

FACING THE BATTLE OF COVID-19: THE CASE STUDY OF PUNE, INDIA

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ABSTRACT

The battle against the “COVID-19 pandemic” has remained hard for the whole world and in the following study, the context of Pune has been emphasised. This study has evaluated the impacts of the pandemic on Pune, associated risk factors and the battle in response to the pandemic. Several risk factors associated with the virus have been identified, such as gastrointestinal distress, respiratory disorder, headaches, pneumonia, bilateral ground-glass opacities, dyspnoea and cough. Maharashtra remained at the peak of Corona virus infections and Pune became the most vulnerable spot with daily raising infections. The primary quantitative data collection approach has been used in the study and the outcomes have been analysed using the IBM SPSS software. A survey questionnaire containing 10 close-ended questions has been designed and 101 participants have been selected for collecting data. The findings of this study reveal that the pandemic has posed a major disruptive impact on Pune and affected every aspect, including health, business, health services and infrastructure and the economy. Several effective recommendations have been proposed, including upgrading the primary healthcare infrastructure and increasing awareness of the pandemic.

Keywords: Covid-19 pandemic, Pune Municipal Corporation, patient, healthcare professionals, restrictions.

1. INTRODUCTION

1.1 Background of the study

The recent COVID-19 pandemic has impacted every area and every sector of the world. In India, one of the most affected areas has been identified to be Pune, situated in Maharashtra. Consequently, from the beginning of the pandemic crisis, Pune has witnessed a severe rise in infection near the city areas (Vaidya, 2020). Maharashtra has ranked to be the most endangered area during the pandemic time and Pune recorded the highest number of regular infections throughout the nation. Due to the high population and location of numerous business organisations, Pune has been impacted highly during the pandemic time. The Indian government and the ruling regulatory framework of Pune have taken several interventions and actions to respond to the crisis.

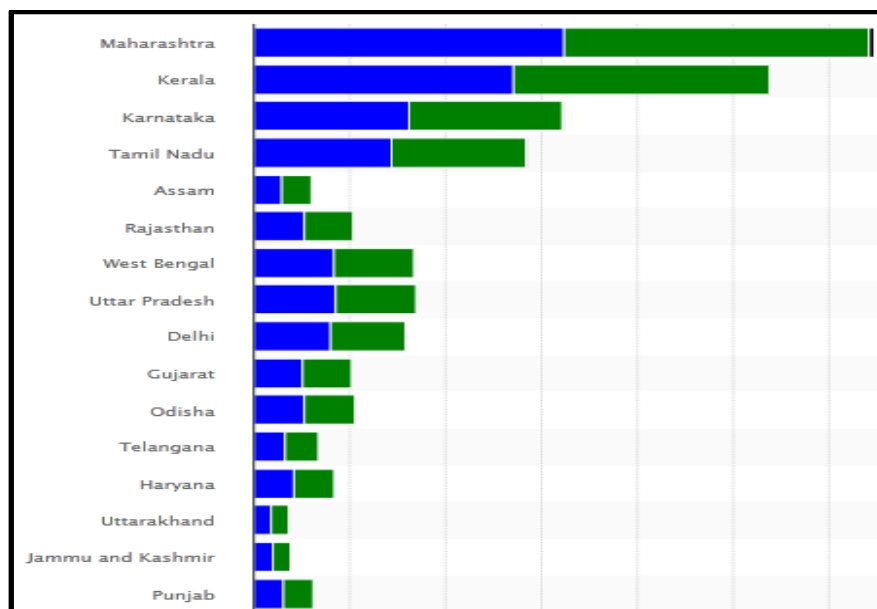


Figure 1.1: COVID-19 in India, share by active and recovered cases
(Source: Kanwal, 2022)

The first wave of the pandemic has impacted crucially on Pune and the sudden lockdown impacted business and other regular activities. In addition, the Pune Municipal Corporation remained indifferent in this context and identified to be unable to invest in building “mega COVID health centres” (Economicstimes, 2020). On the other hand, the second wave of the pandemic has posed a more severe impact and small to medium-sized enterprises have witnessed the most crucial disruption. On September 1, 2022, Maharashtra reported more than 10,000 active COVID-19 cases which remained the highest in India (Kanwal, 2022). The pandemic has introduced new disruptive risk factors to the city.

