2Market Supermarket
Business Intelligence Report

Overview

2Market is a global supermarket, selling products both online and instore across eight countries. The company plans to launch a new marketing campaign shortly and would like to better understand their customers and purchasing habits to inform the campaign strategy.

This project report provides an overview of 2Market's customer demographics, purchasing behaviour and the sales conversion success of previous advertising methods.

Analytical Approach

Two datasets were provided by 2Market to assist with the analysis of a recommended campaign strategy. These files provided customer demographic and purchasing habits information ('*Marketing_data*'), and overview of the successful sales conversions from various advertising methods ('*Ad_data*') for 2117 customers.

Both datasets were first reviewed for completeness and accuracy before being cleaned and transformed. Please note the following assumptions were made about the data provided:

- Data is assumed to be accurate as of July 2022
- Customers' age has been calculated based on what this will be from their birthday in 2022 as only the year of birth is provided
- Income has been converted and recorded in the same currency for all records
- Marital Status which was listed as 'Yolo' or 'Absurd' has been reclassified as 'Undisclosed'

After the review, five records were removed from the dataset before further analysis for the following reasons:

- Customer ID 492 and 11133 appeared to be a duplicate record of each other (all data was identical other than ID number)
- Three customer records had unrealistic ages recorded (128, 121 and 122). While this is likely to be an error in the entry of birth year, it is difficult to estimate correctly and decision was made that it is best to remove.

- One customer record had an outlier annual income of $666,000 which was removed. This income was significantly higher than all other income and would skew data.

When linking the two datasets in both Tableau and SQL an inner join was used to ensure the only data which appears in both datasets was analysed.

Please see Appendix for detailed SQL syntax that used to run queries on the datasets.

Dashboard Design and Development

Two Dashboards '*Who are 2M Customers*? and '*How do they buy*?' have been created to provide insights for 2Market to understand who their customer is and purchasing trends Please refer to *2M Dashboard* for the dashboards.

Each dashboard focuses on a different set of business metrics; either customer demographics or purchasing and advertising trends. As each dashboard has a clear focus, this makes them easy to navigate and users are provided with comprehensive gauge of the relevant data very quickly.

The '*Who are 2M Customers*' dashboard provides an overview of customer demographics. In the top section, users can view the key 2Market customer attributes through charts detailing the age, marital status, number of customers and average purchase amount by each country. The '*Average Purchase in $ by Item Type*' bar chart in the bottom portion is designed to be a comprehensive view of how different product types sell by country and marital status. The bar chart is filterable so people can easily retrieve the data they're seeking.

The 'How do they Buy' dashboard provides insights into purchasing trends and which methods of advertising customers have engaged with before purchasing. Key performance indicators have been included to provide a quick snapshot of the key sales metrics. If the user would like to dig deeper into the data, three bar charts provide a comprehensive insight into the advertising methods customers have engaged with, how recently customers have purchased and instore vs web sales.

All charts in the dashboards have been designed using the Tableau Colour-Blind palette and tooltips has been enabled to ensure data is easy read for a wide audience.

Insights

Customer Demographics
The majority of 2Market customers are from Spain (49%), followed by South Africa (15.15%) and Canada (12.03%). The table below outlines the breakdown of customers by country and their average spend.

Market Share and Average Purchase by Country

| Country	% of Customers	Avg. Total Purchase ($)
Spain	49.39%	602
South Africa	15.15%	630
Canada	12.03%	629
Australia	6.65%	582
India	6.56%	533
Germany	5.25%	631
USA	4.84%	631
Montenegro	0.14%	1,041

Interestingly, all customers no matter which country share common attributes as outlined in the table below.

| Country	Count of Customers	Age	Average Income	% Married
Spain	1092	52.2	$51,535.30	40%
USA	107	52.8	$53,218.37	33%
India	145	49.6	$49,105.80	39%
South Africa	335	51.6	$52,988.47	32%
Canada	266	52.9	$53,050.62	39%
Germany	116	52.1	$52,951.09	48%
Australia	147	53.3	$51,804.29	45%
Montenegro	3	48.7	$57,680.33	0%
All Customers	**2211**	**52.1**	**$51,960.41**	**39%**

