

Marketing Analytics Business Case

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Day -1

These tables give me a solid foundation:

customer_journey: shows how users move through different marketing stages.

customer_reviews: contains feedback, which might reveal pain points.

customers: gives context like demographics or geography.

```
1 use marketdb
2
3 SELECT * FROM customer_journey
4 select * from customer_reviews
5 SELECT * FROM customers
6 SELECT * FROM engagement_data
7 SELECT * FROM geography
8 SELECT * FROM products
```

JourneyID	CustomerID	ProductID	VisitDate	Stage	Action	Duration
1	64	18	2024-06-10	Checkout	Drop-off	157
2	94	11	2025-07-09	Checkout	Drop-off	157
3	34	8	2024-06-14	ProductPage	View	235
4	33	18	2025-05-28	Checkout	Drop-off	157
5	91	10	2023-02-11	Homepage	Click	156
6	54	11	2025-12-19	Homepage	View	264
7	80	4	2023-08-25	Homepage	View	298
8	99	10	2025-07-03	ProductPage	View	287
9	31	4	2025-06-13	ProductPage	View	278
10	44	16	2025-04-23	ProductPage	View	30
11	23	12	2023-08-22	Checkout	Drop-off	157
12	97	12	2023-07-28	ProductPage	View	227
13	83	5	2024-06-20	Homepage	View	223
14	14	13	2025-11-01	ProductPage	View	13
15	9	1	2025-11-04	ProductPage	View	292
16	14	16	2024-07-17	Homepage	View	46
17	67	2	2025-12-11	Homepage	View	185
18	70	15	2025-10-13	Homepage	View	191
19	9	1	2024-08-15	Homepage	View	187
20	44	18	2024-02-19	productpage	View	154
21	58	20	2024-03-07	Checkout	Drop-off	157
22	12	1	2026-11-19	Homepage	Click	30

```
1 use marketdb
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```

ReviewID	CustomerID	ProductID	ReviewDate	Rating	ReviewText
1	77	18	2023-12-23	3	Average experience, nothing special.
2	80	19	2024-12-25	5	The quality is top-notch.
3	50	13	2025-01-26	4	Five stars for the quick delivery.
4	78	15	2025-04-21	3	Good quality, but could be cheaper.
5	64	2	2023-07-16	3	Average experience, nothing special.
6	81	1	2025-12-21	4	Customer support was very helpful.
7	16	1	2024-01-29	3	Average experience, nothing special.
8	55	8	2024-08-15	5	The quality is top-notch.
9	3	13	2023-09-01	4	I love this product, will buy again!
10	78	6	2024-06-17	5	Excellent product, highly recommend!
11	54	9	2023-07-17	4	Great purchase, very satisfied.
12	77	2	2025-01-13	2	Product did not meet my expectations.
13	93	6	2024-08-20	5	Great purchase, very satisfied.
14	23	2	2025-06-16	4	Good quality, but could be cheaper.
15	29	11	2023-01-27	5	Great purchase, very satisfied.
16	95	17	2023-01-06	5	Excellent product, highly recommend!
17	88	4	2025-10-29	3	Not worth the money.
18	17	16	2024-11-23	4	Shipping was fast and the item was well-p...
19	34	13	2024-01-04	4	The quality is top-notch.
20	34	6	2023-04-29	1	I had a bad experience with this product.
21	22	15	2023-04-08	5	Amazing value for the price.
22	62	1	2026-10-30	4	The quality is top-notch.

```
1 use marketdb
2
3 SELECT * FROM customer_journey
4 select * from customer_reviews
5 SELECT * FROM customers
6 SELECT * FROM engagement_data
7 SELECT * FROM geography
8 SELECT * FROM products
```

CustomerID	CustomerName	Email	Gender	Age	GeographyID
1	Emma Anderson	emma.anderson@example.com	Male	50	2
2	Sarah Brown	sarah.brown@example.com	Female	37	4
3	Robert Hernandez	robert.hernandez@example.com	Female	26	6
4	David Garcia	david.garcia@example.com	Male	25	8
5	Emma Miller	emma.miller@example.com	Female	41	4
6	Daniel Rodriguez	daniel.rodriguez@example.com	Male	31	7
7	Laura Miller	laura.miller@example.com	Male	35	7
8	James Gonzalez	james.gonzalez@example.com	Female	18	8
9	Emily Thomas	emily.thomas@example.com	Male	29	10
10	Chris Davis	chris.davis@example.com	Female	46	2
11	Emma Garcia	emma.garcia@example.com	Male	54	10
12	James Lopez	james.lopez@example.com	Female	43	7
13	David Wilson	david.wilson@example.com	Male	50	1
14	Olivia Wilson	olivia.wilson@example.com	Male	60	4
15	Emma Martinez	emma.martinez@example.com	Male	32	9
16	Michael Martinez	michael.martinez@example.com	Male	40	5
17	Daniel Thomas	daniel.thomas@example.com	Female	46	2
18	Robert Lopez	robert.lopez@example.com	Female	38	5
19	Emma Wilson	emma.wilson@example.com	Female	36	6
20	David Johnson	david.johnson@example.com	Male	22	1
21	Olivia Gonzalez	olivia.gonzalez@example.com	Female	40	4
22	Alex Wilson	alex.wilson@example.com	Male	53	2

Day -1

Engagement_data: This tracks customer interactions like views, clicks, likes — perfect for measuring engagement levels.

Geography: Gives me location data to analyze engagement by country or city.

Products: Helps me understand what types of products are linked to higher or lower engagement.

This step is all about understanding what data I have before jumping into deeper analysis.