1.2 Aim and objectives

The desire of this study is to describe and evaluate the impacts and response to the COVID-19 pandemic in the context of Pune, India.

- To elaborate on the impacts of the COVID-19 pandemic on Pune
- To assess the responses and battle against the pandemic in Pune
- To identify potential initiatives taken by the government

To recommend relevant strategies to improve the impacts of the COVID-19 pandemic

2. Literature Review

2.1 Risk factors associated with the Covid-19 pandemic

“Covid-19” is an epidemic disease that has been occurred by the “SARS-CoV-2 virus” that spread over the world from 2019 to 2021. There are associated several types of risk factors that are able to enhance the effectiveness of the virus in a wide range. As opposed to Tambe et al. (2020), this virus impact is divided into two groups such as “*systematic disorders*” and “*respiratory disorders*”. Each disorder is connected with some specific syndrome that defines the level of risks. “Systematic disorders” include headaches, gastrointestinal distress, and fever. On the contrary, “respiratory disorders” include dyspnoea, pneumonia, cough, and bilateral ground-glass opacities.

Due to the difficulty of its transformation process as well as the limitation of proven treatment has become a serious challenge for the people. According to Marbaniang et al. (2020), it is a critical illness and it needs proper identification for treatment. This virus affects different people in different ways and it has been identified that most infected people had

increased “mild to moderate illness” which was treated by random treatment as the actual treatment was unknown for all. Many people have died because of the virus's impact and not being treated properly.

2.2 The battle against the Covid-19 pandemic in Pune

Throughout the Covid-19 pandemic situation, the people of Pune have faced serious issues due to a lack of proper medical attention. Medical experts felt down because of not getting proper support from the government. As stated by Sheroun et al. (2020), a shortage of crucial drugs, oxygen, human resources, and beds was a common disturbance in the medical field in Pune. In addition to this, many people have become unemployed during this situation which increased the scarcity of financial support. There are near about 7% of the population become unemployed in India during the pandemic (Statista.com, 2022). After knowing spitting is one of the elements by which the “SARS-CoV-2 virus” can be spread in the human body, spitting has become considered a punishable offense in Pune according to the “*Disaster Management Act*” (Indiatimes.com, 2022).

It has been mentioned that anyone caught spitting one will be fined *Rs 1,000 from Rs 500* (Indiatimes.com, 2022). Along with this, the municipal corporation of Pune also implemented the initiative of “*Swachh Survekshan*” to prevent the impact of Covid. As supposed by Nikalje & Yadav (2020), making the environment neat and clean and reducing the virus affect the municipal corporation of Pune effort a lot. There were confirmed Covid cases registered over *eight million* which includes over “*148 thousand fatalities*” and over “*7.9 million recoveries*” (Statista.com, 2022).

