

One Week Faculty Development Programme/Workshop
organised by
Department of Commerce
Delhi College of Arts & Commerce (DCAC), University of Delhi
And
Department of Commerce, DSE, University of Delhi
In Collaboration with
Business Research Plasma

Inaugural Session (25.7.22)

One week Faculty Development Program(FDP) was inaugurated by **Prof A.K. Singh**, Head, Department of Commerce, Dean, Faculty of Commerce and Business, Delhi School of Economics, University of Delhi, **Prof Ritu Sapra**, Programme Convener, Department of Commerce, DSE, University of Delhi, **Prof Rishi Raj Sharma** Professor and Associate Dean, Department of Business Management, Guru Nanak Dev University, Gurdaspur, **Prof Rajiv Chopra**, Principal DCAC, University of Delhi, **Prof Rajiv Kumar Goel**, Programme Convener, Department of Commerce, DCAC, University of Delhi.

The event started with **Deep Prajwalan** followed by the **National anthem** and **Saraswati Vandana**, A beautiful dance performance by a student of DCAC, **Divyangana**. Further, the eminent speakers were felicitated and then they enlightened us with their scholarly and inspiring knowledge.

Prof Ritu Sapra, Department of Commerce, DSE highlighted the importance of the Skill development program in NEP, New Education Policy. She emphasized the importance of research and considered it as an investment in human resource.

Prof Rajiv Chopra, Principal DCAC talked about Business research plasma and internet penetration. He said with the growing need, it is expected that this data of internet users will rise up to 900 million by 2025. He also highlighted the role of the Data Analytical Industry.

Prof Rishi Raj Sharma Professor and Associate Dean, Department of Business Management, Guru Nanak Dev University, Gurdaspur started with the concept of unlearning old things to learn new things. He explained the research in a broader way and said it has no type but three stages. He also highlighted the importance of research in NEP. He discussed epic, shastras and the halo effect. He talked about sustainability giving an example of Swami Vivekanand.

Prof A.K. Singh, Head, Department of Commerce Dean, Faculty of Commerce and Business, Delhi School of Economics, University of Delhi, highlighted the latest success of research work in our country as India has manufactured COVID vaccines which are worldwide acceptable. He introduced research new pedagogy from sensitivity analysis to sentimental analysis and changing definition of literacy. He explained the most important aspect of research i.e., WISDOM.

Prof Rajiv Kumar Goel, Programme Convener, Department of Commerce, DCAC briefed on the importance of networking. At the end of the inaugural session, he extended a vote of thanks to the eminent speakers for their continuous support. He also appreciated and thanked all the team members for their efforts.

Session 2 & 3

The speaker **Prof Rishi Raj Sharma** was introduced by the anchor Ms. Mansi Kapoor. Speaker asked all participants to introduce themselves and their research interests. This was a great start by the speaker to know about the participants to make the learning more effective. The session aimed to understand the topics like;

- The different types of scale
- Learn how to deal with the different data types
- Learn to apply appropriate statistical techniques according to the data types

The speaker started by explaining the characteristics of good research; don't limit your research references, not to any specific region. An overview of EFA, CB and VB, SEM was given. Participants were told the basics of research like, no variation means no research, data is the source of variation and many more. Characteristics of data were discussed in detail. For example; Data is of two types: quantitative and qualitative. Qualitative data can't be used for forecasting software doesn't understand the qualitative phenomenon like honesty stress etc. The research job is to quantify the qualitative data by using an appropriate scale. Intent the findings. Scales should be modified. No thumb rule for making sample calculations. How to develop a research instrument was also discussed. Participants were told to borrow the scale (adopt for buying behaviour TPB theory (17 items). The modified scale was discussed- for example, the scale of the developed country can be modified in a developing country. For new scale existing literature is not available. The use of data for research purposes was also discussed. Hypothesis meaning, its importance and application were discussed in detail. Participants were introduced to supporting the hypothesis with evidences, testing of hypothesis is based upon sample data, Univariate, bivariate, and multivariate variables. Statistical techniques like, regression analysis and coefficient of correlation were also discussed. Introduction to SEM, Role of SEM, importance and use of SEM were discussed. After all these concepts and techniques, an example of an increase in the price of ice cream and sales increase was discussed. Participants were told that there can be many different factors like a season to impact the sales; not just price.

