Research Article

Implications of COVID-19 Pandemic on the Implementation of Sanitation Services of Water Utility Company AAA: Basis for Enhancing Service Performance

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ABSTRACT

The COVID-19 is a major disruptor of service industries. At the same time, the COVID-19 pandemic creates opportunities for service companies to innovate to survive and remain competitive on the market. According to new research, access to water is the most important challenge of the 21st century and poses a risk to sanitation services. The purpose of the study is to determine the implications of Covid-19 on the implementation of sanitation services in terms of innovative operational procedures, profitability and stakeholder satisfaction and safety in Water Utility Company AAA as perceived by the customers. Descriptive research design was used to analyze the data quantitatively and determine association and or differences between variables. Results revealed that respondents agreed that Covid-19 pandemic has implications on the merger and acquisitions and Innovative operations of the water company. As recommendation. the company should conduct a comparative program review with regards to business operations before and during covid-19 pandemic intended for employees considering the interests of the customers. With the findings of the study, the results revealed that the null hypothesis is rejected because it shows that Covid 19 has implications on wastewater program. A project plan will be implemented as support to the findings of the study.

INTRODUCTION

According to new research, access to water is the most important challenge of the 21st century and poses a risk to sanitation services. Concerns about water supply include damage to infrastructure caused by flooding, increasing water demand. Sanitation issues include damage and loss of services due to flooding and reduced transport capacity of wastewater receiving water. Policy regulations on service delivery technology and changes in business models have the potential to reduce risks, especially in low-income settings. Implementation of sanitation services became more complicated because of this pandemic due to mobilization issues. (Howard et al., 2016). That is why, more attention and research is needed to understand, plan for, and adapt to changes in the performance of implementing water and sanitation services.

Companies must deal with various problems that can be solved by contingency planning to develop better performance and profitability based on research by (Donthu & Gustafsson, 2020; Su, Huang, et al. al., 2021; Umar, Rizvi, et al., 2021). As argued by (Gong et al., 2020), the business environment is always volatile and can be easily disrupted with the help of changing domestic conditions. Therefore, companies should monitor changes in operations and establish certain contingency plans to adjust performance and maintain current performance to increase market rev-

enue (Liu et al., 2020).; Su, Khan et al., 2020).

COVID-19 widespread has brought phenomenal challenges to different segments, counting water utility companies like AAA. The suggestions of this worldwide emergency on the execution of sanitation administrations by Company AAA are noteworthy, as they require for clean water and appropriate sanitation hones has ended up indeed more basic in anticipating the spread of the infection. By investigating these suggestions, able to pick up profitable experiences into how the widespread has affected the benefit execution of Company AAA and distinguish opportunities for upgrading their sanitation administrations to way better meet the wants of their clients amid and past the current emergency. This ponders points to supply a comprehensive investigation of the impacts of COVID-19 on Company AAA's sanitation administrations and offer proposals for moving forward benefit execution in reaction to the modern challenges brought almost by the widespread.

This study focused on the implications of covid-19 pandemic on the implementation of sanitation services, which may serve as basis of enhancing the wastewater program of a specific company. Wastewater treatment and sanitation can provide at a level of service, and this level has implications on business performance. Wastewater treatment and sanitation offer benefits in addition to improving health, and these benefits considered in detail as they have important implications for the share of costs attributable to the health sector. In terms of its effect on disease burden, the main health benefits of wastewater treatment, sanitation, and hygiene are the reduction of diarrheal diseases, although the effects on other diseases are significant.

The points that will be determined in the discussion throughout the paper used in conjunction with data on existing coverage levels to derive estimates of the implications of the Covid-19 pandemic on the implementation of sanitation services.

Given the significance of water and sanitation services, as well as the additional strain on utilities created by the present crisis, the sector may require further assistance on information dissemination. Water Utility Company AAA established a program initiative in response to the demand for dependable sanitation and environmental services. The program provides used water services such as sewage network management, septic tank desludging or cleaning, community toilet and portable toilet solutions, and used water treatment.

Before Pandemic, the average turn-ins for sanitation services ranges from 4,000 to 6,000 households a month based on economic assessment of sanitation interventions in the Philippines. However, with this kind of setup wherein our activities limited due to community lockdowns and minimum health protocols, rate of turn-ins for sanitation services decreased to 800 to 1,200 households a month. Implementing strategies with the use of online promotion and online campaigns in communities served by the Water Utility Company AAA could improve support on implementing wastewater services.

