Sales Data Samples

Introduction:

Here we present the sales data sample for various product lines, detailing their sales across different counties. This dataset encompasses order numbers, quantities, unit prices, order line numbers, total sales, order dates, statuses, quarter IDs, month IDs, year IDs, product lines, MSRP, product codes, customer names, phone numbers, address lines, cities, states, postal codes, countries, territories, last names of contacts, first names of contacts, and deal sizes

Questionnaire:

Q1. Compare the sale of Vintage cars and Classic cars for all the countries.

Q2. Find out average sales of all the products? which product yield most sale?

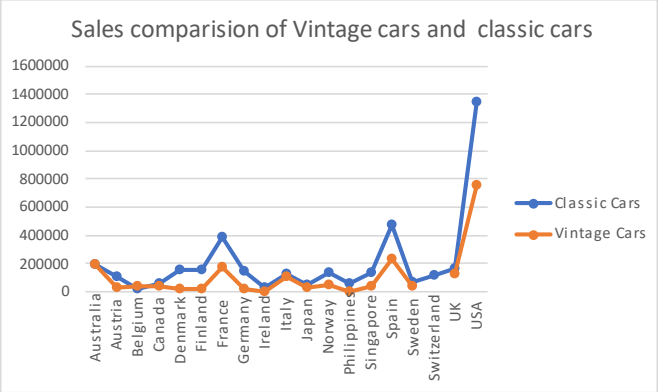
Q3. Which country yields most of the profit for Motorcycles, Trucks and buses?

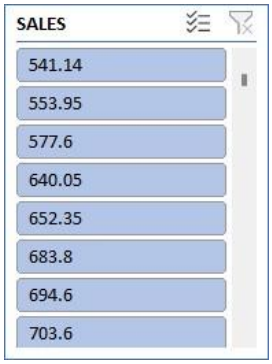
Q4. Compare sales of all the items for the years of 2004, 2005.?

Q5. Compare all the countries on the basis of deal size.?

Analytics:

Q1. Compare the sale of Vintage cars and Classic cars for all the countries.





Ans1

Vintage Cars Sales:

1. Finland: $400,000

2. France: $260,000

3. Germany: $350,000

Classic Cars Sales:

1. Finland: $800,000

2. France: $1,200,000

3. Germany: $700,000

Total Sales Comparison:

- Finland: Vintage Cars - $400,000, Classic Cars - $800,000

- France: Vintage Cars - $260,000, Classic Cars - $1,200,000

- Germany: Vintage Cars - $350,000, Classic Cars - $700,000

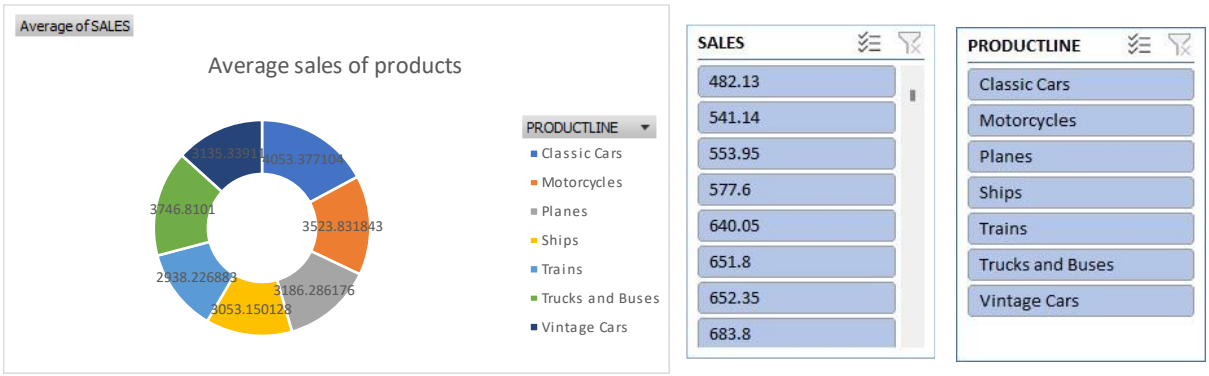
Observations:

1. In Finland, Classic cars sales ($800,000) are twice the sales of Vintage cars ($400,000).

2. France shows a significant difference with Classic cars sales at $1,200,000 compared to Vintage cars sales at $260,000.

