Customer Purchase Behaviour Analysis

For 2Market

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2Market, a global supermarket, faces challenges in understanding customer purchasing behaviour and its impact on sales performance.
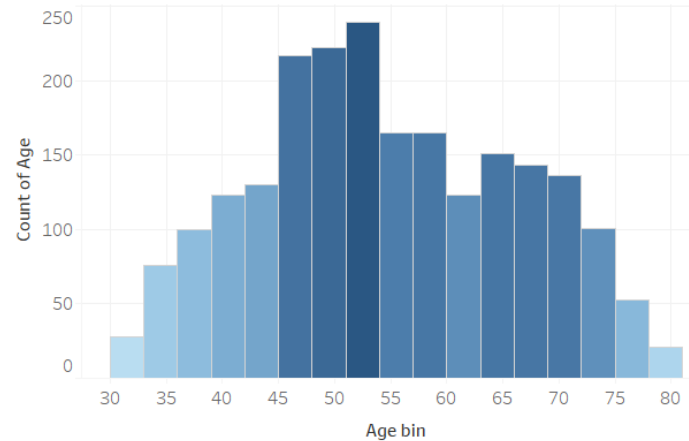
- The **objective** of this project is to analyse customer demographics, purchasing behaviour of customers, and how effective their advertising channels are.

- By leveraging data, they can make more data-driven marketing decisions, increase profitability and lead conversion.

- The exploratory analysis was done in Tableau, by constructing 3 dashboards, each focusing on specific aspects of the data (demographics, sales, campaigns)

3. Campaign Analysis Dashboard

Campaigns Analysis

Online Sales **41%**
In Store Sales **59%**

Filters
Country
All

Education
All

Highlight ..
No items ..

Social Media Conversion Rate per Country

Country		
Spain	Twitter	
	Instagram	
	Facebook	
Canada	Twitter	
	Instagram	
	Facebook	
South Africa	Twitter	
	Instagram	
	Facebook	
Germa..	Twitter	
	Instagram	
	Facebook	
United States of Ame..	Twitter	
	Instagram	
	Facebook	
Austra..	Twitter	
	Instagram	
	Facebook	
India	Twitter	
	Instagram	
	Facebook	
Monte..	Twitter	
	Instagram	
	Facebook	

Customers that used the last campaign's discount

Country	
Spain	53.5%
South Africa	15.6%
Canada	11.6%
Australia	6.1%
Germany	5.2%
United State..	4.0%
India	3.7%
Montenegro	0.3%

Campaigns efficiency by education

Education	
Basic	Brochure
	Bulkmail
	Facebook
	Instagram
	Twitter
2n Cycle	Brochure
	Bulkmail
	Facebook
	Instagram
	Twitter
Graduation	Brochure
	Bulkmail
	Facebook
	Instagram
	Twitter
Master	Brochure
	Bulkmail
	Facebook
	Instagram
	Twitter
PhD	Brochure
	Bulkmail
	Facebook
	Instagram
	Twitter

Number of Customers Demographics

Age group by average income

Age Grou..

Age Group	Average Income
30-40	£45K
40-50	£50K
50-60	£52K
60-70	£57K
70-80	£59K

- Positive correlation between age and income, suggesting higher disposable income in older age groups.

Number of customers by country

Country

Country	Percentage
Spain	49.43%
South Africa	15.18%
Canada	12.04%
Australia	6.61%
India	6.57%
Germany	5.24%
United States of Am..	4.83%
Montenegro	0.09%
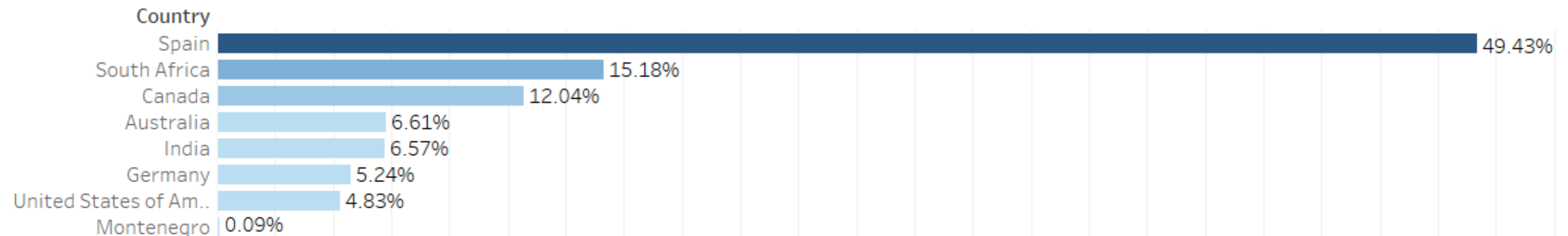
Number of Customers Demographics