Significance of the study

The general contribution of this study is to deter-

mine the implications of the covid- 19 pandemic on the implementation of water sanitation services. The study will benefit the following:

1. Water Utilities Companies: Improving stakeholder safety, by introducing growth opportunities and profitability. profits in the country's SME sector.
2. Water Utility Company AAA: Analyzed the current performance and profitability of the company as affected by COVID19.
3. The Researcher: Identifying the gaps by knowing the current problems of a water utility company due to COVID19. It also aims to evaluate strategies that companies can use to address this issue and increase the current performance of the company.

Literature Review

Kaberia & Muathe, 2020 stated that the COVID19 outbreak has severely affected the current operations of small and medium-sized enterprises and the general operations of companies in different countries. The pandemic situation of small and medium enterprises has an enormous impact, based on activities that are frequently disrupted at a higher rate (Gao et al., 2021; Liu et al., 2020; Su, Dai, et al., 2021).

Before researching into the main topic of this study, considered relevant to mention that since the emergence of the new coronavirus, cases of human suffering have increased, as the new coronavirus is one of the greatest public health crises. important in the modern era (Liu et al., 2020). In view of the previ-

ous point, it can add that in addition to causing harm on an individual level, the new coronavirus has the potential to cause significant effects on businesses, especially in service utility enterprises. Potential was measure by confidence in the business, the business environment that fluctuates with market volatility, and uncertainty about supply and demand, respectively (Gong et al., 2020). Therefore, it is considered as the main objective of this study to better understand the implications of the novel coronavirus, or COVID- 19, on the implementation of sanitation services of Water Utility Company AAA to identify ways to behave differently. This company can adapt to support business operations and improve business performance

With respect to the item indicated, it can be showed that any crisis, regardless of its origin, such as human or natural causes, is considered potential to cause significant harm to a company in terms of eliminating the level of trust that exists between the company and its respective consumer base (Donthu & Gustafsson, 2020). Furthermore, it can be argued that in addition to affecting consumer confidence in businesses, this crisis also serves its notorious purpose of putting pressure on the management of utility companies like Water Utility Company AAA because they are limited in their ability to make any changes within a brief period for its workforce. Along with the point mentioned above, it can be argued that these factors lead to business failure because they are not effective in their ability to deliver a service or product to their consumer base (Ratnasingam et al., 2020).

Furthermore, it can be mentioned that regarding the implications of the novel coronavirus on utility

companies such as Water Utility Company AAA, it can be rightly asserted that with the coronavirus came lockdown measures as a measure. temporarily to avoid the implications of COVID19 on its implementation. However, this leads to significant economic losses for China's SMEs due to reduced consumption (Lu et al., 2020). Along with the previous point, it can be said that with both the reduction in consumption output and the economic difficulties, the small and medium enterprises in China are facing the cash flow problem, which is intended to put pressure on the economy. force on their business (Omar et al., 2020).

Figure 1. Conceptual Framework

The study used a conceptual framework based on research about impact of Covid-19 on the business norms and performance of SMES in China (Tiezhu Sun, Wei- Wei Zhang, Marius Sorin Dingca & Muhammad Raza, 2021). The model can be hypothesized as follows: Independent variable is COVID-19, while dependent variable is business norms and performance. Measurements of business norms, mergers and acquisitions, remote working and innovative business procedures have been considered, while measures of business performance, profitability and stakeholder

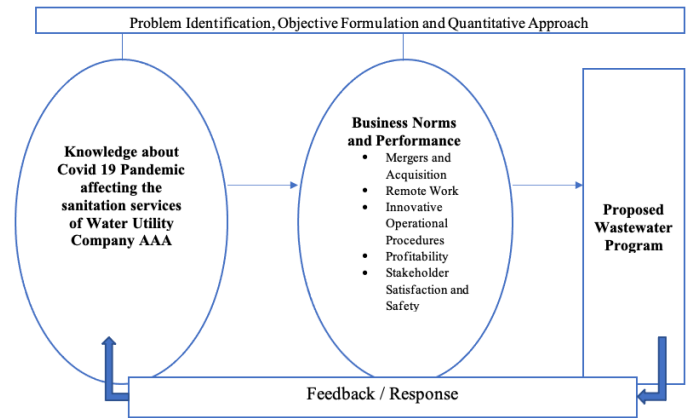satisfaction and safety are also being considered.