To summarise, the session started with the basics and essentials of good research. The speaker solved many common problems faced by researchers. Researchers agreed with the session speaker on various concepts in the research area, such as hypothesis development, setting objectives, citations etc.

The main conclusion of this session was to make researchers understand the basics of research, the essentials of good research, developing an understanding of hypotheses and scaling.



Day 2 (26.07.2022)

(Session 1 & 2)

Ms. Neha Agarwal welcomed Prof. Jeevan Jyoti, **Ms. Ethhi Jain** started the session with a brief introduction of the resource person and welcomed the participants.

In the beginning, the resource person mapped the key ideas which were discussed in the session, namely:

- (i) Factor Analysis
- (ii) Need for Factor Analysis
- (iii) Types of Factor Analysis
- (iv) Assumptions of Factor Analysis
- (v) Statistics Associated with Factor Analysis
- (vi) Conducting Factor Analysis

Prof. Jeevan Jyoti began the session by introducing the concept of Factor Analysis. She gave examples to explain the concept. She explained that factor analysis can be used to explore the data for patterns, reduce manageable numbers etc. furthermore she explained how it is an interdependence technique as there is no distinction between dependent and independent variables. She also explained that why we need Factor Analysis by discussing the topics like Testing of Theory, Understanding the structure underlying a set of measures and scale development.

She further introduced the types of Factor Analysis i.e., R-type factor analysis and Q-type factor analysis, she focused on the difference between the two types of FA. She also explained that one of the primary goals of factor analysis is often to identify a measurement model for a latent variable. She highlighted about how to deal with different data, data

filtration etc. She then proceeded to explain assumptions such as normality, adequate sample size, homoscedasticity and linearity. In the same vein, she emphasized on statistics associated with factor analysis such as Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, percentage of variance, screen plot etc. She then proceeded with the concept of conducting factor analysis.

In the second session, she gave hands-on training on how the key statistics such as Bartlett's test of sphericity, correlation matrix, communality, Eigenvalue, Factor loading, Factor scores, Percentage of variance, Screen plot related to Factor Analysis used in research methodology. She concluded by saying that Factor Analysis holds a very significant role in research work. The participants were interactive throughout the session, seeking answers to the issues and problems they face in research. The session was very well received and appreciated by the participants.

Prof. Neeru Kapoor gave the vote of thanks to the resource person, Prof. Jeevan Jyoti to formally close the session.

Session 3

The third session of day two of one-week faculty development programme conducted on 26th July 2022 which started immediately after the lunch break at 3 pm. The session was introduced by the session anchor, Dr. Ethi Jain (Faculty of commerce department of Delhi college of arts & commerce) by welcoming the esteemed resource person and all participants. Prof Rishi Raj Sharma, Professor and Associate Dean, Department of Business Management, Guru Nanak Dev University, Gurdaspur was the resource person of this session. Prof. Sharma started his session by saying that research is a fact-finding process. In this session, he introduced the concept of cluster and discriminant analysis.

In the session, Prof. Rishi Raj Sharma imparted knowledge with participants about various concepts and models which will help them in data analytics and model building which include:

- Concepts of operational & theoretical construct
- Homogeneity between concepts
- Profile mapping (Psychographic & demographic profiling)
- Reflective & formative model
- Cluster analysis
- Types of clusters
- K-means clustering
- Application of cluster analysis
- Uses of Cluster analysis in marketing
- Distance between final cluster centres
- Discriminant analysis
- Conditions for discriminant analysis
- Types of discriminant analysis
- Assumptions of discriminant analysis
- Function centroids

With his two-way interaction and interactive style, he discussed in detail about the important concepts with various examples of previous research and also connecting with real-life examples. He also mentioned in his discussion by saying that the social relevance of research is very important. He kept the audience engaged by interacting throughout the sessions and taking up queries of the participants. The participants really enjoyed the session and praised the resource person, Prof. Rishi Raj Sharma. This session of FDP was the day of examples

and question-answer sessions which highlights the level of involvement of the participants and the expertise of the resource person.

The session was ended at 4:45 pm with vote of thanks by session anchor to the resource person, participants, and organisers of the session.



Day 3 (27.07.2022)

Session 1

The first session of day three of one-week faculty development programme conducted on 27th July, 2022 started at 10:15 am which was being introduced by the session anchor, Ms. Neha Agarwal (Faculty of commerce department of Delhi college of arts & commerce) by welcoming the esteemed resource person and all participants and also followed by giving sapling to the esteemed resource person by Ms. Lalita (Faculty of commerce department of Delhi college of arts & commerce).

