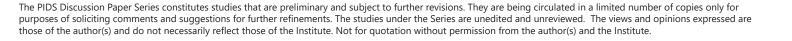
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Towards a Sustainable Online Work in the Philippines: Learnings from the Online Survey of Market and Nonmarket Work during the Enhanced Community Quarantine

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Abstract

The emergence of digital labor platforms has broadened market work opportunities although certain segments of the population, such as women and those belonging to the younger generation may be naturally drawn to platform or online work. This has important implications on skill formation and human capital development especially in countries where online work is mostly found at the lower end of the value chain. In addition, this may result in the widening of coverage gaps of social protection and may cause social protection schemes to become unsustainable. This paper aims to investigate these issues in the context of making online work a sustainable form of work.

Keywords: Online work, digital labor platforms, skills formation, social protection, Philippines

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1. Introduction

How we live and work have been affected by two significant developments: advancements in Information, Communication, and Technology (ICT) and the ongoing pandemic. The advancement in ICT has paved the way for a new work arrangement that is mediated by digital platforms. Digital platforms facilitate the demand and supply of at least three commodities: labor (e.g. Upwork, Digital Jobs PH, Clickwork, Amazon Mechanical Turk), asset (e.g. Airbnb), and activities (e.g. Spotify, Netflix)¹. Work done in digital labor platforms can be classified as either crowdwork or on-demand work. Crowdwork is work that is commissioned by local or international firms and is transacted and delivered online while the on-demand work requires a close interaction between workers and demanders (e.g. food delivery, ride hailing services, nanny services). The ongoing pandemic is increasingly pushing online work/platform work into a mainstream work arrangement as firms cut losses through outsourcing tasks to low-cost talents, as workers adjust their attitudes towards risks, and as standard work setting leans toward telecommunication and virtual collaboration.

There are certain segments of the population that may be naturally drawn to online work. These include young people who are adept at navigating online tools/resources and women who are responsible for the care economy and housework. Given their possible role in economic inclusion, labor platforms can help achieve SDG targets on women empowerment and gender equality (targets 5.b, 5.c, and 5.5) and on the eradication of poverty (target 1.1).

This early, however, several challenges have been noted, including the absence of grievance mechanisms on the platform, lack of worker's collective representation, absence of social protection, and the need to address skills development. The absence of social protection, intersecting with the increasing participation of young people in platform work, may result in

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^{**} First three authors are senior research fellows while the fourth author is research assistant at the Philippine Institute for Development Studies. The authors would like to thank Ms. Lucita Melendez for assistance and Ms. Mary Rose Castro of the Department of Information, Communication, and Technology-ICT Literacy and Competency Development Bureau for the help in farming out the PIDS-DICT online survey of market and nonmarket work to the DICT's network of freelancers/online workers and to the participants of various DICT training conducted in May 2020.

¹ Crowdwork is further classified into two: macrotask and microtask. Microtasks are clerical in nature (e.g. copywriting, content access, product categorization, verifying and validating data, content moderation, text or audio transcription, and filling out surveys) and project prices are set by the client or platform without negotiation. Macrotasks are longer-term projects that require specialized skills (e.g. IT programming, web development, graphic design) and project prices can be negotiated and are paid per project or if hourly, work is monitored by a surveillance software (https://voxeu.org/article/working-conditions-digital-labour-platforms).

the widening of coverage gaps and the weakening of the sustainability of social protection schemes. Meanwhile, the attraction of women into platform work may result in the widening of gender gaps in social protection. This highlights the need for crafting policies to enhance the social protection of platform workers, without which will likely exacerbate gender inequalities.

How does Filipino online workers fare in the Asian context? Based on the Online Labour Index, 1 in every 4 online workers are performing tasks that have low value-added such as clerical and data services (Bayudan-Dacuycuy et al, 2020). Such workers account for less than 10% in Bangladesh, India, Indonesia, and Pakistan. Meanwhile, only around 14% of Filipino online workers are doing tasks that are related to software development and technology. This is quite low compared to the proportion of such workers in India, Pakistan, and even Vietnam, at 59%, 45%, and 52%, respectively. In addition, there is evidence that in one major platform, the Philippines accounts for 12% of the global oversupply, which contributes to worker's low compensation (see Kuek et al, 2015).

Young people are more likely to engage in platform work since they have the skills and social network and are well-versed with online tools and resources. This has important implications on skills and human capital development in the country since a quarter of Filipino online workers are performing tasks that are at the lower end of the value chain. On one hand, some workers may consider their engagement in platform work as a primary source of income or as part of their long-term work portfolio. Thus, skills development that will facilitate the shift from simple and repetitive microtasks to high value-adding macrotasks will make these workers competitive in platform work. On the other hand, workers may view their platform work as temporary, as they take advantage of the flexibility that allows them to pursue schooling, travel, or other interests while they are young. Skills development is also important for these workers so that their experience on the platform can enhance their employability in any types of work arrangement.

In addition, work experience is essential in securing a job in platform work. From the demand side, this suggests that firms use experience as a signal of worker's ability and output quality. From the supply side, this suggests that the accumulation of experience depends on the requisite hard skills such as ICT skills, numeracy, and literacy and soft skills such as negotiation, communication, and networking. Thus, those without strong credentials may find it difficult to find opportunities in a platform setting. This concern is more pronounced on the heels of an increasing number of job seekers whose skills are honed from their previous platform engagements or developed from their other form of work.

These serious concerns can outweigh the flexibility and monetary gains, which put forth the equally critical issue of making work in digital platforms sustainable. But what does sustainability mean in this context? Recognizing that platform work exists in a spectrum of work, sustainability may pertain to the temporal ability of digital platforms to create a pool of human resources with skills and expertise that are useful in any types of work arrangement. This means that platforms are not mere facilitators that minimize job search costs but are legitimate avenues that broaden knowledge and improve workers' opportunity sets. However, due to the absence of employer-employee relationships, contracting firms cannot be compelled to provide training and security benefits to workers. Thus, workers bring in a set of skills to compete for jobs within the platform and they have to contribute to social security fund on a voluntary basis if they want coverage.