Figure 2. Operational Framework

Figure 2. shows the Operational Framework that the researcher had applied in this study. It describes the conceptual framework of the study wherein the first process is problem identification consisting of the following: Knowledge about Covid-19 Pandemic and its effect on the business norms and performance in the Sanitation Services of Water Utility Company AAA in terms of mergers and acquisition, remote work, innovative operational procedures, profitability, stakeholder satisfaction and safety.
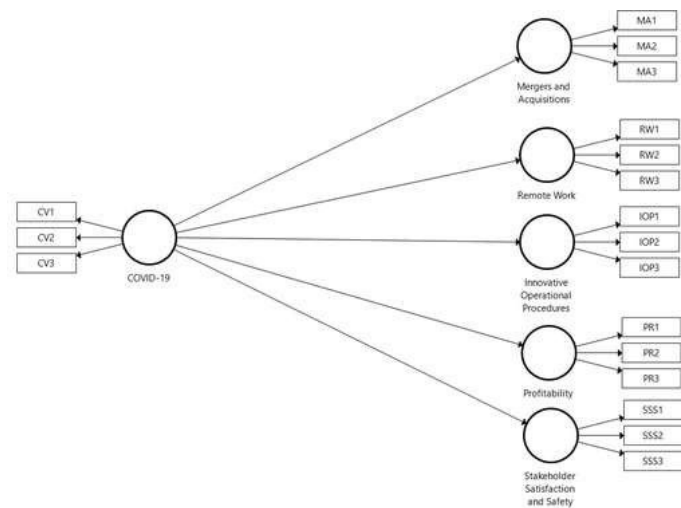
Next process is objective formulation and using quantitative approach through floating of a survey questionnaire, and analysis of data for evaluation. The result is the identified wastewater program. The proposed wastewater program will be evaluated based on the implication on the knowledge on Covid 19 that affects the business norms and performance of the company. The result of the evaluation will be carried through the form of feedback or responses from the respondents and will be processed again as the new information to be observed by the researcher to continually improve the system of the company. The re-

searcher wants to find out the implications of the pandemic on the implementation of sanitation services in three barangays within the vicinity of the company. A basis for formulation of marketing plan on how to enhance the service performance. The table shows how the researcher researched, surveyed, and solved the thesis statement.

Objectives of the study

The researcher's purpose is to focus on innovation methodologies and various operational procedures that can be used to improve the service performance of the company in this regard which aims:

Problem Statement in relation to the Objectives of the study:

In general, the study focused on innovation methodologies and various operational procedures that can be used to improve the service performance of the company.

1. To determine the level of implications of Covid 19 at Water Utility Company AAA.
2. To determine the level of customer perception on business performance and norms of Water Utility Company AAA in terms of innovative operational procedures, profitability and stakeholders' satisfaction and safety.
3. To determine the implication of Covid 19 to the company's business performance and norms in terms of innovative operational procedures, profitability and stakeholders' satisfaction and safety.

Hypothesis:

The researcher posited the hypotheses, referring to the pattern of influences among the considered variables.

Ho1: There is no significant implication of Covid-19 on business performance and norms in terms of innovative operational procedures, profitability and stakeholder satisfaction and safety in Water Utility Company AAA.

MATERIALS AND METHODS

Research Design

The study utilizes a descriptive research design. This is the most appropriate method since this study aims to determine the implication of Covid 19 on business performance and norms in terms of innovative operational procedures, profitability and stakeholders' satisfaction and safety. Descriptive research design is better to generalize than their experimental counterparts and as such tend to have stronger elements of external validity (Shadish et al., 2002, cited by Laher, Fynn & Suhaya, 2019). Thus, the data collected and analyzed quantitatively to determine association and or differences between variables.

Respondents of the Study

A total of one-hundred thirty-four (134) respondents were selected randomly from the total population of three thousand customers of Laguna Water in Sta. Rosa City. They were invited to participate and took part in the study. Respondents actively purchased or

subscribed the water service before pandemic provided by the company within the vicinity.

Sampling Design

The study employed a purposive sampling in selecting samples from the population. A sample size of 134 random respondents that were customers of Laguna Water were taken from the total of three thousand customers identified as population. According to Sekaran, U. and Bougie, R. (2009), purposive sampling is confined to specific types of people who can provide the desired information, either because they are the only ones who have it or conform to some criteria set by the researcher. Instead of obtaining information from those who are most readily or conveniently available, it might sometimes become necessary to obtain information from specific target groups.

