

Welcome to the project of the Power BI course! This is where you will need to apply all that you've learned in this course.

### **Here's the problem statement:**

Your client is a meal delivery company that operates in multiple cities. They have various fulfilment centres in these cities for dispatching meal orders to their customers. The client wants to help these centres with demand forecasting for upcoming weeks so that these centres will plan the stock of raw materials accordingly.

The replenishment of most raw materials is done on a weekly basis and since the raw material is perishable, procurement planning is of utmost importance. Secondly, staffing of the centres is also one area wherein accurate demand forecasts are helpful. We have the below information with us in the form of 3 different datasets:

- Historical data of demand for a product-center combination
- Product (Meal) features such as category, sub-category, current price, and discount
- Information for fulfilment centres like centre area, city information, etc.

Here is what we are expecting from you:

You need to come up **with a story** in Power BI that talks about the level of demand in each centre. This analysis needs to be granular enough to include product information as well. The client wants an end to end report to understand which fulfilment areas are doing well and which are not. You can also talk about centre-meal combinations to add nuance to your final submission.

Your report/dashboard should answer the following questions posed by the sales director of the client:

- 1) What is the total number of orders catered by the firm? There should be a date filter in the dashboard.
- 2) What is the revenue earned by the firm?
- 3) What is the total discounted value (base price - check out price) \* number of orders? What is the overall discount %?
- 4) Is the business following the pareto principle (80% of the revenue getting generated from the 20% of the centres)?

The business is not following Pareto Principal as the cumulative revenue percentage is less than 80% in 50 of the centres and more than 80% in 27 centres. So, 65% of the centres are generating 80% of the total revenue for the business.

- 5) What are the top 5 selling categories?
- 6) Does the operational area of the store influence number of orders?
- 7) Are emails & product features on the homepage an effective mode of promotion?
  - (A) Since proportion of sales due to email promotions has not increased, we can say that it is not an effective mode of promotion.
  - (B) Here also, proportion of sales due to featured homepages have not increased, we can say that it is not an effective mode of promotion.

- 8) What will be the next 5 weeks forecasted weekly quantity sold for each centre, city, and meal category (you may use a simple trend-based forecasting method)?

You need to upload the pbix file at the link shared by Aashish.

There is no restriction on the kind of charts you need to use. Be creative & open minded while doing the same.

Marking:

Each question carries 10 marks & 20 marks are for using the different capabilities of Power BI & showing the creativity of report creation. So, the assessment is for 100 marks.

All the Best!

Happy Learning!