Given these, the overarching policy questions that the paper addresses are the following: How can online work/platform work become sustainable? What are the skills needed? What are the gaps that the government need to narrow to help workers harness the benefits and overcome the challenges in this work arrangement? Addressing these questions will help the Philippines to be on track in SDG targets on social protection (1.3, 1.a, and 10.4), skills (4.4), and care economy (5.4). To answer these questions, this paper analyzes patterns of online work in the Philippines and looks into issues on skills, social protection, and other challenges, and provides ways to address these issues.

2. Platform work in the Philippines

A. Data sources and data collection

To analyze platform work in the Philippines, the PIDS has collaborated with the ICT Literacy and Competency Development Bureau (ICT-LCDB) of the Department of Information, Communication, and Technology (DICT. Under its digitaljobsPH project, the ICT-LCDB conducts advocacy workshops and technical training to promote and develop the online freelancing and home-based industry². The ICT-LCDB has conducted a series of training in online work during the enhanced community quarantine (ECQ). From April 16 to April 27, 2020, it has conducted the affiliate marketing training and social media marketing training. The former was a 20-hour online training program for promoting goods/products and services to earn income. Participants were screened by the ICT-LCDB. They required participants to have a working knowledge in website development/design and search engine optimization. Opened to the public, the latter was a 14-hour online training in the use of social media as a marketing tool. Participants were required to possess basic knowledge of social media channels. The PIDS-DICT Online Survey of Market and Non-Market Work was administered to training participants from May 3 to May 5, 2020. There were 23 completed responses from the affiliate marketing training and 360 completed responses from the social media marketing training.

The ICT-LCDB conducted another online training in digital marketing from May 11 to May 22, 2020. This was open to the public although participants were required to be computer literate. The online survey was administered to the training participants from May 21 to May 24, 2020 that yielded 187 completed responses. PIDS also rolled out the same online survey from May 5 to May 9, 2020 to cover some of the participants of previous ICT-LCDB training. There were around 229 participants who were contacted and 55 have completely filled-out the survey form. An additional 14 respondents were recruited based on a snowball sampling technique.

These three online surveys yielded 639 respondents. In terms of distribution, 35% of the respondents have neither platform nor non-platform work, 14% have platform work only, 42% have non-platform work only, and 9% have both platform and non-platform work. 40% of respondents had done platform work (during the survey month and/or the past 12 months) and around 65% are females. Since these surveys are based on non-random sampling (purposive and snowball sampling), it is important to emphasize that analysis using this dataset holds true only for these samples. It is noteworthy, however, that results from the analysis below appear to be consistent to the broad findings of studies that used representative surveys abroad.

² http://digitaljobs.ph/.

B. Platform work: Incidence, portfolio, and transitions

B.1 Incidence of platform work

To provide a more systematic characterization of respondents with respect to platform work, a probit regression was implemented using samples who have engaged in platform work during the survey month and/or during the past 12 months³ vis-à-vis samples who have not. Based on the probit model estimates, presented in the appendix, the probability of being a platform worker is predicted. To do this, a respondent with the following benchmark characteristics are assumed⁴: household head, 35-year-old, single, has finished at least a college degree, has contributed to a social security fund in the last 6 months, has a private health insurance and a savings account, does not belong to a low-income household (total household income per month of at most PhP 20000), has paid for online courses/training in the past 12 months, has no income from other sources such as online selling and/or cryptocurrency, and has no non-platform work. Given this profile, the probability of being a platform worker is predicted by changing one attribute in the set of benchmark characteristics at a time. Thus, the analysis below is always relative to the benchmark respondent.

From figure 1, women have a higher probability of working on the platform than men, a result that is consistent with Berg (2016) and Ipeirotis (2010) in the case of Amazon Turk workers in the US. Relative to the benchmark respondent, those who have no health insurance and do not contribute to social security fund have higher probabilities of being engaged in a platform work. In addition, the probability of a 25-year-old to engage in platform work is higher by 7-8 percentage points than a 35-year-old. People who have income from other online sources have a higher probability of working in a platform as well, which implies that workers take advantage of economies of scope as platform work and other online sources of income use similar set of skills and online tools.

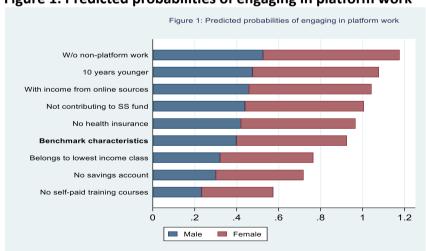


Figure 1: Predicted probabilities of engaging in platform work

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

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³ 255 out of 639 respondents

⁴ These are marginal effects calculated at representative values, which are different from the marginal effects at the means (MEM) and the average marginal effects (AME) in that the latter two rely on averages and produce a single estimate of the variable's marginal effect.

Respondents without a savings account have a lower probability of being platform workers, a result that potentially captures the role of payment systems used by digital platforms. Indeed, some respondents have qualified that their savings are not used to hedge against uncertainties but intended to facilitate remittances and money transfers. Those who belong to low-income households have a lower probability of engaging in platform work, which suggests the presence of constraints in acquiring tools and resources necessary to prosper in online work. Those who have not paid for online courses/training have a lower probability of engaging in platform work as well.