Sample

The sample were based on a priori statistical power analysis using G*Power Suite with a power = 0.95, effect size = 0.30 and alpha .05 to yield a sample size of 134.

Therefore, a proportionate type of purposive sampling was used to get an exact replica of the target population.

Research Instrument

Instrument is the generic term that researchers use for a measurement device like the use of survey, test, and questionnaire using Likert Scale method. This will be the approach that will be used to scale responses in this survey research. The major instrument that will be used in gathering data is questionnaires. It entails the necessary information that are important in measuring the implications of Covid 19 on business performance and norms in Laguna Water at Sta. Rosa City. It was modified from the studies of Tiezhu Sun, Wei-Wei Zhang, Marius Sorin Dinca & Muhammad Raza (2021) Determining the impact of Covid-19 on the business norms and performance of SMEs in China. Some modifications were done in the questionnaire to make it more suitable to the respondents of the study. The modified questionnaire was slightly longer and contains several items to gather data about the participants demographics. It was based on a more appropriate structure. This structure is more practically oriented and pays attention to ethical issues. In future cases, this questionnaire will be used by company's research and development to measure the perceived impact of Covid 19 to business performance and norms.

The researcher uses the Cronbach's alpha reliability coefficient for Likert type scales data analysis tool to test the internal consistency of a questionnaire. A high correlation signals high internal consistency thus, the evaluated questionnaire certainly defines as reliable and construct valid then results of which has a Cronbach's alpha = 0.89 among 138 respondents. Therefore, this questionnaire is accepted. All items contribute to the reliability and construct validity of the questionnaire. Cronbach's alpha showed the questionnaire to reach acceptable reliability factor, α = 0.89. Most items appeared to be worthy of retention, resulting in a decrease in alpha if deleted. It should be noted that an alpha of 0.89 is the results indicated that

the researcher had Cronbach's alpha exceeded the test value of more than the acceptable value of 0.70 and can be observed as a reasonable goal. The responses were gathered and tallied to determine if the responses are closely similar in two trails To determine this, the questionnaire was tested using Cronbach's alpha. It is. a test of a model or survey's internal consistency. It should be 0.7 or higher to retain an item in an adequate scale and many researchers require a cutoff of 0.80 for a good scale. The computed Cronbach alpha for this instrument was 0.89. All the comments and suggestions of these experts will be taken into consideration. According to George and Mallery (2003, p.231) point out the rule of thumb, " > .9 - Excellent, > .8 - Good, > .7 - Acceptable, > .5 - Poor and <.5 - Unacceptable". While increasing the value of alpha is partially dependent upon the number of items in the scale.

Frequentist Scale Reliability Statistics

Indicator	Cronbach's α	95% CI Lower	95% CI Upper
Knowledge	0.769	0.704	0.823
Merger and Acquisition	0.809	0.746	0.858
Remote Work	0.707	0.594	0.792
Innovative Operation	0.798	0.732	0.85
Profitability	0.711	0.598	0.795
Satisfaction	0.842	0.789	0.883
Total	0.886	0.855	0.912

One week before the actual start of distributing the survey form, pilot testing with thirty (30) recipients' who will not be included as part of the respondents and experts in the field of research will be included to validate the reliability of the survey questionnaire.

The researcher with the help of statistician analyzed the data gathered, tabulated, and interpret the results. The level of implication of Covid 19 in terms of Knowledge, Merger and Acquisition, Remote Work as well as the business performance and norms in terms of innovation, profitability and satisfaction were presented, interpreted, and analyzed using the descriptive and inferential statistics.

Statistical Treatment

For the quantitative analysis of data, the researcher utilizes JASP Statistical Package (jasp.stats.org, 2021). Furthermore, the following tools was used:

1. **Descriptive Statistics**

Weighted Mean used to determine the level of implications of Covid-19 on Business Performance and Norms. Used to determine the impact of Covid 19 in terms of knowledge, as well as the level of business performance and norms in terms of merger and acquisition, remote work, innovative operational procedures, profitability and stakeholders' satisfaction and safety.

To determine the impact of Covid 19 in terms of knowledge, and the level of business performance and norms in terms of merger and acquisition, remote work, innovative operational procedures, profitability and stakeholder's satisfaction and safety, the following measures was used:

Assigned Point	Verbal Interpretation
5	Strongly Agree
4	Agree
3	Neither Agree nor Disagree
2	Disagree
1	Strongly Disagree

2. Inferential Statistics

Regression Analysis were used to predict the implication of covid nineteen to the business performance and norms of Laguna Water at Sta. Rosa City. Regression Analysis predicts the linear relationship between the implications of Covid 19 to the innovative operational procedures, profitability and stakeholders' satisfaction and safety used by Laguna Water at Sta. Rosa City.