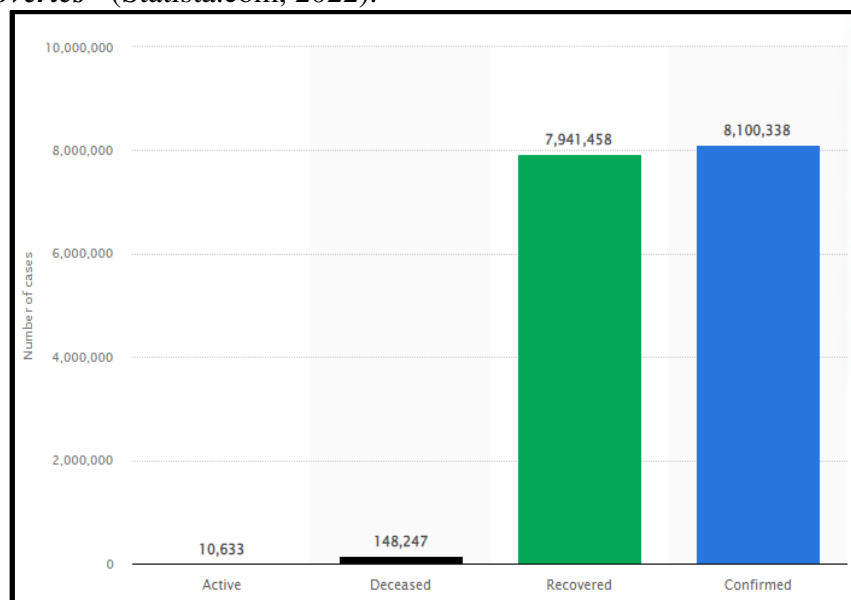


Figure 2.2.1: Number of Covid cases in Pune, Maharashtra

(Source: Statista.com, 2022)

2.3 Role of the medical department to face the battle against Covid-19 in Pune

In Pune medical departmental people have faced real difficulties due to a lack of proper equipment to lead the treatment process. Thus, handling a vast number of patients has become also a challenge for professionals. As per the view of Rishipathak, Vijayraghavan, & Hinduja (2021), having no choice the health professionals have to expect to respond with sharpness disregarding their mental state. In Pune, hospitals have been sinister alone to fight against the situation. In this regard, the chief executive officer Bomi Bhote, Ruby Hall Clinic has stated that “*no help is coming from anyone*”. There was no governmental support has

been seen in Pune during the pandemic but the Pune Municipal Corporation has supported the private hospitals. It includes arranging oxygen cylinders, medicines, and other types of equipment which also remained short, dependent on the increased affected numbers. As proposed by Tillu, Salvi, & Patwardhan (2020), a lack of bed shortage also develops the number of home-quarantined patients who deal with telephonic communication with doctors which also represents a challenge for healthcare professionals. Overtime work has become a major mental stress for nurses and doctors and others healthcare servants.

2.4 Preventions implemented by the government

Observing the rising number of Covid patients in Pune, the Pune municipal corporation has focused on several areas to prevent the virus impact. Controlling the pollution of the city, a “*Smart City*” project has been organised based on the “web and mobile-related dashboard” (Basannar, Goyal, & Pardal, 2022). Spraying disinfectants such as sterile medicine across the city was also an initiative that has been implemented by the MC of Pune, Maharashtra. In order to support the medical department, six “*COVID Care Centres (Flu Clinic)*” have been opened with **375 beds**, whereas five “*Dedicated COVID HealthCare Centres*” have been opened with **806 beds** and two “*Dedicated COVID Hospitals*” have been opened with **588 beds** to help the doctors and nurses to continue their treatment process “(Maharashtra.gov.in, 2022).

Types of Infrastructure	Nos. of Centers	Nos. of Beds
COVID Care Centre (Flu Clinic)	6	375
Dedicated COVID HealthCare Centre	5	806
Dedicated COVID Hospitals	2	588

Figure 2.4.1: Health Dept Planning

(Source: Maharashtra.gov.in, 2022)

In addition, the PMC also delivered shelters to more than **1250** “homeless citizens” (Maharashtra.gov.in, 2022). “*District Level Committee*” of Pune also supplies oxygen and oxygen supplying vehicles in hospitals. In Bharati Hospital, Dhankawadi, Pune near about **110 Isolation beds, 15 ICU beds, and 25 step-down beds** have been arranged during Covid (Maharashtra.gov.in, 2022). Online training sessions also have been provided by PMC for conducting the treatment process by medical staff.

2.5 Theoretical perspective

In the Covid-19 pandemic situation, keeping motivated medical professionals is required highly essential as they are leading the main role. Following this need, “*McClelland's Human Motivation Theory*” can be proven as one of the most effective motivational theories (Acquah et al. 2021). In managing a group, this theory allows people to praise and give feedback to keep motivated to fulfill any target. The three steps are effective to provide psychological satisfaction to the medical staff.