B.2 Work portfolio

Online work exists in a spectrum of work, so it is necessary to analyze online work in the context of work portfolio. To do this, a multinomial logit regression is done on the respondents' current state of work, namely, has platform work only, has non-platform work only, or has both types of work. Using the benchmark characteristics above, the worker's probability of being in a given state is predicted. Results indicate that men have a higher probability of working exclusively in non-platform work and this is observed for those who belong to low-income households, have not paid for training in online work, and have no past platform experience (figure 2). Meanwhile, younger men and men with income from other online sources have a higher probability of working in both types of work. Those who do not contribute to a social pension fund have a higher probability of working exclusively on the platform, on the other hand.

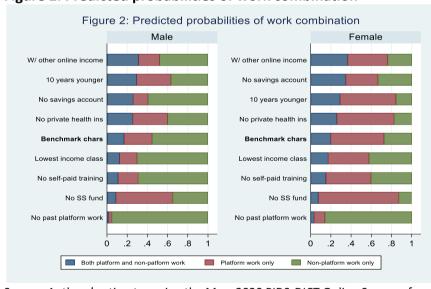


Figure 2: Predicted probabilities of work combination

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Men have a higher probability of working solely in a non-platform work while women have a higher probability of working exclusively in a platform work. This is true for those who are younger and have no private health insurance. Women who do not contribute to a social security fund have a higher probability of working exclusively in a platform- a result that is similar to that of men although the probability is remarkably bigger. Relative to the benchmark, the probability of doing both types of work is higher among women who have no private health insurance, no savings account, and no other online sources of income.

B.3 Transition from platform work

Platform work has significantly advanced due to two factors, namely: ICT developments and the onset of the COVID-19 pandemic. However, there are serious issues such as the lack of security entitlements and collective representation, both of which raise doubts on whether net benefits can be derived. In the Philippines, isolation, or the lack of interaction with other workers, and time management due to the workers' housework responsibilities or full-time jobs, are cited as challenges (figure 3). More importantly, there are concerns linked to the lack of collective organization and weak voice of platform workers. Low pay arising from workers' inability to negotiate the contract price and the rejection of outputs due to the workers' inadequate skills or of the high clients' standards are reported as problems for around 18% of the respondents. This is not surprising since the balance of power is skewed in favor of clients, perpetuated in part by the "race to the bottom" mentality of some platform workers (e.g. charging a lower price to get the job in order to build up credentials). Lack of job security is a problem among respondents who have an existing contract at the time of the survey⁵. Almost at par in importance with the lack of job security is the problem of slow internet connection.

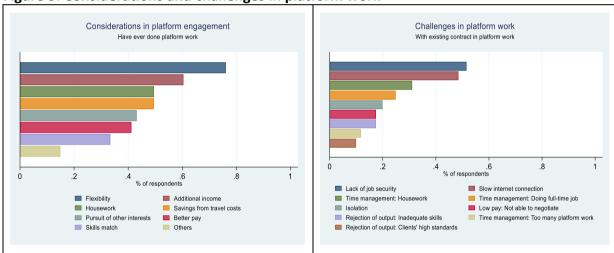


Figure 3: Considerations and challenges in platform work

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Concerns on the continuity of employment and on the types of skills developed in platform engagements are valid especially when platform workers are young. This implies that the sustainability of platform work hinges on its ability to broaden the experience and deepen the expertise that workers can use in the future either as continuing platform workers or workers in other forms of work. Thus, it is important to analyze factors that affect a worker's transition from platform work to a given work portfolio. This is done following the literature that emphasizes the important role of motivations in determining employability in crowdsourcing (Leimeister et al., 2009; Barnes et al, 2015; Battistella and Nonino, 2013). Based on the online survey, around 37% of those who have ever done platform work considered skills match and the availability of non-platform work (figure 4). Monetary considerations are also important drivers as platform work generates savings from travel, pays more, or supplements existing incomes.

⁵ 161 respondents, were asked to choose at most three from the options

However, majority of respondents are attracted to the flexible work arrangement inherent in platform work. Factors related to flexibility such as housework and the pursuit of other interest such as travel, leisure, and attending school are considered by 50% and 45% of respondents, respectively. Flexibility makes platform work even more attractive since it helps address monetary considerations and allows the diversification of work portfolio to other forms of work and economic activities. However, the quality of work and the physical and mental strain are just few of the issues that can override these advantages. Evidence of stress among online workers have already been found in workers from high-income economies (Chen, 2014). In addition, evidence from the PIDS-DICT online survey indicates that only around 39% of Filipino workers with both platform and non-platform work have at least 90% of their outputs approved by the contracting firm while around 60% of workers whose work portfolio consists of platform work alone have an approval rate of at least 90%.

Leveraging the data on platform work in the past 12 months, the transition from a platform work to the worker's current work portfolio is analyzed using the benchmark characteristics described above. There are three broad categories of motivations culled from the data. These include money (such as savings from travel cost, additional income, or better pay), flexibility (such as housework, preference for work from home, or the pursuit of other interests), and labor market (such as skills match and the inability to find work in non-platform arrangement).

Figure 4: Predicted probabilities of transition from past platform work Consideration in past platform work: Skills match Consideration in past platform work: Money Female Female No contribution, SS fund No contribution, SS fund No contribution, SS fund No contribution, SS fund W/o self-paid training W/o self-paid training W/o self-paid training W/o self-paid training 10 years younger Benchmark chars 10 years younger 10 years younger W/ online income sources W/ online income sources 0 .2 .4 .6 0 .2 .4 .6 0 .2 .4 .6 .8 1 .2 .4 .6 To current platform work To both types of work To current non-platform work To current platform work To both types of work To current non-platform work Consideration in past platform work: Flexibility Male Female No contribution, SS fund No contribution, SS fund 10 years younger 10 years younger W/o self-paid training W/o self-paid training Benchmark chars W/ online income sources W/ online income sources .2 .4 .6 .8 1

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

To both types of work

To current non-platform work

Transitions to a given work portfolio are affected by the worker's motivation in engaging in platform work and the effects considerably vary (figure 4). Given skills considerations in the past platform work, the benchmark respondent has a higher probability of moving forward as an exclusive platform worker. This is in sharp contrast to workers who have no contributions to social pension fund in the past 6 months and those who belong to low-income households. These workers are more likely to move forward as exclusive non-platform workers. In addition, workers who do not have private health insurance, are 10 years younger, with income from other online sources, and have worked in non-specialized platform tasks (clerical, data entry, translation, tutorial services, marketing, and sales support) have higher probabilities of combining platform and non-platform work at present.