RESULTS AND DISCUSSION

This chapter presents the data gathered from the survey questionnaires in accordance with the research problem of this study as well as its interpretation, analysis and findings using appropriate statistical tools and methods and conclusions drawn and recommendations.

Table 1. Descriptive Statistics on the Level of Implications of Covid 19 at Laguna Waters in Sta. Rosa City

Indicator	Mean	Std. Deviation	Verbal Interpretation
1. Water sanitation services (such as desludging septic tanks) is very important before the pandemic	4.326	0.501	Agree
2. Water sanitation services (such as desludging septic tanks) is very important during the pandemic	3.971	0.553	Neither Agree or Disagree
3. My views on health and hygiene changed during the pandemic?	4.283	0.616	Agree
4. The pandemic reinforced the importance of accessing good and efficient water and sanitation services	4.072	0.647	Agree
5. Access to water and sanitation services increases the risk of exposure to infectious diseases	4.181	0.557	Agree
6. Access to water and sanitation services reduces the risk of exposure to infectious diseases	3.884	0.555	Neither Agree or Disagree
Total	4.134	0.391	

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 -Strongly Disagree

Table 1 shows the descriptive statistics on the level of implication of Covid 19 at Laguna Water in Sta Rosa City. Indicator "Water sanitation services (such as desludging septic tanks) is very important before the pandemic" got the highest mean score of 4.326 (SD = 0.501) and was interpreted as agree. Indicator "My views on health and hygiene changed during the pandemic" and "Access to water and sanitation services increases the risk of exposure to infectious diseases" got a mean score of 4.283 and 4.181 respectively and were both interpreted as agree. However, indicator "Water sanitation services (such as desludging septic tanks) is very important during the pandemic" and "Access to water and sanitation services reduces the risk of exposure to infectious diseases" got the lowest mean score of 3.971 and 3.884 respectively and were both interpreted as neither agree or disagree. Therefore, respondents agrees that they have knowledge on the water systems and Covid 19 with a total mean score of 4.134 (SD =0.391).

Respondents agreed that water sanitation services (such as desludging septic tanks) are especially important before the pandemic. Their views on health and hygiene changed during the pandemic and the pandemic reinforced the importance of accessing good and efficient water and sanitation services. They also agreed that access to water and sanitation services increases the risk of exposure to infectious diseases

The above data is related with the literature of Liu et al., 2020 stating that the new coronavirus is one of the greatest public health crises. important in the modern era. In view of the previous point, it can add that in addition to causing harm on an individual level, the new coronavirus has the potential to cause significant effects on businesses, especially in service utility enterprises.

The result of the study states that respondents agreed that the company has knowledge on the water system.

Table 2. Descriptive Statistics on Customers' perception in terms of Merger and Acquisition

Indicator	Mean	Std. Deviation	Verbal Interpretation
7. The pandemic affects the client-employee relationships due to the absence of employees handling their concerns	4.145	0.646	Agree
8. The pandemic lead the customers confusion with regards to increase on service fees.	4.181	0.595	Agree
9. The pandemic affects the client-employee relationships due to the presence of new employees handling the concerns.	4.065	0.619	Agree
Total	**4.109**	**0.527**	**Agree**

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 -Strongly Disagree

Table 2 shows the descriptive statistics on customers' perception in terms of merger and acquisition. Indicator "The pandemic lead the customers confusion with regards to increase on service fees." got the highest mean score of 4.181 (SD = 0.595) and was interpreted as agree. While indicator "The pandemic affects the client-employee relationships due to the absence of employees managing their concerns" got the second highest mean score of 4.145 (SD = 0.646) and "The pandemic affects the client-employee relationships due to the presence of new employees handling the concerns" got the lowest mean score of 4.065 (SD =0.619) and was interpreted as agree. Therefore, respondents agree that they perceived the merger and acquisition based on handling concerns and increase in service fees with a total mean score of 4.109 (SD=0.527.

Respondents agreed that the pandemic affects the client-employee relationships due to the absence of employees handling their concerns and the pandemic lead the customer confusion with regards to increase on service fees. In addition, they were agreed that the pandemic affects the client-employee relationships due to the presence of new employees handling the concerns.

