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ABSTRACT

Introduction. The delivery sector has experienced a remarkable expansion in recent years, owing mainly to the COVID-19 pandemic. However, numerous elements, like practices, regulations, and health and safety conditions, impact their efficiency. Similarly, the issues and complaints of delivery services, notably its on-the-ground workers/riders, have grown.

Objective. This research aims to describe delivery riders’ work-related health and safety conditions in the Philippines.

Method. An online survey was conducted for delivery riders to inquire about working conditions, and health and safety issues. Eighty survey respondents were included via snowball sampling. The survey focused on seven variables: precautions at work, health risks due to work, accident involvement, bad driving practices, road conditions, potential dangers for riders, and employer regulations and support. Descriptive statistics were used to analyze the data.

Results. Most riders are low-income married men who have finished at least high school and work more than eight hours a day, six days a week. Most of them also work for food delivery businesses during the day. The findings show a general adherence to traffic and safety laws, a propensity to push oneself to work despite poor conditions, and a lack of company support for riders’ health, safety, and other requirements. The regular delivery rider’s everyday difficulties include dirt roads, a lack of traffic signals, the presence of wandering animals and irresponsible pedestrians, and an insistence on showing up to work despite weather or health concerns. Furthermore, responders have high esteem for and thoroughly grasp local traffic laws.

Conclusion. Although the riders are generally perceived to comply with safety standards, their employers’ rules and support indicate that delivery firms are deficient in providing adequate safety and health measures for their workers. There is low importance on strategies to prevent transmission and contraction of COVID-19, such as vaccinations, testing, face masks, face shields, and sanitizers, among others.

Keywords: food delivery, delivery drivers, working conditions, safety climate, occupational safety and health

INTRODUCTION

Electronic commerce (E-commerce) trades goods, finances, and information through an electronic medium.1 E-commerce has grown more popular in the Philippines over the years. In recent years, Filipinos have become more open to using the internet to purchase goods. Since many entrepreneurs, business owners, and job hunters also shifted their plans toward e-commerce, various delivery services became more popular and used.2 Now, many people count on dependable and efficient delivery concerning a wide range of services such as delivering essential goods, meals, and other purchased products and transport services.

As de facto frontline workers, riders have always taken the brunt of food delivery work. From road hazards to unfair...
legal policies, many circumstances inform the daily life of a food delivery rider, along with their behavioral and social responses. Their work often entails long driving in horrendous traffic situations, like Metro Manila and Metro Cebu. Many work for long days and weeks, which is detrimental to their health. As many riders are on a part-time jobs, such as their primary source of income, the platform firms’ manipulation of its workers imposes economic downsides. It threatens their mental health and life satisfaction. Campbell (2019) reports that many gig workers support themselves through this economy with low success. On top of social instability, financial insecurity leads some to commit suicide.

While infrequently covered in driver safety research, this need for a pro-health workplace culture is further emphasized by the prevalence of COVID-19 among delivery riders. From July to August 2020, 15.2% of 145 riders in Quito, Ecuador, tested positive for COVID-19, significantly higher than the percentages in even the most populous cities. The job’s contact- and travel-heavy nature, combined with the financial instability and lack of protection riders face, puts them at higher risk of infection. It is then up to the employers to provide their employees with regular COVID tests, especially when more riders have entered the workforce. On top of this, riders may view personal protective equipment (PPE) as masks with the same disdain they seem to have for helmets. In this case, it is not only the riders’ health that is threatened—every person they contact may be infected, putting their mental health and life satisfaction. Campbell (2019) reports that many gig workers support themselves through this economy with low success. On top of social instability, financial insecurity leads some to commit suicide.

In this light, this study addresses the following objectives:

- To determine the current working conditions of delivery riders;
- To examine the delivery riders’ health and safety conditions in light of the COVID-19 epidemic.

**METHODS**

This is a descriptive cross-sectional study that employs survey techniques. The questionnaire developed by the authors was pretested on seven delivery riders who were not involved in the study. The authors placed orders with various online food retailers, and the riders were asked to fill out a draft questionnaire voluntarily before accepting the deliveries. The draft was improved based on the pretest results by simplifying some items and removing others that are redundant. The Filipino language was used in the questionnaire.

