

A close-up photograph of a person's hands interacting with a laptop. The left hand is holding a black pen over the trackpad, while the right hand is positioned over the keyboard. The laptop is dark-colored, and the background is a blurred office setting.

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Portofolio - E-Learning

Retail Sales Analytics Dashboard with Excel

Paskah Prabu Wahyu Martinus

Project Overview



In this project we will analyze the sales performance and profit of a retail store. In the beginning we explore the data to find sales trends, customer composition, and the most sold products. Then we create a dashboard to gather all the insights using the right visualization.

Some of the questions that will be answered in this project are:

1. What is the total sales, profit, quantity and profit margin?
2. What is the best month for sales? How much was earned that month?
3. Which customer segment has a big impact on sales?
4. Which product has the highest sales?

Tools used:



Ms. Excel



About Dataset

	A	B	C	D	E	F	G	H	I	J
1	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State
2	CA-2016-15211	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky
3	CA-2016-15211	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky
4	CA-2016-13861	6/12/2016	6/16/2016	Second Class	DV-13045	Darrin Van Huf	Corporate	United States	Los Angeles	California
5	US-2015-10896	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnel	Consumer	United States	Fort Lauderdale	Florida
6	US-2015-10896	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnel	Consumer	United States	Fort Lauderdale	Florida
7	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
8	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
9	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
10	CA-2014-11581	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California

For this project we analyze sales data at Global Superstore. This dataset contains information about sales transactions, customers, products, and geographical locations in the period 2014-2017.

About Dataset

	A	B	C	D	E	F	G	H	I	J
1	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State
2	CA-2016-1521	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky
3	CA-2016-1521	11/8/2016	11/11/2016	Second Class	CG-12520	Claire Gute	Consumer	United States	Henderson	Kentucky
4	CA-2016-1386	6/12/2016	6/16/2016	Second Class	DV-13045	Darrin Van Huf	Corporate	United States	Los Angeles	California
5	US-2015-1089	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnel	Consumer	United States	Fort Lauderdale	Florida
6	US-2015-1089	10/11/2015	10/18/2015	Standard Class	SO-20335	Sean O'Donnel	Consumer	United States	Fort Lauderdale	Florida
7	CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
8	CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
9	CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California
10	CA-2014-1158	6/9/2014	6/14/2014	Standard Class	BH-11710	Brosina Hoffma	Consumer	United States	Los Angeles	California






Order ID : Unique Order ID for each Customer.
Order Date : Order Date of the product.
Ship Date : Shipping Date of the Product.
Ship Mode : Shipping Mode specified by the Customer.
Customer ID : Unique ID to identify each Customer.
Customer Name : Name of the Customer.
Segment : The segment where the Customer belongs.
Country : Country of residence of the Customer.
City : City of residence of of the Customer.
State : State of residence of the Customer.
Postal Code : Postal Code of every Customer.
Region : Region where the Customer belong.

Product ID : Unique ID of the Product.
Category : Category of the product ordered.
Sub-Category : Subcategory of the product ordered.
Product Name : Name of the Product.
Sales : Sales of the Product.
Quantity : Quantity of the Product.
Discount : Discount provided.
Profit : Profit/Loss incurred.
Calendar : Day of Order Date
Month : Month of Order Date
Year : Year of Order Date

Question 1

What is the total sales, profit, quantity and also profit margin ?

Drag fields between areas below:

 Filters	 Columns
 Rows	 Values
 Values	Total Sales
	Total Profit
	Total Quantity
	Profit Margin (Profit/Sa...

Values	
Total Sales	\$2.297.201
Total Profit	\$286.397
Total Quantity	37.873
Profit Margin (Profit/Sales)	12,47%

This question identifies the four metrics used to assess store performance. The **profit margin** metric needs to be defined first using a calculated field with the formula **=Profit/Sales**

Insight

The total value of each metric is shown in the pivot table.

1. Total Sales: \$2.297.201
2. Total Profit: \$286.397
3. Total Quantity: 37.873
4. Profit Margin: 12,47%

Question 2

What is the best month for sales? How much was earned that month?

Row Labels	Total Sales	% Profit Margin
Jan	\$ 95K	10%
Feb	\$ 60K	17%
Mar	\$ 205K	14%
Apr	\$ 138K	8%
May	\$ 155K	14%
Jun	\$ 153K	14%
Jul	\$ 147K	9%
Aug	\$ 159K	14%
Sep	\$ 308K	12%
Oct	\$ 200K	16%
Nov	\$ 352K	10%
Dec	\$ 325K	13%
Grand Total	\$ 2.297K	12%



This question identifies peak sales months while also looking at sales trends. To analyze it, we create a pivot table that includes total sales and profit margin for each month. The visualization chart used is a **Combo Chart**.

