

2Market

Exploratory Analyses

Outline Of Presentation

- Context
- Recommendations
- Assumptions And Risks
- Methodology
- Results
- Discussion
- Conclusion

Context

- A global supermarket which sells products online and in store.
- Customer purchase behaviour
- Demographics of their customers
- The most effective advertising channels
- Which products sell the best
- Demographic variance.

Recommendations

- 2Market should consider marketing campaigns in the United States for example as total spend is only \$65,829 compared with Spain which is \$657,532.
- Increase social media advertising as these taken together were more effective as an advertising channel than e-mail and brochure.
- 2Market should reevaluate print (brochure) advertising to ensure cost effectiveness as this produced the lowest number of lead conversions across countries and marital status.

Recommendations

- 2Market should consider improving its website to enhance search engine optimisation advertising as 41% of sales were online.
- Gather customer feedback through surveys, social media and direct interaction in countries such as the United States of America, Australia, India and Montenegro.
- Conduct market research in United States, Australia, India and Montenegro to study market trends and competitors so as to establish what they are doing that 2Market is not doing.
- Improve product offering, product quality and product mix.

Assumptions And Risks

- No duplicate values were found. Each customer had a unique ID
- No data privacy concerns as there is no personally identifiable information.
- Data used is GDPR compliant.

Methodology

- Problem statement
- Five Why framework
- Evaluation of Five Why
- Questions to ask the 2Market team
- Questions I would like to ask of the data
- Visualise the data in excel

Methodology

- Tableau visualisations
- Query the data with SQL
- Joined and analysed tables in SQL

Results

Liquor		Vegetables		Non vegetables		Fish		Chocolates		Commodities	
Mean	306.105407	Mean	26.3716493	Mean	165.283053	Mean	37.6347115	Mean	27.1472058	Mean	43.9136756
Standard Error	7.19983512	Standard Error	0.84775602	Standard Error	4.64322695	Standard Error	1.16447033	Standard Error	0.87714315	Standard Error	1.09865339
Median	176	Median	8	Median	68	Median	12	Median	8	Median	25
Mode	2	Mode	0	Mode	7	Mode	0	Mode	0	Mode	4
Standard Deviation	337.778943	Standard Deviation	39.7723179	Standard Deviation	217.83614	Standard Deviation	54.6309116	Standard Deviation	41.1510096	Standard Deviation	51.5431223
Sample Variance	114094.614	Sample Variance	1581.83727	Sample Variance	47452.5839	Sample Variance	2984.5365	Sample Variance	1693.40559	Sample Variance	2656.69345
Kurtosis	0.57012928	Kurtosis	4.07241025	Kurtosis	3.25195025	Kurtosis	3.08915399	Kurtosis	4.0743195	Kurtosis	3.14997449
Skewness	1.16655928	Skewness	2.10398909	Skewness	1.81981746	Skewness	1.91640453	Skewness	2.09771048	Skewness	1.83434743
Range	1493	Range	199	Range	1725	Range	259	Range	262	Range	321
Minimum	0	Minimum	0	Minimum	0	Minimum	0	Minimum	0	Minimum	0
Maximum	1493	Maximum	199	Maximum	1725	Maximum	259	Maximum	262	Maximum	321
Sum	673738	Sum	58044	Sum	363788	Sum	82834	Sum	59751	Sum	96654
Count	2201	Count	2201	Count	2201	Count	2201	Count	2201	Count	2201
Confidence Level(95.0%)	14.1191854	Confidence Level(95.0%)	1.66248589	Confidence Level(95.0%)	9.10556712	Confidence Level(95.0%)	2.28357624	Confidence Level(95.0%)	1.72011531	Confidence Level(95.0%)	2.15450641