Because there was no available data on the number of delivery riders in the country, snowball sampling was used in this investigation The participants from the pre-test were used as the initial samples, then from them, the next samples were contacted through referral. This was done until the sample reaches the quota. Data was collected between the second and third quarters of the pandemic in 2021. Because face-to-face interaction with respondents was too dangerous due to the health crisis, the authors decided to collect data online instead, using Google Form. This arrangement was more convenient for the respondents because they only had to complete the questionnaire when they were not working. The eligibility criteria for this study were online food delivery drivers within Luzon area and are employed under the same organization under one platform provider.

There was a total of eighty (80) respondents for the survey from delivery riders in Luzon only. The questionnaire used a 7-point Likert scale to determine whether respondents agreed or disagreed with the statements, with 1 representing "not likely at all," 2 representing "not most likely," 3 representing "not likely," 4 representing "not sure," 5 representing "likely," 6 representing "most likely," and 7 representing "extremely likely."

The categorizations in the questionnaire were based on the essential concepts identified in the authors’ literature review. For each concept, aligned statements were developed to assess respondents’ responses. The items in the survey included socio-demographics, and the categorizations -- precautions, risks, accident records, bad practices, external factors such as road conditions and other potential dangers, and rules imposed by their employers.

The items categorized under "precautions" attempt to evaluate the degree to which the respondents can guarantee that they will not be involved in an accident while on the job. Statements relating to "risks" were formulated to determine respondents’ occupational hazards relative to physical and mental states. In the meantime, the statements filed under the category of "accident" purport to determine whether or not they experienced accidents at work. Statements that involve "bad practices" refer to irresponsible actions taken while carrying out the delegated tasks. In addition, the "road conditions" category of questions seeks to understand and depict the riders’ difficulties associated with roads. In addition, the "danger statements" cluster incorporates a confluence of additional possible problems. Last, "employer statements" determines how good platform companies look out for the health and safety of their workers.

In essence, the study focused on safety precautions observed by the riders, their exposure to physical and social problems, and the availability of decent pay, benefits, and rewards systems. Data were analyzed using descriptive statistics such as the mean and standard deviation. The mean summarizes a data set with a single number representing its center, while the standard deviation measures how far each value is from the mean. The authors didn’t set a central tendency cut-off score for the statements. At every step in this study, the researchers check to ensure that the data’s integrity, quality, and reliability are maintained. The respondents directly send their responses through google docs where only the authors can access them, then the data are anonymized so that the responses cannot be traced back to the respondent.
Strategies to prevent errors from being introduced into the datasets and exercising caution before the data collection such as verifying the legitimacy of the delivery driver and ensuring voluntary participation was done to prevent possible contamination in the dataset. The response time was also noted to see whether there are questionable finish times to verify whether the respondent took the survey seriously.

This study is registered with the Research Grants Administration Office of the University of the Philippines Manila. Respondents and interviewees participated voluntarily in the study in both data collection methods, hence, adheres to confidentiality and ethics transactions. They were fully informed about the investigation’s goals and free to withdraw their participation if desired. They were assured that the data would be handled carefully and solely for this research, and that confidentiality would be maintained following the Data Privacy Act of the Philippines.

RESULTS

On Survey

Eighty delivery riders responded to the survey. Most respondents are low-income married males who have completed at least high school and work more than 8 hours a day, six days a week. The majority of the riders work during the day for food delivery services. The majority of riders (38.8%) finished high school or higher-level education; 20.1% are college graduates, with one rider (1.3%) having a PRC License, 18.8 percent graduated from college, 18.8 percent are currently in college, and 38.8 percent finished high school (Table 1). The numbers show how bad the country’s economy is, with high unemployment and underemployment rates forcing people to take jobs that don’t match their levels of education.

The majority of respondents work full-time. Most of the riders opt to work six days a week. Specifically, 53.8 percent work six 6 days weekly, and 21.3 percent for the whole week. A significant number of riders operate for eight or more hours. Their workload is usually allotted during daytime: 61.3 percent during daytime only, 31.5 percent during both day and night, and only 6.3 percent during nighttime only. Throughout their work, riders commonly reach around 6 to 15 delivery destinations, with some going to more than 20 or more than 40 destinations. Regarding the income of riders, 37.5 percent of them earn around 5000 to 10,000 pesos (100-200 USD) per month. One respondent makes a lot more at approximately 60,000 to 70,000 pesos (1200-1600 USD) per month, depending on the number of parcels delivered (Table 2).

