

# **System Improvement on Late Delivery Service of Online Delivery Business**

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## **Abstract**

In this paper, the researcher observed the delivery performance of a local "delivery service business." Upon observation, it shows that considerable numbers of late delivery are the central problem, and the study addresses it by determining the leading root cause that highly contributes to the problem. The researchers manually recorded raw data used in this study upon observing the company's daily operation in the set time frame. Also, the administration was interviewed and customer feedback was gathered. In analyzing the ultimate root cause of late delivery, different root cause analysis tools were used in this study: a fishbone diagram for the general root causes, a five whys analysis, and a scatterplot diagram for determining the primary root cause. Results from the RCA tools concluded that delays caused by the store are the root cause that highly contributes to the late delivery of the business. For the recommendation, the study designed a new delivery process to minimize the number of delays caused by stores and to increase the success rate in meeting the customers' expected arrival time. This study used a mixture of quantitative and qualitative design.

## **Keywords**

System Improvement, Delivery Time, Late Deliveries, Delay, and Online Business.

## **1. Introduction**

The start of the Covid-19 pandemic in the Philippines brought a huge panic to the Filipinos, especially when the whole island of Luzon was put on lockdown. As the people had been staying home for quarantine, boredom hit most of them, leading to different new ideas and unique concepts of doing the usual activities during the period. One of the most popular ideas was starting a food delivery service business that everyone wanted because it would allow them to get the food they wanted without leaving their houses. Although this concept existed even before the pandemic, the quarantine protocols and the fear of people going outside braced this business.

The delivery service business was one of the businesses that became popular during the pandemic in the Philippines (Arreaola, 2020). This study examines a delivery service business that started to operate in March 2020 in Plaridel, Bulacan, with a small growing group of friends and eventually expanded with the support of local stores. It expanded its scope and now caters to more municipalities and cities in Bulacan. It now offers services such as PasaBuy Food, PasaBuy Package Delivery, PasaBuy Pa-ANGKAS, and PasaBuy Paybills.

The food delivery service starts when a customer contacts them through the business's Facebook page. The page automatically sends the list of services they offer whenever a customer visits the chat box. These options let the customer choose what services they want. After choosing the Food Delivery Service, the system sends an order request format containing the name of the stores, list of orders, name of the order, address, nearest landmark, contact number,

and alternative contact number. On the other hand, the process begins as soon as a customer sends this order request message.

Subsequently, the admin confirms first if they have available riders. The admin will send a confirmation of the order, and if no changes should be made, the order will be assigned to a rider. As the rider comes to the store, there are still two things to be assured of: the store is open, and orders are available. Following the assurance of these two, the rider will send the total cost of orders to the customers and will then deliver the order to the given address. The customer should pay the rider for the total cost, including the delivery charges, while the rider takes proof of delivery. In some instances, when the order is incomplete, the customer sends a message to the Facebook page and the admin tracks the assigned rider. The rider and admin will coordinate with the customer. If the business (rider, admin, or system) turns out to have committed a mistake, the rider will go to the store again to buy the missing order, and the team should settle the issue.

The initial data collection revealed that businesses had encountered low customer satisfaction because of late deliveries, early deliveries, miscommunication, and problems with delivery. These problems are classified as caused by traveling the food or service (including delays from the stores, road interruptions, and rider/customer factors) or by the management and coordination between the customer and the business. The late and early deliveries are caused by traveling the food, while the miscommunication and the problem with the delivery fees are under management and coordination. After an initial investigation, it was discovered that the most common problem is late deliveries, wherein the common causes of delays are divided into four areas: Management, Act of Nature Events, People (Riders & Customers), and Process Technology (See Figure 1).