Mr. Amanjot Singh Syan was the resource person of this session. Mr. Syan started this session by saying that the use of statistical tools like PLS-SEM and G Power extends the ability of the researcher. Further, he briefed the participants about the overview of Correlation, Regression and Variance. He discussed about the usage of SMART PLS-SEM in research and how it helped researcher to gain insights into the various field of social science. He further explained the application part of when and how to use VB SEM, PLS-SEM and AMOS in the research. He also explained how to run G Power with the help of various practical questions and briefed all the items in G Power.

In this session Mr. Amanjot Singh Syan gave insightful knowledge to the participants about various concepts, methods and models which address the issues in Factor Loading and AMOS in social science research which will help them in data analytics includes: -

- OLS Regression
- Univariate Analysis
- Covariance SEM
- Data distribution
- Measurement error
- CB-SEM Vs PLS-SEM
- Reflective Constructs
- Formative Constructs
- AMOS implications
- Correlation
- Reliability & Validity
- Regression and Variance

This session was ended at 11:40 pm and followed by a vote of thanks by the session anchor to the resource person, participants, and organisers of the session.

Session 2

Ms. Neha Agarwal started the session with a brief introduction of the resource person, **Mr. Amanjot Singh Syan** and welcomed the participants.

In the beginning, the resource person mapped the key ideas which were discussed in the session, namely:

- (i) Factorial models
 - . Zero order
 - . Second order
 - . Third order and
 - . Structural order
- (ii) Reflective Models
- (iii) Formative Models
- (iv) Combination of Reflective Models and Formative Models
- (v) Confirmatory Data Analysis

Mr. Amanjot Singh Syan began the session by introducing the concept of Factorial models. He explained different Factorial models such as zero order, second order, third order and structural order with examples. Furthermore, he explained the reason behind not having the First Order as factorial model. He further introduced and explained in detail the concept of Reflective and Formative Models and the differences between them. Reflective Models are also known as Mode A models and Formative Models are also known as Mode B Models. He also explained in detail the four types of combinations of Reflective and Formative models such as Reflective- Reflective, Reflective- Formative, Formative- Formative, and Formative-Reflective.

Lastly, he proceeded with Confirmatory data analysis which is essential for formative models in order to find out the covariance between variables and further explained the reason behind no requirement of this analysis for Reflective models.

He concluded by saying that these models and Confirmatory data analysis hold a very significant role in research work.

The participants were interactive throughout the session, seeking answers to the issues and problems they face in research. The session was very well received and appreciated by the participants.

Ms. Neha Agarwal gave the vote of thanks to the resource person, **Mr. Amanjot Singh Syan** to formally close the session.

Session 3

The third session of day three of one-week faculty development programme conducted on 27th July 2022 which started immediately after the lunch break at 2:45 pm which was being introduced by the session anchor, Ms. Neha Agarwal (Faculty of commerce department of Delhi college of arts & commerce) by welcoming the esteemed resource person and all participants and also followed by giving sapling to the esteemed resource person by Prof. Anita (Faculty of commerce department of Delhi college of arts & commerce).

Prof Kavita Sharma, Professor and Former Head & Dean, Department of Commerce, Delhi School of Economics and also Treasurer, University of Delhi was the resource person of this session. Prof. Kavita Sharma started this session by saying that use of statistical tools extends the ability of the researcher. Further, she briefed the participants about an overview of multivariate methods and structural equation modelling in which she discussed about first and second-generation techniques used in the model building process in social science research.

In this session, Prof. Kavita Sharma gave insightful knowledge to the participants about various concepts, methods and models which address the issues in the model building process in social science research which will help them in data analytics includes: -

- Composite variables
- Measurement scales
- Coding
- Data distribution
- Measurement error
- CB-SEM Vs PLS-SEM
- Measurement theory & Structural theory
- Measurement model & Structural model
- Uni-dimensional Vs Multi-dimensional
- Causality
- Reliability & Validity
- Validity

The session was ended at 4:30 pm with the felicitation to the esteemed resource person by Mr Radheshyam (Faculty of commerce department of Delhi college of arts & commerce) and also followed by a vote of thanks by the session anchor to the resource person, participants, and organisers of the session.



