

## Research Methodology Workshop:

## "Factor Analysis"

12th of January 2024

Organized by

## Department of Commerce

Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.) In Association with







**Prof. Neelima Gupta** Hon'ble Vice Chancellor

## Indian Accounting Association, Sagar Branch

Who Can Participate 🖁

Faculty Members, Research Scholars & Research Aspirants

Registration Details:

Fees: Rs. 150/-

Last Date: January 11th 2024

Scan for Registration



Sessions: Session I- Theoretical 10:30 AM to 01:30 PM Session II- Hands on Practice on SPSS 02:30 to 05:30 PM

Click Here

Venue: Acharya Amar Narayan Agrawal Hall Department of Commerce

#### Resource Person



Prof. Manvinder Singh Pahwa Head, Dept. of Law Professor, Dept. of Commerce

#### PAYMENT DETAILS:

Account Holder:

Indian Accounting Association, Sagar Branch Bank Name - State Bank of India

A/c No. - 35386549086

IFSC Code - SBIN0001143

Branch - Saugor University Sagar Branch Dr. Harisingh Gour Vishwavidyalaya

Campus, Sagar (M.P.) For any query, write us on:

com.dhsgsu@gmail.com

or contact us at:

Prof. J.K. Jain: 8319293640

Prof. Manvinder Singh Pahwa: 9634330885

Dr. Rupali Saini: 9827324900

#### Director



Head Department of Commerce

#### Coordinator



Dr. Rupali Saini **Assistant Professor** Department of Commerce

## Report

#### on

# Research Methodology Workshop: "Factor Analysis"

## Organized by

## **Department of Commerce**

## Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P.)

### In Association with

**Indian Accounting Association, Sagar Branch** 

# 12<sup>th</sup> of January 2024

# Venue: Acharya Amar Narayan Agrawal Sabhagar, Department of Commerce

**Patron:** Prof. Neelima Gupta, Hon'ble Vice Chancellor, Dr. Hari Singh Gour Vishwavidyalaya, Sagar, Madhya Pradesh.

**Resource Person**: Prof. Manvinder Singh Pahwa, Head of Department of Law and Professor at Department of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh.

**Moderator**: Prof. J.K. Jain, Head of Department of Commerce, Dr. Hari Singh Gour Vishwavidyalaya, Sagar, Madhya Pradesh.

**Co-ordinator**: Dr. Rupali Saini, Assistant Professor, Department of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh.

This report provides an overview of a research methodology workshop with the goal of deepening researchers' understanding of research concepts and methodologies. The emphasis was on selecting appropriate tools and techniques, with a specific focus on enhancing proficiency in using SPSS for data analysis. The workshop included two sessions first cover comprehensive coverage of factor analysis, aiming to empower participants with knowledge and second session covers practical expertise for effective research conduct.

#### **Objectives:**

**FA1:** To impart theoretical knowledge on Factor Analysis, elucidating its concepts, principles, and applications in research.

**FA2:** To equip participants with practical skills in conducting Factor Analysis using the Statistical Package for the Social Sciences (SPSS).

FA3: To facilitate a deeper understanding of the role of Factor Analysis in data reduction and interpretation.

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<sup>&</sup>lt;sup>1</sup> Factor Analysis

#### **Session I- Ideological Frameworks (10:30 AM to 01:30 PM)**

The session was graced by the presence of Prof. J.K. Jain, the Moderator and Head of the Department of Commerce, who extended a warm welcome to our esteemed guest speaker, Prof. Manvinder Singh Pahwa and all attendees. With great enthusiasm, Prof. J.K. Jain then addressed the gathering, introduced the speaker and provide a brief overview of the lecture's agenda and the invaluable insights that Prof. Pahwa would be sharing with us. As part of the lecture series aimed at exposing students and scholars to the Factor Analysis and its relevance in research.

Launching the session, Prof. Pahwa delved into a comprehensive theoretical overview, exploring the purposes, classifications, and practical applications of factor analysis in the context of social science research. The workshop's practical component involved adeptly guiding participants through the essentials of SPSS, ensuring they acquired a sturdy foundation to undertake subsequent factor analysis exercises with confidence

Additionally, Prof. Pahwa shed light on the nuanced applications of factor analysis within social science and scientific research. In the social science realm, he emphasized the exploration of latent variables that might influence observable phenomena, such as human behaviour or attitudes. On the other hand, in scientific research, factor aiding researchers in uncovering hidden patterns or relationships.

#### Session II- Hands on Practice on SPSS (02:30 PM to 05:30 PM)

Furthermore, Session 2 delved into specific SPSS functionalities relevant to factor analysis, covering aspects such as variable selection, factor rotation, and factor extraction methods. Professor Pahwa provided detailed demonstrations, ensuring participants could navigate the software interface with ease. The practical exercises included the importation of datasets into SPSS, cleaning and transforming data, and executing factor analysis commands. Prof. Pahwa encouraged active participation, addressing queries, and troubleshooting challenges faced by attendees in real-time.

The practical segment also emphasized result interpretation, guiding participants on how to make sense of factor loading outputs, eigenvalues, and other essential indicators generated by SPSS. This interactive approach aimed to fortify participants' analytical skills and confidence in applying SPSS for factor analysis in their respective research projects.

Ending on an interactive note, the workshop concluded with a vibrant question-and-answer session, providing participants with a platform to seek clarifications and actively engage in insightful discussions. Sanskar Student from Mcom extended gratitude to Prof. Pahwa for dedicating his time and expertise, delivering a sincere vote of thanks for the invaluable contribution to the workshop. Following this, a dedicated research scholar Subhash, echoing the sentiments of the audience, delivered a vote of thanks, expressing appreciation for Prof Pahwa expertise and the enriching perspective he shared.

As the session came to an end, attendees left with not only newfound knowledge but also cherished memories of a truly insightful and inspiring experience.

LO1:<sup>2</sup> Solid theoretical understanding of factor analysis, including its principles, objectives, and applications in social science and scientific research.

**LO2:** Proficiency in using SPSS through hands-on sessions, encompassing skills in data input, manipulation, and executing factor analysis procedures.

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<sup>&</sup>lt;sup>2</sup> Learning Outcomes

LO3: Increased confidence among participants in applying factor analysis as a robust research methodology.

LO4: Empowerment to integrate newly acquired skills into participants' own research projects effectively.

To sum up, Prof. Manvinder Singh Pahwa's Factor Analysis workshop proved to be a transformative experience, elevating the research competencies of participants and actively contributing to the university's steadfast commitment to the highest standards of research excellence.









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