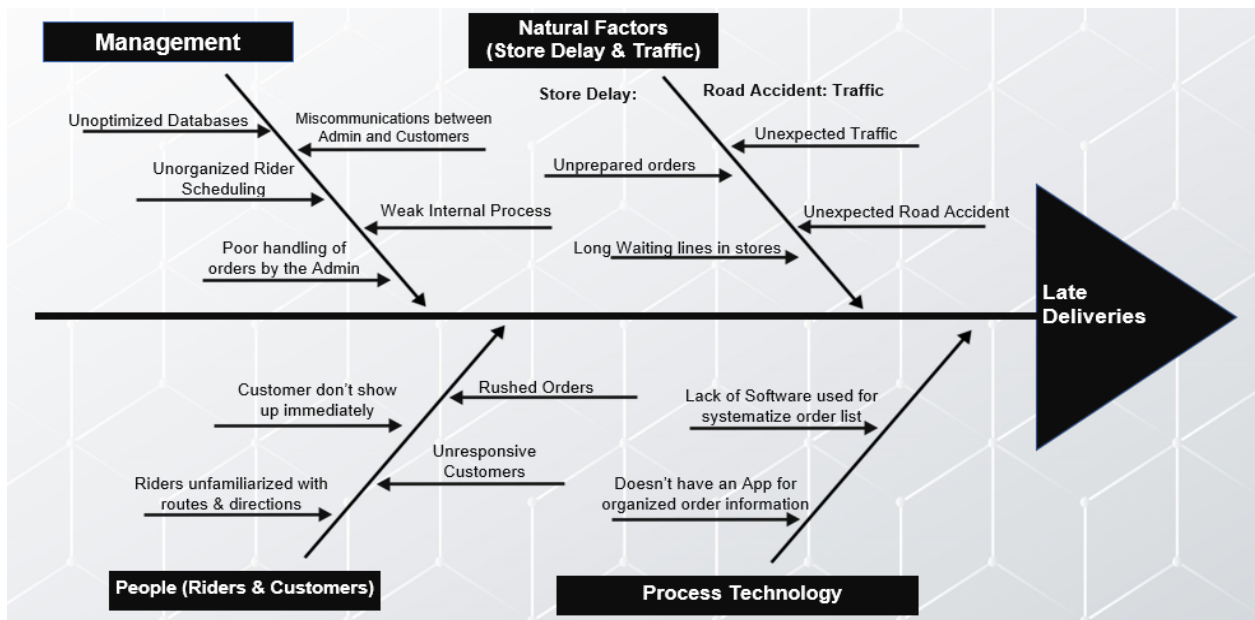


Figure 1. Fishbone Diagram for Late Deliveries in a Food Delivery Service Business

However, according to its overall reviews, the most common problem of the business is late deliveries. This problem was confirmed by its management team: the deliveries took longer. Thus the customer's waiting time was also increased. Moreover, the data from their operations on October 2021 shows that with an average delivery time of 41 minutes, only 59% of their deliveries have achieved the Expected Time of Arrival (ETA), which is a 20-30-minute time allowance set by the business after the order confirmation (see Figure 2).

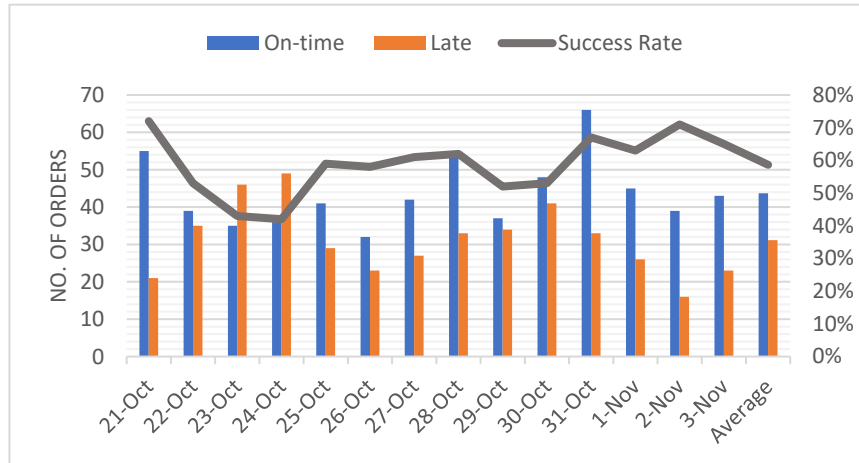


Figure 2. Success Rate of Deliveries in terms of delivery time

Based on the feedback of customers and reviews through the social media page, this problem brought low customer satisfaction, which reflects the decision of customers to choose other delivery service businesses. Also, the examination shows the root cause of late deliveries are the delays in food preparation by the stores, factors related to riders/customers, and road interruptions. The researchers focus on further investigation of the problem and possible solutions to meeting the expected time of deliveries as a way to improve the delivery system.

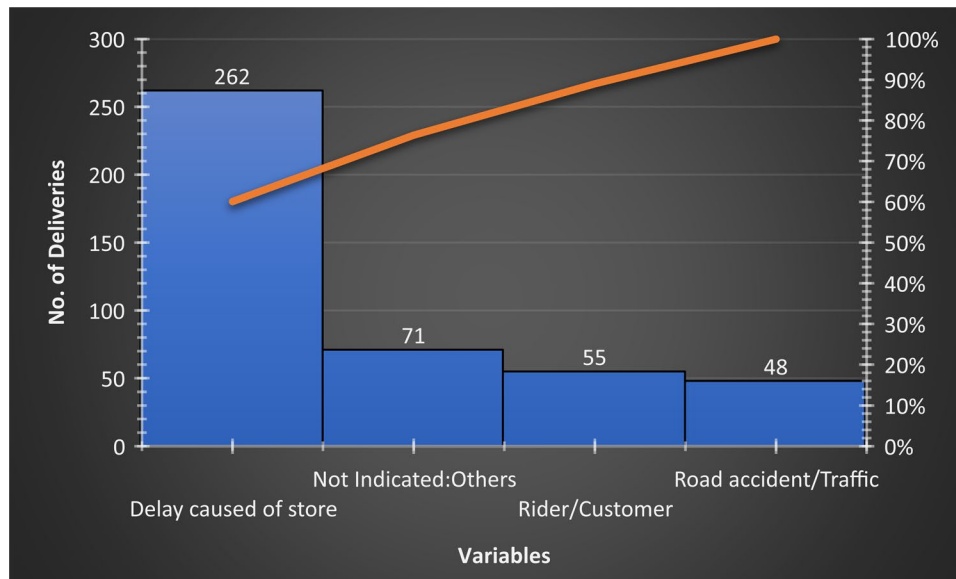


Figure 3. Problem Encountered by Food Delivery Service Business

### 1.1 Objective of the Study

#### General Objective

The main objective of the study is to improve the delivery performance of the observed "delivery service business" to further satisfy the customers by reducing the number of late deliveries by identifying the ultimate root cause that highly contributes to late delivery. This study used root cause analysis tools, compare the outcomes to obtain an accurate result, and design a new process flow of the delivery service that eliminates the observed main root cause.