Results

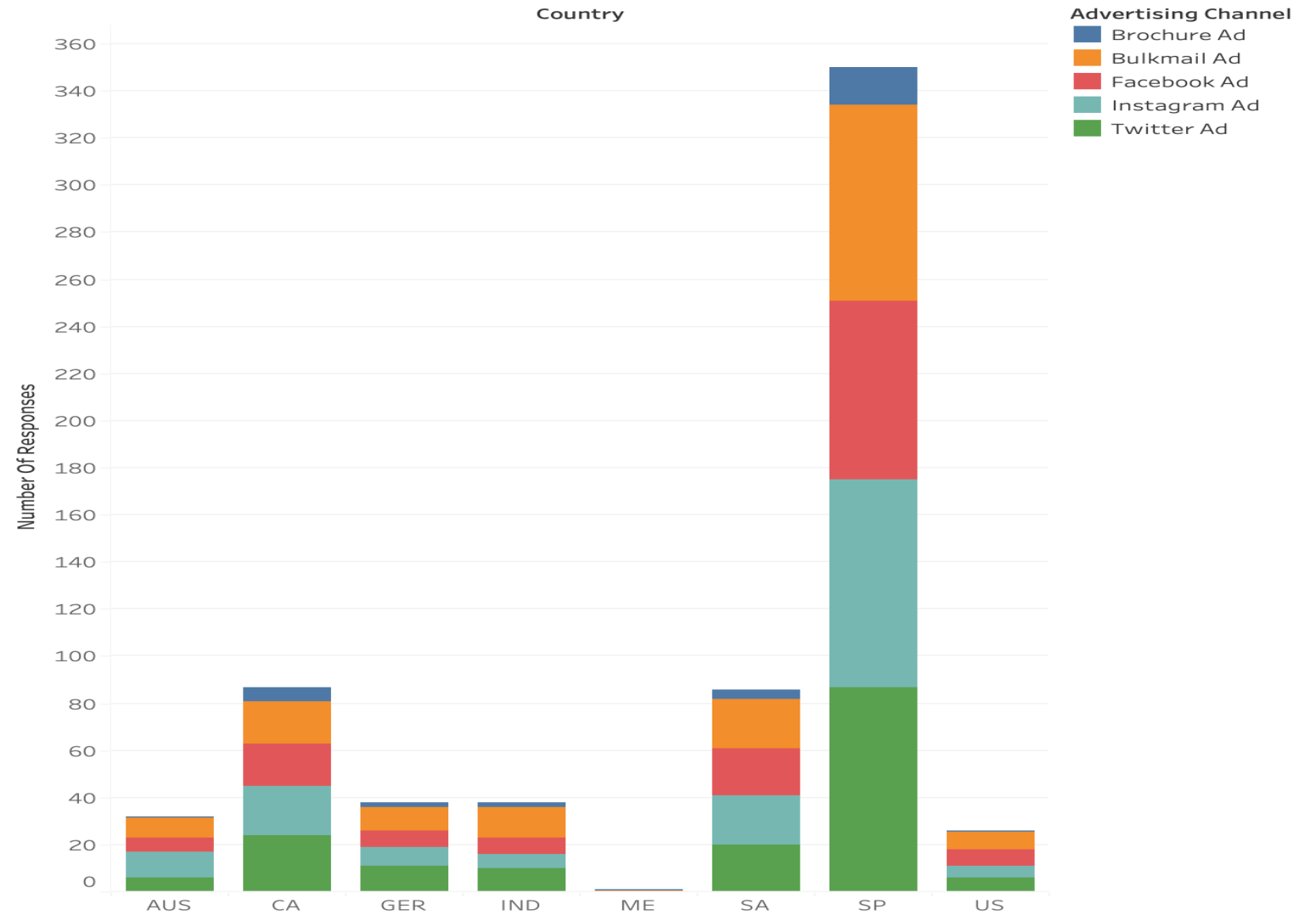
Total Sales By Product And By Country

Country	Chocolates	Commoditi..	Alcoholic Beverages	Vegetables	Non Vegetables	Fish Products	Total Sales	Total Sales	
AUS	20,340	34,435	211,405	17,935	111,015	26,670	421,800	15,610	3,287,660
CA	38,015	59,690	417,510	38,050	226,865	48,880	829,010		
GER	14,005	28,840	183,880	14,900	101,360	23,005	365,990		
IND	16,060	29,730	179,395	18,885	110,445	24,030	378,545		
ME	610	1,100	8,645	40	4,085	1,130	15,610		
SA	45,085	75,570	529,500	44,615	283,250	68,265	1,046,285		
SP	150,340	229,730	1,677,560	140,705	889,105	200,220	3,287,660		
US	14,300	24,175	160,795	15,090	92,815	21,970	329,145		

