

Assessing the Effect of Physical Health Struggles of the Frontline Delivery Riders to their Mental Workload Using NASA TLX

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Abstract

The Philippines have been affected by the ongoing pandemic caused by SARS-CoV-2 or coronavirus disease. As a result, people's movements are limited, and they need to stay at home for their safety. Even if this is the case, they need supplies to survive, such as food, medicine, disinfectant, etc. Food delivery services are the most used service in this pandemic, and quarantines functioned as a catalyst for all-day eating and home cooking. Since the epidemic, people have relied on food delivery, considering it one of the most critical services. It keeps individuals protected from coronavirus disease outside while also assisting new food merchants with their latest ventures. App-based delivery services such as Food Panda, Grab Food, and OrderMo is often used because they are easy to use. Due to the steady increase of the consumers, the workload of food delivery riders is also increasing. Food delivery riders tend to be one of the front liners in this pandemic, and they are also struggling in their work. They need to consider their safety and health while performing this job. This study aims to assess the effect of the physical health struggles of Food panda delivery riders on their mental workload, providing them with a solution to their current situation using NASA TLX with the questionnaires provided it can present evidence on how it will make the Food Panda riders experience a better work environment by the assessment shows with the use of heat map, ANOVA, and correlation testing.

Keywords

Food delivery services, Mental workload, NASA TLX, Physical Health struggles

1. Introduction

Ever since the pandemic started, food delivery services have become more in demand than before and have become more critical for business owners and their customers. It is mainly because many people just relied upon the availability and service of delivery riders to provide their daily needs and foods instead of them physically going out. In the Philippines, driven by consumer panic, this kind of service somehow becomes essential in many people, especially in those places where lockdown is implemented or areas with numerous Covid-19 cases. Also, since the government-imposed closure and dining-in restrictions in many restaurants and food and dining establishments, people tend to order from food delivery apps. For customers, they choose food delivery services for convenience and safety.

The researchers look at the situation in the surroundings to notice the problem that needs to be recognized. Food Delivery riders, specifically Food Panda, experience a massive demand today as the quarantine and lockdown continue in most of the areas in the Philippines According to Li et al. (2020), the food delivery companies are in charge of enlightening employee's maintenance, such as looking for different situations that food delivery people experience to have benefits and be safe while doing the job. The providers of the Food Delivery industry are accountable for the adjustments that can make the delivery riders more efficient. Moreover, as much as the providers want to satisfy their food delivery customers, they should not neglect their delivery people. To minimize delivery people leaving their jobs, they need to check if delivery people are satisfied with their jobs and working conditions are good. Therefore, this study shows that owners or providers of the job should consider their people as well, not only their consumer of the service since they are the one who's risking their life outside to fulfill the job better. Even though they are the ones who applied for this job, the company of delivery riders should have considered that it will ensure their safety and benefits while doing the job. As they experience different physical and mental health problems, it is just right for the providers to maintain their health by monitoring their performance. They should also come up with various options of keeping their workers that will allow many riders to apply more and lessen the work responsibility that riders deal with because of lack of riders in the specific area as the pandemic continues, which makes this industry more in demand.

1.1 Objectives

The study's main objective is to build the relationship between the different situations that occur to the delivery riders on their physical and mental health. These are the specific objectives:

- Consider the condition of food delivery riders working outside despite the pandemic.
- Analyze how their work outside affects their working routine physically.
- Provide an evaluation on how their work outside affects their mental workload using NASA TLX.
- Assess how the age and number of working hours affect the food delivery rider's mental workload.
- Correlate and identify what factor are contributing the most in food delivery rider's mental workload.
- Determine the different struggles of the employees working outside, specifically these delivery riders who communicate with other people in diverse areas even in the middle of a pandemic.
- Improve the delivery riders' current situation in protecting themselves to lessen the risk and pain they are getting both physically and mentally.
- Expand more safety precautions and improve the protocol that the delivery company is holding for the benefits of their employees that will make them safer and consider these frontline drivers as they continue their job outside.