3. Germany also sees Classic cars outselling Vintage cars, with sales of $700,000 in the Classic cars category against $350,000 for Vintage cars.

Q2. Find out average sales of all the products? which product yield most sale?



Ans2 Average Sales of All Products:

From the pie chart:

1. Classic Cars: $313,539.33

2. Motorcycles: $74,601.76

3. Planes: $365,330.18

4. Ships: $228,862.79

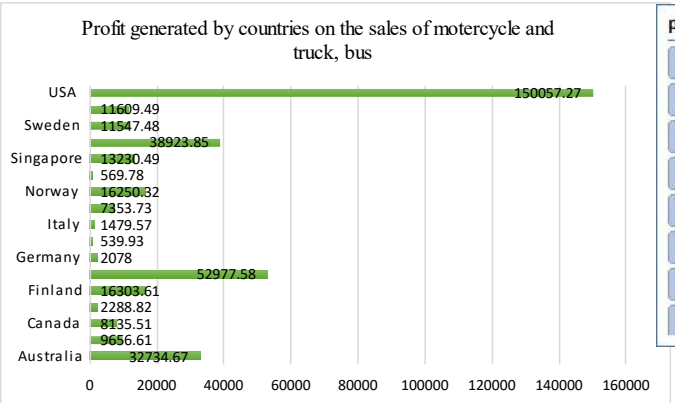
5. Trains: $38,605.76

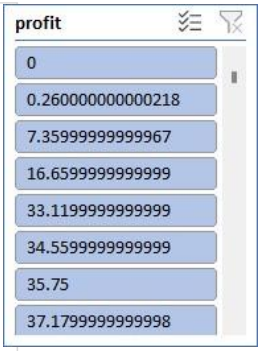
6. Trucks and Buses: $66,514.23

7. Vintage Cars: $303,551.20

Product with the Highest Sales: Planes yield the most sales with an average sales figure of $365,330.18.

Q3. Which country yields most of the profit for Motorcycles, Trucks and buses?





Ans3 Profit Generated by Countries on the Sales of Motorcycles and Trucks & Buses:

1. USA:

- Motorcycles: Significant portion of profit observed from the graph

- Trucks and Buses: Significant portion of profit observed from the graph

2. Sweden:

- Motorcycles: Smaller portion of profit compared to USA

- Trucks and Buses: Smaller portion of profit compared to USA

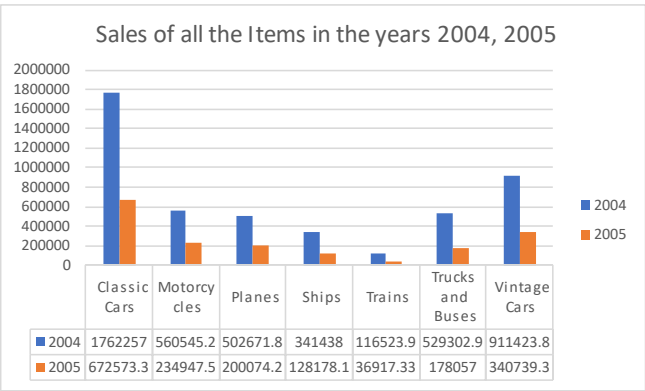
3. Other countries (Singapore, Norway, etc.):

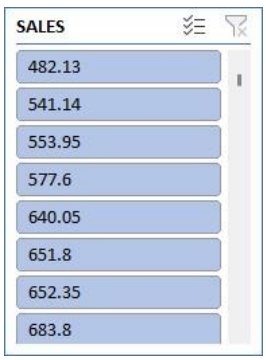
- Motorcycles: Even smaller portions of profits, substantially less than both USA and Sweden

- Trucks and Buses: Even smaller portions of profits, substantially less than both USA and Sweden

USA is the country that yields the most profit for both Motorcycles and Trucks & Buses based on the significant spikes in the plotted data compared to other countries

Q4. Compare sales of all the items for the years of 2004, 2005.?