Purchasing Behaviour & Effective Advertising

Liquor is most the popular product in all countries with an average spend of $305.00. The graphs below demonstrated the popularity of liquor compared to other products and average liquor sales by country and marital status.
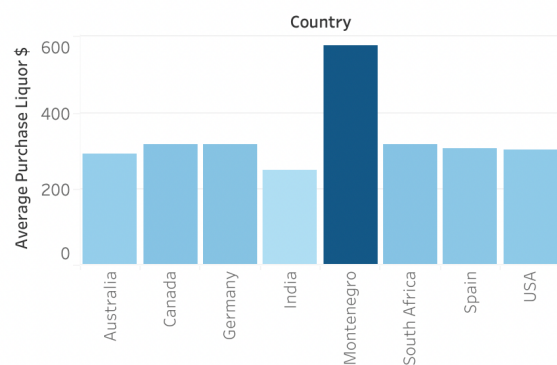
Average Purchase in $ by Item Type
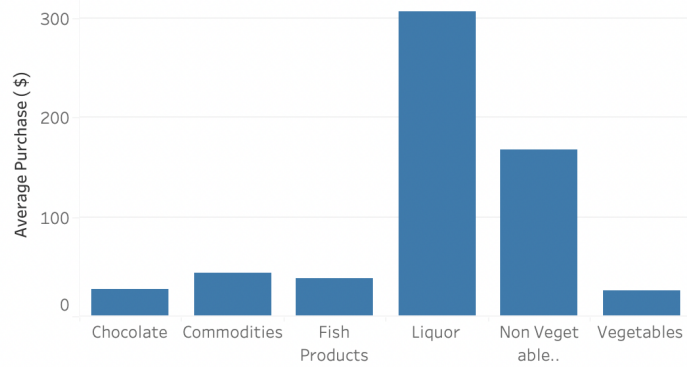

Average Liquor Sales by Marital Status

Marital Status
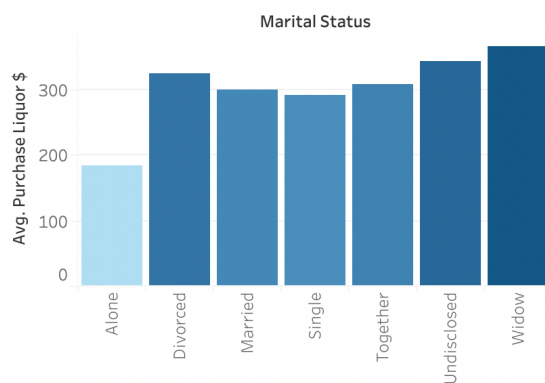
Average Liquor Sales by Country

