

J.C. BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY, YMCA FARIDABAD

Department of Business Studies



Management Development Program on “Business Analytics Using R”

Held on 23rd and 24th April 2022

The Department of Business Studies organised two days Management Development Program on “**Business Analytics Using R**” on 23rd and 24th April 2022. The program was attended by 32 participants from academia and industry. More than 20 participants from industries such as Carrier Air conditioning Pvt Ltd, Huges Communication Pvt Ltd, EXL Service, Titan Industries, HCL Technologies, Indian Oil Corp Ltd and Steel Authority of India Limited designated at the level of DGM, AGM, Manager, Assistant Manager were benefited from the program.

The inaugural session was presided over by Vice Chancellor, Prof. Sushil Kumar Tomar. While addressing the participants, the hon’ble Vice Chancellor discussed the relevance of business analytics in recent times. Speaking on this occasion, he applauded the efforts and hard work of chairperson Dr Manisha Goel and organising team members, Dr Rashmi, Dr Shruti, Dr Parveen and Ms Radhika for the initiative taken by the Department of Business Studies for organizing Management Development Program on Business Analytics using R.



In the inaugural of the program, Mr. Parth Kaushik, working as a Data scientist in Deloitte Consulting (USA), Graduated MS - Data Analytics and Management from Illinois Institute of Technology, Chicago was the keynote speaker for the MDP.



During two days of MDP, the sessions were delivered by eminent speakers Dr Sourabh Gupta & Dr Srinivan. Dr. Saurabh, Ph.D. from University of Southern Mississippi, USA, with 18 years of experience in business analytics discussed various facets of business analytics and techniques for business data analysis to the participants. He provided practical exposure of data visualization, sentiment analysis and regression using software JMOVI and R with simulation methods on real-life business case study and datasets. Dr. R. Srinivasan, Professor at KIET School of Management, with more than 35 years of rich academic and industry experience provided hands-on experience of predictive modelling with simulation exercises using monte-carlo techniques.

Age	Income group	Personal technical skills	Mark of device	Operating system	Mean of payment	Training	Location of training	Actual duration of delivery	End product/production	Decision on learning on website and application
1	21	1	ios	android	100	no	1	10	1	1
1	45	1	android	android	100	no	1	10	1	1
2	31	1	ios	android	100	no	1	10	1	1
2	30	1	ios	android	100	no	1	10	1	1

```

> prediction_mn ~ log(ptq-dof+age)
> summary(prediction_m)

Call:
lm(formula = ptq ~ dof + age)

Residuals:
    Min       1Q   Median       3Q      Max
-1.3271 -0.4870  0.5081  0.6740  1.5199

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.458322   0.033364  69.515   <2e-16 ***
           dof    0.211186   0.007621  27.711   <2e-16 ***
           age   0.001146   0.001220   0.939    0.349
  
```

The screenshot displays a Zoom meeting interface. The main window shows a Microsoft Excel spreadsheet with the following data:

Q = Quantity Sold		P = Sale Price / Unit		V = Variable Cost / Unit		Year	Sales	Year G%
Probability	No. of Units	Probability	Value	Probability	Value			
10%	1800	40%	20	30%	15	1	1000	14%
10%	1900	40%	30	50%	20	2	1150	-4%
20%	2050	10%	40	20%	25	3	1275	6%
30%	2200	10%	50			4	1100	-15%
20%	2300					5	1225	11%
10%	2500					6	1400	13%
						7	1325	-6%
						8	1500	12%
						9	1575	5%
						10	1600	2%
						11		

Below the table, the following parameters are listed:

- F = 3000
- S = 0
- I = 30000
- D = 2000
- r = 10%
- n periods = 5 years

On the right side of the Zoom window, a video feed shows a participant with the name "Dr. Srinivasan".

The screenshot shows a Zoom meeting grid with 16 participants arranged in a 4x4 grid. The participants are:

- Row 1: Dr. Srinivasan, Rajni, Anurag's iPhone, Radhika Sharma
- Row 2: SATEESHRAJSHI VARGHES, Shivraj Chakravarti, Shrutika Bhatnagar, Parvati
- Row 3: Manish Katyal, J, Rahul Chauhan, Radhika Sharma
- Row 4: Anurag's iPhone, Sajni Devi, ANVESH BHARGAVA, Vivek Tyagi

The MDP provided a wider perspective to attendees in identifying prudent decision for their respective organization based on business analytics. It also enabled learners to apply basic statistics to explore and understand business data & gain knowledge and skills on descriptive and visual analytics to start doing these analytics using R software. Further, it provided hands-on data analysis using software JMOVI and R with simulation methods on real-life business case studies and dataset to the participants. Furthermore, participants gained hands-on experience of sentiment analysis, predictive modelling & monte-carlo techniques with simulation method that enabled them to take appropriated business decisions.