Given monetary considerations in the past platform work, male workers with benchmark attributes have a remarkably high probability of moving forward as exclusive non-platform workers. This is in sharp contrast to their female counterparts who have higher probabilities of having both types of work in their current portfolio. The only scenario where female workers have higher probabilities of exclusively engaging in non-platform work would be when they belong to low-income households. This implies that platform work rewards skills and requires resources that workers with financial constraints have no capacity to acquire nor address.

A different story emerges from flexibility considerations. Workers have high probabilities of moving forward as exclusive platform workers and this observation holds true between gender and across different attributes. The only time that workers have a high probability of moving forward as non-platform workers is when they belong to low-income households.

B.4 Takeaways

Several observations have surfaced from the preceding discussion. First, consistent with findings abroad, there are segments of the population that may be naturally drawn to online work. The paper finds that platform workers in the Philippines are young, which has implications on skill formation and human capital development since a quarter of Filipino online workers are performing tasks that are at the lower end of the value chain. On one hand, some workers may consider their engagement in platform work as a primary source of income or as part of their long-term work portfolio. Thus, skills development that will facilitate the shift from simple and repetitive microtasks to high value-adding macrotasks will make these workers competitive in platform work. On the other hand, workers may view their platform work as temporary, as they take advantage of the flexibility that allows them to pursue schooling, travel, or other interests while they are young. Skills development is also important for these workers so that their experience on the platform can enhance their employability in any types of work arrangement.

Second, work experience is essential in securing a job in platform work. The paper finds that those who have no work experience have practically zero probabilities of including an online work in their current work portfolio. From the demand side, this suggests that firms use experience as a signal of worker's ability and output quality. On the supply side, this suggests that the accumulation of experience depends on the requisite hard skills such as ICT skills, numeracy, and literacy and soft skills such as negotiation, communication, and networking. Thus, those without strong credentials may find it difficult to find opportunities in a platform

setting. This concern is more pronounced on the heels of an increasing number of job seekers whose skills are honed from their previous platform engagements or developed from their other form of work.

Indeed, in terms of government assistance to ensure that platform work is sustainable, majority of the respondents who experienced platform work have indicated the need for the government to provide training through technical and vocational education and training schools (figure 5, panel A). Provision of infrastructures in the form of faster internet connection and setting-up of digital labor platforms that will facilitate the matching of demand and supply are also listed as important areas of intervention by 61% and 50% of the respondents, respectively. Provision of security entitlements and finding clients/employment are areas that platform workers need of assistance as well. In part, the areas of intervention raised by platform workers are echoed by respondents who are not engaged in platform work⁶ (figure 5, panel B). The lack of opportunities in platform work and inadequate skills are major reasons for not engaging in platform work. Inadequate resources such as time and internet connectivity are also cited by a good number of respondents. There are labor market issues, such as low pay and the termination of contract due to COVID-19, as well.

Help from the government to ensure that platform work is sustainable Have ever done platform work

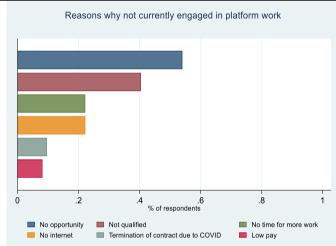


Figure 5: Potential areas of intervention and support

Improve internet connection

Help find online work

Provide training

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Set-up digital labor platforms

Third, workers take advantage of economies of scope as they leverage skills and resources common across platform work and other economic activities. However, workers need to be mindful when exploiting these opportunities due to the potential tradeoffs between output quality and work intensification. The latter may result in physical and mental strain. Thus, it is vital to develop organizational, planning, and time management skills, as workers exploit the flexibility and autonomy on the platform.

Fourth, women are more likely to engage in platform work than men. A nuanced look reveals that women's current work portfolio is more likely than men to include both types of work. While evidence on the lack of social protection in platform work abound, the paper finds that there are gender issues on the coverage as more women are more likely to exclusively work in a platform setting. However, this is not a result of a direct bias against women but is a likely consequence of women's choice to engage in platform work. Their attraction to this work

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⁶ 478 respondents, were asked to choose at most three from the options

arrangement is hardly surprising given that the flexibility allows them to perform non-market work as well. This highlights the need for crafting policies to enhance the social protection of platform workers, without which will likely exacerbate gender inequalities.

Fifth, motivations in doing past platform work influence the worker's transition to a given work portfolio. This paper finds that given skills and monetary considerations, both men and women have zero probabilities of moving forward as exclusive platform workers. This contrasts with the transition given flexibility as motivations, with past platform workers being more likely to move forward as platform workers as well. Looking into specific scenarios, those who belong to low-income household have small (if not zero) probabilities to move forward as platform workers, which implies the absence of key ingredients that enable work on the platform to flourish, namely, connectivity, skills, and social network.

A stark contrast can also be observed between men and women's transition given monetary considerations in their past platform work. While men have higher probabilities of transitioning to non-platform work only, women have higher probabilities of moving forward with both types of work in their work portfolio. These potentially reflect gendered wage inequalities in the standard work setting. To illustrate, between 2016-2018, the average daily pay of professional men is PhP 830 and that of women is PhP 753 while the average daily pay of men as service and sales workers is PhP 354 and that of women is PhP 265⁷.