Country

Purchasing Frequency

Currently only 32.34% of customers have purchased within the last 30 days, all of which have accepted the last campaign offer. This indicates the last campaign was successful in encouraging customers to choose to shop with 2Market.
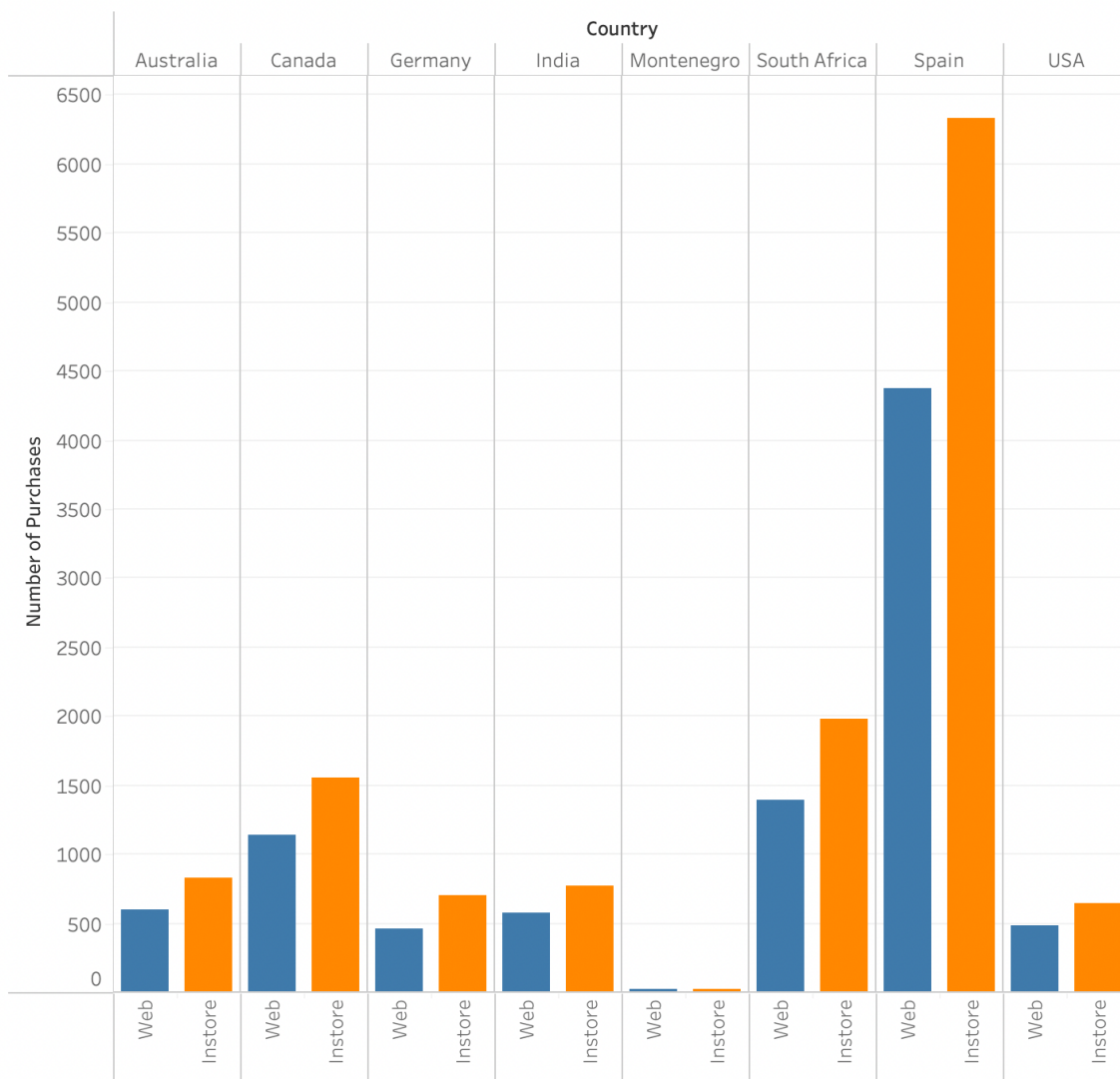
How often are customers purchasing?
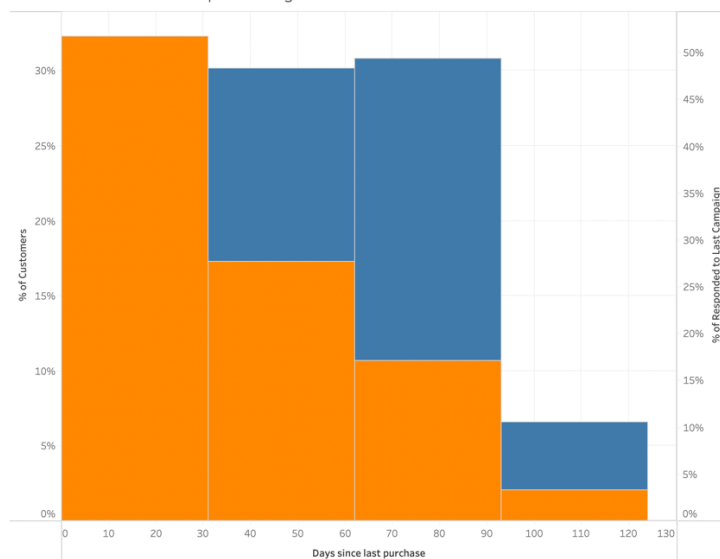
Instore Purchasing

