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**Problem Statement**

**📌 Sales & Profitability**

1. **Which cities and states generate the highest total sales and profit?**
2. **What is the average profit margin by product sub-category or product type?**
3. **Which order priority (High, Critical, etc.) leads to the most profit or loss?**

**📌 Discounts & Impact**

1. **Is there a correlation between discounts offered and profits made?**
2. **Which discount range (e.g. 0–5%, 5–10%) performs best in terms of total sales?**

**📌 Shipping & Operations**

1. **Which freight mode has the lowest average freight expense per unit sold?**
2. **What is the average delivery time by region? (Ship Date - Order Date)**

**📌 Product Analytics**

1. **Which product sub-categories are most popular in terms of quantity ordered?**
2. **What containers (e.g., Small Box, Wrap Bag) are associated with high or low profits?**

**📌 Segment Insights**

1. **Which customer segment (e.g., Hotels/Hospitals, Restaurants) brings the most revenue?**

**🧾 Column Definitions (and Business Use)**

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| --- | --- | --- |
| **Column Name** | **Description** | **Business Insight Purpose** |
| **Order Priority** | Urgency level of the order (e.g. High, Medium, Low) | Can be analyzed with delivery time, shipping cost, or profit margins |
| **Discount offered** | Discount (%) or decimal applied to product pricing | Helps in analyzing profit margin impact and promotion effectiveness |
| **Unit Price** | Price per unit before discount | Used to compute base revenue and compare price ranges |
| **Freight Expenses** | Shipping cost per order | Useful for evaluating logistics cost vs. profit |
| **Freight Mode** | Shipping method (e.g. Regular Air, Express Air) | Analyze shipping mode vs. cost, delivery time, or region |
| **Segment** | Customer type (e.g. Personal, Restaurant, Hotels) | Helps segment analysis, customer preference, and profitability |
| **Product Type** | Main category of product sold (e.g. Processed Meat) | Analyze top-performing product types |
| **Product Sub-Category** | More detailed product classification (e.g. Bacon, Foie Gras) | Granular analysis for inventory and marketing |
| **Product Container** | Packaging type (e.g. Small Box, Wrap Bag) | Study impact of packaging on sales, shipping, and product type |
| **State** | Indian state where product is delivered | Helps regional performance analysis |
| **City** | Delivery city | More granular geographical insights |
| **Region** | Region zone (North, South, East, West) | Analyze sales and profit across larger regions |
| **Country** | Should be “India” throughout | Mostly static; useful if data expands internationally |
| **Order Date** | Date of placing the order | Used to analyze order trends, seasonality, etc. |
| **Ship Date** | Date of shipping the order | Can be used to calculate delivery time |
| **Profit** | Net profit for the order | Key metric for performance analysis |
| **QtyOrdered** | Quantity of units ordered | Volume analysis, inventory planning |
| **Sales** | Total sales amount (after discount) | Revenue tracking and financial reporting |

**Conclusion:-**

1. **Majority of sale and profit coming from specially in Uttar pradesh where Ghaziabad it’s top city which order highest Profit and Sales.**
2. **Profit Margin of the Processed Meat(112%) is higher than the all canned Foods(11%) and Preserved Food**

**(-9.87), where Preserved Food loss making Product.**

1. **Both Critical and Not-Specified Order Priority are loss making (it may contain loss generated by product). Other order priorities are performing well.**
2. **Delivery time which is the key Sales indicating indicator as less as Delivery time Customer Satisfaction increase with KFC product.**
3. **Smoked Salmon(5547 Unit) and Quail Eggs(4070) are leading Product sub-categories , while lowest unit sold are Wild berry.**
4. **When it comes Total Profit Large Box(-14722 Rs) low performing and small box(181228 Rs).**
5. **In Segment wise Revenue Hostel/Hospital(841291 Rs)**

**And personal Uses (667768 Rs) . KFC should promote the Hostel/Hospital and Personal uses. They have Big market share mostly managed by unorganized personals.**