The researchers observed the order cycle time from the time and process when the admin of the "delivery business" confirms the order until the customer receives the product. The study mainly focuses on its general objective, which is improving delivery performance by reducing the number of late deliveries. To improve delivery performance, the

root causes of the delays in deliveries must be investigated, weighed down, and determined correlation and the 'most impact' root cause of the late deliveries. Researchers looked and dug into identifying the different factors that might have a significant effect on the delivery time process of the service business and plotted these identified factors using a fishbone diagram that can be further narrowed down using two other root cause analysis tools: *5 whys* and *scatter plot diagram*. Also, to further assess these identified root causes, descriptive statistics are shown for the raw data gathered at the beginning of this study.

### **Specific Objective**

A delivery business that runs through online transactions is to be observed in this project. The target output by the end of this project is to analyze and identify the main root cause that highly contributes to late deliveries using different root cause analysis tools and design a new process flow as a recommendation for this study. Specifically, the study aims to:

Identify and list down overall root causes of late deliveries of the orders using a fishbone diagram to easily narrow down these root causes. Investigate the main cause contributing to the late deliveries in quantitative and qualitative form for a more precise result by performing *a five whys analysis and scatter plot diagram*.

- To delve into the problem deeply and understand the ultimate cause of late deliveries.
- To show a strong relationship between the problem and the potential cause of late deliveries.

To propose a new delivery system flowchart that resolves the identified main root cause in the previous results.

To attain a higher success rate in meeting the expected arrival time of customer deliveries after applying the proposed recommendation. The current process success rate obtains 59% success rate, and this study targets a 70% success rate, the minimum success rate of on-time deliveries for starters and small businesses (Keller, 2020).

## **2. Review of Related Literature**

### **Online Food Delivery**

The COVID1-19 pandemic has remarkably strengthened the use of technologies and the Internet. Businesses and establishments took advantage of social media and other means of communication to overcome the physical challenges and to adapt to the quarantine guidelines. This response to the pandemic has been noticeable, especially when the government and health sectors encouraged the people to limit outside activities and choose to prioritize contactless means to acquire their needs, such as food and medicines. Thus, online service delivery, particularly for food delivery, has been popular and eventually had an important part during the pandemic. Online food delivery is a process where customers order food online while the store prepares the order, and the rider delivers it to the customer. Bates et al. (2019) explain that due to the shift to online services, many entrepreneurs started delivery service businesses to provide customers with a suitable, fast, and reliable delivery service of foods and beverages provided by their food service partners. Along with this, online food deliveries can provide easier access to ordering food by not risking the customer's safety (Li et al. 2020).

Remarkably, customers are increasingly turning to the Internet to purchase a wide range of goods and services. However, there are still some people who disagree with using this process. Since older generations are not tech-savvy or may have inhibitions regarding online activities, many unemployed people and a lesser number of employed people still prefer offline buying or the traditional way. Gupta et al. (2019) explicate that customers prefer online buying to offline buying for a variety of reasons, including convenience, quickness, and the availability of a larger selection of products.

The Philippines has already introduced online food delivery services even before the pandemic. Even international online service delivery has already entered the country, dominating the food delivery business. However, problems affecting online food delivery in the Philippines have not yet been specified. In 2020, the significant difference in the number of users of online food delivery and restaurant-customer delivery jumped to 2.4 million and 7.8 million, respectively. It indicates that analyzing problems in online food delivery will have a greater impact on the Philippines' evolving industry even more if problems that cause dissatisfaction of customers are resolved. Conclusively, this research focuses on online delivery services to consider a large number of internet users for two reasons: (1) online

buying will still be increasing due to the ongoing pandemic that also exposed the world to use the technology more often, and (2) that technology will never be eliminated.

### **Delivery Time**

Based on the survey of the problems perceived in online deliveries, most online shoppers ranked that the main problem they usually face is the late delivery of parcels (Rahendran & Wahab 2019). According to Bitkom (2013), customers have a higher report of negative experiences regarding delivery delays. It is said that this problem should be prioritized by online delivery providers to give their customers better service. Furthermore, the findings showed that the customers are even willing to pay an additional 10-20% cost, higher than the standard delivery, for a faster delivery service. A study by Handoko (2016) and Saad (2020) revealed that delivery service had a favorable effect on online-customer satisfaction. Saad also disclosed in a research study that delivery time, service quality, price, and condition of food delivered are the main factors of customer satisfaction when it comes to ordering food online. In support of this result, research revealed that timely Delivery and shipping have the highest value to customers' satisfaction. However, a study regarding the problems contributing to late deliveries in the Philippines has not yet been reported. Moreover, analyzing untimely deliveries is important to address improvements and solutions to the most common problem of all online food delivery businesses.

Conclusively, the delivery time of online food orders is getting more relevant compared to other factors that a customer considers in ordering online. The problems perceived by online customers are related to delivery rather than the product itself (Eurobarometer, 2013). In this case, the customers always come back to their prior reason for ordering online: to receive the food faster and without further hustle.

