

Sales Dataset Analysis – Advanced Excel Project

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Project Overview & Objectives

- Objective :
Analyze retail sales data to uncover trends, optimize performance, and build interactive dashboards using advanced Excel tools
- Goals.
 1. Identify top performing products
 2. Analyzing seasonal trends and discount impact
 3. Creating a dynamic dashboard for better decision making

Data Preparation

- Remove duplicates and blanks
- Applied data validation for consistency
- Formatted dates and headers
- Freezing the top row for better usage

U1	D	E	F	G	H	I	J	K	L	M	N	O	P	
	Now ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	Postal Code	Region	Product ID	Category	Sub-Category
1	CA-2014-115791	06-01-2014	08-01-2014	Standard Class	PO-10000	Dawn Rodger	Consumer	United States	Arapahoe	80040	Central	OFF-FA-10003223	Office Supplies	Labels
2	CA-2014-115792	04-01-2014	08-01-2014	Standard Class	PO-10195	Phyllis Ober	Home Office	United States	Arapahoe	80040	Central	OFF-ST-10002743	Office Supplies	Storage
3	CA-2014-115793	04-01-2014	08-01-2014	Standard Class	PO-10196	Phyllis Ober	Home Office	United States	Arapahoe	80040	Central	OFF-ST-10002744	Office Supplies	Storage
4	CA-2014-115794	04-01-2014	08-01-2014	Standard Class	PO-10197	Phyllis Ober	Home Office	United States	Arapahoe	80040	Central	OFF-ST-10002745	Office Supplies	Storage
5	CA-2014-115795	05-01-2014	12-01-2014	Standard Class	MS-10000	McBrown Brown	Consumer	United States	Philadelphia	19143	East	OFF-FA-10003478	Office Supplies	Ad
6	CA-2014-115796	05-01-2014	12-01-2014	First Class	JO-51145	Jack O'Briant	Corporate	United States	Athens	30605	South	OFF-FA-10002799	Office Supplies	Ad
7	CA-2014-115797	05-01-2014	10-01-2014	Second Class	MS-10195	Leanne Eichler	Consumer	United States	Los Angeles	90001	Central	OFF-FA-10003479	Office Supplies	Storage
8	CA-2014-115798	06-01-2014	10-01-2014	Standard Class	MS-17300	Maria Ezzzad	Home Office	United States	Henderson	84240	South	FUR-CH-10004548	Furniture	Chairs
9	CA-2014-115799	06-01-2014	10-01-2014	Standard Class	MS-17301	Maria Ezzzad	Home Office	United States	Henderson	84240	South	FUR-CH-10004549	Furniture	Beds
10	CA-2014-115800	06-01-2014	10-01-2014	Standard Class	MS-17302	Maria Ezzzad	Home Office	United States	Henderson	84240	South	FUR-CH-10004550	Furniture	Tables
11	CA-2014-115801	06-01-2014	10-01-2014	Standard Class	MS-17303	Maria Ezzzad	Home Office	United States	Henderson	84240	South	FUR-CH-10004551	Furniture	Wardrobe
12	CA-2014-115802	06-01-2014	10-01-2014	Standard Class	MS-17304	Maria Ezzzad	Home Office	United States	Henderson	84240	South	TEC-PN-10004177	Technology	Phones
13	CA-2014-115803	06-01-2014	10-01-2014	Standard Class	MS-17305	Maria Ezzzad	Home Office	United States	Henderson	84240	South	TEC-PN-10004178	Technology	Phones
14	CA-2014-115804	06-01-2014	10-01-2014	Standard Class	MS-17306	Vinod Sundaram	Consumer	United States	Henderson	84240	South	OFF-FA-10003455	Office Supplies	Printers
15	CA-2014-115805	07-01-2014	12-01-2014	Standard Class	VS-21200	Vinod Sundaram	Consumer	United States	Henderson	84240	South	OFF-FA-10000555	Office Supplies	Paper
16	CA-2014-115806	09-01-2014	13-01-2014	Standard Class	MS-17307	Melanie Sette	Consumer	United States	Landover	20701	Central	FUR-FL-10004564	Furniture	Furniture
17	CA-2014-115807	09-01-2014	13-01-2014	Standard Class	MS-17308	Melanie Sette	Consumer	United States	Landover	20701	Central	FUR-FL-10004565	Furniture	Furniture
18	CA-2014-115808	09-01-2014	13-01-2014	Standard Class	MS-17309	Anthony Jacobs	Corporate	United States	Springfield	22152	South	OFF-AC-10001764	Office Supplies	Ad
19	CA-2014-115809	10-01-2014	15-01-2014	Standard Class	MS-17310	Anthony Jacobs	Corporate	United States	Springfield	22152	South	OFF-AC-10001765	Office Supplies	Accessories
20	CA-2014-115810	10-01-2014	15-01-2014	Standard Class	MS-17311	Anthony Jacobs	Corporate	United States	Springfield	22152	South	OFF-AC-10000965	Office Supplies	Ad
