# GenC Power BI Cohort - Project Report

# Design Document

# Version No – 1.0

| | Prepared By / Last Updated By | Reviewed by | Approved By |
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| **Date** | 29/3/2024 | | |

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# 1.0 Introduction

## 1.1 Project Description

This Project is about Analysis on Ecommerce Data where I have analyzed ecommerce data using Power BI. In today's competitive online marketplace, understanding ecommerce performance is crucial for driving business success. This Project provides an in-depth exploration of ecommerce data analysis, shedding light on the intricacies of Ecommerce data and offering actionable insights to inform strategic decision-making.

## 1.2 Purpose of the document

The purpose of this document is to outline our methodology, findings, and recommendations for analyzing e-commerce sales data. By meticulously documenting this process, we aim to empower stakeholders and decision-makers with actionable insights.

In the dynamic landscape of e-commerce, understanding customer behavior and sales performance is critical for success. This analysis delves deeper than simple sales figures. We will examine product performance metrics, customer behavior patterns, and marketing campaign effectiveness to gain a holistic view of the e-commerce operation.

By uncovering trends in product popularity, informed decisions can be made about inventory management and marketing strategies. This data will reveal which products are in high demand and which ones are lagging.

This knowledge enables businesses to optimize stock levels, tailor promotions, and personalize product recommendations for customers. Ultimately, this leads to increased sales and customer satisfaction.

Furthermore, e-commerce sales data analysis sheds light on marketing campaign effectiveness. We will track which channels convert the most visitors into sales, allowing for optimized marketing spend. This analysis will reveal if social media campaigns translated to product sales or if email marketing efforts need improvement. By making data-driven decisions, businesses can allocate resources towards the marketing channels that deliver the highest return on investment.

### Prerequisites

- Access to the Power BI
- Knowledge of the business requirements for the report
- Dataset of Ecommerce sales

## 1.3 Definitions and Acronyms

| Acronym / Technical Term | Description |
| --- | --- |
| KPI | Key Performance Indicator |
| PBI | Power BI |
| ER | Entity Relationship |

**KPI:** A KPI, or Key Performance Indicator, is a quantifiable measure used to evaluate the success of an organization, employee, or other entity in meeting objectives for performance. Essentially KPIs help organizations assess their progress in achieving their strategic and operational goals.

**Power BI:** Power BI is a business analytics service provided by Microsoft. It offers interactive visualization tools and business intelligence capabilities with an interface simple enough for end users to create their own reports and dashboards.