- **Need for Achievement:** It is a vital requirement as an individual always prefers credit, influential activity, and being competitive to proof own self.
- **Need for Power:** Giving power to professionals represents the reliability and trust that can increase efficiency. It can be proved as a most useful element to change up the professionals to show their productivity to treat the affected patients.
- **Need for Affiliation:** Healthcare professionals prefer to have controlling power over any patient to treat accordingly to achieve wellness of the patient.



Figure 2.5.1: McClelland's Human Motivation Theory

(Source: Influenced by Acquah et al. 2021)

2.6 Literature gap

Due to not having enough time and financial stability, the researcher has faced a challenge regarding collecting all the resources related to the research topic. In addition, all the resources are selected from 2018 to 2022 and there were a few numbers of journals related to the topic that also limited the research process.

3. Methods

Proper selection of methodological tools such as research approach, research philosophy, research design, data collection tool, and data analysis technique allow an increase of perfection and accuracy of the research paper. In order to lead this research process, the researcher has selected a **“deductive research approach”** as it is a bottom-up approach that is useful to make an effective conclusion dependent on single elements. In addition to this, a **“positivism research philosophy”** also has been chosen to handle large sizes of data with a highly structured framework. In the words of Park, Konge, & Artino (2020), it is helpful to make the research study more relevant and reliable based on proper research phenomenon. Therefore, a **“descriptive research design”** has been adopted to secure information systematically to explore a perfect outcome that can enhance the value of the study.

Along with this, to collect applicable data related to the research topic, the researcher has embarrassed the **“primary quantitative data collection tool”** as it can serve first-hand fresh data. The researcher has chosen an online survey using **SPSS software**, to store data and evaluate the actual reliability of the information. As opined by Bhatti et al. (2019), it is an advanced statistical analysis platform that is applicable for controlling the large size of data and is also able to extract the meaning of the data in an understandable way. The researcher has set a questionnaire of **“10 close-ended questions”**. In the survey process, there were a total of **“101 respondents as participants”** have been designated and expected they delivered their judgment on the struggle during the pandemic time. It has been noticed that all the respondents must have knowledge about the pandemic and all are above 18 years old to make sure the opinions are genuine.

4. Results and Discussion

4.1 Results

Frequency table

Statistics										
	1. Age group	2. Gender	3. The Covid-19 pandemic situation has played a vital role in establishing the social structure of Pune	4. There are several risk factors associated with the SARS-CoV-2 virus	5. The people of Pune have taken the health against Covid-19 to name	6. Pune Municipal Corporation has started a SPSS surveying	7. There is a lack of medical requirements to control the outbreak process	8. The role of the medical department is not sufficient in fighting against Covid-19 in Pune	9. Medical professionals need to work on the fight against Covid-19	10. Several initiatives have implemented by Pune Municipal Corporation to prevent the spread of the virus
N	Valid	101	101	101	101	101	101	101	101	101
	Missing	0	0	0	0	0	0	0	0	0
Mean		1.90	.49	2.90	2.00	2.90	3.00	2.77	2.43	2.31
Median		1.00	.00	4.00	3.00	2.00	4.00	3.00	3.00	2.00
Mode		1	0	4	4	4	4	3	4	4
Std. Deviation		1.055	.509	1.359	1.431	1.300	1.281	1.326	1.314	1.488
Variance		1.112	.312	1.848	2.048	1.680	1.642	1.750	1.737	2.215
Minimum		0	0	0	0	0	0	0	0	0
Maximum		5	2	4	4	4	4	4	4	4
Sum		191	49	290	200	290	312	280	243	231

Figure 4.1.1: Frequency table (Source: SPSS)

Based on the “mean value” and “median value”, the rationalisation of the “frequency table” can be possible. The “mean values” of the research variables are **1.50, 0.49, 2.95, 2.65, 2.55, 3.09, 2.77, 2.43, 2.31**, and **2.78**. Along with this, the “median values” of the variables are **1, 0, 4, 3, 2, 4, 3, 3, 2**, and **3**.