Number of customers by education level

Marital Status	Graduation	PhD	Master	2n Cycle	Basic
Divorced	119	52	37	22	1
In a relationship	283	115	102	56	14
Married	429	189	138	79	19
Single	239	96	76	33	18
Widow	35	24	11	5	1

Number of customers by age group and marital status

Marital Status	30-40	40-50	50-60	60-70	70-80
Single	100	119	127	80	36
In a relations..	55	164	146	138	67
Married	118	261	239	160	76
Divorced	10	62	81	56	22
Widow		7	20	23	26

- Married individuals dominate across most groups, especially in the 50–60 age range with a "Graduation" education level

Total Sales Demographics

$1,324,774
Total Sales

Total sales per country

Country

Spain	£651K
South Africa	£207K
Canada	£166K
Australia	£84K
India	£76K
Germany	£72K
United Sta..	£68K
Montenegro	£2K
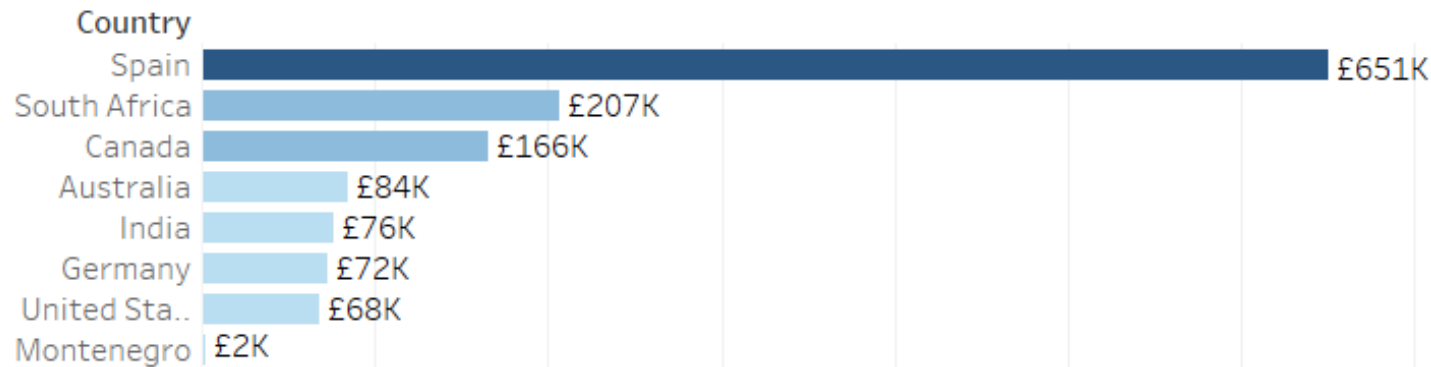
Total sales per age group

Age Grou..