Day 4 (28.07.2022)

Session 1

The first session of Day 4 of the one-week faculty development programme conducted on 28th July 2022 started in the morning. The session anchor, Ms Meenu welcomed and invited the esteemed resource person, Mr Amanjot Singh Syan wherein he introduced concepts like PLS-SEM using SMART-PLS; CB, SEM v/s VB SEM; Reflective v/s Formative Constructs. In this session, Mr Amanjot Singh started the session by answering the queries of the participants based on the previous day discussion. He gave insightful knowledge to the participants about various **Structural Model Assessments**. He explained the following concepts and research methods in this session:

- Smart PLS (its added advantage)
- Validity and its types
- Concept of EFA
- Difference between standardised and unstandardized values
- AMOS, HEYWARD Validity test

This session ended at 11:30 pm for a tea break. The same topic '**STRUCTURAL MODEL ASSESSMENTS**' continued in the second session of Day 4.

Session 2

The second session of day three of one-week faculty development programme conducted on 28th July, 2022 started at 12:15 am was being introduced by the session anchor, Ms. Meenu (Faculty of commerce department of Delhi college of arts & commerce) by welcoming the esteemed resource person and all participants.

Mr. Amanjot Singh Syan was the resource person of this session. Mr. Syan started this session by talking about various statistical tools like Factor Loading, Indicator adequacy and Explained Variance extends the ability of the researcher. Further, he briefed the participants about overview of AMOS, HEYWART and EFA. He discussed about usage of Smart PLS in research and how it helped researcher to gain insights into the various field of social science.

He further explained Variance Inflated Factor, Formative scales and Bootstrapped significance in the research. He also explained about Mediation analysis and different approaches to mediation analysis. He explained in detail about common method bias, Outliers and use of non-parametric test. He also briefed about use of Dependent construct and Independent Construct and Latent variables scores.

In this session, Mr. Amanjot Singh Syan gave insightful knowledge to the participants about various concepts, methods and models which address the issues in Mediation analysis, its types, partial mediation and full mediation in research which will help them in data analytics includes:

- Beta values significance
- Discriminant Variant Analysis
- Indirect effect
- Direct effect
- Measurement error
- VAF calculation
- Redundancy analysis
- Formative scale
- Bootstrapping
- Variance inflated factor
- Reliability & Validity
- Outliers in Smart PLS

The session was ended at 1:45 pm with the felicitation to the esteemed resource person by Ms. Sunita Yadav (Faculty of commerce department of Delhi college of arts & commerce) and also followed by a vote of thanks by the session anchor to the resource person, participants, and organisers of the session.

Session 3

Dr Sangeeta Gupta started the session with a brief introduction of the resource person, **Prof. Amit Kumar Singh** and welcomed the participants. **Dr. Bijiya Thakur** felicitated the guest. In the beginning, the resource person mapped the key ideas for the topic Publication of Research Paper in Scopus/Indexed Journals, which were discussed in the session, namely:

- (i) Research
- (ii) Drafting a Research Paper
- (iii) The Research Industry
- (iv) Why Publication?
- (v) Presentation of paper
- (vi) Publishing Paper in Conference
- (vii) Deciding on a research topic
- (viii) Importance of title
- (ix) Abstract -executive summary
- (x) Keywords
- (xi) Literature review
- (xii) Structure of research paper- introduction, literature review, methodology, result and analysis and conclusion and recommendation
- (xiii) References
- (xiv) List of UGC care list
- (xv) Stages before acceptance of research paper

Prof. Amit Kumar Singh began the session by introducing the meaning of research with day-to-day examples. He explained how a research paper is drafted with its types. He further

introduced and explained in detail about the research industry which basically consisted of top journals like Springer, Taylor and Francis, Emerald, Elsevier and John Willey and sons. Furthermore, he explained the reason and need behind getting the research work published. He further explained about the Presentation of the paper and publication in the Conference. He also goes into detail about the certain research paper-related topics such as Deciding on a research topic, Importance of the title, Abstract -executive summary, Keywords, Literature review and References. After that he gave the Structure of the research paper which basically consists of an introduction, literature review, methodology, result and analysis and conclusion and recommendation

He concluded by saying that getting the research paper published in a good research journal holds a very significant role in research work.

The participants were interactive throughout the session, seeking answers to the issues and problems they face in research. The session was very well received and appreciated by the participants.

Lt. Bhupinder gave the vote of thanks to the resource person **Prof. Amit Kumar Singh** to formally close the session.



