ONLINE CUSTOMER SALES MANAGEMENT

Introduction

The online customer sales management database gives a detailed view on the products, customers, sales made, profit earned and other statistics. It has a vast database showing what product was sold to which customer, profit made from each customer, shipping details, shipping date, order priority of the user, discounts given etc. Using this we can manage the sales as we know which customer is more profitable to us and thus, we can accordingly prioritize the customers giving out more offers and discounts to them. As we also know in which province our product is least sold we can set out campaigns and advertise it more. Thus, we can build better customer relations.

Motivation

The statement made by the President and CEO of Hewlett Packard, Meg Whitman, "Communications is at the heart of e-commerce and community" throws sufficient light on the importance of e-commerce in present century. A website which hosts a collective data of several years can be of help to customers, ecommerce business owners and to economists too. Customers have the opportunity to get to know how to make a place in gold and platinum shelves. The website will be in a capacity to show the Customer sales analysis and hence it can be a source of delight for ecommerce owners as well. They will be able to predict the products with maximum benefits and the regional trends of customers for setting their inventory. It can be served as a raw data for a start-up as well. Finally, economists might also get an idea of GDP and other ratios by analyzing the rising capacity of purchasers. In nutshell, the need of citizens to analyze the past records of Customer sales inspired us for initiating this website. Its needless to mention that Customer Management and ecommerce stands with billion dollar businesses on present date and this could be real monetary motivation in developing sales trend data website.

Expected User Functionalities:

We can classify the set of users into 2 categories namely Manager Head (Special user) and Regional Manager (Normal user). The functionalities of this project depend upon the type of user who is accessing the system.

For a Manager Head (Special User):

- Should be able to view all regional stores data.
- Should be able to filter out which store has made more profit.
- Should be able to view overall profit and sales.
- Should be able to view which store has more orders returned.
- Should be able to view the total orders returned.

For a Regional Manager (Normal User):

- Should be able to view only regional stores data.
- Should be able to view overall profit and sales of his province.
- Should be able to view orders returned.
- Should be able to view mostly used shipping method.
- Should be able to view customer details of his province.

Possible Database Queries

- Determine the segment of customers (For ex. corporate, small business, etc) and notify them using email or SMS about similar product of their requirement.
- Find the orders which have been returned by customers and give them concession.
- Sort out the residential customers who made purchase >=900 $ and give them 30% discount on delivery.
- Find out the platinum customers (transaction > 3000$ for consumers and transaction > 10,000$ for business corporate) and then giving them special discounts and offers.
- Find out 5 customers (in each category) who have made maximum purchase in a month and then giving them special rewards.
- Find out the monthly sales of the store in each region.
- Find out customers who have been customers for 1 year and then giving them 40% discount.
- Notify users about the about the combo offers.

- Sort out the corporate customers who made purchase >30,000$ in past year (2016) and give them 2 free shipping in 2017.
- Find out how many deliveries were made using each delivery method.
- Find out which customer (in this category) made biggest purchase in a day.
- Find out which products which have base margin greater than > 0.7.
- Find out products which have base margin between 0.4 and 0.7.
- Find out products which have base margin less than 0.4.
- Find out a particular product of which company has been sold more.
- Find out which company's products made maximum profit.
- Find out which province has made maximum purchase in last 1 month for better advertising in that city.
- Find out which product has been bought by customers mostly in last 1 month.

Data Management Needs:

Our database types will include numeric (integers & float), string and date. We will execute queries on a database of at least 10,000 tuples. The data will be read from .csv files & we aim to use the basic concepts of database like foreign key, virtual view to fetch the desired results.

- **Datasets**
  We have used the database of customer sales for implementing in our project from the following source:
  - https://community.tableau.com/docs/DOC-1236

- **Software Requirements**
  - Oracle database (orcl instance running on CISE servers) for storing and querying our data.
  - We might use Dreamweaver, sublime text, html, CSS for designing user interface.

- **Data Security**
  We will be having a login id for different categories. Regional Manager can only view the purchases of their province only while the Head Manager has the privilege to update the records and analyze the purchase of all the provinces. Hence only a specific part of data is shown to specific set of people & hence data security is maintained.

- **Data Consistency**

  Whenever there is a purchase by specific customer, it will be reflected in the database. If the customer has reached any loyalty benefit and has been promoted

from Gold to Platinum category then it will be immediately updated in the dataset to avoid any data inconsistency. Hence we will try our best to keep our website updated for smooth accessibility to its users.

References

[1] - http://www.tcodesearch.com/sap-tables/search?q=customer+sales

[2] - https://www.bigcommerce.com

[3] -http://www.invespcro.com/blog/us-online-retail-sales/

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