In the survey, riders were asked about the precautions and safety measures they follow at work. Riders mostly agree on doing the preventive measures with a mean rating of 6.07. The riders strongly agree with wearing a helmet. Knowing how to repair their vehicle during an emergency has a mean of 5.26, which means that they somewhat agree with it. Most riders disagreed or were neutral about having experienced significant physical discomfort during work regarding health and safety records. With a lower mean rating of 2.84, riders somewhat disagreed with undergoing mental stress from their work. Riders disagree to various degrees with being involved in accidents during work that may render them unable to work or close to death. However, they are neutral about having skids while driving their motorcycle during work (Table 3).

On the said road behavior, specifically bad practices and road conditions, riders agree to ride through extreme heat and typhoons and push themselves to work despite not feeling well. The highest-rated statements are about going through rocky or bumpy roads and the statement about roads without traffic enforcers, with which riders somewhat agree. Moreover, they moderately disagreed with the statement about getting apprehended by enforcers without any actual violations (Table 4).

Meanwhile, the rating means for the statements regarding employers’ influence, support and authority is 4.10, which translates to neutral. The highest-rated statement is about employers giving punishments when safety rules are violated, and riders somewhat disagreed with the statement about being given vitamins from employers. The low score of the statements about COVID-19 prevention reflects the lack of urgency in curbing the spread of infection despite the increasing employment rate of riders in delivery platforms (Table 5).

There were significant differences between the part-time and full-time riders in terms of the risks factor and the accident factor. The part-time riders had higher ratings on the statements about risks and accidents than the full-time riders. No significant differences were found in the other factors (Table 6).

| Table 1. Sex Distributions, Civil Status, and Educational Attainment of the Respondents |
|------------------------------------------|----------------|--------|
| Sex                                      | Frequency | Percent |
| Female                                   | 2         | 2.5    |
| Male                                     | 78        | 97.5   |
| Total                                    | 80        | 100.0  |

<table>
<thead>
<tr>
<th>Civil Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separated</td>
<td>5</td>
<td>6.3</td>
</tr>
<tr>
<td>Married</td>
<td>39</td>
<td>48.8</td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td>45.0</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Educational Attainment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Graduate</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>31</td>
<td>38.8</td>
</tr>
<tr>
<td>College Graduate</td>
<td>15</td>
<td>18.8</td>
</tr>
<tr>
<td>College Graduate with PRC Licensure</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Graduate of a Vocational or Technical School</td>
<td>17</td>
<td>21.3</td>
</tr>
<tr>
<td>Currently Studying in College</td>
<td>15</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100.0</td>
</tr>
</tbody>
</table>
DISCUSSION

Delivery creates a lively, multi-dimensional business environment that commands serious discussion, especially during the COVID-19 pandemic. Also, the delivery rider's work is platform-based employment with distinct qualities that make it difficult to fit within the typical work arrangement prescribed by the Labor Code. Digital freelance services have spiked since 2020, with food delivery riders as frontlines. New hires and applications for riders also rose by 7.5% and 37%, respectively, during quarantine in

Table 2. Employment Status, Working Duration, Delivery Schedule and Income of Respondents

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>59</td>
<td>73.8</td>
</tr>
<tr>
<td>Part-time</td>
<td>21</td>
<td>26.3</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many days do you work in a week?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Times</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>Three Times</td>
<td>9</td>
<td>11.3</td>
</tr>
<tr>
<td>Four Times</td>
<td>4</td>
<td>5.0</td>
</tr>
<tr>
<td>Five Times</td>
<td>3</td>
<td>3.8</td>
</tr>
<tr>
<td>Six Times</td>
<td>43</td>
<td>53.8</td>
</tr>
<tr>
<td>Seven Times</td>
<td>17</td>
<td>21.3</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3. Rating of Precautions, Risks and Accidents at Work