Many studies looked at the factors affecting online food delivery services. Researchers have studied how delivery issues, as well as product quality, affect the overall service of a delivery business. However, there has not been a lot of attention given to the relationship between factors affecting late deliveries and their relationship to delivery service, specifically, if late deliveries, which develop a secure attachment of customers to the delivery business, possess a significant part of online delivery performance.

### **Standard Delivery Time**

Even before the pandemic, people love to shop and order online because of the benefits it gives to them. There is an observable exponential growth in online marketplaces, mainly as it gives convenient opportunities to buyers. Currently, many people are becoming aware of the importance of online shopping due to the Covid-19 emergency we are facing (Prajapati, 2021). Mid-March since they locked in many parts of the country, everyone is jumping on online delivery services due to the threat of the virus. Several restaurants were forced to shut down, and some have managed to shift their business model and go digital to survive in this pandemic. In this new normal, many business offer deliveries using apps which is very convenient to use by millennials. As Llena Arcenas said, a manager at San Miguel Foods Culinary Center, "More businesses will go digital, particularly food restaurants, and that is why resto meal kits and the availability of their proprietary ingredients will be their creative divergence from regular food takeout or delivery." Quarantines and Work-From-Home setup also served as a trigger in more food consumption as people "all-day snacking, indulgence, and home cooking or opt for deliveries" (Garcia 2021).

According to the survey conducted by U.S. Foods, people are increasingly turning to apps for food delivery, with the average person having two food delivery apps and using them three times per month. About 70% of orders in a restaurant are generated online through online delivery services. Also, the survey found that most people don't want to wait long for their food, with 31% expecting their deliveries at their door within 30 minutes. On average, 40 minutes is the longest waiting time for customers (Lardieri 2019).

Several studies have already explored the critical factors in eCommerce Buying Decisions, the theory of planned behavior to explain the intention to use online food delivery services, and preferences on delivery options that can influence customer satisfaction. They have often looked at the impact of these factors regarding the satisfaction and success of the business, but they have not sufficiently explored the impact of late deliveries and having standard delivery time on customer satisfaction. For instance, are there significant relations between providing an expected time of delivery to the customer's satisfaction?

Conclusively, similar to mentioned studies, this research will be focusing on online food delivery services because it is relevant to the present and future trends and development of the whole world. The Philippines have already started

to adopt this system of online services, and the current advantages showed ideal improvement in Filipino lives. To create greater improvement, the researchers aim to conduct a study in the delivery service business to further investigate the underlying problems. It was found from many types of research that delivery time has always been a factor affecting overall customer satisfaction in this specific service industry. However, there was a lack of attention to further analyze what are the causes of late deliveries. Also, there is insufficient information regarding the impact of late deliveries on the customer's satisfaction. These gaps in research support and fuel this study to analyze the online delivery service and create system improvements.

### **3. Methodology**

#### **3.1 Research Design**

This study is a mixture of quantitative and qualitative design. The data to be used are the exact and accurate information directly coming from customers, admin, and riders' experiences which are posted, stored, and captured by Facebook and Messenger applications. During the collection of data in operations, all data entering the application are recorded. However, the data still undergo a comprehensive review to separate the bad data (incomplete data, outside the Plaridel, and cannot be counted due to errors) and good data (data that are complete, within the Plaridel, and there is no error).

#### **3.2 Research Variables**

The collected data are used to answer the identified problem by giving values to this research's variables. These variables are the following:

##### **General:**

###### **Delivery time**

Conceptual: The amount of time it takes for goods to arrive at the receiver's address.

Operational: The success rate is computed by summarizing the total number of successful or "On-time" deliveries by dividing the total number of deliveries of the business.

###### **Customer's Satisfaction**

Conceptual: Customer's contentment and gratification with the products, services, and capabilities.

Operational: Measured by the number of complaints recorded through social media posts and messages.

##### **Specific:**

###### **Late deliveries**

Conceptual: The delayed deliveries on the part of the delivery service.

Operational: Calculated by the number of deliveries that failed to meet the expected delivery time.

###### **A delay caused by store**

Conceptual: Store's problem in terms of time preparing orders.

Operational: The number of cases in which the rider reported delays to delivery due to the store's preparation of orders.

###### **Riders/Customers**

Conceptual: The person who delivers the order and people who request the delivery service.

Operational: Incorporated with the number of cases the rider and the admin reported delays to delivery due to riders and/or customers.

###### **Road Accident/Traffic**

Conceptual: The events in which at least one person is injured or killed and that can cause traffic or disturbance on activities on roads such as public transportation.

Operational: The occurrence of road problems that caused delays in delivery service, reported by the riders.

#### **3.3 Sampling**

To conduct a thorough discussion and examination to evaluate the problem in the business, the researchers recorded the data from two groups of sources: management team and business page reviews, as well as the operations team and operations platform, used. The data from the management team and business page reviews collected are the reviews

from the business page and the complaints of customers. On the other hand, data from the operations team and operations platform used are the number of orders per day, the time order was made, name of riders, name of stores, address of the recipient, expected delivery time, delivery fee, the time order received, and the number of orders per rider.

