Report

On

"Impact Assessment of Swachhta Practices in COVID Pandemic: A Statistical Evaluation"

Project No. SVP-2244

Under

Sri Venkateswara Internship Program in Research & Academics

(SRIVIPRA 2022)

Submitted by

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Sri Venkateswara College

University of Delhi

SRIVIPRA-2022

(Sri Venkateswara College Internship Program in Research and Academics)

This is to certify that this project on "**Impact Assessment of Swachhta Practices in COVID Pandemic: A Statistical Evaluation" Project No. SVP-2244** was registered under SRIVIPRA and completed under the mentorship of **Prof. Mukti Kanta Sukla and Dr Chetan** during the period from 21st June to 7th October 2022.

Shandan (Curhnelaman)

Sharda Pasricha and S. Krishnakumar Coordinators

Vokeray

Prof. C Sheela Reddy **Principal**

Impact Assessment of Swachhta Practices in COVID Pandemic: A Statistical Evaluation

(Project No. SVP-2244)

Mentors Details

- 1) Prof. Mukti Kanta Sukla Department of Statistics, SVC
- 2) Dr Chetan Assistant Professor, Department of Statistics, SVC

Introduction

The role of research in several domains of applied sciences like Social Sciences and daily life problems has been increased sharply in the COVID pandemic time. The increasingly instant and highly death risk nature of various problems associated with COVID pandemic in developing countries forced the government to pay focused attention on the use of field research in solving the operational problems associated with it. In addition, after such pandemic, the significance of cleanliness and hygiene cannot be overlooked by any society. Every faith and civilization stresses the importance of **"Swachhta Practices"**. Historically, swachhta practices have been considered one of the important factors by which to judge a civilization's or society's development of any country.

Demonstration is one of the most effective ways to spread awareness and motivate the general public to step forward and take action in making our community a better place to live during any pandemic. The government can play an important role in cleaning areas, installing dustbins, collecting garbage etc. and enforcing laws against swachhta practices. The importance of swachhta practices cannot be ignored in individual as well as communal life. On one hand it is an important factor for human health and spiritual development; on the other hand it is essential for environmental development.

In addition, statistical techniques play an essential and vital role in scientific research, specially in pandemic time, and helps in designing experiments, analysing and interpreting data. These techniques also contribute to making appropriate decisions in the light of the researcher's findings from social sciences and biological sciences. Even simple statistical techniques are helpful in providing insights about data under consideration. Such as extreme values, mean, median, standard deviations, interquartile ranges, and distance formulas are useful in exploring, summarizing, and visualizing data. These techniques, though relatively simple, are a good starting point for exploratory data analysis. They are useful in uncovering interesting trends, outliers, and patterns in the data. After identifying areas of interest, researchers can further explore the data using advanced statistical techniques.

Undergraduate research and its knowledge allow students to develop professionally and personally. Research experiences give students an opportunity to gain a deeper knowledge of research techniques and processes, apply classroom learning in real-world contexts, explore

academic literature, and form meaningful relationships with faculty members and professional researchers. Therefore, an attempted is made to provide short internship program for meeting the requirement at UG level through the project entitled "Impact Assessment of Swachhta Practices in COVID Pandemic: A Statistical Evaluation (Project No. SVP-2244)" under the Sri Venkateswara Internship Program in Research & Academics (SRIVIPRA), 2022.

Structure of the Internship Program

The internship program is conducted, under the said title, in such a way that interns may get aware of different aspects of the research and become familiar with it. The entire program was divided in the two major parts that are mentoring sessions and pilot research program.

The mentoring sessions were conducted by the mentors on Introduction General Research Methodology which includes Objective, Motivation, Approach, Significance, Criteria for good research; Defining Research Problem and its necessity research in India; Open Literature Resources; Open Data Collection Resources; Sample and Data collection Techniques Perspective which focused on Sample and Data collection Techniques: Census data, Sample data, Ideal Sample for research, methods (online & offline) for data collection, adoption of appropriate method; Analysis of Data which include Descriptive Analysis of Data, Construction of Statistical Hypothesis for analysis, Statistical Modeling and Analysis of collected data.