21	CA-2014-115811	11-01-2014	14-01-2014	First Class	SV-20365	Seth Vennos	Consumer	United States	Doyle	19901	East	FUR-FL-10000050	Furniture	Furniture
22	CA-2014-115812	11-01-2014	14-01-2014	Second Class	MS-17312	Seth Vennos	Consumer	United States	Doyle	19901	East	FUR-FL-10000051	Furniture	Furniture
23	CA-2014-115813	13-01-2014	15-01-2014	Second Class	CS-10250	Chris Sebelnick	Corporate	United States	Bossier City	71111	South	OFF-EN-10003132	Office Supplies	Envelopes
24	CA-2014-115814	13-01-2014	15-01-2014	Second Class	CS-10251	Chris Sebelnick	Corporate	United States	Bossier City	71111	South	TEC-AC-10003174	Technology	Accessories
25	CA-2014-115815	13-01-2014	15-01-2014	Second Class	CS-10252	Chris Sebelnick	Corporate	United States	Bossier City	71111	South	TEC-AC-10003175	Technology	Accessories
26	CA-2014-115816	13-01-2014	15-01-2014	Second Class	CS-10253	Chris Sebelnick	Corporate	United States	Bossier City	71111	South	OFF-ST-10000025	Office Supplies	Storage
27	CA-2014-115817	13-01-2014	15-01-2014	Second Class	ND-13370	Natalie DeChamay	Consumer	United States	Mount Pleasant	29064	South	FUR-CH-10000024	Furniture	Chairs
28	CA-2014-115818	13-01-2014	15-01-2014	Second Class	BD-11605	Brain Dakins	Consumer	United States	San Francisco	94109	West	OFF-AC-10001763	Office Supplies	Books
29	CA-2014-115819	13-01-2014	15-01-2014	Second Class	BD-11606	Brain Dakins	Consumer	United States	San Francisco	94109	West	OFF-AC-10003154	Office Supplies	Books
30	CA-2014-115820	13-01-2014	15-01-2014	Second Class	BD-11607	Brain Dakins	Consumer	United States	San Francisco	94109	West	OFF-AC-10003155	Office Supplies	Books
31	CA-2014-115821	13-01-2014	15-01-2014	Second Class	MM-17920	Michael Moore	Consumer	United States	Newark	07105	East	OFF-EN-10003147	Office Supplies	Ad
32	CA-2014-115822	13-01-2014	15-01-2014	Second Class	MS-17920	Michael Moore	Consumer	United States	Newark	07105	East	OFF-EN-10003148	Office Supplies	Ad
33	CA-2014-115823	14-01-2014	16-01-2014	First Class	BD-11608	Brendan Sebold	Corporate	United States	Philadelphia	19140	East	FUR-FL-10000343	Furniture	Bookcases
34	CA-2014-115824	14-01-2014	16-01-2014	Second Class	MS-17921	Brendan Sebold	Corporate	United States	Philadelphia	19140	East	FUR-FL-10000344	Furniture	Bookcases
35	CA-2014-115825	14-01-2014	16-01-2014	Second Class	DL-11315	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001955	Technology	Furniture
36	CA-2014-115826	14-01-2014	16-01-2014	Second Class	DL-11316	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001956	Technology	Furniture
37	CA-2014-115827	14-01-2014	16-01-2014	Second Class	DL-11317	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001957	Technology	Furniture
38	CA-2014-115828	14-01-2014	16-01-2014	Second Class	DL-11318	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001958	Technology	Furniture
39	CA-2014-115829	14-01-2014	16-01-2014	Second Class	DL-11319	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001959	Technology	Furniture
40	CA-2014-115830	14-01-2014	16-01-2014	Second Class	DL-11320	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001960	Technology	Furniture
41	CA-2014-115831	14-01-2014	16-01-2014	Second Class	DL-11321	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001961	Technology	Furniture
42	CA-2014-115832	14-01-2014	16-01-2014	Second Class	DL-11322	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001962	Technology	Furniture
43	CA-2014-115833	14-01-2014	16-01-2014	Second Class	DL-11323	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001963	Technology	Furniture
44	CA-2014-115834	14-01-2014	16-01-2014	Second Class	DL-11324	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001964	Technology	Furniture
45	CA-2014-115835	14-01-2014	16-01-2014	Second Class	DL-11325	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001965	Technology	Furniture