Chocolates, Commodities, Alcoholic Beverages, Vegetables, Non Vegetables, Fish Products and Total Sales broken down by Country. Colour shows Total Sales. The view is filtered on Country, which excludes NULL.

Results

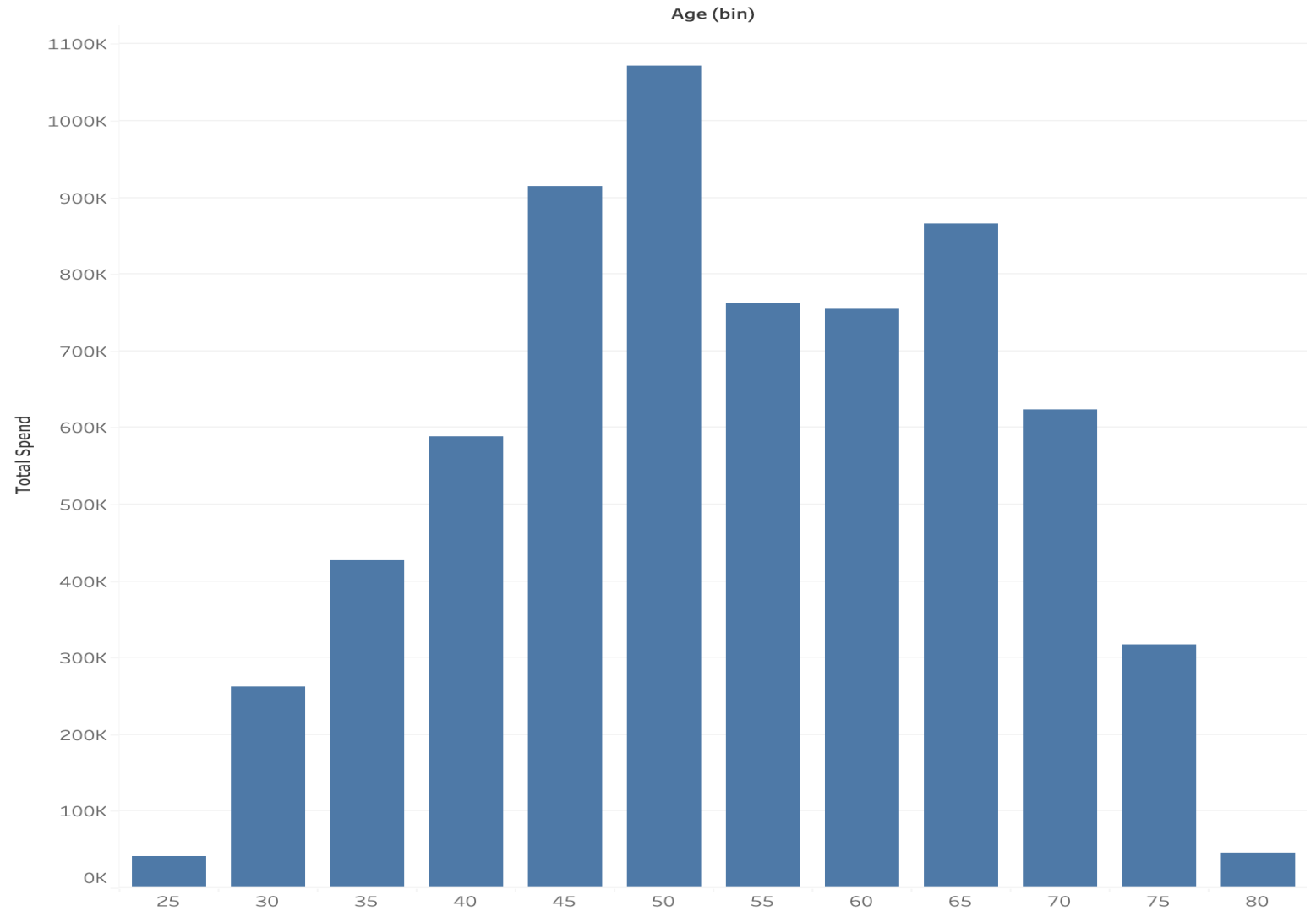
The most effective advertising All by country



