Business Intelligence – Assignment 2

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Vehicle-for-hire (uber, airlift etc.)

1. **Business Problem:**
   - Major decrease in users' rating has been observed due to high rates and delay in vehicle arrival. Therefore, company wants to cater the users' complaint about delay in vehicles and high rates.

2. **KPIs/Measures/Facts:**
   - Avg. Rating
   - Avg. time delay duration
   - Total no. of vehicles delayed
   - Profit per vehicle
   - Cost spent per vehicle
   - Avg. Dist b/w source and destination

3. **Dimensions:**
   - Vehicle
   - Passenger
   - Arrival Time
   - Departure Time
   - Booking Time
   - Date
   - Source Location
   - Destination Location

4. **Queries:**
   - What was the average time delay of the Economy class vehicles during the office hours 4.30 pm to 8.30 pm?
   - What was the profit earned on vehicles that were booked during the weekends?

E-commerce (e.g., daraz.pk)

1. **Business Problems:**
   - They are facing a decline in online shopping and needs to maximise their revenue through selling from their online website.
   - Most of the website visitors are not making any purchase, company wants to improve their marketing in order to target their specific audience only.

2. **KPIs/Measures/Facts:**

For problem 1:
   - Sales
   - Avg. order size
   - Gross profit
   - Shopping cart abandonment rate
   - Cost of goods sold
   - No. of transactions

For problem 2:
   - Site Traffic
   - New visitors vs. old customers
   - Bounce rate
   - Pageviews per visit
   - Avg. CTR
   - Avg. Session duration

3. **Dimensions:**
   - Location
   - Time
   - Date
   - Customer
   - Product
   - Product Category
   - Account
   - Transaction

4. **Queries:**
   - What was the gross profit earned through selling Polo T-shirts to the male customers in Karachi?
   - What was the total number of pageviews per visit by the female customers during Black Friday sale?

Mobile manufacturing (e.g., MI mobiles) in China

1. **Business Problem:**
   - Organization is facing the problem in maintaining the right inventory levels & their costs.
2. **KPIs/Measures/Facts:**
   - % change in inventory levels
   - % change in inventory level costs
   - Current Inventory level
   - Current Inventory Cost
3. **Dimensions:**
   - Employee
   - Product
   - Inventory
   - Date/Time
   - Warehouse
4. **Queries:**
   - How much change is observed in the inventory levels of the MI Mobile (model FR-45) during the 3 quarters of the year 2020?
   - What is the current inventory level cost of the SITE warehouse at the start of 2021?

Marketing campaigns of islamic banks

1. **Business Problem:**
   - Deposits in Islamic banks are mostly due to the contribution from islamic organisations rather than individuals, organisation needs to build their trust in individual customers as well.
   - Large amount of money is being spend on marketing of Islamic banking products & services, but the revenue generated on the basis of these campaigns are not upto the mark.

2. **KPIs/Measures/Facts:**
   - Avg. deposit in Islamic banking
   - Total no. of customers availing islamic banking services
   - Avg. amount spent on marketing
   - Gross Profit after each successful marketing campaign

3. **Dimensions:**
   - Product
   - Service
   - Customer
   - Transaction Type
   - Campaign
   - Advertisement
   - Account
   - Transaction Log
   - Employee
   - Date/Time

4. **Queries:**
   - What was the average amount spent for the marketing of product "Ijarah" during the 1st quarter of 2020?
   - What was the gross profit earned from the marketing campaign of product "Murabahah" which was lead by the senior assistant manager of the bank?