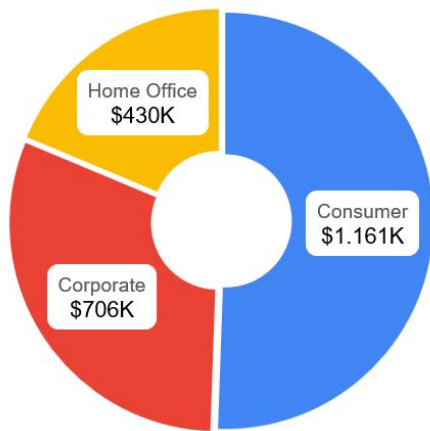
Insight

1. **November** was the **peak month** with total sales reaching **\$352K** and a profit margin of 10%
2. **February** was recorded as the month with the **lowest sales at \$60K**, but had **the highest profit margin of 17%**
3. Sales trend **increased** at the end of the year

Question 3

Which customer segment has a big impact on sales?

Row Labels	Sum of Sales
Consumer	\$ 1.161K
Corporate	\$ 706K
Home Office	\$ 430K
Grand Total	\$ 2.297K



This question identifies which customer segments contribute the most to sales. Pivot tables are used to see total sales from each segment and **Pie Charts** for visualization.

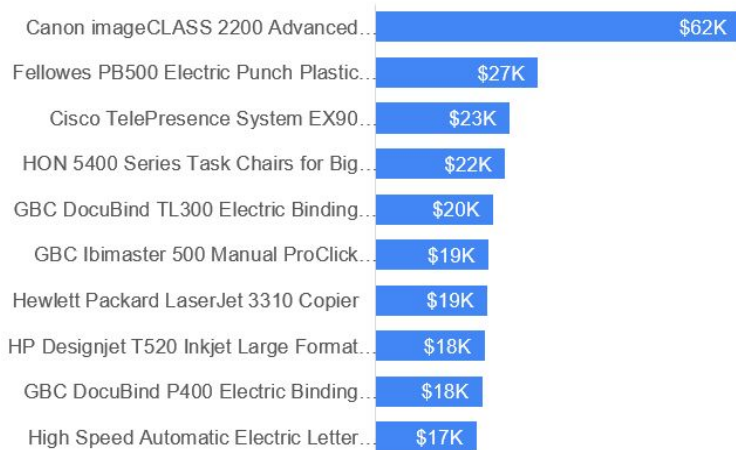
Insight

1. The **"Consumer"** segment had a major impact on sales with total sales of **\$1,161K**
2. Total sales in the "Consumer" segment had an impact of **more than 50%** of all total sales by segment for 4 years.

Question 4

Which product has the highest sales?

Row Labels	Sum of Sales
High Speed Automatic Electric	\$ 17K
GBC DocuBind P400 Electric	\$ 18K
HP Designjet T520 Inkjet Larg	\$ 18K
Hewlett Packard LaserJet 331	\$ 19K
GBC Ibimaster 500 Manual Pr	\$ 19K
GBC DocuBind TL300 Electric	\$ 20K
HON 5400 Series Task Chairs	\$ 22K
Cisco TelePresence System E	\$ 23K
Fellowes PB500 Electric Punc	\$ 27K
Canon imageCLASS 2200 Ad	\$ 62K
Grand Total	\$ 245K



This question identifies which products contribute the most to sales. Pivot table is used to see the total sales of the 10 products with the highest total sales and visualized in a Bar Chart.

Insight

1. The product "Canon imageCLASS 2200 Advanced Copier" has total sales of \$62K
2. The difference between the number 1 product sales is much higher than other products on the top 10 product chart

Dashboard Creation



It's time to display everything in a **Dashboard**. This Dashboard is designed to simplify complex data, making it easier for users to gain insights into the data displayed in metrics and charts.

Add **slicer** to the Dashboard so users can explore more about the information they want.

Summary

1. In 4 years, Global Superstore earned total sales of **\$2.297.201**, total profit of **\$286.397**, total quantity of **37.873**, and profit margin of **12,47%**
2. **November** was the peak month with total sales reaching **\$352K** and a profit margin of 10%
3. The “**Consumer**” segment had a major impact on sales with total sales of **\$1,161K**
4. Product “**Canon imageCLASS 2200 Advanced Copier**” is the product with the highest total sales of **\$62K**
5. **Dashboard** makes it easier for users to gain insights into the data displayed in metrics and charts.

Recommendation

1. By looking at the sales trend patterns each month, the marketing team can create attractive campaigns or promotions targeted at each customer segment in November and December to gain maximum profit.
2. For further analysis, we can find out about products that provide high profit margins according to the sales trend chart in February.



Thank You

Contact Details



paskah.prabu@gmail.com



[Paskah Prabu Wahyu Martinus | LinkedIn](#)



[PaskahPrabu | GitHub](#)