Day 5 (29.07.2022)
Session 1

Dr Neha Aggarwal started the session with a brief introduction of the resource person, **Prof. R.K Singh** and welcomed the participants. **Lt. Bhupinder** felicitated the guest.

Session 1 began with a short survey conducted by Prof. R.K Singh based upon which the speaker highlighted the importance and relevance of qualitative research. The speaker explained the issues associated with qualitative research and its growing need. Moving further, the resource person briefly and aptly explained the research philosophy namely positivism, realism, interpretivism, pragmatism and epistemology with the help of real-life examples. During his session, he also shed a light on the use of one of the prominent qualitative techniques like 'Word Cloud' which can assist the researcher in doing better analysis of unaddressed issues.

The session was ended at 12:30 pm with the felicitation to the esteemed resource person by Lt. Bhupinder (Associate professor, Department of Commerce, DCAC) and also followed by a vote of thanks by the session anchor to the resource person, participants, and organisers of the session.

Session 2

Ms. Neha Agarwal started the session with a brief introduction of the resource person, **Prof. Rishi Raj Sharma** and welcomed the participants.

The second session by the resource person emphasized the theoretical framework and hypothetical construction and formulation of a conceptual model using an illustration of the Technology Acceptance Model. The speaker also explained the issues associated with research paper writing followed by a detailed analysis of one of his papers titled "*The Virality of Advertising Content*" wherein he explained the art of writing a research paper.

The session was ended at 2:30 pm with the felicitation to the esteemed resource person followed by a vote of thanks by the session anchor to the resource person, participants, and organisers of the session.

Valedictory Session

The valedictory function of the One-Week Faculty Development Programme was organized on 29th July 2022. The Chief Guest of the valedictory function was **Dr. Vikas Gupta**, Registrar, University of Delhi. The function started immediately after lunch at 2:45 pm on the last day of one-week faculty development programme with the National Anthem followed by illuminating lamps by all dignitaries.

The event began by welcoming the chief guest (Dr Vikas Gupta, Registrar, University of Delhi), Principal, Delhi College of Arts & Commerce (Prof. Rajiv Chopra), President, Business Research Plasma (Prof. Rishi Raj Sharma, Professor & Associate Dean, Department of Business Management, Guru Nanak Dev University, Gurdaspur), Convenors of this programmes (Prof. Ritu Sapra, Professor, Department of Commerce, Delhi School of Economics, University of Delhi) & (Prof. Rajiv Kumar Goel, Professor, Department of Commerce, Delhi College of Arts & Commerce) on the Dias. Further, the chief guest was felicitated with sapling and memento followed by felicitation of the principal sir and all the esteemed guests present on Dias with saplings.

During the welcome address, Principal, Prof. Rajiv Chopra sir emphasised upon the importance of this programme for academic research and also market research for commercial benefits in real life these days.

The Chief guest, Dr. Vikas Gupta sir, addressed the gathering by his inspiring speech in which he mentioned the relevance and importance of this programme for better implementation of the New Education Policy, 2020 and also mentioned the benefits of this programme for faculties and researchers. The function was continued by calling upon dignitaries to confer on the certificates to all the participants one by one for their active participation in one week faculty development programme and also followed by group photography of participants and organisers with all the dignitaries.

The session was then continued by enlightening words of Prof. Rishi Raj Sharma who emphasised that research is a fact-finding process and the social relevance of research is very important. He also praised the organisers for the successful execution of the one-week faculty development programme. Furthermore, the convenor of this programme, Prof. Ritu Sapra informed about the detailed summary of the one-week faculty development programme in which she acknowledged all the efforts of resource persons, participants and organising team members for the successful completion of this programme. She also emphasised that this type of programme will be conducted regularly in near future by the efforts of the department of commerce and other institutions for the development of academicians and research scholars.

Moreover, the convenor of this programme, Prof. Rajiv Kumar Goel addressed the audience with a vote of thanks in which he mentioned everyone's efforts who made their contribution for successful execution of this programme. He also mentioned that this event would not be possible without the unconditional support of Principal sir and the IQAC convenor.

At the end, Prof. Neeru Kapoor, Teacher In charge, Commerce department, DCAC addressed the audience by sharing her experience of one week faculty development programme in which she acknowledged the efforts of Prof. Rajiv Kumar Goel and his team for the successful execution of this programme and she also acknowledge the efforts of all the resource persons for making this programme impactful. The Programme was then ended at 4 p.m. with the National Anthem.