2. Literature Review

Taylor and Dorn (2005) stated that negative impacts such as irritations, bad moods, and frustrations can be an effect by traffic congestion and pressure in time. Drivers usually experience symptoms of stress such as worry, irritation, and anxiety. Fatigue is thought to lead drivers to have sleep deprivation that results in low levels of alertness and bad performance; however, it has no links to driver stress. According to Useche et al. (2018), professional drivers experience work-related stress. These stresses are related to mental health. In addition, to improve the health and safety of professional drivers, expanding the knowledge in terms of occupational risk profile of professional drivers can help achieve the improvement. And in order to achieve this, creation of more specific frameworks and measurements, and evidence-based occupational interventions are needed.

The COVID-19 pandemic has struck workers. Most workers experience more significant risks of exposure to the SARS-CoV-2 virus and increased stress from job displacement or insecurity since they cannot work from home. During a pandemic, app-based drivers, who provide delivery or transportation services in a personal vehicle arranged through a company's web application, represent a workforce confronting specific and compounded hazards. (Beckman et al. 2020). Due to reasons such as car accidents, time pressure, and exhaustion, delivery riders' dangers are extremely likely to occur due to the long hours they work. All of this is linked to how their health is jeopardized virtually every day as a result of overworking, which is seen as acceptable by the riders because they possess the necessary characteristics to continue working (Wang & Chen 2019).

Besides medical frontline workers, there are numerous different kinds of laborers who are at an expanded danger of COVID-19 contamination through their work, as a rule from being in nearness to individuals from the general population like emergency service personnel and public transport and drivers. Aside from the immediate wellbeing consequences for laborers from COVID-19 contamination, there will be many streams of impacts that will affect laborers' wellbeing both physically and mentally. (Sim, M. 2020). It is revealed that the frontline workers who are more at risk of developing mental health outcomes are either those with a history of medication for mental health problems or those workers who are receiving inadequate precautionary measures in their workplace. During this pandemic, frontline workers exposed to COVID-19 might be at high risk in terms of physical health and at risk of developing mental health issues and problems. (Khanal et al. 2020). In another study, health care workers during the Ebola outbreak experienced severe emotional exhaustion, and recent studies show that around 62%-71% of workers are experiencing distress and fatigue. The factors that are considered one of the causes of these mental health problems are lack of communication, lack of PPEs, misinformation, and other job-related stress. (Snehil, G. and Swapnajeet, S. 2020).

Also, the increased mobility of delivery workers, most of whom ride motorbikes or motorcycles, and the large number of personal interactions they have during the COVID-19 pandemic puts their health in danger. Delivery workers are vulnerable because they cannot rely on a consistent income and are typically excluded from regular employees' labor and social protective systems. (Apouey et al. 2020). Policy-makers for the Food Delivery Industry need to contemplate ensuring that delivery people are satisfied with their jobs and working in apt working conditions, resulting in fewer delivery people leaving their jobs. They are subjected to poor working conditions, including high workload, standardized nature of their career, limited training they receive, and the dangers they experience to their safety while delivering the food. (Li et al. 2020). Even if there is the possibility

of being at risk, hotel and restaurant delivery personnel continue to work hard and provide services to transport foods to homes. Delivery personnel also have lots of stress and struggles, leading them to become depressed because of the risks carried by COVID-19 and other safety measures. (Bahaudin 2020).

3. Methods

In this chapter, the researcher discusses various research methodologies to collect data and information to make decisions. The sampling method that will be used in this study is non-probability sampling. The specific type of non-probability sampling that the researchers will use is convenience and judgmental sampling. A convenience sample is a sampling method where the sample is taken from a group of people easy to contact or reach, particularly the frontline drivers residing at Region IV-A. The researchers computed the number of samples using Slovin's Formula to determine the accurate number of samples they would need to have at least 95% accuracy in this study.