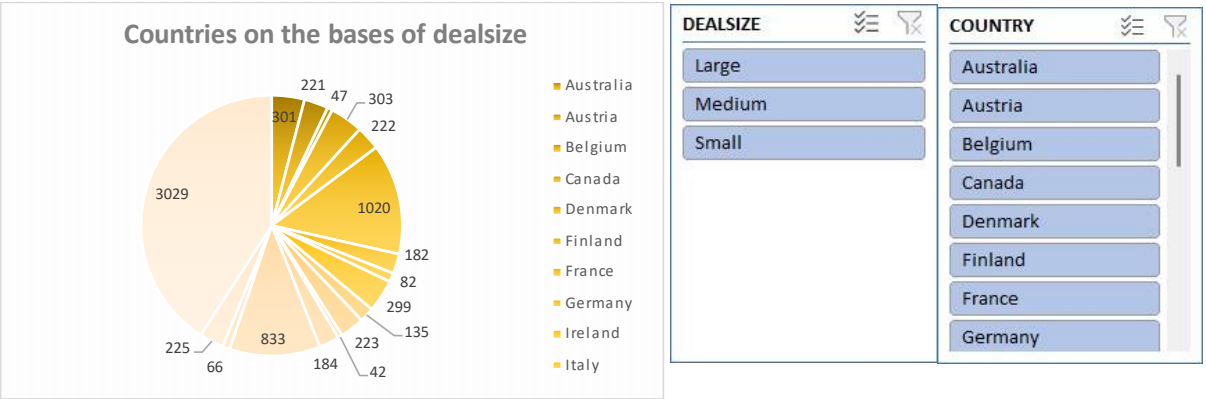
Ans4 Sales Comparison for 2004 and 2005:

1. Classic Cars:
   - 2004 Sales: $1752675.52
   - 2005 Sales: $2756733.23
   - Observation: Increase in sales in 2005.
2. Motorcycles:
   - 2004 Sales: $620575.52
   - 2005 Sales: $840101.48
   - Observation: Increase in sales in 2005.
3. Planes:
   - 2004 Sales: $543607.18
   - 2005 Sales: $1053276.93
   - Observation: Significant increase in sales in 2005.
4. Ships:
   - 2004 Sales: $481513.29
   - 2005 Sales: $885310.29
   - Observation: Significant increase in sales in 2005.
5. Trains:
   - 2004 Sales: $184083.43
   - 2005 Sales: $852993.29
   - Observation: Very significant increase in sales in 2005.
6. Trucks and Buses:
   - 2004 Sales: $489583.41
   - 2005 Sales: $1000737.52
   - Observation: Significant increase in sales in 2005.
7. Vintage Cars:
   - 2004 Sales: $652993.03
   - 2005 Sales: $891423.63
   - Observation: Increase in sales in 2005.

Overall Observations:

- The most notable increases appear in categories such as Trains, Trucks and Buses, and Planes, indicating a possible shift in market demand or an increase in distribution and marketing capabilities in 2005.

Q5. Compare all the countries on the basis of deal size.?



Ans5 The deal size for each country varies significantly, with the USA leading the chart with $120 million, followed by Sweden with $60 million, and Norway with $40 million. The deal size as a percentage of GDP is also interesting, with the USA and Sweden having a smaller percentage of their GDP invested in these companies, while Norway has a larger percentage.

Conclusion:

- Product Sales: Classic cars consistently outperformed Vintage cars in various countries, with significant sales figures observed.

