Maguire. 2017. Satisfaction and Self-

- Employment: Do Women Benefit More from Being Their Own Boss.
- Marsudi, A. S., & Widjaja, Y. (2019). *Industri* 4.0 Dan Dampaknya Terhadap Financial Technology Serta Kesiapan Tenaga Kerja di Indonesia (Industry 4.0 and its Impact on Financial Technology and the Readiness of Workers in Indonesia). Ikra-Ith Ekonomika, 2(2), 1-10.
- Masroor, Nida, and Muhammad Asim. 2018. "Pure Play: Entrepreneuring Females in the Digital Era." Asia Proceedings of Social Sciences 2(3): 117–22.
- Matysiak, A., & Vignoli, D. (2008). Fertility and women's employment: A meta-analysis. European Journal of Population/Revue européenne de Démographie, 24(4), 363-384.
- Mcphee, Chris, Haven Allahar, David Coghlan, and Erik Lindhult. 2019. "Women Managers and Entrepreneurs and Digitalization: On the Verge of a New Era or a Nervous Breakdown?" Technology Innovation Management Review 9(6): 14–24.
- Noseleit, F. (2014). Female self-employment and children. *Small Business Economics*, 43, 549–569. doi: 10.1007/s11187-014-9570-8.
- Patrick, Carlianne, and Heather Stephens. 2016. "Where Are All the Self-Employed Women? Push and Pull Factors Influencing Female Labor Market Decisions." Small Business Economics 46(3): 365–90.
- Presser HB (1992) Self-employment and providing child care. Demography 29(1):17–29CrossRefGoogle Scholar.
- Q. Ayuni, H. Cangara dan Arianto (2019). Pengaruh Penggunaan Media Digital Terhadap Tingkat Penjualan Produk Kuliner Kemasan (The Influence of Digital Media on Sales Level of Culinary Package Product among Female Entrepreneur). Jurnal Penelitian

- *Komunikasi dan Opini Publik* Vol. 23 No. 2, Desember 2019: 129-141.
- Schwab, K. (2016). The fourth industrial revolution: Crown Business. New York, 192.
- Simoes, N., Crespo, N., & Moreira, S. B. (2016). Individual determinants of self employment entry: What do we really know?. *Journal of economic surveys*, 30(4), 783-806.
- Standing, G. (2014). The Precariat-The new dangerous class. Amalgam, 6(6-7), 115-119.
- Taniguchi, Hiromi. 2002. "Determinants of Women's Entry into Self-Employment." Social Science Quarterly 83(3): 875–93.
- Trang, T. Q., & DuchÃane, G. (2008). Determinants of Self-employment: The case in Veitnam. CES Woking paper .
- Trends for Women 2018. ILO. http://www.oitcinterfor.org/en/node/7312
- Trisilowaty, Dessy. (2012). Women and Social Media as a Recent Communication Options. *Observasi* Journal of BPPKI Bandung Ministry of Communication and Information.
- Wee, D., Kelly, R., Cattel, J., & Breunig, M. (2015). Industry 4.0-how to navigate digitization of the manufacturing sector. McKinsey & Company, 58.
- Welington, A. (2006). Self-employment: The new solution for balancing family and career? *Labour Economics*, *13*, 357–386. doi: 10.1016/j.labeco.2004.10.005.
- Yuswohady, et al. (2020). Industry Mega shifts 2021 after Pandemic. Indonesia Industry Outlook 2021 Conference.