



NATIONAL APEX CHAMBER

Three days hands on Online Workshop on **SPSS Applications in Data Analysis**

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|---------------------------------|---------------------|
| ▶ DAY 1: 18.06.2020 (Thursday) | 11:00 am to 2:00 pm |
| ▶ DAY 2: 19.06.2020 (Friday) | 11:00 am to 2:00 pm |
| ▶ DAY 3: 24.06.2020 (Wednesday) | 11:00 am to 2:00 pm |



Introduction

The Education Committee of PHD Chamber of Commerce and Industry (PHDCCI) is presenting a hands-on workshop on Data management and data analysis with SPSS application.

Analytics-driven decision is the secret of boosting performance of organisations. Whether it is to attract and retain customers, enabling businesses from boardrooms to the shop floor or researchers doing data analysis. SPSS application helps to make informed decisions in every field of study and business. The concepts of SPSS when understood with comprehensive practical application can enable one to use SPSS output regularly as a data analysis tool, to effectively summarize research findings, to enter, reorganize and integrate information.

The paradigm shift in the modern world of business and research has made managers, engineers and researchers more inclined towards analytical decision making. The world is evolving with data driven decision making with new techniques, mixed methods and applications emerging both from academia and practitioners.

Objectives

- To understand basic theoretical and practical implementation of SPSS
- To learn methods of data management and analysis with the help of SPSS application
- To educate learners on sampling processes, types of tests and correlation in SPSS
- To benefit learners on practical usage of ANOVA in SPSS

For whom

- Academicians who want to enhance their research skills
- Students and Research Scholars for improving their quantitative skill
- Industry personnel in learning analytical and presentation skills for sound decision making
- Training institutes, learners from different fields of social sciences, market research, Information technology, health sciences, data miners,
- Marketing organisations, government functionaries

Workshop Delivery Mode

The online workshop will be in Device-to-Device (D2D) mode on the Zoom platform with adequate security features. The participants will attend the sessions by logging in from their computers.

Certification

On completion, the participants will be awarded a certificate of Participation in the Three days hands on Online Workshop on SPSS Application in Data Analysis.

HURRY UP LIMITED SEATS AVAILABLE!

To ensure individual attention only 30 students will be taken into this batch.
PHDCCI reserves the right to close registrations before 15.06.2020.

Registration Fee: 1500
(Inclusive of GST)

REGISTER ME

Last date of Registration: 15.06.2020

FOR ADDITIONAL INFORMATION ABOUT THE WORKSHOP, PLEASE CONTACT

Dr. Jatinder Singh
Director, PHD Chamber
jatinder@phdcci.in

Ms Renu Airy
Intern, Department of Development
Communication and Extension
Lady Irwin College, University of Delhi
renuairy81300@gmail.com

Ms. Renu Rawat
Deputy Secretary, PHD Chamber
renu.rawat@phdcci.in

WORKSHOP AGENDA

DAY 1 - 18.06.2020 (Thursday) | Time - 11:00 am to 2:00 pm

COMPONENTS OF THE WORKSHOP

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|------------------------------------------------------|----------------------------------------------------------|
| 1 A Brief Introduction of SPSS (30 min) | 3 Statistics - The Main Function of SPSS (30 min) |
| 1.1 What is SPSS? | 3.1 Types of Statistics |
| 1.2 Who uses it? | 3.2 Types of Data |
| 1.3 Where is it used? | 3.3 Basic Properties of Data |
| 1.4 Why is it used? | 3.4 Level of Measurement and Statistical Methods |
| 1.5 How is it used? | 3.5 Statistical Research Process |
| 2 SPSS - A Tool of Statistical Study (30 min) | 4 Descriptive Statistics in SPSS (60 min) |
| 2.1 Introduction | 4.1 Frequencies |
| 2.2 Getting Help | 4.2 Descriptive |
| 2.3 Data Entry | 4.3 Crosstabs |
| 2.4 SPSS Menu Bar | |
| 2.5 Importing and Exporting Data | |