# 2.0 Data Sources

## 2.1 Data Source Overview

- **Customer Table**

  In this table the complete information about customer such as

  - Customer Age
  - Customer Gender
  - Customer ID
  - Location

- **Product Table**

  In this table about Product Details

  - Product name
  - Product ID
  - Sub Category ID

- **Subcategory Table**

  This Table Contain Subcategory Details of Product

  - Subcategory ID
  - Subcategory name
  - Category ID

- **Category Table**

  This Table Contain Category Details of Product

  - Category ID
  - Category name

- **Order Table**

  This Table Contain Order Details

  - Order Date
  - Order ID

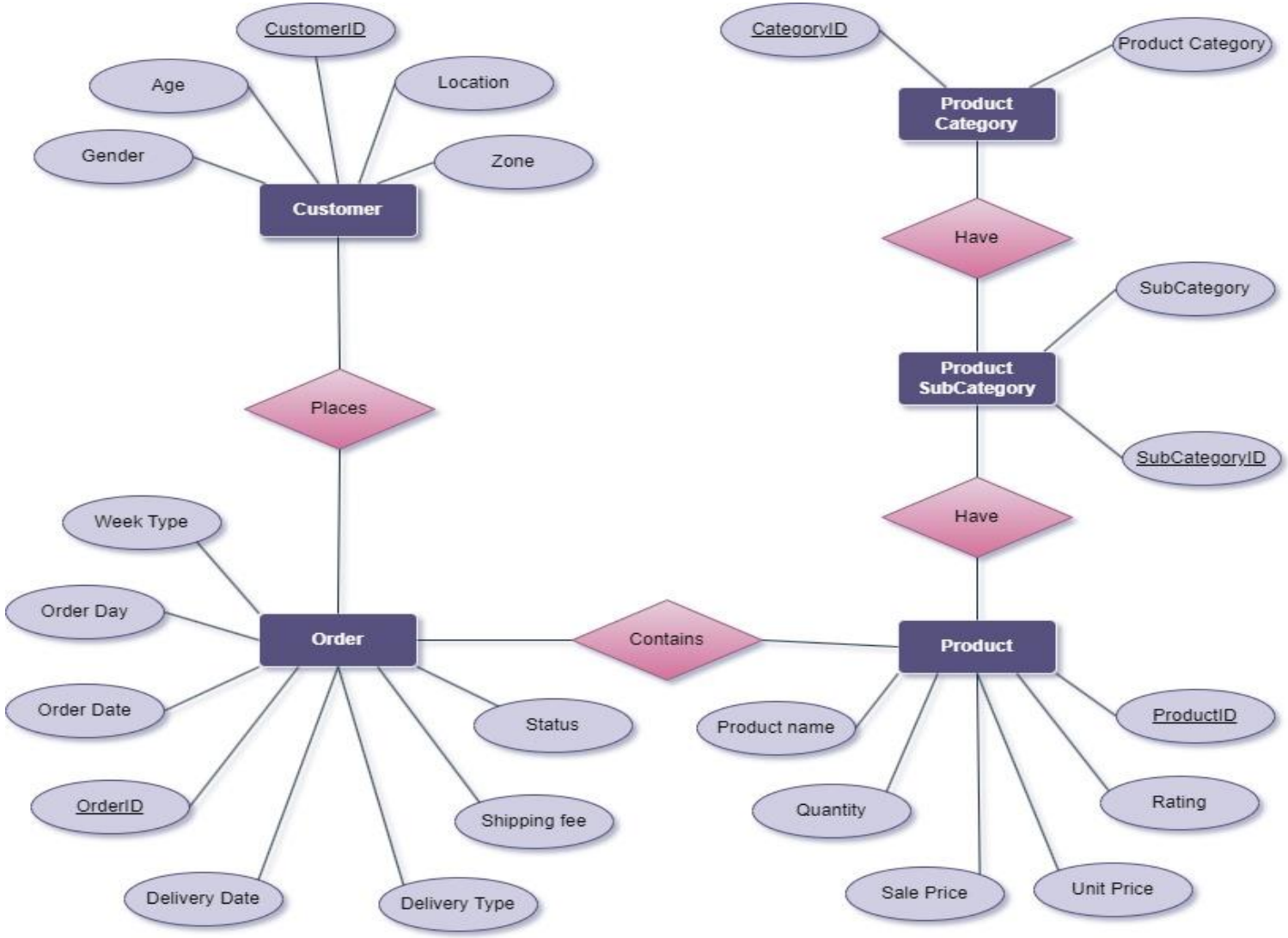
- Delivery Type

- **Main Table**

  This is the Fact Table of Project, it Contains.

  - Customer ID
  - Product ID
  - Order ID
  - Status
  - Rating
  - Sale Price
  - Unit Price
  - Shipping Fee
  - Delivery Date
  - Order Quantity

## 2.2 E-R Model



# 3.0 Report Objective:

## 3.1 Metrics and dimensions list:

### Key Performance Indicators:

**Page 1 – Main Dashboard** –

1. Total Revenue Generated by Flipkart
2. Total profit earned by the Flipkart
3. Total number of orders placed
4. Total number of products sold
5. Average Rating
6. Profit in different years
7. Revenue in different years
8. Revenue in different zones
9. Total orders in different year

