

CHALLENGE 6

# MARKETING ANALYSIS

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## CHALLENGE 6

### INTRODUCTION

- As a Marketing Analyst working for the Sustainable Clothing Co.
- The 'Sustainable Clothing Co.' have been running several marketing campaigns and have asked you to provide your insight into whether they have been successful or not.
- The case study consisting of 3 Tables:
  - Sustainable Clothing
  - Marketing Campaigns
  - Transactions

## CHALLENGE 6

### TABLE

**sustainable\_clothing**

Product ID	Product Name	Category	Size	Price
1	Organic Cotton T-Shirt	Tops	S	\$29.99
2	Recycled Denim Jeans	Bottoms	M	\$79.99
3	Hemp Crop Top	Tops	L	\$24.99
4	Bamboo Lounge Pants	Bottoms	XS	\$49.99
5	Eco-Friendly Hoodie	Outerwear	XL	\$59.99
6	Linen Button-Down Shirt	Tops	M	\$39.99
7	Organic Cotton Dress	Dresses	S	\$69.99
8	Sustainable Swim Shorts	Swimwear	L	\$34.99
9	Recycled Polyester Jacket	Outerwear	XL	\$89.99
10	Bamboo Yoga Leggings	Activewear	XS	\$54.99
11	Hemp Overalls	Bottoms	M	\$74.99
12	Organic Cotton Sweater	Tops	L	\$49.99
13	Cork Sandals	Footwear	S	\$39.99
14	Recycled Nylon Backpack	Accessories	One Size	\$59.99
15	Organic Cotton Skirt	Bottoms	XS	\$34.99
16	Hemp Baseball Cap	Accessories	One Size	\$24.99
17	Upcycled Denim Jacket	Outerwear	M	\$79.99
18	Linen Jumpsuit	Dresses	L	\$69.99
19	Organic Cotton Socks	Accessories	M	\$9.99
20	Bamboo Bathrobe	Loungewear	XL	\$69.99

**marketing\_campaigns**

campaign_id	campaign_name	product_id	start_date	end_date
1	Summer Sale	2	2023-06-01	2023-06-30
2	New Collection Launch	10	2023-07-15	2023-08-15
3	Super Save	7	2023-08-20	2023-09-15

**transactions (first 10 shown)**

transaction_id	product_id	quantity	purchase_date
1	2	2	2023-06-02
1	14	1	2023-06-02
2	5	2	2023-06-05
3	2	1	2023-06-07
4	19	2	2023-06-10
5	2	1	2023-06-13
5	16	1	2023-06-13
6	10	2	2023-06-15
7	2	1	2023-06-18
8	4	1	2023-06-22
9	18	2	2023-06-26
10	2	1	2023-06-30
10	13	1	2023-06-30

## CHALLENGE 6

1. How many transactions were completed during each marketing campaign?

```
select campaign_name,  
count(transaction_id) as  
no_of_transaction  
from marketing_campaigns mk  
join transactionss t  
on mk.product_id = t.product_id  
group by 1;
```

### Output

campaign_name	no_of_transaction
Summer Sale	7
New Collection Launch	6
Super Save	3

## CHALLENGE 6

2. Which product had the highest sales quantity?

```
select product_name, sum(quantity) as  
sales_quantity  
from transactionss t  
join sustainable_clothing sc  
on t.product_id = sc.product_id  
group by 1  
order by 2 desc  
limit 1;
```

### Output

product_name	sales_quantity
Organic Cotton Sweater	9

## CHALLENGE 6

3. What is the total revenue generated from each marketing campaign?

```
select campaign_name,  
       round(sum(quantity*price), 2) as  
       total_revenue  
from marketing_campaigns mk  
join sustainable_clothing sc  
on mk.product_id = sc.product_id  
join transactionss t  
on sc.product_id = t.product_id  
group by 1
```

### Output

campaign_name	total_revenue
Summer Sale	639.92
New Collection Launch	439.92
Super Save	209.97

## CHALLENGE 6

4. What is the top-selling product category based on the total revenue generated?

```
select category,  
round(sum(quantity*price),2) as  
total_revenue  
from transactionss t  
inner join sustainable_clothing sc  
on t.product_id = sc.product_id  
group by category  
order by total_revenue desc  
limit 1;
```

### Output

category	total_revenue
Bottoms	\$ 1,289.79

## CHALLENGE 6

5. Which products had a higher quantity sold compared to the average quantity sold?

```
select product_name, sum(t.quantity) as  
quantity_sold  
from transactionss t  
join sustainable_clothing sc  
on t.product_id = sc.product_id  
group by 1  
having sum(t.quantity) > (select  
avg(quantity) from transactionss)  
order by 2 desc;
```

### Output

product_name	quantity_sold
Organic Cotton Sweater	9
Recycled Denim Jeans	8
Bamboo Yoga Leggings	8
Linen Jumpsuit	7
Organic Cotton Socks	7
Bamboo Lounge Pants	5
Eco-Friendly Hoodie	5
Organic Cotton Skirt	5
Hemp Baseball Cap	5
Recycled Polyester Jacket	4
Cork Sandals	4
Linen Button-Down Shirt	3
Organic Cotton Dress	3
Hemp Overalls	3
Upcycled Denim Jacket	3
Organic Cotton T-Shirt	2
Sustainable Swim Shorts	2
Recycled Nylon Backpack	2
Bamboo Bathrobe	2