C. Wage and hours worked

C.1 Wage per hour

To analyze worker's compensation on the platform, the paper uses the data collected from the following question: Given the contract price and the time it took you to finish the task in the contract, how much would your estimated wage per hour be? This question was asked in relation to the respondents' platform work in the past 12 months and in the month prior to the ECQ. Women's average wage per hour in platform work in the past 12 months is around twice that of men while it has become 2.4 times bigger in the current month. The compensation in platform work is bigger compared to the average basic pay at the national level, which makes platform work an attractive option, although other factors such as the potential discontinuity, intermittency of contracts, and the absence of security benefits can more than offset monetary gains.

This section aims to provide a systematic analysis of factors that affect compensation on the platform. Based on the estimates that use the panel structure of the data, the hourly wage in platform work is predicted using the following benchmark characteristics: household head, 35-year-old, single, has finished at least a college degree, has savings account, has paid for online training/course, has no non-platform work, does not belong to a low-income household, did not negotiate the contract price, is working for a local platform, and is performing non-specialized platform tasks.

Men and women have similar compensations once sociodemographic characteristics and work-related variables are controlled for (figure 6). There are several observations worth noting, however. Looking into the benchmark characteristics, the predicted wage of platform workers is around PhP230/hour or US\$4.6/hour. This is higher than the country's minimum wage in 2020 that ranges from PhP250-450/day or US\$ 4-9/day. This is also higher than the

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⁷ Source of basic data: http://openstat.psa.gov.ph/.

basic pay of a professional, one who performs specialized platform tasks that may be roughly comparable with the benchmark platform worker, at PhP753-830/day or around US\$15-16.6/day (table 1).

In addition, the predicted wage is higher for workers with income from online sources, which may reflect the complementarity of skills in platform work and in other economic activities online. Workers in international platforms have higher hourly wage (between US\$8.24-9) than those engaged in local platforms. This rate is comparable with the average pay of Amazon Turk workers in the US in 2017 at US\$8.51/hour (see Berg et al, 2018).

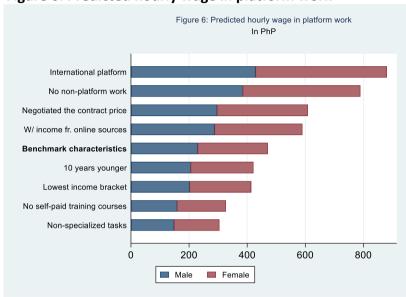


Figure 6: Predicted hourly wage in platform work

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Table 1: Mean compensation, in PhP

Wage/hour in platform work*	Month prior to ECQ (Past 12 months)
Male	502 (407)
Female	1200 (780)
Real basic pay/day in standard work setting: Average of the Professionals, Technicians & Associate Professionals, Clerical Support Workers, Service & Sales Workers**	Year: 2016-2018
Male	552
Female	499
Real basic pay/day in standard work setting: Professional**	Year: 2016-2018
Male	830
Female	753

^{*}Source: PIDS-DICT Online Survey of Market and Non-Market Work.

Similarly, workers who have negotiated the contract price have higher wages than those who did not. Relative to microtasks or tasks that are clerical in nature, the contract price for specialized platform tasks/macrotasks can be negotiated. This brings to the fore the importance of developing more specialized skills and soft skills such as negotiation and communication, both of which can help command higher contract prices on the platform. Aggregate patterns show that Filipino platform workers are working in creative/multimedia, clerical/data services,

^{**}Source of basic data: http://openstat.psa.gov.ph/.

and marketing/sales support, the last two of which are at the lowest portion of the value chain. This is also reflected in the PIDS-DICT online survey data with around 45% have jobs that are clerical in nature, 24% have jobs that are into creative/multimedia, and another 24% are into marketing/sales support.

Looking into the factors associated with lower wage/hour. the study finds that those who belong to low-income households and who have not invested in training courses, have wage/hour that is lower relative to the benchmark. This is also true for those who are performing non-specialized platform tasks. These indicate the need for support for training and skills development, building social networks, and strengthening access to online tools and resources. Younger workers have lower wage/hour, which implies that experience is essential not only in securing jobs on the platform but in commanding high compensation as well.

C.2 Hours worked

There is also a need to analyze the number of hours spent on platform work and this is done in the context of both market work and housework. To do this, the paper uses the response collected from the following questions: Thinking about your major platform work in the month before the Quarantine (February 14, 2020 to March 14, 2020), what was the average number of hours that you spent on it per day? and Thinking about your past platform work in the last 12 months (March 14, 2019 to March 14, 2020), what was the average number of hours that you spent on it per day? Like the wage data, hours work pertaining to the current platform work and to the platform work during the last 12 months are collected. Using this panel dataset, hours spent on platform work per day are predicted assuming the following benchmark characteristics: household head, 35-year-old, single, has finished at least a college degree, does not belong to a low-income household, has no income from other sources, is doing macrotasks for a local platform, and has money and flexibility as motivations for engaging in platform work.

Given the benchmark characteristics, the number of hours spent on platform work are predicted for given hours spent on housework. Men and women's platform work hours are higher when they are not engaged in a non-platform work (figure 7). Specifically, men spend around 4 hours on the platform given that they have no non-platform work and they spend zero hours on housework. The time men spend on platform work increases to an hour given 1-2 hours of housework but sharply declines beyond. When men are engaged in non-platform work, the time spent on the platform setting continuously declines as housework increases. Beyond 3 hours of housework and regardless of their engagement in a standard work arrangement, the time spent by men on the platform is already zero.

Figure 7: Predicted hours/day in platform work Male Female 6 o з Hours doing housework Without non-platform work With non-platform work

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

In contrast, the time women spend on online work is more stable. They work for 3.5 hours on the platform given that they have no non-platform work and they spend zero housework hours. This increases by 17 minutes as they perform an hour of housework and declines beyond. Although lower in magnitude, these patterns are observed when women have non-platform work as well.