A key insight is that In all countries customers prefer to buy in store rather than online. However, online advertising through Facebook, Twitter, and Instagram is more effective than brochures in converting leads to sales as demonstrated in the graphs below.

Instores vs Web purchases

Sales from Advertising
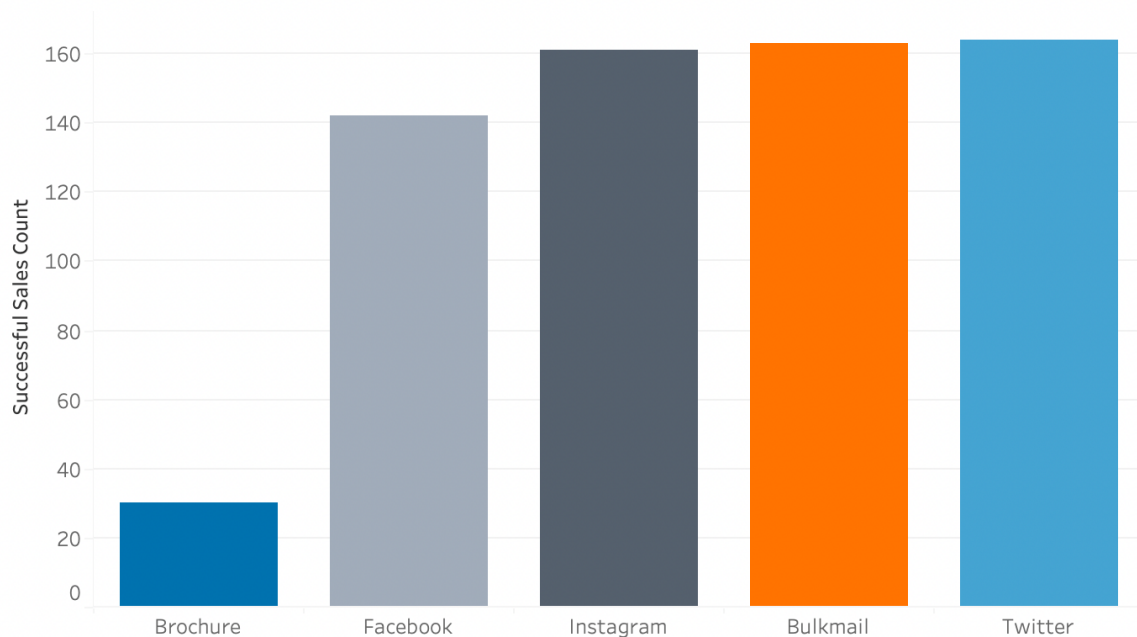
There is an opportunity to encourage more sales directly via the website from clicking on the ad (whether delivery or click & collect). It would be beneficial to undertake further analysis to investigate if the customers are more likely to buy additional items when visiting in store.

Key Insights & Recommendations

Online advertising is an effective marketing tool for 2M Customers and is recommended as the key medium of advertising for future campaigns.

The campaign could look to increase the frequency of purchasing as the majority are purchasing less than every month and indicates customers shop elsewhere primarily. All customers who have purchased within the last month accepted the last campaign offer indicating campaigns have a direct correlation on sales. There is an opportunity to increase direct sales from advertising via the website as a method of convenience.

To assist with further analysis, details of the previous campaign offer would be beneficial to better understand the impact campaigns have on sales.