46	CA-2014-115836	14-01-2014	16-01-2014	Second Class	DL-11326	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001966	Technology	Furniture
47	CA-2014-115837	14-01-2014	16-01-2014	Second Class	DL-11327	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001967	Technology	Furniture
48	CA-2014-115838	14-01-2014	16-01-2014	Second Class	DL-11328	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001968	Technology	Furniture
49	CA-2014-115839	14-01-2014	16-01-2014	Second Class	DL-11329	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001969	Technology	Furniture
50	CA-2014-115840	14-01-2014	16-01-2014	Second Class	DL-11330	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001970	Technology	Furniture
51	CA-2014-115841	14-01-2014	16-01-2014	Second Class	DL-11331	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001971	Technology	Furniture
52	CA-2014-115842	14-01-2014	16-01-2014	Second Class	DL-11332	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001972	Technology	Furniture
53	CA-2014-115843	14-01-2014	16-01-2014	Second Class	DL-11333	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001973	Technology	Furniture
54	CA-2014-115844	14-01-2014	16-01-2014	Second Class	DL-11334	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001974	Technology	Furniture
55	CA-2014-115845	14-01-2014	16-01-2014	Second Class	DL-11335	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001975	Technology	Furniture
56	CA-2014-115846	14-01-2014	16-01-2014	Second Class	DL-11336	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001976	Technology	Furniture
57	CA-2014-115847	14-01-2014	16-01-2014	Second Class	DL-11337	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001977	Technology	Furniture
58	CA-2014-115848	14-01-2014	16-01-2014	Second Class	DL-11338	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001978	Technology	Furniture
59	CA-2014-115849	14-01-2014	16-01-2014	Second Class	DL-11339	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001979	Technology	Furniture
60	CA-2014-115850	14-01-2014	16-01-2014	Second Class	DL-11340	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001980	Technology	Furniture
61	CA-2014-115851	14-01-2014	16-01-2014	Second Class	DL-11341	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001981	Technology	Furniture
62	CA-2014-115852	14-01-2014	16-01-2014	Second Class	DL-11342	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001982	Technology	Furniture
63	CA-2014-115853	14-01-2014	16-01-2014	Second Class	DL-11343	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001983	Technology	Furniture
64	CA-2014-115854	14-01-2014	16-01-2014	Second Class	DL-11344	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001984	Technology	Furniture
65	CA-2014-115855	14-01-2014	16-01-2014	Second Class	DL-11345	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001985	Technology	Furniture
66	CA-2014-115856	14-01-2014	16-01-2014	Second Class	DL-11346	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001986	Technology	Furniture
67	CA-2014-115857	14-01-2014	16-01-2014	Second Class	DL-11347	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001987	Technology	Furniture
68	CA-2014-115858	14-01-2014	16-01-2014	Second Class	DL-11348	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001988	Technology	Furniture
69	CA-2014-115859	14-01-2014	16-01-2014	Second Class	DL-11349	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001989	Technology	Furniture
70	CA-2014-115860	14-01-2014	16-01-2014	Second Class	DL-11350	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001990	Technology	Furniture
71	CA-2014-115861	14-01-2014	16-01-2014	Second Class	DL-11351	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001991	Technology	Furniture
72	CA-2014-115862	14-01-2014	16-01-2014	Second Class	DL-11352	Defilia Lechford	Consumer	United States	Philadelphia	19134	East	TEC-PN-10001992	Technology	Furniture
73	CA-2014-115863	14-01-2014	16-01-2014											