## CHALLENGE 6

6. What is the average revenue generated per day during the marketing campaigns?

```
select purchase_date,  
round(avg(quantity*price), 2) as  
avg_revenue  
from transactionss t  
inner join sustainable_clothing sc  
on t.product_id = sc.product_id  
group by 1  
order by 1 asc;
```

### Output

purchase_date	avg_revenue
02-06-2023	109.98
05-06-2023	119.98
07-06-2023	79.99
10-06-2023	19.98
13-06-2023	52.49
15-06-2023	109.98
18-06-2023	79.99
22-06-2023	49.99
26-06-2023	139.98
30-06-2023	59.99
04-07-2023	49.99
08-07-2023	57.49
12-07-2023	124.98
16-07-2023	74.99
20-07-2023	54.99
24-07-2023	99.98
29-07-2023	57.49

## CHALLENGE 6

7. What is the percentage contribution of each product to the total revenue?

```
select sc.product_id, product_name,  
round(sum(quantity*price)/count(distinct  
sc.product_id)*100, 3) as  
percentage_contribution  
from sustainable_clothing sc  
join transactionss t  
on sc.product_id = t.product_id  
group by 1,2;
```

### Output

product_name	percentage_contribution
Recycled Denim Jeans	13.71
Linen Jumpsuit	10.49
Organic Cotton Sweater	9.64
Bamboo Yoga Leggings	9.42
Recycled Polyester Jacket	7.71
Eco-Friendly Hoodie	6.42
Bamboo Lounge Pants	5.35
Upcycled Denim Jacket	5.14
Hemp Overalls	4.82
Organic Cotton Dress	4.5
Organic Cotton Skirt	3.75
Cork Sandals	3.43
Bamboo Bathrobe	3
Hemp Baseball Cap	2.68
Linen Button-Down Shirt	2.57
Recycled Nylon Backpack	2.57
Sustainable Swim Shorts	1.5
Organic Cotton Socks	1.5
Organic Cotton T-Shirt	1.28
Hemp Crop Top	0.54

## CHALLENGE 6

8. Compare the average quantity sold during marketing campaigns to outside the marketing campaigns?

```
with cte as (  
  select t.transaction_id, t.quantity,  
  case  
    when m.campaign_id is not null then  
      'Incampaign'  
    else 'Outsidecampaign'  
  end as Campaign_status from transactionss  
  t  
  left join marketing_campaigns m on  
  t.product_id = m.product_id  
)  
select campaign_status,  
round(avg(quantity), 2) as avg_quantity_sold  
from cte  
group by 1
```

### Output

Campaign_status	avg_quantity_sold
Incampaign	1.19
Outsidecampaign	1.44

## CHALLENGE 6

9. Compare the revenue generated by products inside the marketing campaigns to outside the campaigns

```
with cte as (  
  select sum(sc.price*t.quantity) as revenue,  
  case  
    when m.campaign_id is not null then 'Incampaign'  
    else 'Outsidecampaign'  
  end as Campaign_status from transactionss t  
  left join marketing_campaigns m on t.product_id =  
  m.product_id  
  left join sustainable_clothing sc on m.product_id =  
  sc.product_id  
  group by m.campaign_id  
)  
select campaign_status, round(sum(revenue), 2)  
as avg_quantity_sold  
from cte  
group by 1
```

### Output

campaign_status	avg_quantity_sold
Incampaign	1289.81
Outsidecampaign	NULL

## CHALLENGE 6

10. Rank the products by their average daily quantity sold

```
with cte as (  
  select product_name, avg(quantity) as  
    avg_quantity  
  from sustainable_clothing s  
  join transactionss t  
  on s.product_id = t.product_id  
  group by 1  
)  
select *, dense_rank() over(order by  
  avg_quantity) as rnk from cte;
```

### Output

product_name	avg_quantity	rnk
Organic Cotton T-Shirt	1	1
Hemp Crop Top	1	1
Organic Cotton Dress	1	1
Cork Sandals	1	1
Recycled Nylon Backpack	1	1
Bamboo Bathrobe	1	1
Recycled Denim Jeans	1.1429	2
Bamboo Lounge Pants	1.25	3
Hemp Baseball Cap	1.25	3
Recycled Polyester Jacket	1.3333	4
Bamboo Yoga Leggings	1.3333	4
Linen Button-Down Shirt	1.5	5
Hemp Overalls	1.5	5
Upcycled Denim Jacket	1.5	5
Eco-Friendly Hoodie	1.6667	6
Organic Cotton Skirt	1.6667	6
Linen Jumpsuit	1.75	7
Organic Cotton Socks	1.75	7
Organic Cotton Sweater	1.8	8
Sustainable Swim Shorts	2	9

## CHALLENGE 6

THANK YOU