

Project Case

You have just been appointed as a Data Analyst for a supermarket outlet. They are looking to leverage data science to start making informed strategic decisions. In particular they are keen to ensure that they use data to find high performing products in their portfolio offering in order to maximise profits and customer satisfaction.

However, they have maintained data on simple excel spreadsheets and have no real expertise on how to leverage this data for their strategic goal.

Main Task

Use the knowledge you have learnt in Python and Power BI to support this project for this company and help drive strategic actions

Questions to Support Analysis

Q1: What is the distribution of Male to Female customers? Give answers in % terms

Q2: What is the age distribution of customers? Consider drawing a histogram to answer the question

Q3: How many customers are considered Members (i.e., they use a Loyalty card while shopping) versus Normal customers

Q4: What is the most common method of payment to the supermarket? Which type of customers use this method the most – describe this?

Q5: Which product generates the most sales in the supermarket?

Q6: Which branch generates the most sales? Which type of customers tend to use this branch the most – describe this?

Q7: Which city generates the most sales? Which type of customer contributes the most in this city – describe this?

Q8: Based on the analysis you have done, what sort of strategy do you think the supermarket should employ (i.e., in terms of product offerings, customer retention, branch promotions)?

Q9: Do you feel the Loyalty Card has resulted in more sales by members relative to normal customers?

Requirements

- Presentation is key so ensure that the output of your analysis is professionally styled, preferably in a report style.
- Use visually impressive styles of presentation to ensure you are able to capture the story of your analysis to your stakeholders.
- You are encouraged to work in groups to attempt the execution of this project. This will test your ability to work effectively as a team. Furthermore, in real life you'll be expected to engage with stakeholders to collaborate and solve problems with together.

- If you will be using python to perform this analysis, include as part of your final work the notebook used.

Deadline

24 Feb 2023



BLACK
EMPOWERMENT
INITIATIVE