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1. Age group	101	0	5	1.90	1.055
2. Gender	101	0	2	.49	.509
3. The Covid-19 pandemic situation has played a vital role in establishing the social structure of Pune	101	0	4	2.90	1.359
4. There are several risk factors associated with the SARS-CoV-2 virus	101	0	4	2.65	1.431
5. The people of Pune have taken the health against Covid-19 to name	101	0	4	2.55	1.300
6. Pune Municipal Corporation has started a SPSS surveying by distributing the medical requirements to control the outbreak process	101	0	4	3.09	1.281
7. There is a lack of medical requirements to control the outbreak process	101	0	4	2.77	1.326
8. The role of the medical department is not sufficient in fighting against Covid-19 in Pune	101	0	4	2.43	1.314
9. Medical professionals need to work on the fight against Covid-19	101	0	4	2.31	1.488
10. Several initiatives have implemented by Pune Municipal Corporation to prevent the spread of the virus	101	0	4	2.78	1.316

Figure 4.1.2: Descriptive statistics (Source: SPSS)

Following the “standard deviation value” the table of “descriptive statistics” has been justified. The “standard deviation values” of these variables are **1.055, 0.559, 1.359, 1.431, 1.300, 1.281, 1.326, 1.314, 1.488**, and **1.316**. This can provide a better understanding to the readers regarding variables.

Pie chart analysis

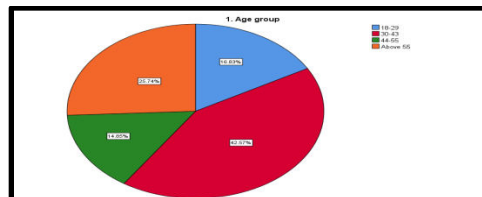


Figure 4.1.3: Age group (Source: SPSS)

There were a total of four age groups of participants and the largest **42.57%** remains from the “30-43 age group” as they have the greater knowledge. Thus, **14.85%** was the lowest from the “44-55 age group”.

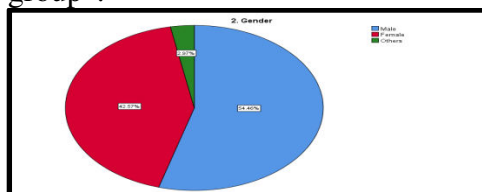


Figure 4.1.4: Gender group (Source: SPSS)

All genders are allowed to participate in the survey where the majority of **54.46%** belong to male participants and **42.57%** are from the female group. The other gender group remained the lowest at **2.97%**.

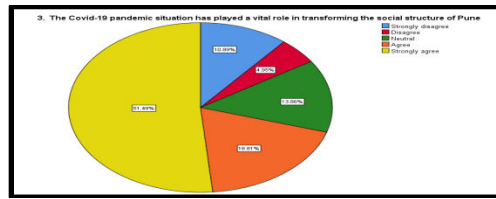


Figure 4.1.5: The Covid-19 pandemic situation has played a vital role in transforming the social structure of Pune

(Source: SPSS)

In the first statement of the questionnaire “the Covid-19 pandemic situation has taken part in a vital role in changing the social structure of Pune”, there are **51.49%** of the participants “strongly agreed” and **18.81%** of participants “agreed”. In addition, **13.86%** of the participants remain “neutral” as they had no idea about this statement. Thus, **4.95%** of the participants “disagreed” as well as **10.89%** of the participants “strongly disagreed” with it.

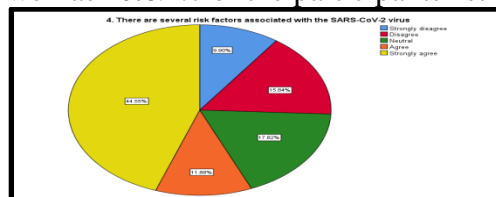


Figure 4.1.6: There are several risk factors associated with the SARS-CoV-2 virus

(Source: SPSS)

According to the above pie chart, there are **44.55%** of the respondents “strongly agreed” and **11.88%** of the respondents “agreed” that there are several risk factors associated with the SARS-CoV-2 virus. Although for not having any knowledge, **17.82%** of the participants feel comfortable with remaining “neutral”. Therefore, **15.84%** of the respondents have “disagreed” and **9.90%** of the respondents have “strongly disagreed” with this affirmation.