30-40	11.6%
70-80	12.8%
40-50	23.6%
60-70	24.5%
50-60	27.5%
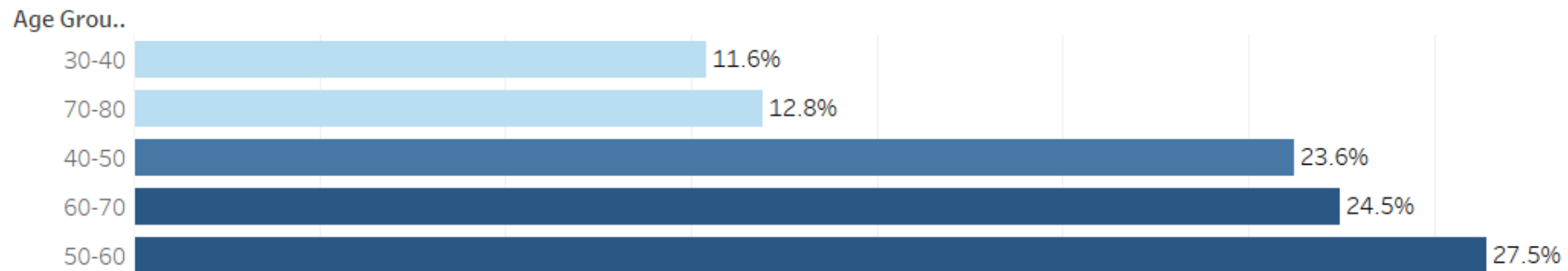
Total Sales Demographics

Total sales by education

Education

Graduation	51.52%
PhD	24.20%
Master	16.71%
2n Cycle	7.24%
Basic	0.33%

Sales per customer by age and income

Age Group	Avg. Income	Sales per customer
70-80	£59,072	$747
60-70	£57,251	$711
50-60	£51,749	$594
30-40	£44,664	$544
40-50	£49,600	$510
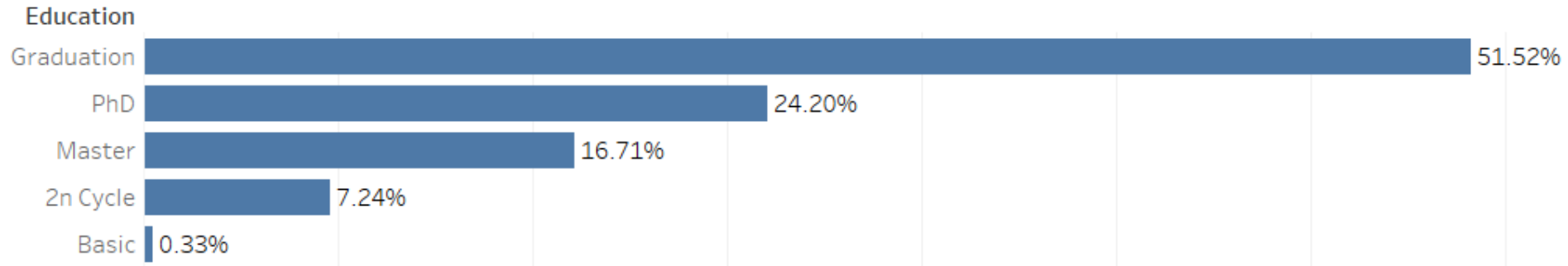
Revenue per product

Alcoholic Drinks	50.40%
Meat	27.40%
Commodities	7.24%
Fish	6.16%
Chocolate	4.46%
Vegetables	4.34%

Total Sales Demographics

Marital status by average income

Marital Status	Average income
Single	£51K
In a relationship	£53K
Married	£52K
Divorced	£53K
Widow	£56K
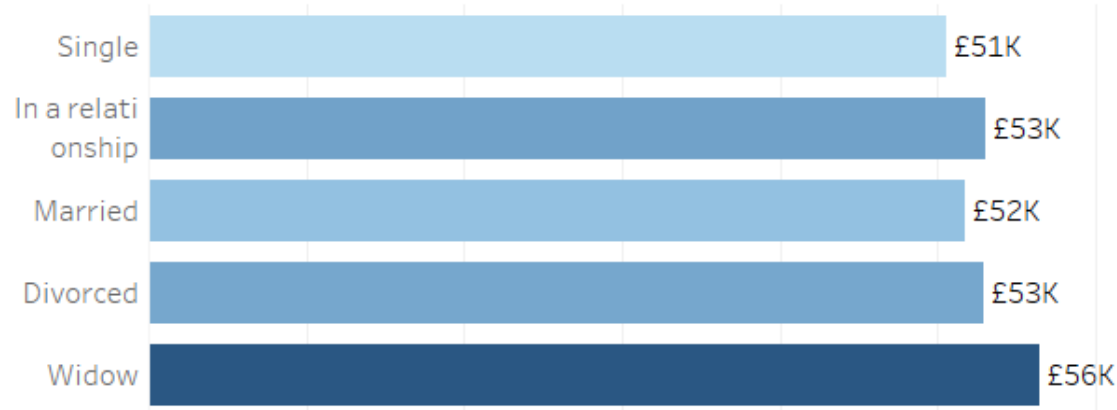
- Single customers have the lowest average income (£51K), suggesting marital status plays a role in income distribution