As stated in the results, based on the perception of the respondents, they agreed that merger and acquisi-

tion is one of the implications of covid-19 pandemic in the water utility company.

Table 3. Descriptive Statistics on Customers' perception in terms of Remote Work

Indicator	Mean	Std. Deviation	Verbal Interpretation
10. The employees lost their connections to customers because of pandemic.	3.855	0.574	Neither Agree or Disagree
11. The employees could not attend to the needs of the customers who is doing their jobs from a location other then central office.	3.884	0.640	Neither Agree or Disagree
Total	**3.866**	**0.535**	**Neither Agree or Disagree**

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 -Strongly Disagree

Table 3 shows the descriptive statistics on customers' perception in terms of remote work. Indicator "The employees could not attend to the needs of the customers who is doing their jobs from a location other than central office." got the highest mean score of 3.884 (SD = 0.640) and was interpreted as neither agree or disagree. While indicator "The employees lost their connections to customers because of pandemic." got a mean score of 3.855 (SD = 0.574) and was interpreted as neither agree or disagree. Therefore, respondents neither agree or disagree that they perceived Laguna Water's business performance and norms in terms of remote work through lost communications with customers and not attending to their needs with a total mean score of 3.866 (SD=0.535).

Respondents were neither agree nor disagree that the employees lost their connections to customers because of pandemic and the employees could not attend to the needs of the customers who is doing their jobs from a location other than central office.

As stated in the results, based on the perception of the respondents, they agreed nor disagreed that business performance has been affected in terms of remote work which is one of the implications of covid-19 pandemic in the water utility company.

Table 4. Descriptive Statistics on Customers' perception in terms of Innovative Operations

Indicator	Mean	Std. Deviation	Verbal Interpretation
12. The pandemic come up with new way of filling orders and reporting concerns	4.087	0.610	Agree
13. The pandemic provides better value to customers through online service.	4.000	0.592	Agree
14. The pandemic provides changes on delivery of water services.	4.022	0.656	Agree
Total	**4.015**	**0.516**	Agree

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 - Strongly Disagree

Table 4 shows the descriptive statistics on customers' perception in terms of innovative operation. Indicator "The pandemic come up with new way of filling orders and reporting concerns" got the highest mean score of 4.087 (SD = 0.610) and was interpreted as agree. While indicator "The pandemic provides changes on delivery of water services." got a mean score of 4.022 (SD = 0.656) and was interpreted as agree. However, indicator "The pandemic provides better value to customers through online service." got the lowest mean score of 4.000 (SD =0.592) and was interpreted as agree. Therefore, respondents agree that they perceived Laguna Water's business performance and norms in terms of innovative operations through filling orders and reporting concerns, and changes on delivery of water service with a total mean score of 4.015 (SD=0.516). Respondents perceived that the pandemic produces new way of filling orders and reporting concerns, and the pandemic provides changes on delivery of water services. Respondents neither agree nor disagree that the pandemic provides better value to customers through online service

As stated in the results, based on the perception of the respondents, they agreed that business performance has been affected in terms of innovative operations which is one of the implications of covid-19 pandemic in the water utility company.

Table 5. Descriptive Statistics on Customers' perception in terms of Profitability

Indicator	Mean	Std. Deviation	Verbal Interpretation
15. The company increases the amount of the water service because of pandemic	3.935	0.607	Neither Agree or Disagree
16. The company provides additional charges regarding water service	4.043	0.552	Agree
Total	**3.931**	**0.411**	**Neither Agree or Disagree**

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 - Strongly Disagree

Table 5 shows the descriptive statistics on customers' perception in terms of profitability. Indicator "The company provides additional charges regarding water service " got the highest mean score of 4.043 (SD = 0.59) and was interpreted as agree. However, indicator "The company increases the amount of the water service because of pandemic" got the lowest mean score of 3.935 (SD =0.607) and was interpreted as neither agree or disagree. Therefore, respondents neither agree nor disagree on Laguna Water's business profitability of water service during pandemic with total mean score of 3.931 (SD=0.411).

Respondents neither agree nor disagree that the company increases the amount of the water service because of pandemic and agreed that the company provides additional charges regarding water service

As stated in the results, based on the perception of the respondents, they agreed nor disagreed that profitability has been affected as one of the implications of covid-19 pandemic in the water utility company.