Key Metrics & Calculations

- Metrics Calculations:
- Adjusted Sales (Sales – 1/Discount)
- Total Revenue, Average Order Value
- Segment-wise performance
- Functions used :
- IF, IFERROR, COUNTIFS, AVERAGEIF

The screenshot shows a Microsoft Excel spreadsheet titled "DADS Project sept (1)...". The ribbon menu is visible at the top. The active cell is U1, which contains the formula "Profit". The spreadsheet contains three main sections of data:

- order counts of category**:

product categories	
Furniture	2121
office supplies	6026
technology	1847
total	9994
- category summary and average discount**:

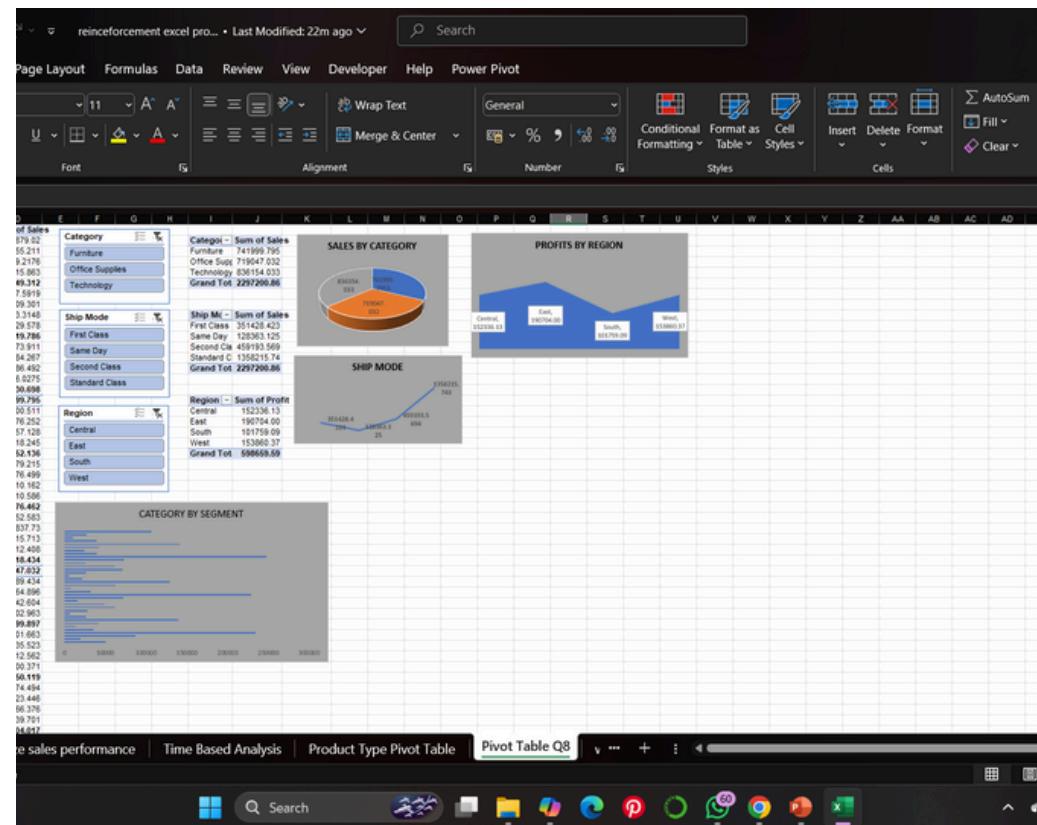
customer segmentation	no.of.orders count	average discount
Consumer	5191	0.16
corporate	3020	0.16
home office	1782	0.15
- key metrics**:

total sales	2296896.35
total adjusted sales	1974619.19
Average Order Value	197.58
Total Discount	156109%

Pivot Tables & Pivot Charts

- Pivot Table:

1. Sales by product category and ship mode
2. Monthly and quarterly ends
3. Products and sum of sales
4. Ship mode



Dashboard Overview

SUPERSTORE SALE DASHBOARD

TOTAL ADJUSTED SALES		SEGMENT		AVERAGE OF SEGMENT		SUM OF CATEGORY	
₹ 229,720.86		Consumer ₹ 42,965 .15	Corporate ₹ 7,06,146 .37	Technology ₹ 6,939.00	Office Supplies ₹ 22,906.00	Furniture ₹ 8,028.00	Technology ₹ 6,939.00
229.86		Bookcases	Furnishings	Office Supplies	Technology	Office Supplies	Furniture
1561.09		Appliances	Binders				
₹ 6,939.00		Fasteners	Paper				
		Supplies	Copiers				
		Phones					

Segment Legend: Consumer (Blue), Corporate (Orange)

Category Legend: Furniture, Office Supplies, Technology

Dashboard tabs: Insights, Sales Table, Customer Table, Scenario Summary, Pivot Table for Dashboard, Dashboard

System status: Gold +1.34%, ENG IN, 00:52, 09-09-2025

What-If Analysis & Goal Seek

- Scenario explored :
 1. 10% increase in sales
 2. 5% decrease in discount
- Goal seek :
Units needed to hit revenue targets

The screenshot shows a spreadsheet interface with a toolbar at the top. The formula bar displays "C9" and the formula "=PRODUCT(C6,C7)". The main area is a table with columns A, B, C, and D. Row 1 contains values 1, 7.1, and an empty cell under column C. Row 2 contains values 2 and an empty cell under column C. Row 3 is bolded and contains the text "Goal seek". Row 4 is empty. Rows 5 through 8 contain data: row 5 has "adjusted sales" and "19,74,618.73"; row 6 has "unit sold" and "47,918"; row 7 has "per unit price" and "52.17"; row 8 has "target" and "25.00 000.00". The "target" cell in row 8 is highlighted with a green border.