Sales by marital status and number of kids in the household

Marital Status	Kidhome	Teenhome	Total sales
Married	389	438	$504,628
In a relationship	258	303	$344,634
Single	218	190	$278,586
Divorced	95	137	$141,601
Widow	18	49	$55,325

- Households with teenagers generate higher sales than those with younger kids

Sales Per Product

Sales per product by age group

Age G..		
30-40	Alcohol	43.3%
	Meat	32.7%
	Commodities	7.6%
	Fish	6.2%
	Chocolates	5.1%
	Vegetables	5.1%
40-50	Alcohol	47.9%
	Meat	28.3%
	Commodities	7.5%
	Fish	6.9%
	Chocolates	4.9%
	Vegetables	4.6%
50-60	Alcohol	52.2%
	Meat	25.8%
	Commodities	7.5%
	Fish	5.8%
	Chocolates	4.3%
	Vegetables	4.4%
60-70	Alcohol	53.2%
	Meat	26.0%
	Commodities	6.7%
	Fish	6.0%
	Chocolates	4.2%
	Vegetables	3.9%
70-80	Alcohol	52.3%
	Meat	26.9%
	Commodities	7.0%
	Fish	5.9%
	Chocolates	4.1%
	Vegetables	3.9%

Most popular products when customers have kids

Category

Category	Value
Alcohol	$367,133
Meat	$135,305
Commodities	$56,766
Fish	$34,905
Chocolates	$26,233
Vegetables	$25,315
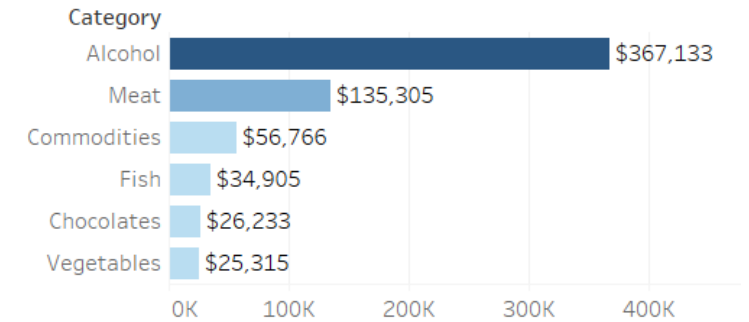
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1	SP	Alcoholic Drinks	336392
2	SA	Alcoholic Drinks	105918
3	CA	Alcoholic Drinks	84066
4	AUS	Alcoholic Drinks	42752
5	GER	Alcoholic Drinks	36776
6	IND	Alcoholic Drinks	36236
7	US	Alcoholic Drinks	32214
8	ME	Alcoholic Drinks	1729

