ACTG 379 | HW #4

Inventory & Sales Analysis

Oregon State University College of Business

Background Info[1]

Bibitor, LLC[2] is a liquor store chain in the fictional state of Lincoln. It is a major retailer with approximately 80 locations and total sales in excess of $450 million. Your team is looking at the inventory transactions of Bibitor for 2016. You have been provided data for their:

- beginning and ending inventory,
- purchases and
- sales for a 12-month period.

Note: You can use either the full dataset or the simplified (sampled) dataset. If your computer has little computing power, I suggest the simplified dataset.

Deliverables

1. Using the beginning inventory data, create data frames that show the following:
    a. Beginning Inventory balances (in both total number of units and total $s) for each Store and identify the 10 stores holding the highest $ value of inventory at the start of the year.
    b. Beginning Inventory balances (in both total number of units and total $s) for each Brand and identify the top 10 brands in terms of $ value of inventory held at the start of the year.

2. Using the ending inventory data, create data frames that show the following:
    a. Ending Inventory balances (in both total number of units and total $s) for each Store and identify the 10 stores holding the highest $ value of inventory at year-end.
    b. Ending Inventory balances (in both total number of units and total $s) for each Brand and identify the top 10 brands in terms of $ value of inventory held at year-end.

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[1] This case is based off one created and distributed to faculty by PricewaterhouseCoopers LLP.

[2] *Bibitor, LLC is a fictitious company based on data created by the HUB of Analytics Education @ www.hubae.org. The HUB of Analytics Education materials are owned by Northeastern University. PricewaterhouseCoopers LLP is not responsible for any errors or omissions in, or for the results obtained from the use of, the HUB of Analytics Education. The HUB of Analytics Education materials are provided "as is", with no guarantee of completeness, accuracy, timeliness or of the results obtained from the use of this information, and without warranty of any kind. In no event will PricewaterhouseCoopers LLP, or its partners, principals, employees, or agents, be liable to you or anyone else for any decision made or action taken in reliance on the information in the HUB of Analytics Education materials or for any consequential, special or similar damages, even if advised of the possibility of such damages.

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3. Create a table that shows both the beginning and ending inventory balances in terms of quantity (# of units) and total $ value (total cost of inventory) held for each InventoryId. This table should have five columns: InventoryId, Beginning Quantity, Beginning Total $ (i.e., quantity * price), Ending Quantity, and Ending Total $ (i.e., quantity * price).

4. Using the Purchases data,
    a. Identify the top ten Vendors (i.e., those 10 Vendors who sold Bibtor the most inventory in total $ during 2016).
    b. Identify the ten Vendors who charged the most freight during 2016.
    c. Calculate freight per $ purchased for only those Vendors who Bibitor purchased at least $250,000 of inventory during 2016 and identify the ten Vendors with the highest per $ freight and the five Vendors with the lowest per $ freight.
    d. Identify those transactions where the freight cost was greater than $100 and the units were less than or equal to 1,000 units. Which Vendors had the highest Freight cost under these conditions.
    e. Calculate the freight per $ & per unit for those transactions in d. How do they compare to your findings in c above?

5. Using the sales data and at least some of the other data, do an analysis of your choice. If you have trouble with the sales data file size, you can use the December only sales data.