Slovin's Formula:

$$n = \frac{N}{1 + Ne^2}$$

Whereas: n= number of samples; N= total population size ; e = margin of error

The researchers used Slovin's formula to get the sample with a 5% margin of error. The sample size computed is 355 respondents from Food Panda delivery riders in Region IV-A(CALABARZON), with a total population size of 3,146 delivery riders.

4. Data Collection

In this study, the researchers will use the NASA TLX to develop the results based on the respondents' answers to the questionnaire. The NASA TLX is a statistical tool used to measure and assess subjective mental workloads such as mental demand, physical demand, temporal demand, effort, performance, and frustration level. Additionally, ANOVA is also used as a statistical tool to provide which among the demographic of delivery riders has significant relationship to their physical and mental workload. There's also correlational testing that analyzes the connection of different demand in NASA TLX that the researchers can determine the data thoroughly as the respondents have a large number of contributions based on their P-Value results (Table 1).

Table 1. NASA TLX

Input	Process	Output
Respondents - Foodpanda Delivery Riders Survey - NASA TLX questionnaire -Survey questionnaire and interview	Assessment The data will be gathered using NASA TLX questionnaire and will be analyzed, evaluated, and interpreted using the Analysis of Variance (ANOVA) test and Correlation test that identifies the P-Value that associates the comparison testing. And with the used of heat map that give analysis on specific body part affect the riders.	Results Results that come up from the assessment will be used to obtain solutions and improvements to the existing problem.