C.3 Takeaways

One of the distinguishing features of platform work is flexibility, which allows workers to do market work alongside non-market work. This is confirmed by the result, as the number of hours spent on housework and in platform work positively co-move. However, this holds true only at low levels of housework hours. Beyond 1-2 hours spent on housework, the time spent on platform work declines. This suggests that double burden resulting from housework and market work may not be a problem. Workers may naturally scale down their non-market work as market work intensifies. Thus, platform work can be an effective way to achieve the Sustainable Development Goals 5 (SDG 5: Gender Equality and Empowerment of Girls and Women). In recent years, there is a renewed call for policies to address care work in the country (Abrigo and Francisco-Abrigo, 2019; Bayudan-Dacuycuy, 2019). While these studies advocated for the improvement in child care services and the achievement of work-life balance through a 4-day work week, our paper finds that women empowerment can be enhanced through platform work provided that the government can fill in critical gaps in skills development, training support, and social protection. However, double burden resulting from doing both platform work and non-platform work can lead to physical and mental stress. This reechoes the need for organizational, planning, and time management skills.

In addition, compensation associated with platform work is higher than the minimum wage and even the average national daily basic pay. Several factors associated with higher wage per hour include the engagement in international platforms and the ability to negotiate the contract price. Factors associated with lower wage/hour include the engagement in microtasks and the lack of investment in training courses. Being in a household that faces financial constraints is also a proximate factor of lower wage/hour. These results suggest the following: First, skills development is imperative and the importance of hard skills such as ICT skills, numeracy, and literacy should be emphasized since these are skills that not only will help in securing a job on the platform but will help workers command high compensations as well. These also underscore the need for soft skills such as negotiation and communication. Armed with hard skills, workers will have the confidence to negotiate. Equipped with communication skills, workers will be able to effectively market and promote themselves in the online world. These skills, together with planning, organizational, and time management skills will help workers secure and sustain employment and influence their compensation on the platform.

Second and related to the first, training support is vital in terms of building networks and strengthening access to online tools and resources. Like in a standard work setting, firms engaged in platform work turn to the worker's experience to assess the presence of desirable but unobservable characteristics such as workers' efficiency, quality, and attitude to work. Unlike in a standard work arrangement where firms invest in workers through training supports, workers in platform work are solely responsible for their own training and skills development since they need to bring into the platform a certain level of knowledge and expertise.

Zooming in on training, around 51% of the 639 respondents had attended training in platform work in the past 12 months. Online training, either through free videos or paid online courses, were popular sources among the respondents with around 54% availed free online training (e.g. YouTube) and 39% attended paid online courses (e.g. Coursera). Among government agencies, DICT was a training source for half of the respondents. Other government agencies such as TESDA, DOLE, and DOST were not as popular. Majority of respondents have attended DICT-sponsored training due to intentions of future engagement in online or platform work (figure 8, panel B). The importance of online tools as part of the business strategy and reskilling of respondents with current platform work also appear to be drivers of attending the training. While losing either their platform or non-platform work was among the least popular reasons, around 7% and 10% of the respondents had indicated these to be the reasons, respectively.



Figure 8: Motivations of participation in training

Source: Authors' estimates using the May, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Looking into the important skills to gain more projects through digital platforms⁸, majority of respondents who have ever done platform work indicated the need for skills on sales/digital marketing (figure 8, panel B). Digital marketing includes Search Engine Optimization, content marketing, social media marketing, and affiliate marketing, all of which require the creation of brand/product awareness through various online channels such as the social media, search engines, blogs, and other websites. Respondents also indicated the need

⁸ Respondents were asked to check all that apply.

for skills needed in macrotask such as graphic and web design, research and data analysis, and computing. Soft skills such as communication, negotiation, and networking are considered just as important. On the other hand, skills related to microtasks such as translation and data entry are reported important by the least number of respondents.

D. Moving forward

There is a need to create an ecosystem for skills and talent development.

In the face of increasing fragmentation and digitization of work, initially driven by ICT developments and increasingly pushed as an alternative by the pandemic, there is a need to enhance existing competencies and literacies that will enable Filipinos to fully participate in and benefit from the value creation in the platform economy. On its own, Skills development is a critical issue since Filipino crowdworkers have encountered challenging situations such as getting a failing mark from contracting firms even after following work requirements.

Young people are more likely to engage in platform work since they have the skills and network and are well-versed with the online tools and resources. This has important implications on skills and human capital development in the country where online work is mostly at the lower end of the value chain. Workers without the requisite hard skills are unlikely to find opportunities on the platform as firms put a premium on experience. This concern is more pronounced due to the increasing number of skilled online job seekers.

What are the skills needed on the platform? Like in standard work arrangements, a combination of hard skills (e.g. ICT skills, numeracy, literacy) and soft skills, such as learnability, adaptability, diligence, grit, and positive attitude to work, are equally important in platform work (see Barnes et al, 2015). These are the same set of skills necessary to command a higher compensation and sustain employment in any types of work setting. Thus, the literacies and competencies of the 21st century learners to adapt to the needs of the Fourth Industrial Revolution remain relevant to this new type of work, except that competencies are demonstrated in the online world. Soft skills such as skills in communication, networking, and negotiation are also essential for workers to effectively market and promote themselves in the online world.