### 3.5 Research Procedure

The rationality of the topic and a secure source of data have been initiated first before the approval of the topic. Afterward, a research plan was made to create the flow of the project. The collection of data was then established by recording the data from operations and some information from interviews (See Figure 4). Then, the quantitative data are analyzed and interpreted with the use of descriptive statistics, while the qualitative data are examined by the researchers by reviewing related literature and comparing it to the quantitative results.

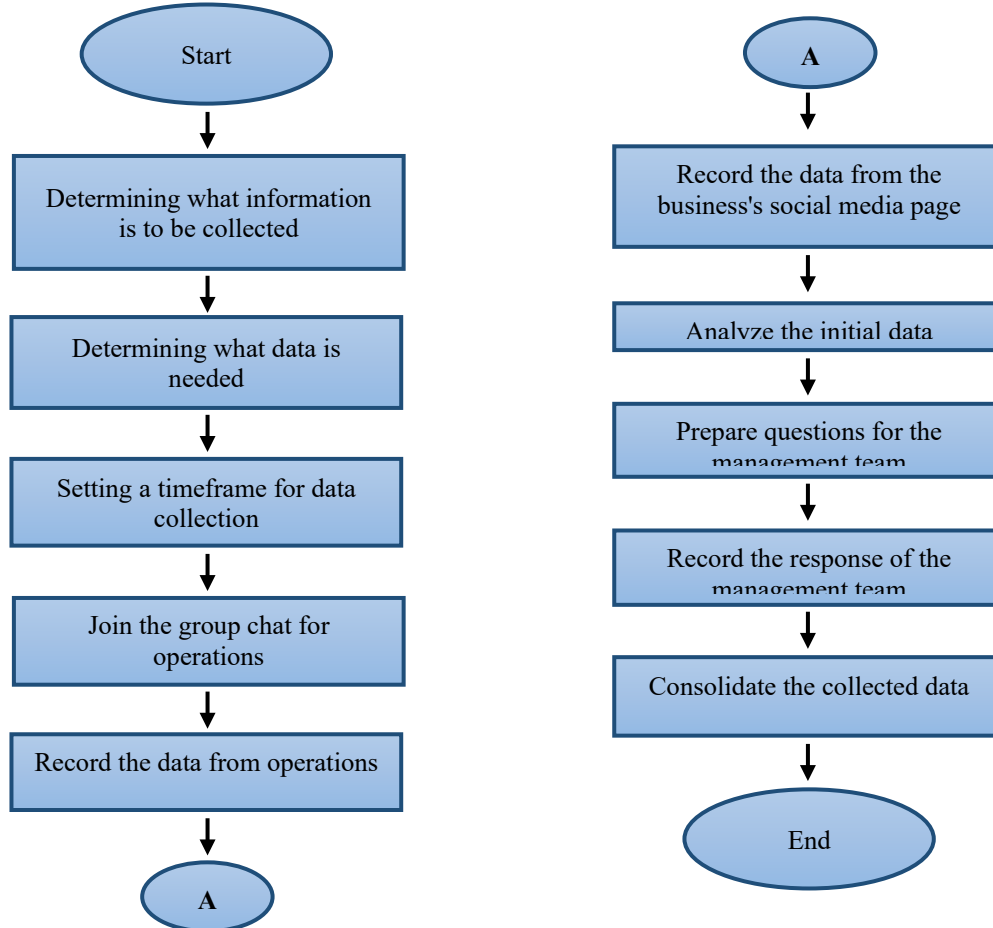


Figure 4. Process Map for Collecting Data in a Food Delivery Service Business

## 4. Results and Discussion

This chapter shows further analysis of data collected using the descriptive, correlation, and why-why analysis as stronger evidence and support that the problem exists and determines which root cause is the most determinant. This chapter aims to provide the qualitative and quantitative approach to identifying the main root cause of delays in the deliveries of the "delivery business." This study uses a quantitative method in performing correlation analysis and qualitative tools to test the different factors identified by the researcher and highlight what particular predictors highly influence the dependent variable.

## 4.1 Results

### 4.1.1 Descriptive Statistics

Data were first analyzed in descriptive statistics, which were completed using Minitab 19 to further observe the basic features of the data in the study, which is shown in Figure 5. Descriptive statistics were presented by: Measure of Frequency and Measures of Central Tendency (Mean, Median, Mode). Based on the results in Figure 8, it shows that the average of late deliveries has a high mean value of 41.11, and the number of total delays caused by the store is the next high mean value, 18.71. Late delivery of orders are those that failed to meet the expected time of arrival (ETA) of orders and deliver beyond the given time expected by customers.