<table>
<thead>
<tr>
<th>Precautions Statements</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am well-versed in all policies and regulations on road and traffic safety in the Philippines.</td>
<td>5.66</td>
<td>1.534</td>
</tr>
<tr>
<td>I always follow policies and regulations on road and traffic safety.</td>
<td>6.20</td>
<td>1.257</td>
</tr>
<tr>
<td>I have a professional rider's license, and I regularly renew it.</td>
<td>6.14</td>
<td>1.854</td>
</tr>
<tr>
<td>I have undergone training on road safety.</td>
<td>5.89</td>
<td>1.706</td>
</tr>
<tr>
<td>I know how to repair my motorcycle if it breaks down or stops unexpectedly.</td>
<td>5.26</td>
<td>1.874</td>
</tr>
<tr>
<td>I always ensure that the motorcycle I use is fit for work.</td>
<td>6.29</td>
<td>1.616</td>
</tr>
<tr>
<td>I always use a helmet and other protective gear during my shift as a rider.</td>
<td>6.49</td>
<td>1.369</td>
</tr>
<tr>
<td>I always park my motorcycle in the appropriate designated areas.</td>
<td>6.29</td>
<td>1.469</td>
</tr>
<tr>
<td>I am confident in my skill level at riding a motorcycle.</td>
<td>6.43</td>
<td>1.339</td>
</tr>
<tr>
<td>I am well-versed in all policies and regulations on road and traffic safety in the Philippines.</td>
<td>6.07</td>
<td>1.218</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risks Statements</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>My work has resulted in physical injury and discomfort.</td>
<td>3.36</td>
<td>1.884</td>
</tr>
<tr>
<td>My work has resulted in mental stress, affecting other aspects of my life.</td>
<td>2.84</td>
<td>1.702</td>
</tr>
<tr>
<td>Accident Statements</td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are times when I am unable to work due to motorcycle accident/s that I got involved in.</td>
<td>2.65</td>
<td>1.988</td>
</tr>
<tr>
<td>I have been hospitalized due to a road accident in which I got involved during my work shift.</td>
<td>1.84</td>
<td>1.418</td>
</tr>
<tr>
<td>I have suffered bruises and fractured bones caused by accidents on the road while working as a rider.</td>
<td>2.16</td>
<td>1.724</td>
</tr>
<tr>
<td>I have had a near-death experience due to a road accident that occurred while I was working.</td>
<td>2.15</td>
<td>1.773</td>
</tr>
<tr>
<td>I have experienced skids on the road while riding my motorcycle for work.</td>
<td>3.58</td>
<td>2.198</td>
</tr>
<tr>
<td></td>
<td>2.48</td>
<td>1.451</td>
</tr>
</tbody>
</table>
Malaysia, shifting the discussion to improving the protection of riders as gig workers.8

The Department of Labor and Employment (DOLE) in the Philippines ruled in July 2021 that riders in food delivery and courier services are governed by either the Philippine Labor Code or a contract or arrangement with the digital platform firm, according to the presence of an employer-employee relationship. The regulatory body ascertained the

Table 5. Ratings of Employer Regulations and Support

<table>
<thead>
<tr>
<th>Employer Statements</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>My employer provides us with protective gear to prevent serious accidents at work.</td>
<td>4.14</td>
<td>2.048</td>
</tr>
<tr>
<td>My employer covers the costs of maintenance for my motorcycle.</td>
<td>3.88</td>
<td>2.178</td>
</tr>
<tr>
<td>My employer provides riders various benefits such as insurance, SSS, and Philhealth.</td>
<td>4.38</td>
<td>2.346</td>
</tr>
<tr>
<td>My employer sponsors COVID-19 vaccines and testing, including swab tests, saliva tests, and/or RT-PCR.</td>
<td>3.54</td>
<td>2.278</td>
</tr>
<tr>
<td>My employer provides supplies for preventing the spread of COVID-19, such as face masks, face shields, hand sanitizers, alcohol, etc.</td>
<td>3.90</td>
<td>2.265</td>
</tr>
<tr>
<td>My employer promises assistance in case of an emergency at work and immediate investigation to ensure well-being and safety.</td>
<td>4.35</td>
<td>2.147</td>
</tr>
<tr>
<td>My employer penalizes workers who violate safety regulations while working.</td>
<td>4.65</td>
<td>1.943</td>
</tr>
<tr>
<td>My employer provides support in case of an encounter with abusive customers.</td>
<td>4.44</td>
<td>2.024</td>
</tr>
<tr>
<td>My employer ceases operations when dangerous working conditions such as floods, heavy rains, storms, or mobilizations/strikes.</td>
<td>3.95</td>
<td>2.216</td>
</tr>
<tr>
<td>My employer has appropriate systems for handling employee concerns about health and safety.</td>
<td>4.29</td>
<td>2.014</td>
</tr>
<tr>
<td>My employer has an active committee that focuses on worker health and safety against dangers at work.</td>
<td>4.10</td>
<td>1.729</td>
</tr>
</tbody>
</table>