Sum of Pivot Field Values for each Country. Colour shows details about Pivot Field Names.

Results

Age Group With The Highest Spend



Total Spend for each Age (bin). The view is filtered on Age (bin), which excludes NULL.

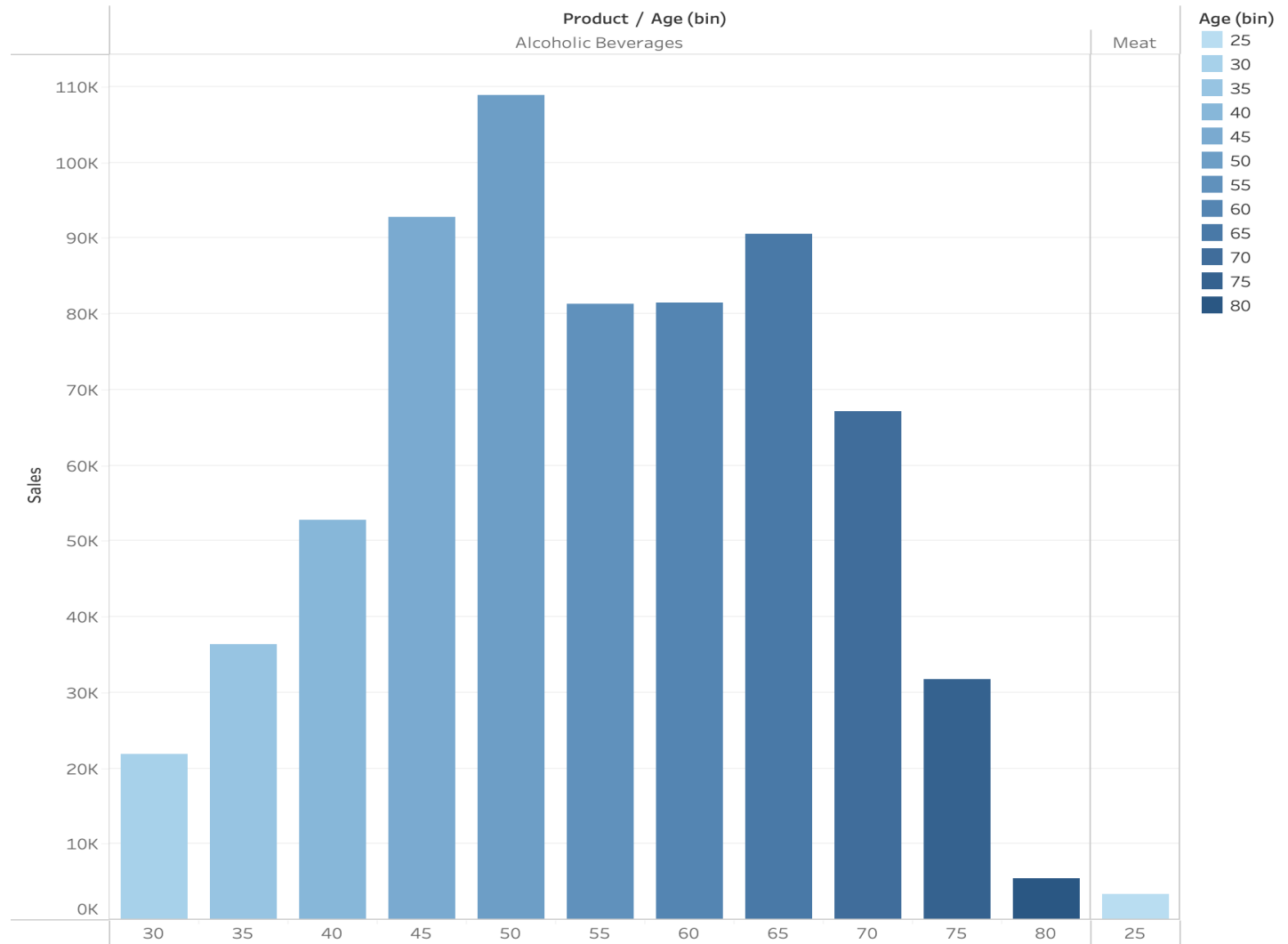
Which Country Sells The Most



Results

Results

Which Product Sells The Most In Each Age Group



Sum of Sales for each Age (bin) broken down by Product. Colour shows details about Age (bin). The data is filtered on Product Rank, which includes values less than or equal to 1. The view is filtered on Age (bin), which has multiple members selected.