These call for a national competency framework to assess the existing capabilities of the country's current workforce and to adjust these to the current and emerging needs of the global and local markets⁹. An ecosystem of talent and skills development entails the collaboration of private and public stakeholders and the use of ICT to enhance the delivery of training and skills support. One initiative that the state can explore is to bring together the markets for skills through digital platforms. This facilitates not only the matching of supply and demand but more importantly, the flow of information that can help all stakeholders to develop initiatives for further skills development and training support. In addition, the curriculum of the higher education system needs to provide education and training that are forward-looking and attuned to the needs of the future work. Some private universities, like De La Salle University, have expanded their locations in technoparks where manufacturing giants are located ¹⁰, a move that is consistent with the creation of collaborative spaces and hubs that facilitate the exchange of ideas. Issues in basic education should be addressed including

⁹ The rest of the paragraph is lifted from Bayudan-Dacuycuy (2020).

¹⁰ See httsps://www.dlsu.edu.ph/laguna-campus/facilities/

the need to enhance the effectiveness of the basic education curriculum and the competencies of the basic education teachers on the heels of the challenges presented by the K-12 program and, more recently, by the difficulties presented by the ongoing pandemic.

There is a need for training support to promote continuous learning.

Training support is vital for platform workers, starters and experienced workers alike. This is important in terms of building networks and improving access to online tools and resources. For starters, training is important since firms look into worker's experience as a signal for desirable but unobservable characteristics such as efficiency, quality, and attitude to work. While there is no evidence of double burden resulting from housework and market work, double burden and work intensification resulting from doing both platform work and non-platform work can lead to physical and mental stress and to the production of low-quality output. Training in planning, organization, and time management can be useful in this case.

There is a need to strengthen social protection systems to avoid the widening of coverage gaps and gendered inequalities.

Other than concerns for skills development, there is a growing attention to online work because it is associated with the absence of social protection. A nuanced look into the Philippine data indicates that women are more likely to engage in platform work and the lack or absence of social protection will likely exacerbate gender inequalities. In addition, the increasing number of young people attracted to platform work can erode the contribution base. This can widen the coverage gaps of the current generation and strain the public finance for social assistance in case of shocks and crisis. This can also weaken the sustainability of social protection schemes and compromise the financing of future entitlements, an issue that is more pronounced in societies with an increasing elderly population like the Philippines whose elderly population is projected to reach 10% by 2025 and 16% by 2045¹¹.

There are national labor laws that ensure workers' security entitlements. However, the provision for benefits for online work, being a recent phenomenon, is yet to be included in the labor code. Even if it is, enforcement can be a challenge especially where transactions cross national borders and the identification of party responsible for contributions becomes difficult. Thus, national initiatives should be geared towards the provision of a universal social protection that may be financed through taxes and contribution (see Behrendt and Nquyen, 2018). This was done for the Universal Health Care that was financed through sin taxes in the first year of implementation and through worker's Philhealth contributions (from 3%, with an increase of 0.5% per year until it reaches the 5% limit, https://www.philhealth.gov.ph/news/2019/new_contri.php).

In the case of online workers, national initiatives should be geared towards designing a system that attracts workers to build their social protection. This can be done by enhancing the portability of contributions since this will ensure the continuity of entitlements when workers shift from one work arrangement to another. Doing this may encourage voluntary contributions that can help widen the contribution base. The system should also leverage the fact that most online workers receive their payments through bank transfers. Developing a savings product with attractive features (e.g. minimal maintaining balance) can strengthen financial inclusion while offering unemployment insurance and training supports can attract wider subscription.

¹¹Computed based on the PSA data downloaded from https://psa.gov.ph/sites/default/files/attachments/hsd/pressrelease/Table1_8.pdf (Accessed May 20, 2019).

Lastly, launching regular literacy campaigns (e.g. nudges using SMS) can help influence mindsets and behavior.

There is a need to improve the visibility of platform work to fill in critical knowledge gaps.

As the platform work becomes increasingly integrated into the spectrum of various work arrangements, crucial issues not only on crafting social protection schemes and designing initiatives for skills development but on regulation and taxation arise. Thus, there is a need to come up with a taxonomy that will classify the range of economic activities in platform work for the Philippines, the absence of which will likely to contribute to challenges in data collection and measurement.

While developed economies have started to develop methodologies to integrate this work arrangement in their labor force surveys, there are still outstanding challenges on data collection that need to be addressed. First, including a module on platform work as a rider to standard labor surveys may not be adequate to capture the scope and complexity of existing work arrangements on the platform (Abraham et al, 2019). Second, tracking down platform workers and enticing them to participate and truthfully disclose information are problems that need to be highlighted on its own but more so on the heels of the potential taxation of the online economy.

3. Summary and conclusions

Various developments at the global and local stage have paved the way for online work to flourish. It has provided economic opportunities to workers and has the potential to help in achieving various SDG targets. Despite these, there are concerns and challenges that need to be addressed in order for platform work to become sustainable and mainstreamed. Recognizing that platform work/online work exists in the spectrum of work, sustainability means that digital platforms create a pool of human resources with skills and expertise that are useful in any types work setting.

To make the platform work sustainable and to help workers to fully participate in, and benefit from the value creation in the platform economy, the following initiatives are imperative: 1) create an ecosystem of skills development and training support that is useful in any types of work setting and that is anchored in a whole-of-government approach, 2) strengthen the system of social protection to prevent the widening of coverage gaps and gendered inequalities, 3) consider platform economy as an area of cooperation among Asian nations, and 4) improve the visibility of platform work through a well-thought-out taxonomy and data collection method.