5. Results and Discussion

5.1 Numerical Results

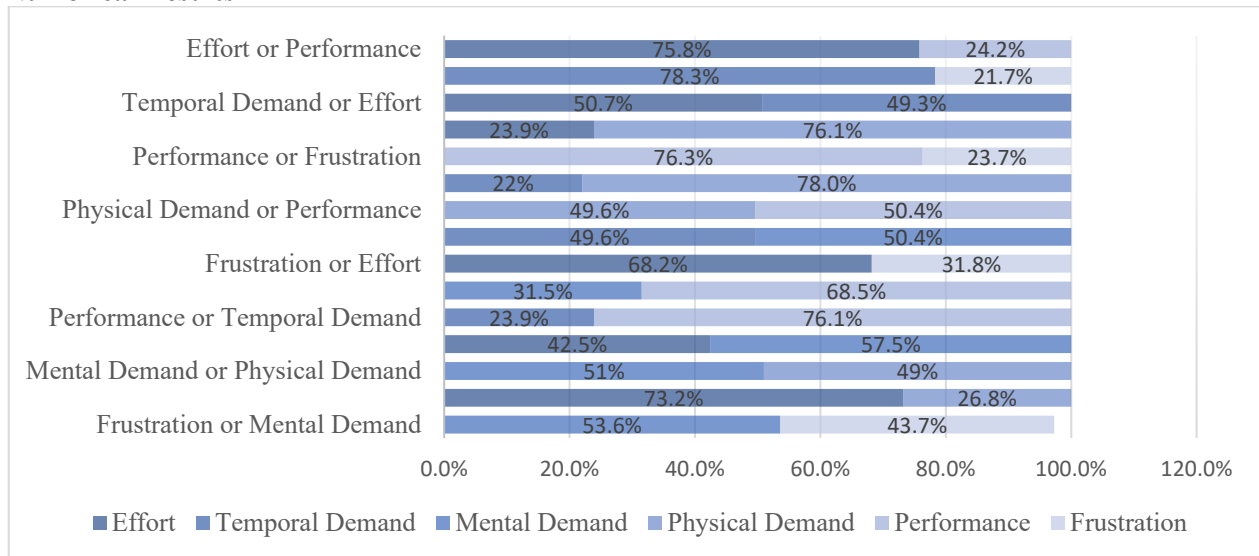


Figure 1. Sources of Workload Comparison

The graph (Figure 1) demonstrates the sources of the workload of the respondents when they are working. These include Effort, Temporal Demand, Mental Demand, Physical demand, Performance, and frustration. The majority of the riders (53.6%) favor Mental Demand based on their sources of workload than frustration. The second comparison shows that majority of their source of workload is Effort than Physical Demand. These two sources of workload comparison show a significant difference. The Mental Demand and Physical demand show a slight discrepancy. At the same time, Effort is greater than Mental Demand. There is also a significant difference between Performance and Temporal Demand, and the second has a total of 76.1%. Thus, it is the majority of their workload between these two. Performance and frustration are greater than Mental Demand and Effort. But Mental Demand and Performance are greater than Temporal Demand and Physical Demand. There is also a significant difference between Performance or Frustration and Physical Demand or Effort. Between Temporal Demand or Effort, there's only a tiny discrepancy in terms of sources of workload comparison. Lastly, Temporal Demand and Effort are greater than Frustration and Performance as their sources of workload comparison.

5.2 Graphical Results

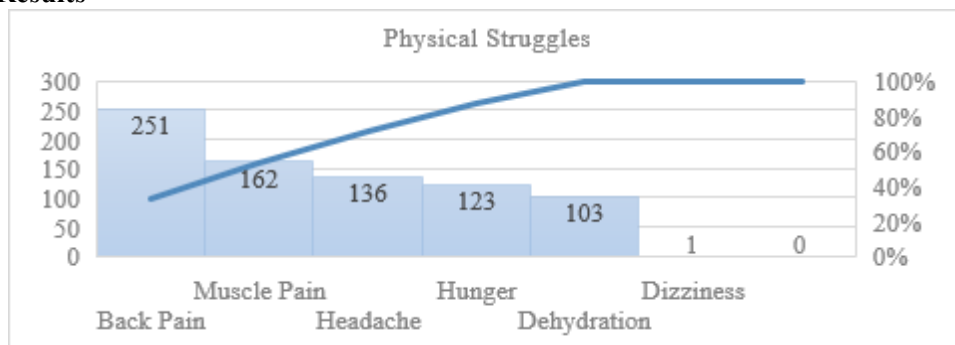


Figure 2. Food Panda Riders Physical Struggles

This graph (Figure 2) demonstrates what kind of physical struggles food delivery riders commonly experiencing as they perform their job. The result shows that the top three struggles are (1) backpain back pain, (2) muscle pain and (3) headache. This result may indicate that these kinds of physical stress is caused by employee's current body posture which most of the time neglected by many foods delivery companies.

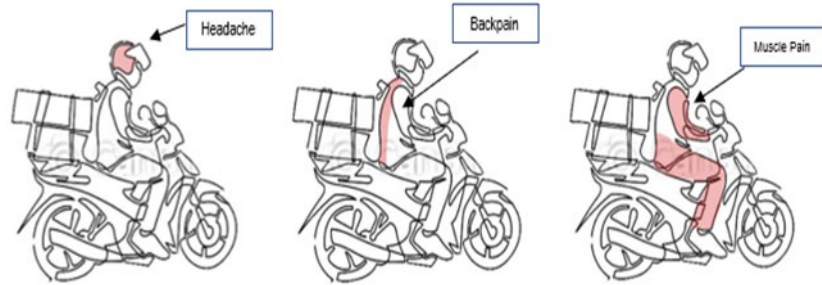


Figure 3. Heat map of Common Physical Struggles and Body Stress Part of Food Delivery Riders

The researchers figure out the different types of physical struggles from the food panda delivery riders that they are experiencing using the survey we conducted. To further discuss their physical struggles and body stress (Figure 3), the researchers did a body part analysis using a heat map. This analysis helps to identify the specific body parts that have been affected when they are experiencing workload from their job. This heat map will guide the company like food panda and other delivery firms to decide to improve their employees' existing posture to consider their health to avoid physical and mental frustrations (Figure 4).