Results

2Market

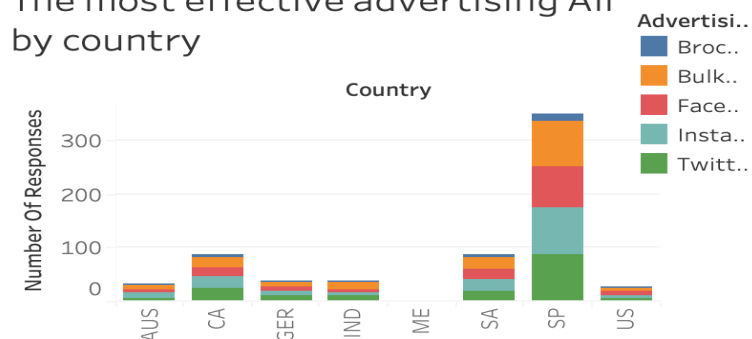
Total Sales By Product And By Country

Country	Chocolates	Commoditi..	Alcoholic Beverages	Vegetables	Non Vegetables	Prc
AUS	20,340	34,435	211,405	17,935	111,015	
CA	38,015	59,690	417,510	38,050	226,865	
GER	14,005	28,840	183,880	14,900	101,360	
IND	16,060	29,730	179,395	18,885	110,445	
ME	610	1,100	8,645	40	4,085	
SA	45,085	75,570	529,500	44,615	283,250	
SP	150,340	229,730	1,677,560	140,705	889,105	
US	14,300	24,175	160,795	15,090	92,815	