Online Campaign Analysis

Online Sales **41%**
In Store Sales **59%**

$8,964
Online purchase

$12,722
InStore Purchases

Social Media Conversion Rate per Country

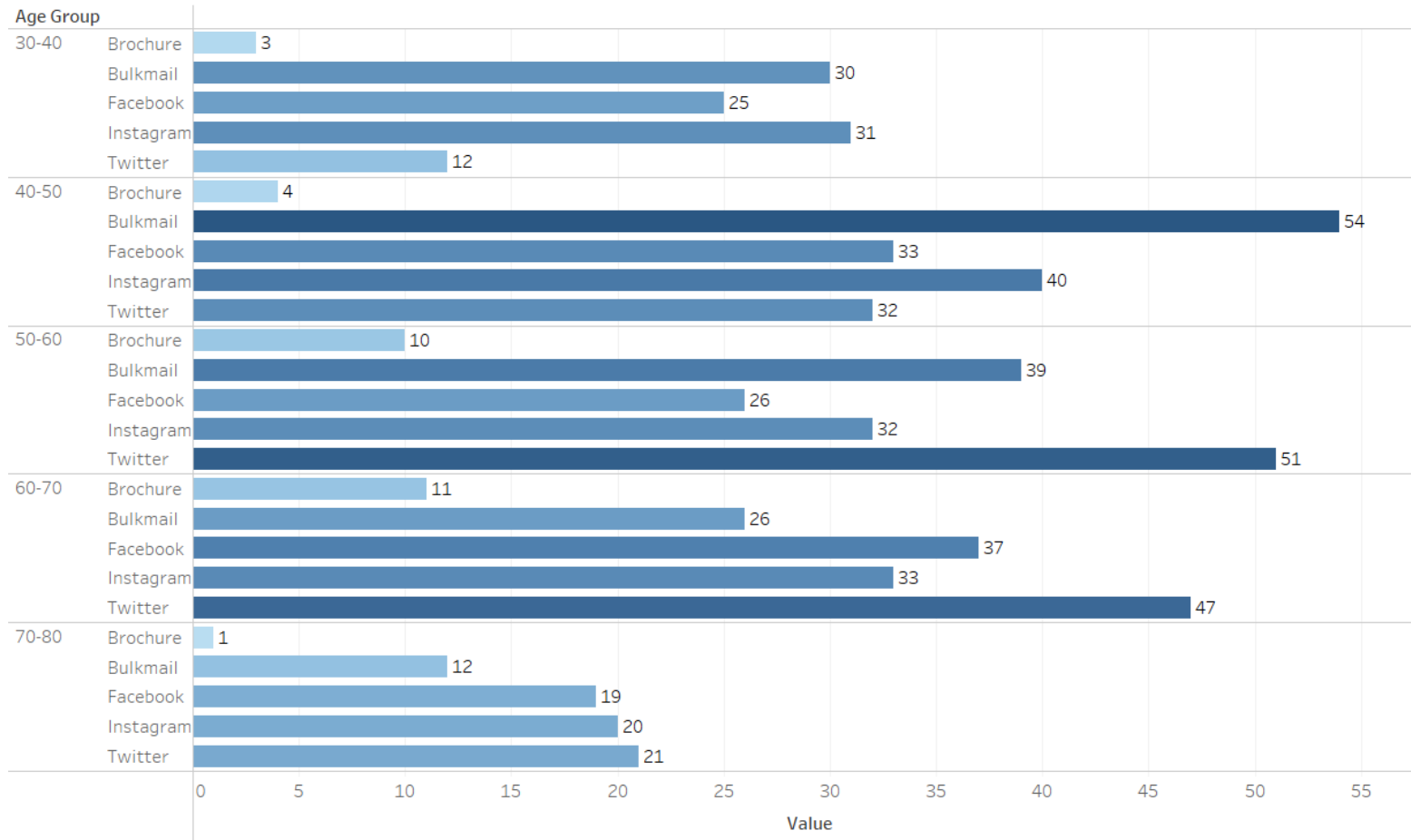| Country		
Spain	Twitter	
	Instagram	
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	Instagram	
	Facebook	
South Africa	Twitter	
	Instagram	
	Facebook	
Germa..	Twitter	
	Instagram	
