



OPTIZONE

THE OPERATIONAL RESEARCH SOCIETY
DEEN DAYAL UPADHYAYA COLLEGE
UNIVERSITY OF DELHI



Presents

A Lecture and Hands-on session on the topic **PLS-SEM**

Register Now!!

 **DATE**
02 November, 2023

 **TIME**
11.00 AM- 01.00 PM

 **VENUE**
ICT CENTRE





Dr.SONALI SINGH
JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA
SPEAKER

Convener- Dr.Veena Jain
(Associate Professor, Department of
Operational Research)

Officiating Principal -
Professor Hem Chand Jain

Lecture and HANDS-ON session ON “PLS- SEM ”

ABOUT THE SPEAKER:

The lecture on “PLS -SEM ” was conducted Prof. Sonali Singh from JAIPURIA INSTITUTE OF MANAGEMENT, Noida.

CONVENOR:

Dr. Veena Jain (Head of the department Operational Research)

ABOUT THE EVENT:

The event was conducted on 2nd November, 2023 (Thursday) in the Computer Centre of DEEN DAYAL UPADHYA COLLEGE by OPTIZONE (The Operational Research Society). The event was executed in offline mode encompassing two-three hours of discussion on. The reception of the event was quite appreciable with a head count of 70 students. It included students from various departments but predominantly from BSC Mathematical Science under the guidance of Dr. Veena Jain Ma'am

HIGHLIGHTS ABOUT THE SESSION:

A workshop on Partial Least Squares Structural Equation Modeling (PLS-SEM) was conducted at Deen Dayal Upadhaya College, with Dr. Sonali as the

distinguished facilitator, under convener Dr Veena Jain.. The workshop aimed to provide participants with a comprehensive understanding of PLS-SEM, focusing on its applications in research, including regression, prediction, and the analysis of cause-and-effect relationships.



The workshop began with an introduction of the topic and the speaker by Dr. Veena Jain who then delivered the welcome address to the guests of the day.

The session was handed over to Dr. Sonali who started with introduction to the concept of regression and its significance in research. Dr. Sonali explained how regression is utilized for prediction purposes and the exploration of cause-and-effect relationships in various research scenarios. Participants were guided through the differences between simple and multiple regression models, and their applications were discussed in detail.

The workshop then transitioned into the realm of Structural Equation Modeling (SEM). Dr. Sonali elucidated the fundamental principles of SEM, highlighting its importance in research. She emphasized that SEM is used to understand complex relationships between variables by incorporating both observed and latent constructs.

Participants were then introduced to the critical concepts of reliability and validity in research. Dr. Sonali explained the significance of these concepts in the context of PLS-SEM, stressing that reliability ensures the consistency and

stability of measurements, while validity determines whether the measurements accurately represent the constructs under investigation.

The workshop also covered the usage of the Smart PLS software as a tool for conducting PLS-SEM analyses. Participants were provided with insights into its features and capabilities, enabling them to apply this powerful software effectively in their research.

Dr. Sonali elaborated on the concepts of variance and co-variance, essential elements in PLS-SEM. Participants were guided through the understanding of these statistical terms, which are central to modelling relationships between latent constructs and observed indicators.

A significant portion of the workshop was dedicated to explaining how to construct a model in PLS-SEM. Dr. Sonali led participants through the steps involved in specifying a model, including the selection of latent constructs, the formulation of hypotheses, and the establishment of measurement models.

The workshop concluded with a comprehensive discussion on the reliability and validity of the PLS-SEM model. Dr. Sonali emphasized the importance of assessing the model's reliability and validity to ensure that the research results are trustworthy and meaningful.

CONCLUSION:

The workshop on PLS-SEM conducted by Dr. Sonali at Deen Dayal Upadhyay College provided participants with a valuable understanding of this powerful statistical technique. The event covered regression, SEM, reliability, validity, Smart PLS 4.0, variance, co-variance, model construction, and the assessment of model reliability and validity. Participants left the workshop equipped with the knowledge and skills to apply PLS-SEM in their research endeavours, contributing to their academic and professional growth. The event was an enriching and insightful experience for all attendees.

FEEDBACK:

The session has garnered positive perception from the students. At the same time, students have found the session quite helpful in enlarging their real-world knowledge. Sessions with such intellect and usage can be arranged in near future.



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