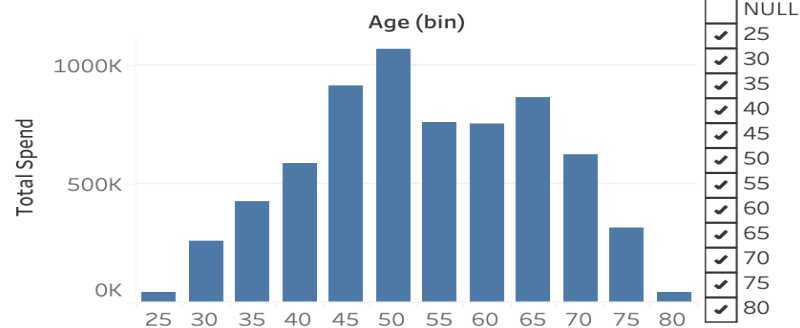
Total Sales
16K 3M

Country
☐ NULL
☒ AUS
☒ CA
☒ GER
☒ IND
☒ ME
☒ SA
☒ SP
☒ US

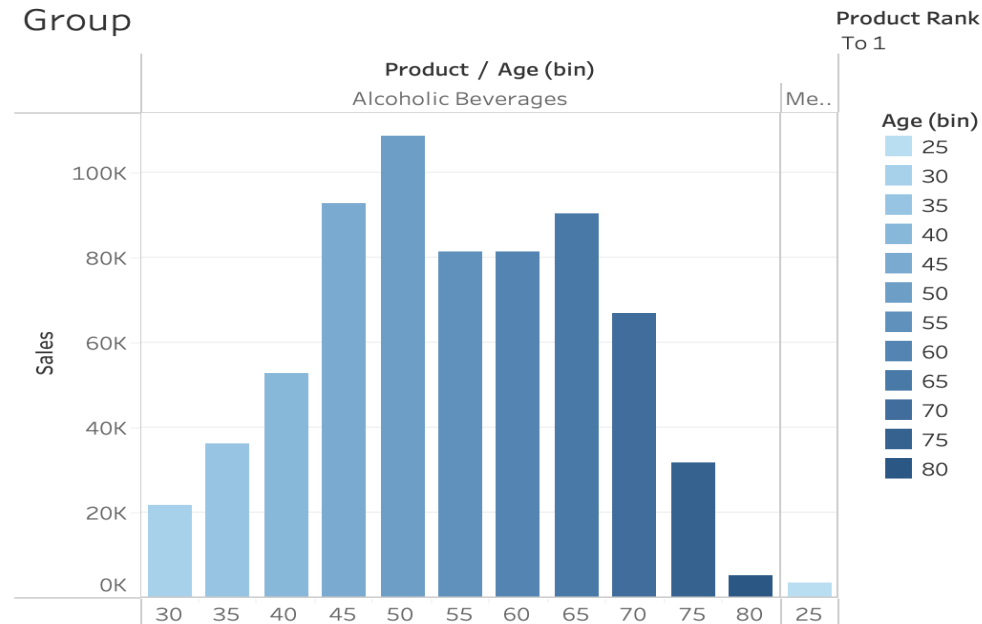
The most effective advertising All by country



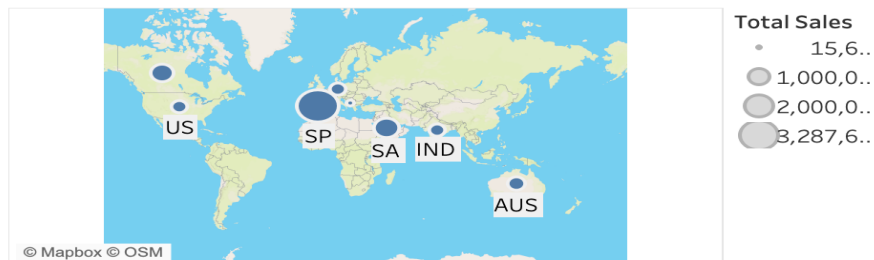
Age Group With The Highest Spend



Which Product Sells The Most In Each Age Group



Which Country Sells The Most



Discussion

- Average age of 2Market customers is 54
- The average age of customers who earn a yearly income between US\$90,000 and US\$100,000 is 52 years.
- Younger 2Market customers are likely to be either single or a couple while much older customers are more likely to be widowed.

Discussion

- The income range for the highest average age value is \$53,701 and the income range for the lowest average age value is \$28,269.
- Spain is the country with the most sales (\$657,532).
- Liquor is the most popular product in each country. This observation is true for marital status and whether there are kids or teenagers at home.

Discussion

- Across countries, Twitter is the most effective method of advertising albeit marginal. This observation is true for marital status as well.

Conclusion

- On the whole, 2Market has higher sales in Spain, South Africa and Canada.
- Although there is no data on overheads and sunk costs, the low sales figures in countries such as the United States, Australia, India and Montenegro suggests that 2Market may be operating at a loss in these countries.
- 2Market should increase marketing campaigns and social media marketing in these countries to increase sales and revenue.

Thank you

Any Questions?