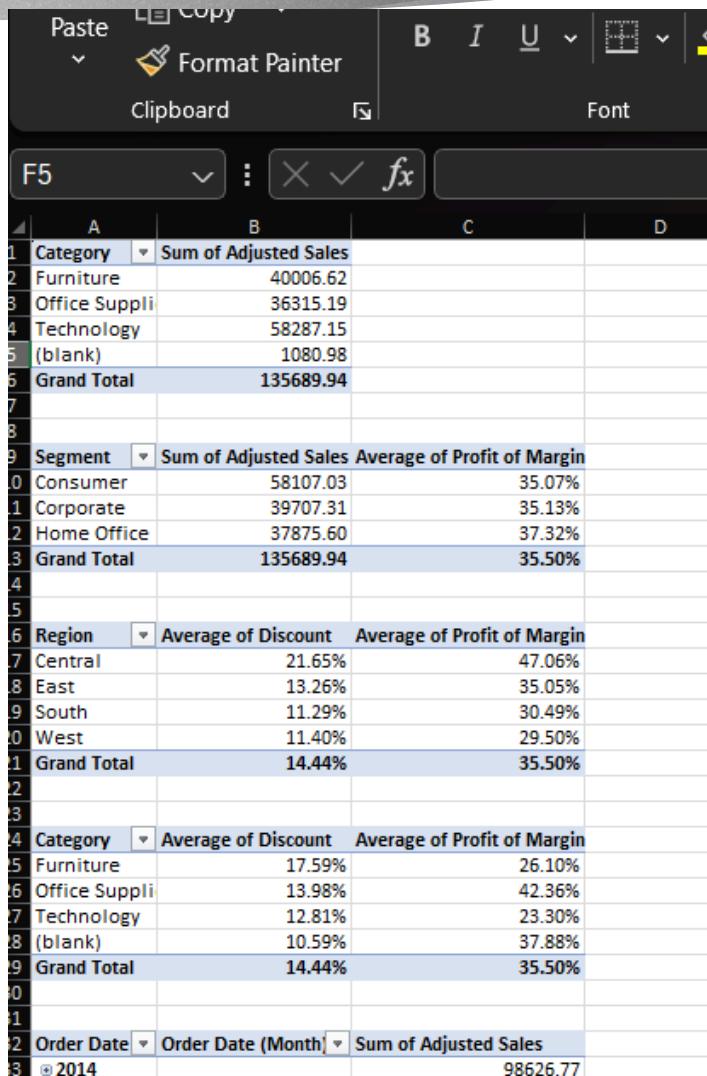
1		7.1	
2			
3	Goal seek		
4			
5	adjusted sales	19,74,618.73	
6	unit sold	47,918	
7	per unit price	52.17	
8	target	25.00 000.00	

Macros and Automation

- Macros Used For : Formatting worksheets, Generating summary tables
- Example macro action: Refresh data -> Update PivotTables -> Export Dashboard as PDF.
- Benefits: Time saving, consisting formatting

Insights & Recommendations

- Key Insights:
- Ship mode drives highest sales
- Category underperforms so need to consider discount strategy
- Seasonal peaks in Q2 and Q4



The screenshot shows a Microsoft Excel interface with four distinct data tables displayed as tabs across the bottom. Above the tables, the ribbon toolbar is visible, featuring the 'Clipboard' tab selected, along with other tabs like 'Font' and 'Paste'. The first table, 'Category', lists sales by category with a total of 135689.94. The second table, 'Segment', lists sales by segment with a total of 135689.94. The third table, 'Region', lists sales by region with a total of 14.44%. The fourth table, 'Category', lists sales by category again with a total of 14.44%. The 'Order Date' table is partially visible at the bottom.

Category	Sum of Adjusted Sales
Furniture	40006.62
Office Supplies	36315.19
Technology	58287.15
(blank)	1080.98
Grand Total	135689.94

Segment	Sum of Adjusted Sales	Average of Profit Margin
Consumer	58107.03	35.07%
Corporate	39707.31	35.13%
Home Office	37875.60	37.32%
Grand Total	135689.94	35.50%

Region	Average of Discount	Average of Profit Margin
Central	21.65%	47.06%
East	13.26%	35.05%
South	11.29%	30.49%
West	11.40%	29.50%
Grand Total	14.44%	35.50%

Category	Average of Discount	Average of Profit Margin
Furniture	17.59%	26.10%
Office Supplies	13.98%	42.36%
Technology	12.81%	23.30%
(blank)	10.59%	37.88%
Grand Total	14.44%	35.50%

Order Date	Order Date (Month)	Sum of Adjusted Sales
2014		98626.77

Recommendations

- Focus marketing on high performing channels
- Adjust discount rates for low performing products
- Build a live dashboard for better understanding

Conclusion & Questions

- Summary:
 1. Excel tools helped uncover actionable insights
 2. Dashboard enables quick decision making
- Next Steps :
 3. Forecast future sales
 4. Integrate more customer data