In the Pilot Research Program (PRP), all the interns were associated with their own research topics based on their interest. This PRP includes the preparation of objectives and sub topics, preparation of questionnaire, and interpretation & report writing for their projects based on the motive of research. The interest of the interns includes social factors, parameters and quires associated with swachhta practices such as Source of Water Supply, How frequently you wash your hand during COVID 19 pandemic time in a day?, How frequently you take bath during COVID 19 pandemic time in a day?, How frequently you wash the vegetables before use during COVID 19 pandemic ?, How frequently you clean your house during COVID 19 pandemic ?, Awareness and advisory given by local authorities in your areas regarding the water uses during COVID 19 pandemic, How precisely did you follow the 3 R's principle before COVID 19 ?, How frequently you dispose out your domestics waste in the day during the COVID 19 Pandemic ?, How often do you see the garbage collecting van in your locality?, How much attention do you pay to medical waste segregation and disposal at your place?, Awareness and advisory given by local authorities in your ares regarding the Waste management during COVID 19 pandemic, How aware are you regarding the waste management schemes of the government after COVID 19 pandemic?, How did Covid-19 impact your hygiene/sanitation routine?, What type of hand-wash you preferred during COVID 19 pandemic, How frequently you sanitized your home during COVID 19 pandemic in a week? and many others.

Interns Profile

- 1. Mr. Abhishek Singh, Department of Statistics, SVC
- 2. Mr. Manav Bhalla, Department of Statistics, SVC
- 3. Mr. Priyanshu Tiwari, Department of Statistics, SVC
- 4. Ms. Saima Talat, Department of Statistics, SVC
- 5. Mr. Sunny Chaudhary, Department of Statistics, SVC
- 6. Ms. Aishwarya Malik, Department of Statistics, SVC
- 7. Mr. Gautam Gupta, Department of Statistics, SVC
- 8. Ms. Ankita Goyal, Department of Mathematics, SVC
- 9. Ms. Malvika Goswami, Department of Mathematics, SVC
- 10. Ms. Pavneet Kaur, Department of Mathematics, SVC

Outcomes of the Program

- 1. The interns able to understand how to study a phenomenon or new insights of the practical data obtained from the field research.
- 2. The interns able to understand how to portray accurately the characteristics of a particular individual, situation or a group.
- 3. The interns able to understand how to test a hypothesis of a causal relationship between the variables under consideration in pilot research program.
- 4. Awareness and advisory were given to many people by local authorities in their areas regarding the water usage during COVID-19 pandemic. But still more awareness programs are required as some of the people selected 'no'.
- 5. The collected data shows that most of the washed their face masks more frequently which is very good since washing of masks stops the germ build up. Also reusing the same mask after washing reduces waste.
- 6. We can observe that COVID 19 drastically impacted people's sanitation routine. They have started to pay more attention on their health and cleanliness.
- 7. Garbage collecting van come to the locality of many people which is good as people will not litter trash in their colony. And government must ensure that these vans visit each colony regularly on time or in frequently manner.
- 8. During the COVID 19 pandemic, Government of India tried its best to spread the awareness of hygiene and sanitation among the people. But the people living in rural areas faced most difficulties as they were in a huge dilemma about the situation of country in COVID times. This resulted into not following COVID norms properly.

Acknowledgement

We would like to express our thanks of gratitude to Sri Venkateswara College for providing this opportunity through Sri Venkateswara Internship Program in Research & Academics (SRIVIPRA), 2022.

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(Dr Chetan) Department of Statistics

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(Prof. Mukti Kanta Sukla) Department of Statistics

CERTIFICATE

This is to certify that the aforementioned students from Sri Venkateswara College have participated in the **Project No. SVP-2244** titled **"Impact Assessment of Swachhta Practices in COVID Pandemic: A Statistical Evaluation**". The participants have carried out the research project work under our guidance and supervision from **July 21, 2022 to October 07, 2022**. As per our knowledge, the work carried out is original and carried out in a hybrid mode.

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