DAY 2 - 19.06.2020 (Friday) | Time - 11:00 to 2:00 pm

COMPONENTS OF THE WORKSHOP

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|---------------------------------------------------------------|----------------------------------------------------------------------------|
| 1 Statistical Estimation and Sampling Process (30 min) | 3 Practical example on Chi square Test (Non parametric) (60 min) |
| 1.1 Types of Statistical Estimates | 3.1 Types of Chi Square Test |
| 1.2 Criteria for a good Estimator | 3.2 Understanding why and where Chi square - Goodness of Fit test is used? |
| 1.3 Types of Hypothesis Testing | 3.3 Assumptions of Chi square - Goodness of Fit Test |
| 1.4 Types of Error | 3.4 Conducting Chi square - Goodness of Fit Test |
| 1.5 Null and Alternate Hypothesis | 3.5 Understanding Output |
| 1.6 Confidence Interval and Confidence Level | 3.6 Interpretation of different parts of Output |
| 2 Practical example on T – Tests (60 min) | 3.7 Understanding why and where Chi square - Test of Independence is used? |
| 2.1 Understanding why and where the T Test is used? | 3.8 Assumptions of Chi square - Test of Independence |
| 2.2 Assumptions of T Tests | 3.9 Conducting Chi square - Test of Independence |
| 2.3 Conducting T Tests | 3.10 Understanding Output |
| 2.4 Understanding Output | 3.11 Interpretation of different parts of Output |
| 2.5 Interpretation of different parts of Output | |

DAY 3 - 24.06.2020 (Wednesday) | Time - 11:00 am to 2:00 pm

COMPONENTS OF THE WORKSHOP

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| 1. Practical examples on ANOVA (50 min) | 2.4 Understanding Output |
| 1.1 Understanding why and where ANOVA is used? | 2.5 Interpretation of different parts of Output |
| 1.2 Assumptions of One way ANOVA | 3 Practical examples on Linear Regression (50 min) |
| 1.3 Conducting One way ANOVA | 3.1 Understanding why and where Regression is used? |
| 1.4 Understanding Output | 3.2 Assumptions of Simple Linear Regression |
| 1.5 Interpretation of different parts of Output | 3.3 Conducting Simple Linear Regression |
| 2 Practical examples on Correlation (50 min) | 3.4 Understanding Output |
| 2.1 Understanding why and where Correlation is used? | 3.5 Interpretation of different parts of Output |
| 2.2 Assumptions of Correlation | |
| 2.3 Conducting Correlation | |



NATIONAL APEX CHAMBER

About Us

PHDCCI, established in 1905, is a proactive and dynamic National Apex Chamber, working at the grass-root level across India and develop strong national and international linkages. Through policy interventions, it acts as a catalyst in the promotion of industry, trade and entrepreneurship.

The Chamber acts as a catalyst in the promotion of industry, trade and entrepreneurship. PHDCCI, through its research-based policy advocacy role, positively impacts the economic growth and development of the nation. PHDCCI proactively participates in the policy formulation process of government and acts as its bridge when it comes to interface industry and civil society.

PHDCCI has special focus on the following thrust areas:

- Economic & Business Policy Advocacy
- Industry
- Infrastructure
- Housing
- Health
- Education & Skill Development
- Agriculture & Agri-business
- ICT
- International Trade

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Director, PHD Chamber
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Ms Renu Airy
Intern, Department of Development
Communication and Extension
Lady Irwin College, University of Delhi
renuairy81300@gmail.com

Ms. Renu Rawat
Deputy Secretary, PHD Chamber
renu.rawat@phdcci.in, Extn. 255

PHD CHAMBER OF COMMERCE AND INDUSTRY

PHD House, 4/2 Siri Institutional Area, August Kranti Marg, New Delhi - 110 016

Fax: 91-11-26855450, 49545451; Website: www.phdcci.in