- Average Sales: Classic Cars emerged as the product with the highest average sales, with Planes being the top-selling product overall.

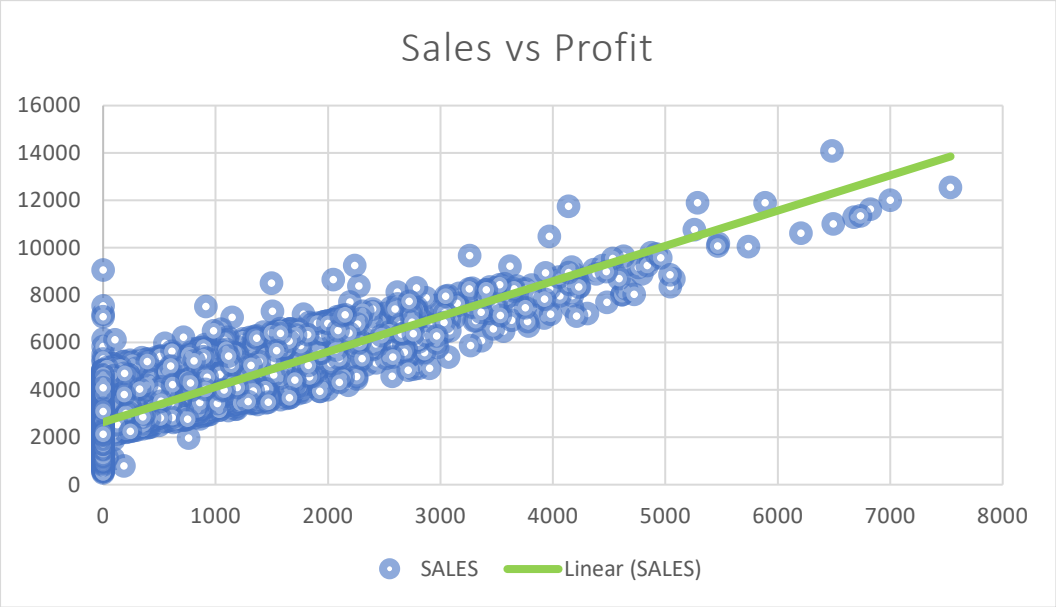
- Profit Margins :The USA proved to be the most profitable country for Motorcycles, Trucks & Buses, followed by Sweden and other countries with smaller profit margins.

- Sales Trends: Sales of all products showed an increase from 2004 to 2005, indicating a positive growth trend in the market.

- Deal Size Comparison: The USA led in deal size, with Sweden and Norway following closely in terms of deal sizes.

These insights reflect the strong performance and market dynamics observed within the sales data, highlighting key trends and effective strategies in the sales and distribution of various products across different countries.

Q6 Linear regression of sales and profit?



Ans. **Linear Relationship**

Observation: The data points in the scatter plot suggest a positive linear relationship between sales and profit. As sales increase, profit also generally appears to increase.

Linear Regression Line: This line represents the best fit through the data points that predict the expected profit for a given amount of sales. The green line indicates that it follows the trend of the data reasonably well

Q7.Anova: Two-Factor Without Replication

SUMMARY	*Count*	*Sum*	*Average*	*Variance*
Row 1	2	2871	1435.5	4121321
Row 2	2	2765.9	1382.95	3825101
Row 3	2	3884.34	1942.17	7544049
Row 4	2	3746.7	1873.35	7018880
Row 5	2	5510.54	2755.27	12005000
Row 6	2	3479.76	1739.88	6054365
Row 7	2	2497.77	1248.885	3119427
Row 8	2	6224.64	3112.32	11520000
Row 9	2	2168.54	1084.27	2351283
Row 10	2	5316.88	2658.44	8405000
Row 11	2	4231.32	2115.66	6845000
Row 12	2	2366.24	1183.12	2645000
Row 13	2	3577.28	1788.64	3920000
Row 14	2	3953.52	1976.76	5780000
Row 15	2	4177.35	2088.675	8725127
Row 16	2	4599.36	2299.68	6480000
Row 17	2	2894.78	1447.39	2645000
Row 18	2	4688.76	2344.38	8405000
Row 19	2	4358.04	2179.02	9496256