**Page 2 – Order Insights**

1.Orders placed by different age group

2.Orders placed by customer gender

3. Orders based on delivery status

4. Orders based on delivery type

**Page 3 – Product Insights**

1. Total products sold by week type

2. Contribution of each Product category in total Revenue

3. Contribution of each Product subcategory in total Revenue

4. Total products sold in different years

**Page 4 – Customer Insights**

1. Revenue per customers in different years

2. Total Customers from different location

**Page 5 – Forecast and Profit Insights**

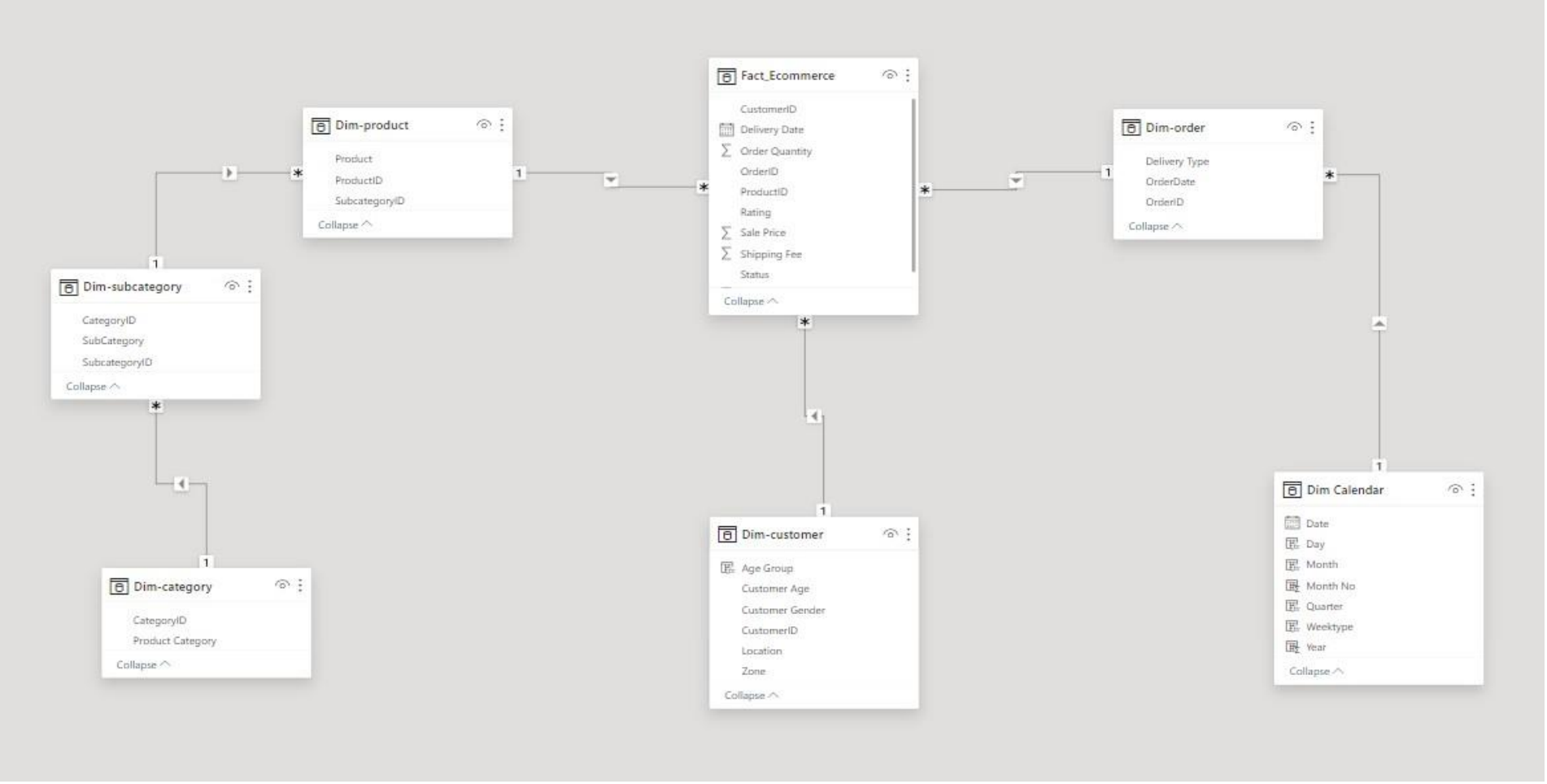
1.Prediction of a month revenue based on previous year revenue.

2.Profit Projection based on Varying discount and price.

## 3.2 Detailed calculation logic of the metrics

| VISUALISATION | KEY PERFORMANCE INDEX(KPI) |
|---|---|
| **Card** | Total Revenue, Total Profit, Total Orders, Total products sold, Average Rating, Count of Rating, Total Products, Total Customers, Discount percent, Increment Value. |
| **Stacked column chart** | Total Orders in different Years. |
| **Stacked bar chart** | Total Revenue in different Zones. |
| **Pie chart** | Total Products sold in Week Type, Total Revenue by Product Category. |
| **Donut chart** | Orders by Status, Customer Gender, Delivery Type, Age Group |
| **Area chart** | Total Revenue, Total Orders, Total Products and Revenue per C. Gender in different years |
| **Line chart** | Total Profit, Total Revenue, Total Profit vs New Profit in different years, |
| **Funnel chart** | Total Customers by different Locations |
| **Tree Map** | Total Revenue by Subcategory |
| **Multi card** | Top 3 products and profit |
| **Matrix Table** | Details of location wise Total profit, Total Revenue, Total Quantity, Total Customer |
| **Clustered column chart** | Total Customers in Different location, Comparison of Total Profit, Increment Profit, Discount Profit |

# 4.0 Reporting Data Model Design



# 5.0 Report Insights

# 6.0 Change Log

| Version Number | Changes made | Created/Changes by |
| --- | --- | --- |
| V1.0 | Initial Version | |