	Facebook	
United States ..	Twitter	
	Instagram	
	Facebook	
Austra..	Twitter	
	Instagram	
	Facebook	
India	Twitter	
	Instagram	
	Facebook	
Monte..	Twitter	
	Instagram	
	Facebook	
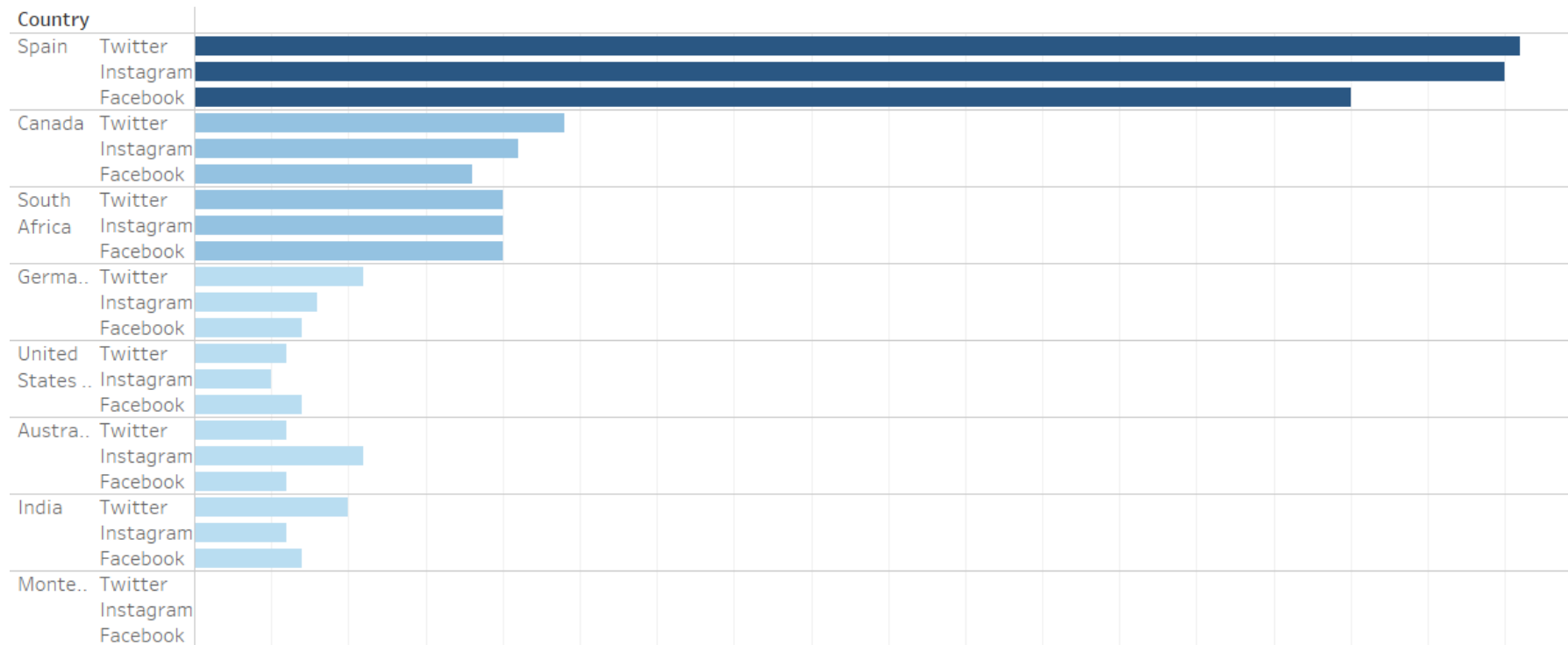
- Facebook conversions remain strong but often trail behind Instagram. In countries like Canada and Spain, Facebook has consistent, though not leading, conversion figures.