Table 6. Comparing Part-time vs. Full-time Riders Relative to the Seven Work-related Factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Part-Time</th>
<th>Full-Time</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precautions</td>
<td>6.07</td>
<td>6.07</td>
<td>0.989</td>
</tr>
<tr>
<td>Risks</td>
<td>3.81</td>
<td>2.85</td>
<td>0.019*</td>
</tr>
<tr>
<td>Accident</td>
<td>3.04</td>
<td>2.27</td>
<td>0.037*</td>
</tr>
<tr>
<td>Bad Practices</td>
<td>3.88</td>
<td>3.22</td>
<td>0.054</td>
</tr>
<tr>
<td>Road</td>
<td>4.95</td>
<td>4.30</td>
<td>0.073</td>
</tr>
<tr>
<td>Dangers</td>
<td>4.40</td>
<td>3.86</td>
<td>0.180</td>
</tr>
<tr>
<td>Employer</td>
<td>4.72</td>
<td>3.88</td>
<td>0.085</td>
</tr>
</tbody>
</table>

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presence of an employer–employee relationship between both
the delivery rider and the digital platform company by using
the principle of “primacy of facts” by applying the four-fold
test, the economic reality test, and the independent contractor
test while taking into account work flexibility, including
working time, control through technology, and a variety of
other factors. The four-part test applies to the employee’s
selection and engagement, wage payment, dismissal authority,
and control over the employee’s behavior.9 As such, these
companies usually deny liability to third-party victims for
damages due to auto accidents, discrimination, and other
adverse outcomes from their business.10 As self-employed
contractors, the workers don’t have the right to form unions
and negotiate contracts. This is particularly problematic since
workers have lost the opportunity to bargain for improvements
in their pay, terms, and work conditions through associations.
Consequently, this further lessens the workers’ influence on
the company’s decisions that affect them.11

Most riders in this study finished high school or higher-
level education (38.8%). For the riders who have finished high
school, working on the platform might take up too much
time, making it hard for them to pursue further schooling
such as technical or vocational courses or a college degree.
On the other hand, college graduates might feel bad about
their precarious job as a rider because, despite their education,
they can’t find better jobs. In the Philippines, there is a lot
of underemployment and unemployment, which forces many
people to take jobs that aren’t good for them or migrate abroad
to seek for greener pastures. Timko and van Melik12 affirm the
finding of this study through interviews with a representative
sample on student visas. The most significant portions, high
school graduates and vocational/technical schools, likely took
on the job due to its relatively loose requirements as a gig-based,
virtually freelance occupation with a high recruitment rate.13
Tied in third place are college graduates and current college
students. In certain cities, such as Nijmegen and Berlin, most
delivery riders are on student visas and are numerous enough
to form their own communities or subcultures.12 Migrant
workers are another major group that dominates the delivery
rider population in these countries, which creates a potential
parallel with the Philippine rider workforce dominated by
high school graduates. The lack of a college degree coupled
with the ease of applying as a rider can spell convenience
for immigrants whose job options are significantly limited.12