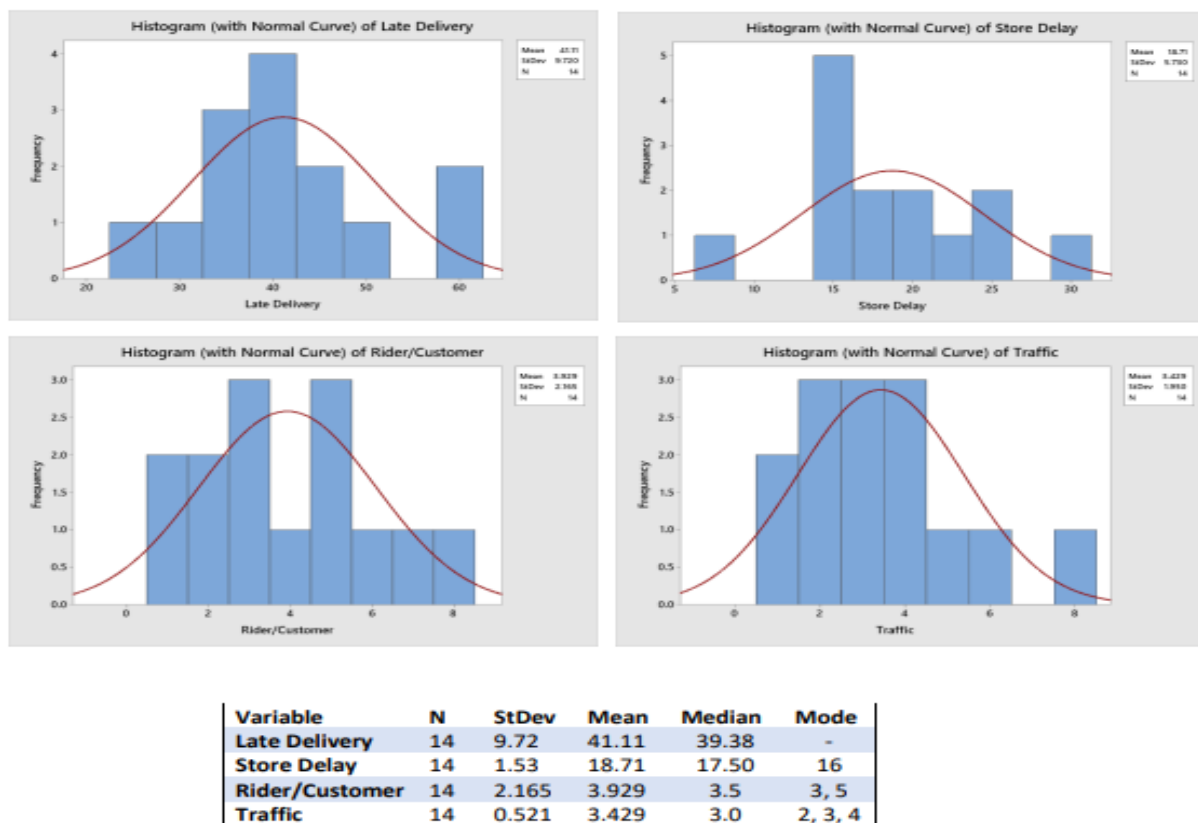


Figure 5. Descriptive Statistics for Late Deliveries, Store Delays, Rider/Customer, and Traffic

### 4.1.2 Five Why Analysis

Five Why Analysis developed by Sakichi Toyoda, is a widely used technique as it is one of the most effective tools for root cause analysis of a certain problem in a qualitative form but still based on facts. This study was used to analyze the main root cause of late deliveries without the use of any inferential or statistical tools and just basic data. It is primarily conducted in this study to identify a solution to the problem, which is late deliveries, and find its exact root cause. This analysis is supported by the previous data gathered from interviews and other means and averages computed.