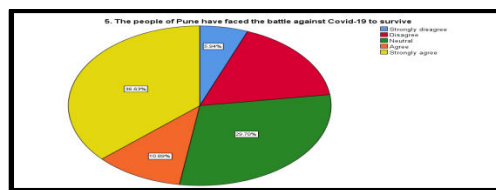


Figure 4.1.7: The people of Pune have faced the battle against Covid-19 to survive

(Source: SPSS)

In the third statement of the questionnaire “the people of Pune have faced the battle against Covid-19 to survive”, there are **44.55%** of the participants “strongly agreed” and **11.88%** of participants “agreed”. In addition, **17.82%** of the participants remain “neutral” as they had no idea about this statement. Thus, **15.84%** of the participants “disagreed” as well as **9.90%** of the participants “strongly disagreed” with it.

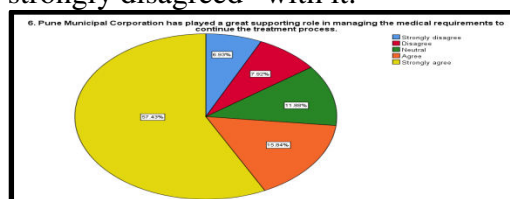


Figure 4.1.8: Pune Municipal Corporation has played a great supporting role in managing the medical requirements to continue the treatment process

(Source: SPSS)

The above pie chart has initiated that there are **57.43%** of the respondents “strongly agreed” and **15.84%** of the respondents “agreed” that Pune Municipal Corporation has played a great supporting role in managing the medical requirements to continue the treatment process. Although for not having any knowledge, **11.88%** of the participants feel comfortable with remaining “neutral”. Therefore, **7.92%** of the participants have “disagreed” and **6.93%** of the participants have “strongly disagreed” with this statement.

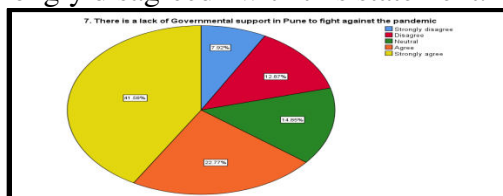


Figure 4.1.9: There is a lack of Governmental support in Pune to fight against the pandemic

(Source: SPSS)

According to the above pie chart, there are **41.58%** of the respondents “strongly agreed” and **22.77%** of the respondents “agreed” that there is a lack of Governmental support in Pune to fight against the pandemic. Although for not having any knowledge, **14.85%** of the participants feel comfortable with remaining “neutral”. On the contrary, **12.87%** of the participants have “disagreed” and **7.92%** of the participants have “strongly disagreed” with this statement.

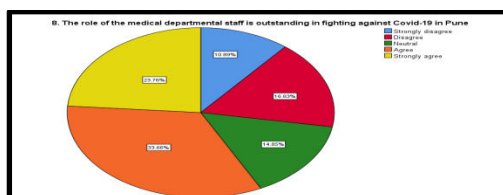


Figure 4.1.10: the role of the medical departmental staff is outstanding in fighting against Covid-19 in Pune

(Source: SPSS)

In the eighth statement of the questionnaire “the role of the medical departmental staff is outstanding in fighting against Covid-19 in Pune”, there are **23.76%** of the participants “strongly agreed” and **33.66%** of participants “agreed”. In addition, **14.85%** of the participants remain “neutral” as they had no idea about this statement. Thus, **16.83%** of the participants “disagreed” as well as **10.89%** of the participants “strongly disagreed” with it.