Table 6. Descriptive Statistics on Customers' perception in terms of Satisfaction

Indicator	Mean	Std. Deviation	Verbal Interpretation
17. The company solves our problem in terms of water service before pandemic	3.812	0.611	Neither Agree or Disagree
18. The company solves our problem in terms of water service during pandemic	3.833	0.646	Neither Agree or Disagree
19. The company satisfies our needs in terms of water service	3.949	0.632	Agree
Total	**3.942**	**0.386**	**Neither Agree or Disagree**

Legend: 5 - Strongly Agree, 4 - Agree, 3 - Neither Agree nor Disagree, 2 - Disagree, 1 -Strongly Disagree

Table 6 shows the descriptive statistics on customers' perception in terms of satisfaction. Indicator "The company satisfies our needs in terms of water

service " got the highest mean score of 3.949 (SD = 0.632) and was interpreted as neither agree or disagree. While indicator "The company solves our problem in terms of water service before pandemic" got a mean score of 3.812 (SD =0.611) and was interpreted as neither agree or disagree. However, indicator "The company solves our problem in terms of water service during pandemic" got the lowest mean score of 3.833 (SD =0.646) and was interpreted as neither agree or disagree. Therefore, respondents neither agree or disagree on Laguna Water's business performance and norms in terms of satisfaction through company's effort to solve problem in terms of water service before and during pandemic with a total mean of 3.942 (SD=0.386)

Respondents neither agree nor disagree that the company solves our problem in terms of water service before pandemic and the company solves their problem in terms of water service during pandemic, but they were agreed that the company satisfies their needs in terms of water service.

The results implied that respondents perceived that they neither agree nor disagree on the business performance in terms of satisfaction.

Data shows in table 2 to table 6 is in relation with the study of Tiezhu Sun, Wei- Wei Zhang, Marius Sorin Dingca & Muhammad Raza, 2021 impact of Covid-19 on the business norms and performance of SMES in China. Measurements of business norms, mergers and acquisitions, remote working and innovative business procedures have been considered, while measures of business performance, profitability

and stakeholder satisfaction and safety are also being considered.

Table 7. Regression Analysis on the Implication of Covid 19 to Laguna Waters' Business Performance and Norms

Indicators	R^2	F	p	β	t	p	95% CI Lower	Upper
Merger and Acquisition	0.364	77.792	<.001	0.812	8.820	<.001	0.63	0.994
Remote Work	0.237	42.26	<.001	0.666	6.501	<.001	0.463	0.869
Innovative Operations	0.481	126.153	<.001	0.914	11.232	<.001	0.753	1.075
Profitability	0.243	43.711	<.001	0.517	6.611	<.001	0.363	0.672
Satisfaction	0.221	38.578	<.001	0.464	6.211	<.001	0.316	0.611

Table 7 shows the summary of descriptive statistics on customer's perception on business norms and performance at Laguna Water. Merger and acquisition got the highest mean score of 4.109 (SD=0.527) and was interpreted agree. It was seconded by innovative operational procedures with a mean score of 4.015 (SD=0.516) and was also interpreted as agree. While satisfaction got the third highest mean score of 3.942 (SD=0.386) and was interpreted as neither agree nor disagree. However, profitability and remote work receives the lowest mean score of 3.931 and 3.866 respectively and were both interpreted as neither agree nor disagree.

Table 8. Regression Analysis on the Implication of Covid 19 to Laguna Water's Business Performance and Norms

Dependent Variables	R^2	F	p	β	t	p	95% CI Lower	Upper
Merger and Acquisition	0.364	77.792	<.001	0.812	8.820	<.001	0.63	0.994
Remote Work	0.237	42.26	<.001	0.666	6.501	<.001	0.463	0.869
Innovative Operations	0.481	126.153	<.001	0.914	11.232	<.001	0.753	1.075
Profitability	0.243	43.711	<.001	0.517	6.611	<.001	0.363	0.672
Satisfaction	0.221	38.578	<.001	0.464	6.211	<.001	0.316	0.611