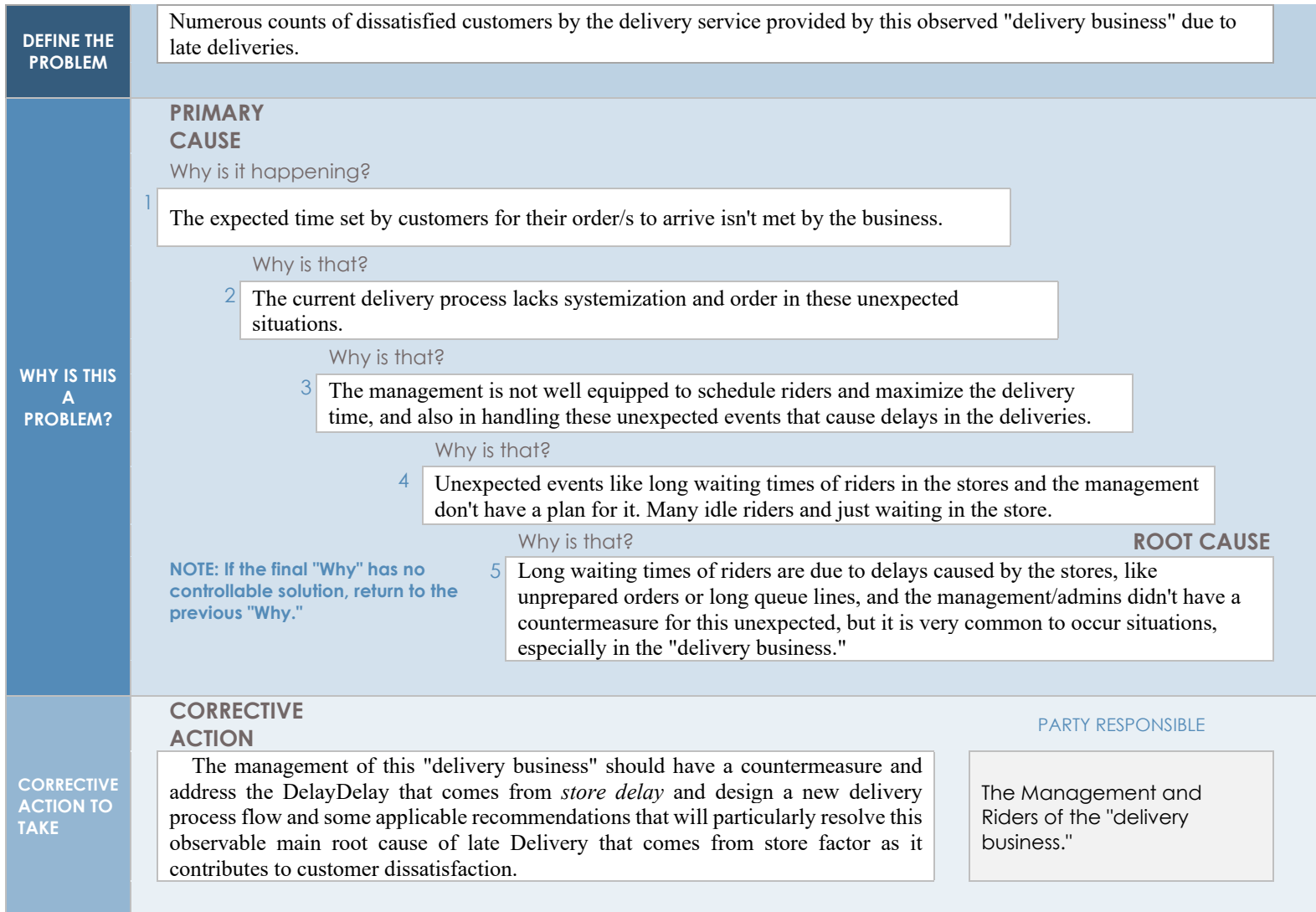


Figure 6. Five Why Analysis

#### 4.1.3 Scatterplot Diagram

After the descriptive and five why analysis, a quantitative method is used to determine the correlation of each independent variable to the dependent variable. In Table 1, each factor is represented in a scatter plot diagram which shows the behavior of points depending on the variable, and each dot on the scatterplot represents a day from the data set. All root causes are on the x-axis, while the dependent variable is on the y-axis. The location of these points depends on both respective independent and dependent scores. All plots are considered to have a form of linear relationship but differ in a huge to a straight line. Among the four plots, store delay has a clearer path or line, which means store delay is the most correlated factor in late deliveries. The data points trend upward that reveals a direct correlation between late deliveries and store delay because as one variable increases, the other one also increases.

To further prove, a linear regression is also completed to determine the coefficient of determination value of each variable that will tell how strong the correlation is. The coefficient of determination, or  $R^2$ , is a score of how well changes in  $x$  predict changes in  $y$  in the recorded data. The Closer to 1 the  $R^2$  is, the more predictable the data is. Based on the result of the analysis, store delay has the highest value of  $R^2$  out of all the variables tested.

Table 1. Scatter Plot Diagram for the Identified Root Causes of Delays in the Deliveries

Variables	R	R <sup>2</sup> =	Plot
Store Delay	0.8627	0.7443	
Rider/Customer	0.6585	0.4336	
Road Accident/Traffic	0.6883	0.4738	
Not Indicated: Others	0.8197	0.6719	

#### 4.2 Discussion

The results from the correlation analysis and five why analysis in accordance with the results from fishbone analysis and descriptive analysis that conclude store delay is the most determinant factor that affects late deliveries. The analysis revealed that this factor has the strongest relationship to late deliveries having the highest R<sup>2</sup>, according to Pearson Correlation, and the highest mean among all the factors identified. Even though traffic and rider/customer

factors do not strongly correlate with late deliveries based on analysis, these two variables can still be considered as contributors to the problem but with the least amount of impact compared to what the store delays have created.

The correlation analysis revealed that the rider/customer and traffic have  $R^2$  lower than the store delay, which means these variables are not the most determinant factors in late deliveries. Using the Pearson correlation coefficient's assumptions, the store delay and the total count of not indicated factors has  $r > 0.7$ , which tells us they have a strong relationship in late deliveries. However, since the Not indicated factors are the sum of factors not specified, it is treated as a group of two or more factors that produce a strong relationship. Only the late deliveries have a strong relationship with the dependent variable. Besides, this research proves its essence by providing a higher  $R^2$  value even when compared to the "Not indicated: Others" factor.

With all of these, the research produced a data-based defense for investigating the highest determinant root cause of the problem. The outcome reveals that the most important independent variable is the delay caused by the store. This root cause must have an appropriate solution to cater to the largest portion of late deliveries. Therefore, targeting this predictor will give a satisfactory delivery service to customers in terms of delivery time.

## **5. Recommendation**

The identified main root cause in this research was used to undermine a specific area of concern. Being store delay is the most determinant factor of the problem, solutions and alternative to it are discussed below. Recommendations were presented with the corresponding evaluation to examine their possible impact. With the result from the analysis, the generated recommendations rely on the reduction of time in the overall delivery time. The recommendations are having a new and improved ordering process and a proper delivery update. Further improvements that support the main goal of solving the problem are indicated respectively.