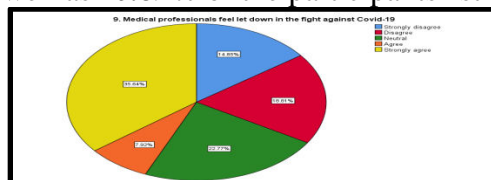


Figure 4.1.11: Medical professionals feel let down in the fight against Covid-19

(Source: SPSS)

According to the above pie chart, there are **35.64%** of the respondents “strongly agreed” and **7.92%** of the respondents “agreed” that medical professionals feel let down in the fight against Covid-19 in Pune. Although for not having any knowledge, **22.77%** of the participants feel comfortable with remaining “neutral”. On the opposite side, **18.81%** of the participants have “disagreed” and **14.85%** of the participants have “strongly disagreed” with this statement.

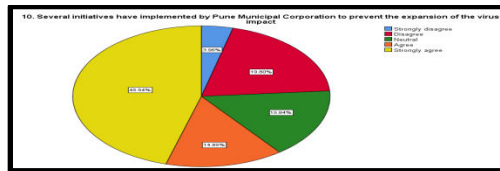


Figure 4.1.12: Several initiatives have been implemented by Pune Municipal Corporation to prevent the expansion of the virus impact
(Source: SPSS)

In the tenth statement of the questionnaire, “several initiatives have been implemented by Pune Municipal Corporation to prevent the expansion of the virus impact there are **45.54%** of the participants “strongly agreed” and **14.85%** of participants “agreed”. In addition, **15.84%** of the participants remain “neutral” as they had no idea about this statement. Thus, **19.80%** of the participants “disagreed” as well as **3.96%** of the participants “strongly disagreed” with it.

Correlation analysis

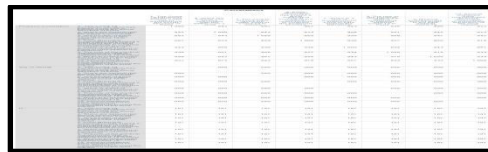


Figure 4.1.13: Correlation analysis
(Source: SPSS)

In SPSS, “correlation analysis” is an important part as it highlights the interrelationship between the two research variables. According to the rule, the correlation analysis table has been calculated based on P-value and if the value becomes greater than 0 within 1 (1>0), the table will be considered valid and the relationship between variables is positive (Kafle, 2019). In the above table, the P-value shows there is a “positive relationship” among the variables which leads the study toward reliability.

Regression analysis

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.975 ^a	.951	.947	.312	.951	257.290	7	93	.000

a. Predictors: (Constant), 10. Several initiatives have implemented by Pune Municipal Corporation to prevent the expansion of the virus impact, 6. Pune Municipal Corporation has played a great supporting role in managing the medical requirements to continue the treatment process. , 9. Medical professionals feel let down in the fight against Covid-19 , 8. The role of the medical departmental staff is outstanding in fighting against Covid-19 in Pune . 5. The people of Pune have faced the battle against Covid-19 to survive, 7. There is a lack of Governmental support in Pune to fight against the pandemic, 4. There are several risk factors associated with the SARS-CoV-2 virus

Figure 4.1.14: Model Summary
(Source: SPSS)

In order to develop a useful analytical growth process, analysing the “R-value” and “R-square value” are the best approaches in the above table (Wathan et al. 2019). Based on this table, the “R-value” is **0.975** and the “R-square value” is **0.951** which indicates the “R-value” is able to change dependent on the value of the “R-square”.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	175.681	7	25.097	257.290	.000 ^b
	Residual	9.072	93	.098		
	Total	184.752	100			

a. Dependent Variable: 3. The Covid-19 pandemic situation has played a vital role in transforming the social structure of Pune

b. Predictors: (Constant), 10. Several initiatives have implemented by Pune Municipal Corporation to prevent the expansion of the virus impact, 6. Pune Municipal Corporation has played a great supporting role in managing the medical requirements to continue the treatment process. . 9. Medical professionals feel let down in the fight against Covid-19 . 8. The role of the medical departmental staff is outstanding in fighting against Covid-19 in Pune . 5. The people of Pune have faced the battle against Covid-19 to survive. 7. There is a lack of Governmental support in Pune to fight against the pandemic, 4. There are several risk factors associated with the SARS-CoV-2 virus

Figure 4.1.15: ANOVA analysis

(Source: SPSS)

According to the rule, if the “significant value” remains lower than 0 (significant value < 0), the dependent variables can be transformed depending on the independent values (Civelek et al. 2020). In this table, the “significant value” is 0 which highlights the regression value of this research accurately extracted.