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APPENDIX

Table 1A: Estimates: Incidence, current work portfolio, and transition from past platform work

	Incidence	Current work portfolio		Transition from past platform work	
	Have ever done platform work	Platform work only	Both platform and non-platform work	To platform work	To both platform and non- platform work
emale emale	0.32***	1.35***	0.86**	1.29	1.22
	[0.12]	[0.38]	[0.41]	[1.38]	[1.21]
Household head	0.27**	0.21	0.21	0.15	0.09
	[0.12]	[0.35]	[0.39]	[0.66]	[0.65]
Own home	0.04	0.46	0.58	-0.58	-0.26
	[0.12]	[0.34]	[0.38]	[0.76]	[0.76]
ge	-0.02**	-0.06**	-0.10***	-0.06	-0.12**
	[0.01]	[0.03]	[0.03]	[0.05]	[0.06]
Iarried	0.07	0.34	0.72*	0.87	1.05
	[0.12]	[0.37]	[0.41]	[0.68]	[0.68]
t least college	-0.07	-0.44	0.48	0.08	1.14
•	[0.13]	[0.40]	[0.55]	[0.73]	[0.87]
7ith monthly household income <=PhP20000	-0.21*	-0.70*	-0.56	-1.93**	-1.76**
	[0.11]	[0.37]	[0.40]	[0.77]	[0.78]
7ith income from other online sources	0.15	-0.15	0.76**	-0.01	1.04
	[0.12]	[0.36]	[0.37]	[0.68]	[0.67]
7ith savings account	0.27*	0.71	-0.36	0.02	-1.21
	[0.14]	[0.54]	[0.51]	[0.98]	[1.05]
ith non-platform work	-0.33***	2.77***	2.86***	[0.50]	[1.00]
THE HOLD PARTOLIN WOLLD	[0.11]	[0.35]	[0.41]		
rban	0.26**	-0.23	-0.45	-0.47	-0.58
1041	[0.12]	[0.37]	[0.40]	[0.78]	[0.72]
ontributes to social security fund	-0.11	-1.16***	0.2	-0.71	0.44
ontrodies to social security fund	[0.12]	[0.34]	[0.43]	[0.61]	[0.67]
Vith private health insurance	-0.05	-0.54	-0.73*	-1.44**	-1.30*
This private neutri insurance	[0.12]	[0.34]	[0.39]	[0.73]	[0.70]
ave paid for training in the past 12 months	0.48***	0.55	0.66	-0.32	-0.33
ave paid for training in the past 12 months	[0.13]	[0.38]	[0.41]	[0.60]	[0.61]
ave attended DICT-training in the past 12 months	0.27**	-0.82**	-0.29	-1.71***	-0.7
ave attended DIC1-training in the past 12 months	[0.11]	[0.35]	[0.38]	[0.63]	[0.62]
ast work: Web design/Software dev/tech	[0.11]	[0.33]	[0.36]	0.05	-1.47
ast work: web design/software dev/tech					
oot works I oool plotform				[0.93] -1.80***	[1.00] -1.13*
ast work: Local platform					
				[0.64]	[0.64]
ast work: Money consideration				-1.91**	-0.38
1 79 1111				[0.85]	[0.99]
ast work: Flexibility consideration				13.14	-1.72
				[862.99]	[1.14]
ast work: Skills match consideration				0.81	0.93
				[0.66]	[0.66]
Constant	-0.22	-0.47	-0.82	-7.31	6.79**
	[0.31]	[1.08]	[1.23]	[863.00]	[2.83]
fumber of observations	637	412		127	
hi2	68.16	213.11		73.26	
J1112	0.00	0.00		0.00	

^{*/**/***} Significant at 1/5/10% level. Figures in the parentheses are standard errors. Base category for Incidence: have not done platform work; Base category for Work portfolio: non-platform work only; Base category for Transition from past platform work: to non-platform work only. Data used for Incidence, Work portfolio, and Transition from platform work: past 12 months and current month, current month, and past 12 months and current month, respectively.

Table 2A: Estimates: Hours worked on the platform and wage per hour

	Hours worked on the platform		Wage/hou
Female	-0.09	Female	0.05
	[0.11]		[0.19]
Iousehold head	0.40***	Household head	0.25
	[0.12]		[0.17]
emale* Housework	-0.21*	Own home	-0.08
	[0.12]		[0.17]
Vith non-platform work	-0.19	Age	0.08
	[0.27]		[0.08]
emale* With non-platform work	-0.4	Age^2	0
	[0.29]		[0.00]
Vith non-platform work *Housework	-0.88**	Married	0.25
	[0.34]		[0.17]
emale* With non-platform work *Housework	1.07***	At least college	0.29
	[0.37]		[0.18]
fousework^2	-0.12**	With monthly household income <=PhP20000	-0.13
	[0.05]	·	[0.17]
ead	0.18**	With income from other online sources	0.23
	[0.08]		[0.17]
wn home	0.03	With savings account	-0.03
	[0.08]	Ç	[0.24]
ge	-0.02	With non-platform work	-0.52**
	[0.04]	1	[0.25]
ge^2	0	Have paid for training in the past 12 months	0.36**
5	[0.00]	S I	[0.16]
Iarried	0.1	Negotiated the contract price	0.26*
	[0.08]		[0.16]
t least college	-0.20**	Web design/Software dev/tech	0.43*
	[0.09]		[0.26]
Vith monthly household income <=PhP20000	-0.14*	Local platform	-0.37**
	[0.08]	r	[0.16]
Vith income from other online sources	-0.1	Constant	3.42**
	[0.08]		[1.42]
Vith savings account	0.1		()
, and survings decount	[0.11]		
Veb design/Software dev/tech	-0.55***		
to design potential de viteen	[0.12]		
ocal platform	-0.05		
ovar pranomi	[0.08]		
ast work: Money consideration	0.26*		
·	[0.16]		
ast work: Flexibility consideration	-0.05		
·	[0.11]		
ast work: Skills match consideration	0.04		
	[0.08]		
Constant	2.27***		
onstant	[0.74]		
umber of observations	277	Number of observations	320
(22,253)	4.79	F(15,303)	2.77
-value	0	p-value	0.00
^2 within	0.29	R^2 within	0.12
R^2 overall	0.26	R^2 overall	0.12

^{*/**/***} Significant at 1/5/10% level. Figures in the parentheses are standard errors. Data used for Hours work on the platform and wage/hour: panel of past 12 months and current month.