Ad Campaign Analysis By Age

Campaigns efficiency by age

Age Group		Value
30-40	Brochure	3
	Bulkmail	30
	Facebook	25
	Instagram	31
	Twitter	12
40-50	Brochure	4
	Bulkmail	54
	Facebook	33
	Instagram	40
	Twitter	32
50-60	Brochure	10
	Bulkmail	39
	Facebook	26
	Instagram	32
	Twitter	51
60-70	Brochure	11
	Bulkmail	26
	Facebook	37
	Instagram	33
	Twitter	47
70-80	Brochure	1
	Bulkmail	12
	Facebook	19
	Instagram	20
	Twitter	21

Value

Best lead conversion channel

Twitter	163
Bulkmail	161
Instagram	156

Ad Campaign Analysis By Education

Campaigns efficiency by education
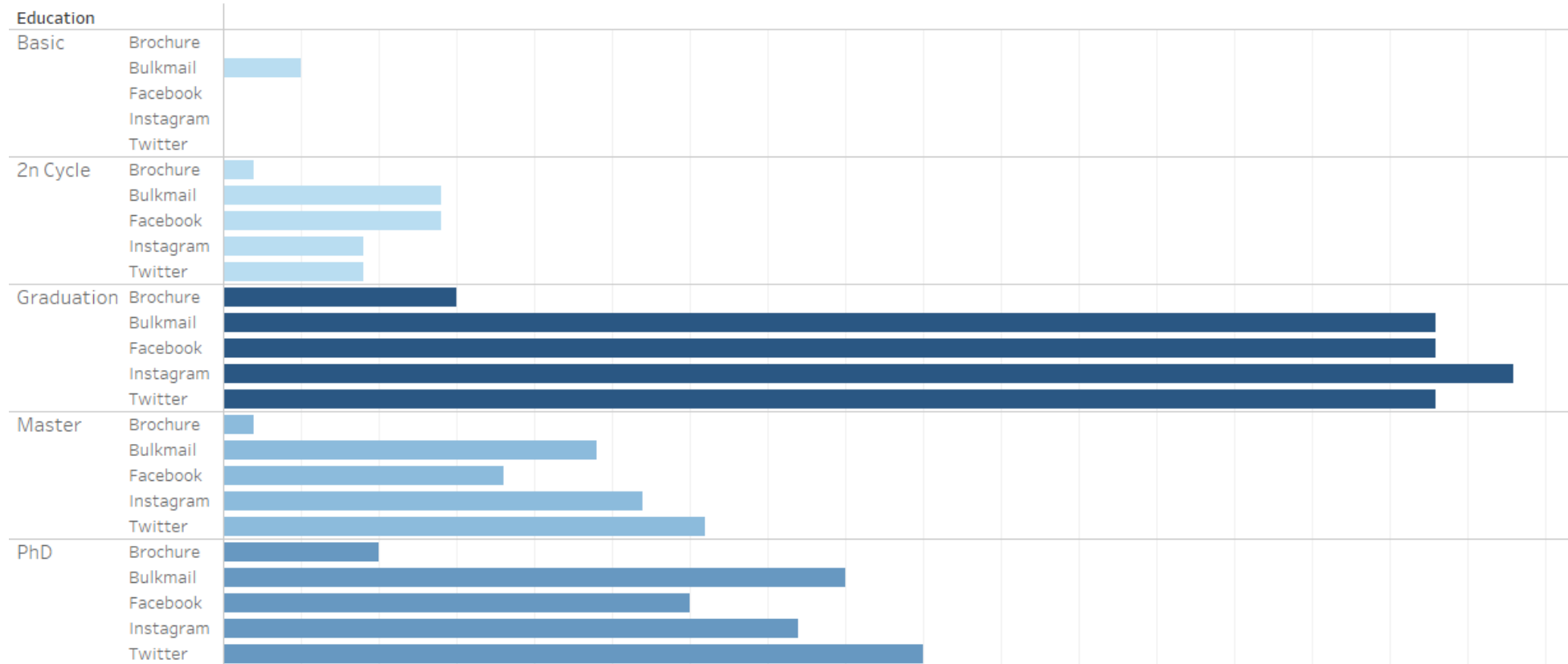
- Brochures and bulk mail campaigns are largely ineffective compared to social media, especially for highly educated groups.

Recommendations

1. Target high-income segments: focus on older customers (70–80), as they have the highest incomes but currently contribute less to total sales (promote high-value products for example).

2. Boost sales among high-spending segments: Leverage the high spending power of married customers and households with kids by offering family-oriented promotions and discounts.

3. Attract younger age groups: younger customers (30–40) have lower income and participation. Offer affordable product options, subscription plans, or discounts tailored for this demographic.

Recommendations

4. Educational targeting: Lower educated groups contribute minimally, indicating a need to target highly educated groups. Design campaigns targeting graduates and PhD holders, as they dominate customer numbers (highlight eco-friendly products for example).

5. Invest more in Twitter and Instagram campaigns, particularly for customers with higher education levels.

6. Consider strategies to improve performance in low-engagement countries (e.g., USA and Montenegro) or reallocate resources to better-performing markets.