### **Improved Order Processing**

A recommendation to reduce the delay caused by the stores is improved order processing wherein placing of an order is done by calling the stores' hotline number to determine beforehand the waiting time for the preparation of orders. As we recall on the current process, all the orders received on their FB page will then be checked and reviewed by the admin in charge of it. The admin will then designate those orders to the riders through their group chat, and the riders will then travel directly to the stores for ordering, which results in a long waiting time for the rider in the store as some food orders are just being prepared after ordering. In this proposed improved process of order, after receiving the order assigned to the rider by the admin, the rider will first call the store's hotline number to place the order and ask how many minutes its preparation time is before traveling directly to the store if it is ready for pickup.

### **Delivery Updates**

To produce higher customer satisfaction, improving the delivery updates is also recommended. Delivery updates are messages from the business to its customers regarding the status of the orders. These updates can be used to help the customer track and estimate the arrival of the Delivery as well as address the problem of having immediate concern and miscommunication between the admin, riders, and customers. Moreover, it can lessen the worry of customers about their orders and may notify them also when the delivery has encountered some delays. Table 2 shows the different delivery updates.

### **New Process Flowchart**

Unlike the current service, the proposed process includes more specified actions that will boost the system's improvement (See Table 2). Through a phone call, the rider should check if the store is open, and if the orders are available, then make an order. As a support to the business's improvement, coordination and responsiveness are included in the new process. The responsiveness of the business is an important part of tracking the delivery. Therefore, updating them through reliable ways will give them more service satisfaction. Following this, the rider will send the delivery status to the customer to inform them about the expected delivery time and the total amount of payment of the order, wherein the expected delivery time considers the delays the store asked for. Most stores, especially fast-food chains, inform their customer about the possible waiting time. Considering the waiting time announced by the store will help to create a more accurate delivery time. Another delivery update is the alert which may also be proof or a record that the time has arrived at a specific time. At last, sending a feedback form is included.

It is an important step for the business to know their customer's satisfaction. However, it is not forced on the side of the customer to answer the form.

Table 2. Comparative Analysis for the Current and Proposed Process

<b>Comparative Analysis</b>		
<b>Areas</b>	<b>Current Process</b>	<b>Proposed Process</b>
a. Order processing	The rider goes to the store and makes an order	The rider will order from the store through a phone call first before going to the store
b. Waiting time	The rider waits for the order in the store	The rider will go to the store while the order is being processed by the store.
c. Order Notifications	Confirmation of orders and sending expected delivery time	Confirmation of orders
d. Delivery Status	Sends total amount of delivery	Sends total delivery amount and expected delivery time
e. Delivery Alerts	Depends on riders	Standard step; Should not be eliminated
f. Feedback Collection	Business's page rating; Voluntary; some customers are unaware of it	Sends encouragement messages for feedback through direct messaging

## 6. Conclusion

Due to the COVID-19 pandemic, global travel restrictions and stay-at-home orders have been implemented in different countries, causing the most severe disruption to the global economy. People need to innovate and create ways to sell their products to make their business alive, and, in some countries, restaurants can operate under takeaway/delivery sales (Gossling et al.,2020). Faced with this dire situation, characterized restaurants were forced to increase, diversify, or adapt new sales channels such as food delivery apps (FDAs). (Gossling et al.,2020). In this manner, customers have the option to purchase food in the comfort of their homes and save more time and effort since there is no requirement to stand in long queues to pay and risk their health in physical stores. They can buy food through food delivery applications and pay using online credit and debit cards or cash upon delivery. The delivery time in a food delivery business is a crucial factor since it is one of the strong predictors of customer satisfaction in buying foods online, as well as the service quality, price, and condition of food delivered (Saad, A. 2020). Food delivery businesses must aim to provide convenience, accessibility, and exceptional service to promote a good company image that will surely attract more customers in the future.

Through the observation of their daily operation as well as interviews on the management of the business itself, overall root causes are compiled and listed using a fishbone diagram. It shows that management, natural events, people (rider and customer), and process technology are the four general root causes of late deliveries of the business. To further highlight the ultimate root cause of late deliveries, different root cause analysis tools are used: the five why analysis and scatterplot diagram. The results obtained in the five why analysis concluded that the main root cause of late deliveries is the delays caused by store factors and that the management of the business should have countermeasures for it. It also results in another tool used in this study which is the scatterplot diagram, that delays caused by stores have a more linear relationship and a highly correlated factor with late deliveries.

Focusing on the delay caused by the store as the main root cause of the late deliveries as concluded in the root cause analysis performed, researchers proposed several recommendations to particularly solve store delay. The recommendation proposed by the researchers is designing a new delivery system flow to particularly reduce the late delivery caused by store factors. This new delivery system proposed includes riders calling the store first to place an order through the store's hotline number, and delivery updates wherein adding communication between riders and customers to update them if there would be delays or other unexpected situations. Through these delivery updates, wherein customers will be updated to unexpected delays caused by the store, a tentative 30 minutes are added to the customer's expected time of arrival of their orders, wherein it is the tentative maximum delay of their order. This store delay includes the preparation of orders, long queue lines, etc. A feedback form is also proposed to be answered by customers at the end of the service. Getting customer feedback can further improve the service provided by the business. An additional recommendation is having an application on the smartphone to have a clear record of the

management and also clear communication between rider and customer, as it has many features like timely updates of their order that will further satisfy customers. But it will only be materialized if the business acquires a programmer to create the app and more importantly, the business has a budget allocated for it.

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