Riders agreed on preventive measures with a mean
rating of 6.07 and strongly agreed with wearing a helmet.
However, they were not questioned about the frequency
with which they put on the helmet. The reality, however, is
that traffic enforcers in the Philippines, especially in urban
areas like Metro Manila, closely monitor motorcyclists with
checkpoints to apprehend the violators, such as those not
wearing helmets, which are subject to hefty fines. This may
explain why they always wear helmets since not doing so
makes them more visible to law enforcement officers, even
at a distance. On the contrary, previous literature suggests
helmet use is a recurring problem among motorcycle riders,
specifically delivery workers. The refusal to use helmets is a
 recurring issue in various countries, being one of the most
concerning risk behaviors among riders from Greece.14 In
Malaysia, the use of non-standard helmets, or those prone
to accidents and were not approved by their standard and
industrial research institute was prevalent among more
experienced riders.15 The same study suggests that standard
helmets are also tied to factors such as age, education level,
and crash history. Formally educated riders, which dominate
the sample in this study, tend to have a lower violation rate
and higher knowledge of safety precautions.15 Because most
respondents belong to lower-income groups, their ability
to shape decisions at their workplace is compromised.
Moreover, they are more vulnerable to anti-worker systems
and sentiments at work, forcing them to comply more with
strict payment schemes and attendance.16

Surprisingly, the riders disagree to various degrees with
being involved in accidents during work that may render
them unable to work or close to death. It might be because
the platform company gives primary weight to applicants’
motorcycle riding experience levels when making hiring
decisions. This, combined with the fact that they were
educated and don’t drink alcohol while working, makes it
probably unlikely that they will ever cause a severe accident
due to recklessness.

In reality, still, the road and traffic conditions in many
places of the country are dangerous and risky for vehicle
users. Such could affect riders’ road behavior. These conditions
include poor road planning, traffic enforcement systems,
Philippine driving culture, and desensitization to road hazards
when traversing familiar areas.17,18 In general, delivery rider
work is characterized as a particularly grueling occupation.
In the context of road behavior, the stressful nature of the
job, often associated with fatigue, irregular work hours,
and unpredictable road conditions, contributes to riders’
inclination to commit violations.19 Because the respondents’
mental condition is overall positive, this translates to other
aspects reflected in the statements.

The study also showed that riders work despite extreme
heat and typhoons; this is expected given the highly fickle
climate in the Philippines. Their work often entails long
driving in horrendous traffic situations, like Metro Manila
and Metro Cebu. Many of them work for long days and weeks,
which is detrimental to their health and safety.20 As many
riders are on a part-time jobs, such as their primary source
of income, the ride-hailing firm’s manipulation of its workers
imposes economic downsides and threatens their mental
health and life satisfaction.3,4 Campbell1 reports that many
gig workers support themselves through this economy with
low success. On top of social instability, financial insecurity
leads some to commit suicide.4 Literature also shows that the
riders’ job is intrinsically dangerous, regardless of how well-
adjusted or privileged the riders are. More importantly, there
seems to be lower regard for worker safety as delivery riders
always work outdoors and have become somewhat essential workers amid the COVID-19 pandemic. In addition, the policies enacted by delivery platforms tend to be threatening workers’ income, as they are paid per successful transaction, cover costs of late deliveries, and are not always provided health insurance. They disagree most with the statement that they would consider driving under the influence of alcohol, likely tied to the day shift workers working solely during the day. Drunk driving is more common in the evenings than during the day in the Philippines. As a result, it’s possible that many of the respondents never worked while impaired by alcohol. Furthermore, platform companies’ codes of conduct prohibit their riders from working while under the influence of alcohol.

The highest-rated statements on road risks are about driving through rocky or bumpy roads and about roads without traffic enforcers. The motorcycle’s small size may influence rider behavior by allowing passage through narrower, lesser-used roads. These roads are often the same ones that do not have traffic lights but become busy, especially under heavy traffic. However, riders somewhat agree that fellow motorists who do not follow traffic rules would be a relevant risk factor. However, Shen et al. reported that delivery riders are more inclined to violate traffic rules than ordinary motorists, even more so at intersections. Calling back to the findings on safety precautions, it is likely that the motorists who pose risks at work are not delivery riders as they are well-versed in traffic rules, observe safety practices, and have undergone training.