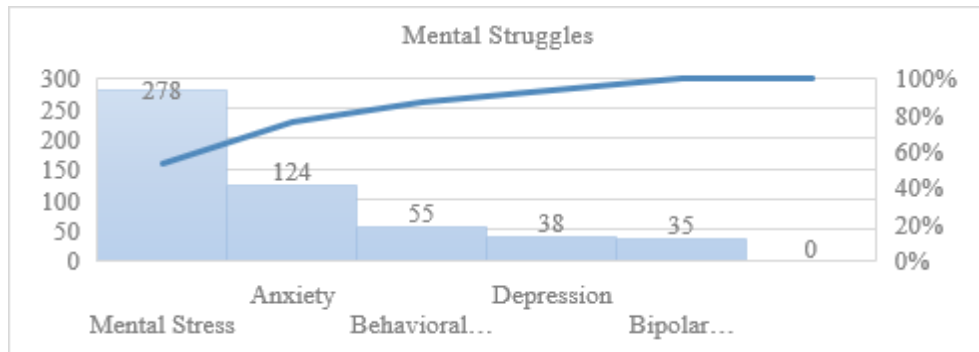


Figure 4. Mental Stress of Food Delivery Riders

This graph shows what mental stress does experience by the respondents as they perform their job. 93.9% of them have experienced mental stress when doing their job (table 2).

Table 2. Mean of NASA TLX Questionnaires

Category	Weighted	Unweighted
Mental Demand	249.44	83.73
Physical Demand	252.55	85.18
Temporal Demand	182.71	80.86
Performance	218.18	81.82
Effort	257.22	84.18
Frustration	106.67	63.00

Figure 2 shows the result in unweighted subscales with the use of boxplot of raw, based on the visual inspection it resulted with the same interpretation as the weighted subscales that concluded effort as the one that have the highest plot. This means, the food panda delivery riders in the unweighted subscales still shows an impact in the effort category as their decision makes them put too much effort in order to do the job properly. As for the outliers, every demand and subscales show how respondents become unrelated to the important purpose that make the distance too irregular and make the result an unsatisfying result.

Sum of Adjusted Rating Column = 1252.04

$$X \text{ Weighted Rating} = \left[\frac{\text{Sum of Adjusted Rating}}{15} \right] = 83.47$$

*Weight is the tally of 15 points pairwise comparison, mean raw rating is the mean of the rating given by the sample size, and adjusted rating is the product of the weight and mean raw rating. The sum of adjusted ratings is then divided by 15 to get the mean of weighted ratings

Table 3. Mental Workload Scale Interpretation

Scale Interpretation	
0-25	Low Mental Workload
26-50	Medium Mental Workload
51-75	High Mental Workload
76-100	Very High Mental Workload

In the scale interpretation, with the mean weighted average resulting into 83.47, it presents that the 355 respondents performing the job in food delivery services in the middle of the pandemic are experiencing a very high mental workload (Table 4 and table 5).

Table 4. MWL Comparison of the Food Delivery Riders According to Age

SCALE TITLE	Mean Per Age Range		
	21-25	26-35	36-45
Mental Demand	82	80.46	74.65
Physical Demand	82.8	83.07	86.24
Temporal Demand	78.8	75.56	43.47
Performance	81.4	77.58	53.66
Effort	83.6	81.37	91.88
Frustration	70.9	73.59	85.94

Table 5. Single Factor Anova According to Age

Groups	Count	Sum	Average	Variance
21-25	6.00	479.50	79.92	22.19
26-35	6.00	471.63	78.61	13.30
36-45	6.00	435.84	72.64	389.47

A NOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	180.50	2.00	90.25	0.64	0.54	3.68
Within Groups	2124.81	15.00	141.65			
Total	2305.31	17.00				

Ho = The age of food delivery riders has no significant impact on their mental workload; Ha = The age of food delivery riders has significant impact on their mental workload

The researchers conducted the ANOVA test to identify whether the age of food delivery riders has a significant difference or none in their mental workload. The P-value result is 0.54; thus, H_0 is valid since it is greater than 0.05. The results show no significant difference in mental workload among ages of the food panda drivers during the pandemic. In terms of between-groups variability to within-groups variability, the results show a large ratio in which only means that the number age of food delivery riders are significantly different or no significant impact to their mental workload. Additionally, the time spent of food panda delivery riders still depend on how many orders they received. They should reach their quota of at least 15 to 20 orders. Sometimes they are not able to reach 15 to 20; thus, the time their spent doing their work has no significant impact on their mental workload (table 6 and table 7).