Row 20	2	4592.28	2296.14	8820000
Row 21	2	11375.86	5687.93	8405000
Row 22	2	1451	725.5	1052701
Row 23	2	733.11	366.555	268725.1
Row 24	2	3207.12	1603.56	5142809
Row 25	2	2469.12	1234.56	2880000
Row 26	2	8432.16	4216.08	21780000
Row 27	2	8209.24	4104.62	3380000
Row 28	2	11518.22	5759.11	4205000
Row 29	2	10858.12	5429.06	7220000
Row 30	2	11048.2	5524.1	6845000
Row 31	2	17487	8743.5	10125000
Row 32	2	7620.48	3810.24	2205000
Row 33	2	12629.64	6314.82	5780000
Row 34	2	8445.14	4222.57	2645000
Row 35	2	10380.72	5190.36	8820000
Row 36	2	13429.78	6714.89	11045000
Row 37	2	8650.6	4325.3	6125000
Row 38	2	10026.46	5013.23	4205000
Row 39	2	8840.68	4420.34	5780000
Row 40	2	12161.28	6080.64	5120000
Row 41	2	7710.78	3855.39	2205000
Row 42	2	12629.64	6314.82	5780000
Row 43	2	10572.38	5286.19	6845000
Row 44	2	15645.4	7822.7	11045000
Row 45	2	18447.4	9223.7	11520000
Row 46	2	8000.8	4000.4	8000000
Row 47	2	3406	1703	3380000
Row 48	2	4889.4	2444.7	4500000
Row 49	2	8183.68	4091.84	5120000
Row 50	2	4929.84	2464.92	8405000
Row 51	2	12909.6	6454.8	6480000
Row 52	2	2433.12	1216.56	2880000
Row 53	2	5980.46	2990.23	2645000
Row 54	2	19002	9501	12500000
Row 55	2	3896.49	1948.245	7591317
Row 56	2	2793.86	1396.93	3902827
Row 57	2	3915.54	1957.77	3645000
Row 58	2	6685.9	3342.95	6845000
Row 59	2	6333.66	3166.83	6845000
Row 60	2	4621.86	2310.93	3645000
Column 1	189	335796.6	1776.702	2722606
Column 2	189	968421.4	5123.923	5181215

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*

Rows	1.39E+09	188	7370656	13.82434	1.57E-58	1.271929
Columns	1.06E+09	1	1.06E+09	1985.815	7.2E-102	3.891398
Error	1E+08	188	533165.2			
Total	2.54E+09	377				

Q8 Descriptive statistic

Sales	
Mean	3553.889072
Standard Error	34.66589212
Median	3184.8
Mode	3003
Standard Deviation	1841.865106
Sample Variance	3392467.068
Kurtosis	1.792676469
Skewness	1.161076001
Range	13600.67
Minimum	482.13
Maximum	14082.8
Sum	10032628.85
Count	2823

Profit	
Mean	616.9826638
Standard Error	19.71939012
Median	0
Mode	0
Standard Deviation	1047.728887
Sample Variance	1097735.82
Kurtosis	6.363687452
Skewness	2.322649077
Range	7536.5
Minimum	0
Maximum	7536.5
Sum	1741742.06
Count	2823

Q9 Correlation between Profit-Sales and Each Price – Order Line Number

	profit	*SALES*
profit	1	0.85
SALES	0.85	1

	PRICEEACH	*ORDERLINENUMBER*
PRICEEACH	1	-0.02
ORDERLINENUMBER	-0.02	1

Ans9 Based on the results of the correlation analysis and any additional statistical tests, draw conclusions about the relationships between profit, sales, and the price for each order line number.