In other studies, riders are at risk of road-related crashes. Conditions that set delivery riders from other motorcyclists, such as fatigue, long working hours, meticulous route planning, customer interaction, and the ever-present time pressure, all contribute to the risk of crash involvement and engagement in risky behavior. Greece’s most concerning risk behaviors are non-use of helmets. The latter was previously associated with informal workers’ low socioeconomic and educational status. Still, recent data suggests that the demands of being a food delivery rider can lower one’s regard for safety measures. In fact, even experienced riders consider certain risk behaviors inseparable from the job, such as driving the wrong way on one-way roads, unsafe lane splitting, driving in pedestrian zones, and driving with one hand.

In contrast, with findings from other studies and other countries, the respondents highly prioritize using safety gear, specifically helmets, and know-how, to repair their vehicles in an emergency. Formal education possibly influences the riders’ knowledge and prioritization of safety. Certain statements, such as their self-sufficiency in handling motorcycle breakdowns, can also be tied to another prominent finding in the realm of employer support. There is still a notable gap in companies’ initiatives to provide benefits and other forms of protection for their employees. Despite this, the respondents demonstrate an overall positive mental condition, generally unfazed by the everyday stresses of their job. With most riders being day shift workers, they do not drive under the influence of alcohol, affirming their sense of responsibility and mental wellness about their job. They do not engage in risky road behavior out of the urgency to earn more, though they push themselves to work even under adverse health conditions. They also experience occasional slips on the road, which can be attributed mainly to external factors involving the local traffic conditions. On top of these, riders often deal with bumpy roads, a lack of traffic lights on busy streets, and extreme weather conditions.

Moreover, the risky behavior of fellow motorists who do not follow traffic rules is another source of danger that riders notably encounter. Other dangers include wandering pedestrians, animals, vendors, and roadside dwellers, again features of the work environment itself not intrinsic to the job or employer. However, improvements can still be made in vehicle insurance and sponsorship of COVID-19 vaccinations and other preventive measures, given the continuous growth of the delivery industry during the pandemic.

Due to the snowball sampling methodology employed in the study, it cannot be said with certainty that these results can be generalized to the whole online delivery service industry. Also, the health factors in the study are subjective assessments without actual measurement, which could be influenced by biases held by the respondent. Regardless, this is still a good starting point for research in the ever-growing delivery service industry.

**CONCLUSION**

The results reveal general compliance with traffic and safety regulations, an inclination to push oneself to work despite adverse conditions, and insufficient employer support for riders’ health, safety, and other needs.

The government should guarantee that the delivery service business becomes more viable since it creates jobs for Filipinos. However, it should also investigate the working circumstances of delivery drivers, including their health and safety, particularly in this era of the COVID-19 epidemic.

Platform businesses are more than just middlemen; they also manage and control the labor arrangements in the platform economy. They view their riders as independent contractors and not as employees, thus denying them social security benefits. Sadly, the Philippine laws and regulations are unprepared for this mechanism due to the ambiguity of platforms’ roles toward their workers. It is critical and urgent for the government to intervene and develop a definite policy on the job classification of platform riders.

While adhering to fundamental occupational and health standards, the government is obligated to protect its employees from risks specific to their jobs. Because they lack legal protections, some workers on platforms are forced to supply their social security from their pockets. It may be necessary to require all riders who travel between platforms to maintain portable accident and health insurance.

These delivery riders are frontliners who execute critical duties in the logistics value chain. The business operators...
should also provide adequate remuneration, social security, and health and safety safeguards to their riders to ensure their well-being. The latter is essential in light of the ongoing coronavirus infection. Small and micro-operators of this type of business should look for privately managed micro and inexpensive insurance that can act as a safety net for their riders’ health and safety. They should form a permanent workplace committee to regularly check the riders’ education, health, and safety.

It is noteworthy to investigate the best work, health, and safety practices established and maintained by local and international company operators for their riders. It is also worth researching how different nations categorize app couriers based on employment status and the compelling grounds for categorization. Another area of inquiry worthy investigating is the type of support provided by labor unions and civil society to help improve the welfare of the delivery riders. Another research work looking into is the type of support governments worldwide are offering to this growing business sector to be long-term viable.

**Statement of Authorship**

VCB contributed in the conceptualization of work, acquisition and analysis of data, drafting and revising, and final approval of the version to be published; SFL and JLL contributed in further analysis of data, drafting and revising, and final approval of the version to be published.

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