Table 6. MWL Comparison of the Food Delivery Riders According to Working Hours

Scale Title	Mean per number of working hours		
	1 – 4 hours	5 – 8 hours	9 – 12 hours
Mental Demand	82.94	80.90	75.42
Physical Demand	78.24	82.54	87.92
Temporal Demand	78.24	78.31	46.08
Performance	75.29	79.90	57.50
Effort	80.00	81.44	92.33
Frustration	75.59	73.53	81.08

Table 7. Single Factor ANOVA According to Working Hours

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
1 - 4	6.00	470.29	78.38	8.16		
5 - 8	6.00	476.62	79.44	10.42		
9 - More than 12	6.00	440.33	73.39	326.26		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	125.23	2.00	62.61	0.54	0.59	3.68
Within Groups	1724.22	15.00	114.95			
Total	1849.45	17.00				

Ho = The number of working hours of food delivery riders has no significant impact on their mental workload; Ha = The number of working hours of food delivery riders has significant impact on their mental workload

In terms of delivery riders working hours, the result of the P-value is 0.59, and it is more significant than 0.05; therefore, Ho is valid. —there is no significant difference in mental workload in terms of the number of working hours of the food panda delivery drivers. Also, after comparing the ratio of between-groups variability to within-groups variability, the results show a large ratio in which proves that the number of working hours are significantly different or no significant impact to their mental workload. (table 8-10)

Table 8. MWL Comparison of the Food Delivery Riders According to their Physical and Mental Struggles

Scale Title	Physical	Mental
Mental Demand	77.57	77.53
Physical Demand	83.62	83.28
Temporal Demand	64.54	64.46
Performance	69.61	69.09
Effort	85.30	85.47
Frustration	77.04	78.04

Table 9. Correlation Subscales in NASA TLX

	Mental	Physical	Temporal	Performance	Effort
Physical	0.24				
Temporal	0.48	-0.02			
Performance	0.50	0.15	0.77		
Effort	-0.02	0.41	-0.23	-0.17	
Frustration	-0.09	0.07	-0.19	-0.20	0.33

Table 10. Pairwise Pearson Correlation

Sample 1	Sample 2	N	Correlation	95% CI for p	P-Value
Physical	Mental	355	0.24	(0.14, 0.33)	0.00
Temporal	Mental	355	0.48	(0.39, 0.55)	0.00
Performance	Mental	355	0.50	(0.42, 0.58)	0.00
Effort	Mental	355	-0.02	(-0.12, 0.09)	0.73
Frustration	Mental	355	-0.09	(-0.19, 0.02)	0.10
Temporal	Physical	355	-0.02	(-0.12, 0.09)	0.72
Performance	Physical	355	0.15	(0.05, 0.25)	0.00
Effort	Physical	355	0.41	(0.32, 0.49)	0.00
Frustration	Physical	355	0.07	(-0.04, 0.17)	0.19
Performance	Temporal	355	0.77	(0.73, 0.81)	0.00
Effort	Temporal	355	-0.23	(-0.33, -0.13)	0.00
Frustration	Temporal	355	-0.19	(-0.29, -0.09)	0.00
Effort	Performance	355	-0.17	(-0.27, -0.07)	0.00
Frustration	Performance	355	-0.20	(-0.30, -0.10)	0.00
Frustration	Effort	355	0.33	(0.24, 0.42)	0.00

