Marketing and Customer Analytics
Batch 19 Term 6

Individual Assignment

This deliverable has 65% weightage in the Consolidated Score Sheet and consists of 3 parts named Assignments 1 through 3.

Due Date: 27th January 2024, 11:55 PM

General Instructions:

1. This is an **individual assignment**.
2. **Do NOT submit .zip files**.
3. Please note that for each of the assignments, both **the report (pdf file) and the code files (.ipynb /.rmd /.html) are mandatory** for evaluation.
4. Code files rendered/exported as pdfs will **strictly not be considered for evaluation**.
5. The Honor Code for this submission is **2N-b.**
6. There are **3 submission folders** on LMS for the Individual Assignment. Upload your submission files on LMS accordingly.
    - **MCAN Individual Assignment – 1**
    - **MCAN Individual Assignment – 2**
    - **MCAN Individual Assignment – 3**
7. Any late submission will attract a penalty as mentioned in the course outline.
8. **Email submissions are NOT allowed**. All the submissions must be made on LMS.
9. Handwritten content will not be considered for evaluation.
10. There is no penalty for early submissions!
11. **Please adhere to the given instructions. Submissions will not be considered if the instructions are not followed**.

Assignment Details and Deliverables:

- There are **three parts** to the Individual Assignment and each part requires a separate submission on LMS.
- The description or brief of each assignment part also contains some hints and steps to guide your approach to solving the problems.
- All required Excel files and data (.csv files) are mentioned in the assignment briefs and provided on LMS as zipped files.
- All work leading up to the submitted work, in all assignments of this course, must be in Python or R. Excel files are provided on LMS and in some other assignments to give you a simple, transparent computational specification of what needs to be done. **Your submitted work is NOT to be done in Excel**.
- To add some detail to the above point: Please provide your code as a Jupyter notebook for Python **(.ipynb)** or an R markdown file **(.rmd or .html)**. The code file(s) must be **fully executed** before submission and all **results/outputs of the code must be retained** in the submission file(s).

- All submissions in this course are individual assignments. There is to be no sharing whatsoever of program code or any written submission, in this and every future submission, because that detracts from learning. Such sharing is a violation of ISB's Honor Code. If you are not able to do the HWs, please approach the faculty or the TA. We are here to help.
- The expected formats of the submission files are specified below:
  - **.pdf report**
    - Include only the required answers and explanations for all questions/parts.
    - **Do not copy questions** in the report – include only the question numbers.
    - Code files rendered/exported as pdfs will not be considered for evaluation.
    - Do not submit Word documents.
  - **Python (.ipynb) or R (.rmd or .html) code files**
    - Include comments wherever required.
    - Solutions and outputs must be retained in the fully executed code files before submission.
    - Excel workbooks will strictly not be considered for evaluation.
  - **Assignment Submission Form**
    - Must be **submitted separately** with the appropriate details filled in.
- The deliverables for each assignment are further detailed in the assignment briefs.

Assignment 1 is based on Product Optimization.

Deliverables:

1. A **PDF report** containing your responses to all the questions.
2. Your **R or Python codes** in the specified format.
3. A listing of the 243 products for Q3.
4. Assignment Submission Form.

Assignment 2 is based on Segmentation.

Deliverables:
The page-lengths given below are suggestive only. Feel free to exceed the suggested page lengths if you want to.

1. For Part A: A **2-page PDF report** containing the final numbers asked for in Part A's (1) and (2) and the verbal descriptions in (3).
2. For Part B: A **3-page PDF report** containing the final numbers asked for in Part B's (1) and (2) and the verbal descriptions for (3), and the plot justifying your chosen value of "k".
3. Your **R or Python codes** for Parts A, B in the specified format.
4. Assignment Submission Form.

Assignment 3 is based on Paid Search Bid Optimization and Display Advertising.

Deliverables:

1. A **3–6-page PDF report**. The page-length given is suggestive only. Feel free to exceed the suggested page length if you see the need.
2. Your **R or Python codes** in the specified format.

3. Any additional Excel workbooks or csv files created as part of your solution.
4. Assignment Submission Form.