Table 8 shows the regression analysis on implication of Covid 19 to Laguna Water's business performance and norms. Using JASP Statistical Package by employing linear regression between two variables, implication of Covid 19 and business performance and norms in terms of merger and acquisition, remote work, innovative operations, profitability, and satis-

faction. The coefficient of determination R squared is 0.364 (merger and acquisition), 0.237 (remote work), 0.481 (innovative operations), 0.243 (profitability) and 0.221 (satisfaction). Therefore, about 36% of variation in merger and acquisition, 23.7% of variation in remote work, 48% of variation in innovative operations, 24.3% variation in profitability and 22.1% variation in satisfaction are all explained by the knowledge in Covid 19. The regression equation appears to be useful for making predictions since the value of r squared is somewhat close to 1. With $F(1,136) = 77.792, 42.26, 126.153, 43.711$ and 38.578 with p value of $<.001$ was lower than the significance level at 0.05, there exists enough evidence to conclude that the predictor affects the business performance and norms; therefore, the model is useful. We are 95% confident that the slope for knowledge in Covid 19 is between 0.63 and 0.994; 0.463 and 0.869; 0.753 and 1.075; 0.363 and 0.672; and 0.316 and 0.611. In other words, we are 95% confident. that for every single unit increase in the knowledge on Covid 19, the perception in merger and acquisition also increases between 0.63 and 0.994; remote work increases between 0.463 and 0.869; innovative operation increases between 0.753 and 1.075; profitability increases between 0.363 and 0.672; and satisfaction increases between 0.316 and 0.611. Thus, we will reject the null hypothesis, we can conclude that the knowledge on Covid 19 has significant implication on Laguna Water's business performance and norms in terms of merger and acquisition, remote work, innovative operations, profitability, and satisfaction.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, the researcher concludes the following customers perceptions:

1. Respondents agreed that Covid-19 pandemic has implications on the Merger and Acquisitions and Innovative operations of the water company. The pandemic leads the customers confusion with regards to increase on service fees and handling basic concerns. Respondents were neither agree nor disagree that water sanitation services (such as desludging septic tanks) are particularly important during the pandemic

2. Respondents agreed and disagreed that Covid-19 pandemic has implications on the remote working, profitability, and satisfaction of customers of the water company.

3. Knowledge on Covid 19 has significant implication on Laguna Water's business performance and norms in terms of merger and acquisition, remote work, innovative operations, profitability, and satisfaction.

4. With the findings of the study, the results revealed that the null hypothesis is rejected because it shows that Covid 19 has implications on wastewater program. A project plan will be implemented as support to the findings of the study.

The respondents acknowledged that the Covid-19 pandemic affects the Merger and Acquisitions and Innovative operations of the water company, leading to customer confusion about service fees and basic concerns. There were mixed opinions on the importance of water sanitation services during the pandem-

ic. Additionally, the pandemic has both positive and negative implications on remote working, profitability, and customer satisfaction. Knowledge of Covid-19 significantly impacts Laguna Water's business performance in various aspects. The study's findings reject the null hypothesis, indicating that Covid-19 impacts the wastewater program, leading to the implementation of a project plan to support these findings.

Recommendations:

1. Since the customers agreed that they have confusions on increase of service fees, the researchers recommend to the company to conduct an information dissemination campaign on the implemented increase with regards to the service fees. The researchers also recommend that since customers were not all agreed on the importance of water sanitation services (such as desludging septic tanks) is particularly important during the pandemic, it is recommended that the company should strengthen their information campaign on the importance of water sanitation services during campaign to protect themselves on other health hazards that may occur.

2. On handling complaints and concerns, it is necessary for the company to assign or add more customer representatives to regularly monitor or check customers complaints and or feedbacks for necessary actions. An enhance monitoring systems on performance report should be conceptualized for the customers to feel that their concerns were properly attend-

ed.

3. Since knowledge on Covid 19 has significant implication on Laguna Water's business performance and norms in terms of merger and acquisition, remote work, innovative operations, profitability, and satisfaction, the company should conduct a comparative program review with regards to business operations before and during covid-19 pandemic intended for employees considering the interests of the customers.

The findings highlight the importance of addressing customer confusion regarding service fees and the varying perceptions of water sanitation services during the pandemic. To enhance customer understanding, it is recommended that the company initiates an information dissemination campaign on the implemented fee increases and the significance of water sanitation services. This proactive approach can help alleviate customer concerns and promote awareness of health benefits associated with proper sanitation practices.

The significant impact of Covid-19 on Laguna Water's business operations necessitates a strategic review of performance and norms in various aspects. To adapt to the changing landscape, it is recommended that the company conducts a thorough program review comparing pre-pandemic and current business practices. This comparative analysis can help identify areas for improvement and enable the company to align its operations with the evolving needs of employees and customers. By prioritizing employee and customer interests, Laguna Water can enhance its business per-

formance and maintain customer satisfaction during these challenging times.

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