Table 11. Scale of Correlation Table

Size of Correlation	Interpretation
.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to -.90)	High positive (negative) correlation
.50 to .70 (-.50 to .70)	Moderate positive (negative) correlation
.30 to .50 (-.30 to -.50)	Low positive (negative) correlation
.00 to .30 (.00 to - .30)	Negligible correlation

Aside from the ANOVA test, researchers also conducted a correlation test to assess the relationship of the six (6) subscales in NASA TLX. These subscales are mental demand, physical demand, temporal demand, performance, effort, and frustration. They are used to identify which correlates the most in measuring mental workload for the food delivery riders in the middle of a pandemic. The researchers showed a correlation matrix to present a significant value based on its P-value included in table 11, titled Pairwise Pearson Correlations. The result displayed that effort and mental demand have relevant correlation and the highest P-value, which is 0.7343. This result interprets that these two subscales have a high positive correlation. This means that in order to address mental stress of the employees, focusing on the work effort or how hard the work is for the employees is also necessary. This result can serve as the basis of the study’s recommendation at the end of the study.

Additionally, temporal and physical demand is also having a high positive correlation with the P-value of 0.7224. Unfortunately, the remaining pairwise comparison resulted in a P-value of 0.1925 below, which means they have a negligible correlation. The result proves that the physical, mental, temporal, and effort have a significant effect on the working routine of food delivery riders that supports the correlation of the struggles from physical and mental due to the time pressure and exerting effort to perform the task in this situation. Through this, the data outcomes may lead to the researcher’s recommendation for food delivery firms and companies to consider these factors that affect their employees and adequately take care of their workers, same as how other companies provide support and benefits to their laborers. With this, focusing on the employee’s effort and mental demand as well as temporal and physical demand will greatly help Food Panda delivery services. The graph is also showing the correlation test regarding the struggles of food delivery riders is also shown above for appropriate interpretation.

5.3 Proposed Improvements

Categories	Recommendations
Mental Aspect	<ol style="list-style-type: none"> 1. There should be benefits from the company to lessen the worries and pain of the riders. <ol style="list-style-type: none"> a. Emergency Paid Sick Time b. Emergency Family and Medical Leave c. Provide “Free Time” for Employees 2. Provide employees care and satisfaction when performing their jobs in the middle of pandemics. <ol style="list-style-type: none"> a. Make Mental Health Training Mandatory b. Provide Support for Mental Health through counseling c. Offer workshops so employees can learn more about mental health and resilience
Physical Aspect	<ol style="list-style-type: none"> 1. The Researchers recommends safer and comfortable working environment for their employees <ol style="list-style-type: none"> a. The company must provide personal protective equipment to each of their employee like; head, hand, foot, and body protection and other essentials for this pandemic like supplies of face mask, alcohol, hand sanitizer, and disinfectant monthly. b. They should also take care of the regular cleaning and disinfecting of their employee transportation vehicle. 2. The Company must consider the physical posture of the employees by redesigning their riders’ transportation system to develop their work posture and safety that can help their physical considering the heat map (Figure 5). <ol style="list-style-type: none"> a. By requiring all their employees to wear the correcting posture brace equipment

	<p>b. By providing appropriate motorcycle seat cushions to avoid muscle pains and encourage employee's comfortability.</p> <p>3. The company should conduct a physical examination when hiring their employees to correct and suggest the right posture that is suitable for the job</p>
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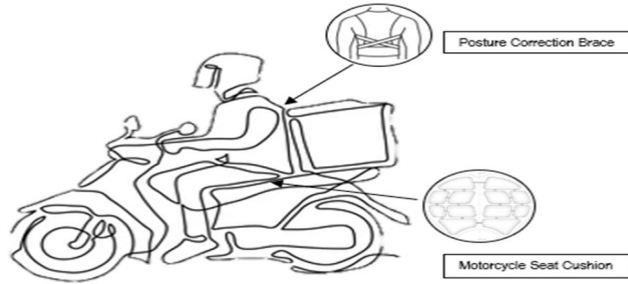


Figure 5. Recommendation to Address Food Delivery Riders Physical Struggles

Other Recommendation:

1. The increasing number of people ordering online foods recommends that the online food delivery industry is continuously growing. Therefore, it also will require an increase of hiring more food delivery riders to adapt in the massive demand of food delivery services.

