BUSINESS ANALYTICS PROJECT

Econometrics for Business Analytics with R

FINAL PROJECT

➢ Form a group of 4 by the end of first week

➢ There will be 3 projects to choose from

➢ Alternatively, if you have data, you can work on your own project (again as a team)

➢ Each project aims to address a real-world business problem for a national jewelry retailer

➢ An associated data and data description will be provided

  ▪ You are required to use the econometric tools you will learn during the class

FINAL PROJECT

➢ Each group will present the project on week 10 for 30 minutes

 ▪ Your score on the project will be a weighted score of the final report (50%) and the group presentation (50%)

➢ The format for the final report:

 ▪ Business/problem description and the importance of the problem for the retailer

 ▪ Relevant summary statistics and plots

 ▪ Econometric model

 ▪ Results

 ▪ Managerial insights

FINAL PROJECT

➢ **Project #1: SALESPERSON TRAINING IN RETAIL STORES**

- Question 1: What is the impact of training program on salesperson sales and return performance?

- Question 2: What is the impact of completing at least one training module on salesperson sales and return performance?

- Question 3: What is the impact of completing every additional training module on salesperson sales and return performance?

- Question 4: Who benefits from the training more: Full time employees or part-time employees?

- Question 5: Who benefits from the training more: more experienced employees or less experienced employees?

- Question 6: Is the impact of training on sales performance different for employees who completed the service and selling training (i.e., those who know how to sell) from that for employees who did not complete the service and selling training (i.e., those who do not know how to sell)?

FINAL PROJECT

➤ **Project #2: BUY-ONLINE-PICKUP-IN STORE (BOPS) STRATEGY FOR RETAILERS**

- ▪ Question 1: What is the impact of implementing BOPS strategy on online channel sales?

- ▪ Question 2: What is the impact of implementing BOPS strategy on online channel returns?

- ▪ Question 3: What is the impact of using the BOPS service on online customer purchase behavior?

- ▪ Question 4: What is the impact of using the BOPS service on online customer return behavior?

- ▪ Question 5: What is the impact of implementing BOPS strategy on product-level sales and returns?

- ▪ Question 6: How does the impact of implementing BOPS strategy vary across product categories?

FINAL PROJECT

> **Project #3: RETAIL STORE RETURN POLICY CHANGE**

- Question 1: What is the impact of the policy change on online channel sales?

- Question 2: What is the impact of the policy change on physical store sales?

- Question 3: What is the impact of the policy change on online channel returns?

- Question 4: What is the impact of the policy change on physical store returns?

- Question 5: What is the impact of the policy change on product level online sales and returns as well as on product level physical store sales and returns?

- Question 6: How does the impact of the policy change vary across product categories?