Reliability Statistics	
Cronbach's Alpha	N of Items
.984	10

Figure 4.1.16: Reliability test

(Source: SPSS)

Depending on the “Cronbach Alpha” value, the reliability test is entirely dependent and it need must be larger than 0.70 (value > 0.70), then all the collected data can be certified to be acceptable (Banik, & Sinha, 2022). In this table, the “Cronbach Alpha” value has become **0.984** which is larger than the required value (**0.984 > 0.70**). It highlights all the gathered data is trustworthy and accurate to lead the study further.

4.2 Discussion

Covid-19 pandemic has largely suffered all the human beings of Pune, especially the medical professionals. Due to a lack of proper types of equipment and governmental support, the medical team has suffered and faced challenges during treating the affected patients. In the survey process, all the participants have been selected from different medical fields to make the result reliable and authentic. Throughout the survey, it has been understood that Pune Municipal Corporation has played a great supporting role in managing several areas to prevent the virus's impact on the people of Pune. As per the view of Mahajan, & Lele (2021), observing the medical requirements PMC also serves different essential equipment to continue the treatment process. In addition to this, different types of restrictions are also implemented in Pune to control the expansion of the “SARS-CoV-2 virus”. Based on numerous difficulties, the people of Pune have faced challenges to fight against the negative situation without the proper cooperation of the government.

5. Conclusion and Recommendations

5.1 Conclusion

Rapid-increasing Covid cases have pressurised the people of Pune both economically and socially. Due to a scarcity of proper attention and equipment, the treatment process remains limited and doctors have to face the struggle period. Due to not having nay support from government, the medical department has become limited to serve all the affected patients as there were not sufficient equipments to treat patients. Thus, the PMC has helped the healthcare professionals as well as patients by providing several essential elements.

Accompanied by the support of PMC, there is a possibility of people of Pune to successfully fight against Covid-19 pandemic situation.

5.2 Recommendations

Since in Pune, doctors are engaged in using digital platforms for advisory guidelines in Covid treatment, implementation of advanced and modern technology such as *artificial intelligence* in the digital platforms, the medical professionals can get better treatment options. Especially in rural areas of Pune, the involvement of advanced technology can influence the experts in treating process. In telemedicine services, this technological advancement can support transparency in a better and more sustainable way to influence both professionals and patients (Khan et al. 2021). In addition, the government needs to be more active and alert towards Pune to control the virus's impact and save the lives of the people. Therefore, the approaches and restrictions need to be powerful to implement properly to make the effectiveness in far better way. Moreover, this study can help the readers to identify the main reason behind Covid battle of Pune people and also can get solutions to overcome the negative situation.

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Appendix: Survey Questionnaire

1. Age group
 - a) 18-29
 - b) 30-43
 - c) 44-55
 - d) Above 55
2. Gender
 - a) Male
 - b) Female
 - c) Others

(Please rate your opinion against the following statements as per the following scale

0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, 4 = strongly agree)

Statements	0	1	2	3	4
3. The Covid-19 pandemic situation has played a vital role in transforming the social structure of Pune.	11	10	7	18	55
4. There are several risk factors associated with the SARS-CoV-2 virus.	10	15	11	15	50
5. The people of Pune have faced the battle against Covid-19 to survive.	6	15	20	10	55
6. Pune Municipal Corporation has played a great supporting role in managing the medical requirements to continue the treatment process.	6	10	5	17	63
7. There is a lack of Governmental support in Pune to fight against the pandemic.	11	19	20	11	40
8. The role of the medical departmental staff is outstanding in fighting against Covid-19 in Pune.	10	15	11	20	45
9. Medical professionals feel let down in the fight against Covid-19	15	10	16	10	50
10. Several initiatives have implemented by Pune Municipal Corporation to prevent the expansion of the virus impact.	3	17	16	10	55