2. As the food delivery riders' demand and protest against wage policy, the company should consider the researchers conclusion on the struggles of the riders to reconsider their salary and improve the company communication line in technical issue that causes suspension of innocent riders.

3. Provide a systematic procedure to follow in conducting the job that is more efficient yet considers the safety for the delivery riders so that the rider will be able to manage his/her time without wasting others.

a. The company should set a quota of delivery per day for each delivery rider employees depending on the average time capacity that is suit to the delivery time of the restaurant or fast food that will still create a balance work time for every rider regardless the distance.

b. They should properly designate the required number of delivery riders depending on the demand of the specific place to avoid lack and overemployed workers.

c. As the riders preferred 5-8 hours of work followed by 9-12 hours, the company should openly create a concrete scheduling with the given 8 hours of work and a quota of 15 orders, since the open-ended questions resulted 15 as a satisfying accepted orders by the rider that will suit with the time and distance with 30-40 minutes per order. Hence, the company can make it 10 hours per day for the adjusted time by late service of restaurant and other concerns by the customer.

d. The Food Panda company can also make a specific time frame for the riders own preferred time that could be for morning, afternoon, and evening to midnight shift with the 10 hours requirement and 15 to 20 accepted orders so that the rider can choose their preferred schedule along with the company's requirement of orders per day and these are the time frame per day:

Morning: 7:00 am – 5:00 pm; Afternoon: 1:00 pm – 11:00 pm;

Evening: 7:00 pm – 5:00 pm; Midnight: 12:00 am – 10:00 am

e. Additionally, as the researchers found 5-8 hours as more preferred by the riders, the company can also make schedule with this time table for those who treat food delivery service as their part time job with the quota of 10 accepted orders. With these time frame allotting 5-8 hours per day only with the adjusted time at exactly 7 hours per day.

Morning: 7:00 am – 2:00 pm; Afternoon: 1:00 pm – 8:00 pm

Evening: 7:00 pm – 2:00 am; Midnight: 12:00 am – 7:00 am

4. For FoodPanda developers, to assess the delivery rider's status every after shift, they are required to answer a survey about their working experience. This would help them to express their challenges and help FoodPanda company to enlighten the management and improve system of their company.

6. Conclusion

Upon evaluating the data gathered, the researchers were able to conclude the study. The respondents answered that the pandemic boosted the demand of their job in terms of delivery. Due to the continuous increase of the demand, working as a FoodPanda delivery rider caused physical struggles and mental struggles. Most of the respondents tend to have back pain and muscle pain as result of working hard in the pandemic. Also, the respondents suffer mental stress, anxiety, depression, behavioral and emotional change, and bipolar disorder while working as a FoodPanda delivery rider. Despite having these struggles and not well good experiences in this new normal, FoodPanda delivery riders rated themselves to have excellent level of mental health and physical health.

Consequently, after quantifying the weighted average in NASA TLX questionnaire, the researchers were able to justify and concluded that the physical struggles experienced by food delivery riders directly contributes to their mental workload as the value interpreted as "very high mental workload". Also, after utilizing various analytical tools like ANOVA test and correlation test, the researchers concluded that their mental workload has no significant relationship among the category age group and working hours. This can be interpreted in a way that despite the age of food delivery riders and their working schedule, their mental workloads are still high.

Overall, it can be concluded that the current condition both physically and mentally of food delivery riders in CALABARZON are not stable and continuously becoming worst because of the pandemic even though the demand increase. Along with this, the actions and movements that food delivery companies are implementing are not enough to address these issues. The benefits that delivery riders currently receiving amidst pandemic is obviously not enough that's why an immediate action of food delivery services company is necessary not only appropriately take good care of their employees but also for their business to continuously grow and properly manage

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