```
4 select * from customer_reviews
5 SELECT * FROM customers
6 SELECT * FROM engagement_data
7 SELECT * FROM geography
8 SELECT * FROM products
```

	EngagementID	ContentID	Content Type	Likes	EngagementDate	CampaignID	ProductID	ViewsClicksCombined
4	4	43	Video	17	2025-01-21	19	20	2766-257
5	5	16	newsletter	306	2024-02-21	6	15	5116-1524
6	6	32	Socialmedia	648	2023-06-18	18	19	8237-1641
7	7	33	SOCIALMEDIA	1	2025-10-01	12	2	750-34
8	8	47	Blog	1	2025-03-31	17	6	891-35
9	9	48	blog	123	2024-03-19	13	16	5571-1527
10	10	4	Blog	25	2023-12-03	15	15	4279-297
11	11	38	Socialmedia	29	2024-05-26	19	6	4297-234

	GeographyID	Country	City
1	1	UK	London
2	2	Germany	Berlin
3	3	France	Paris
4	4	Spain	Madrid
5	5	Italy	Rome
6	6	Netherlands	Amsterdam
7	7	Belgium	Brussels
8	8	Sweden	Stockholm

	ProductID	ProductName	Category	Price
1	1	Running Shoes	Sports	223.75
2	2	Fitness Tracker	Sports	196.68
3	3	Yoga Mat	Sports	485.32
4	4	Dumbbells	Sports	26.21
5	5	Soccer Ball	Sports	41.26
6	6	Tennis Racket	Sports	36.07
7	7	Basketball	Sports	225.12
8	8	Football Helmet	Sports	44.75
9	9	Baseball Glove	Sports	327.36
10	10	Golf Clubs	Sports	81.59
11	11	Ski Boots	Sports	340.2
12	12	Ice Skates	Sports	37.56
13	13	Swim Goggles	Sports	145.97
14	14	Cycling Helmet	Sports	472.32

Query executed successfully.

Day -1

Connecting the Dots with Joins.

I started joining tables to enrich the customer data with more context.

I used a simple **LEFT JOIN** to connect **customers** with **geography** and pull in location details like country and city

```
1  -- Joining Customer with Geography to get detail informations.
2  use marketdb
3  SELECT
4      c.CustomerID,
5      c.CustomerName,
6      c.Email,
7      c.Gender,
8      c.Age,
9      g.Country,
10     g.City
11 FROM
12     dbo.customers AS c
13 LEFT JOIN dbo.geography AS g
14     ON c.GeographyID = g.GeographyID;
15
```

150 %

Results Messages

	CustomerID	CustomerName	Email	Gender	Age	Country	City
1	1	Emma Anderson	emma.anderson@example.com	Male	50	Germany	Berlin
2	2	Sarah Brown	sarah.brown@example.com	Female	37	Spain	Madrid
3	3	Robert Hernandez	robert.hernandez@example.com	Female	26	Netherlands	Amsterdam
4	4	David Garcia	david.garcia@example.com	Male	25	Sweden	Stockholm
5	5	Emma Miller	emma.miller@example.com	Female	41	Spain	Madrid
6	6	Daniel Rodriguez	daniel.rodriguez@example.com	Male	31	Belgium	Brussels
7	7	Laura Miller	laura.miller@example.com	Male	35	Belgium	Brussels
8	8	James Gonzalez	james.gonzalez@example.com	Female	18	Sweden	Stockholm
9	9	Emily Thomas	emily.thomas@example.com	Male	29	Austria	Vienna
10	10	Chris Davis	chris.davis@example.com	Female	46	Germany	Berlin
11	11	Emma Garcia	emma.garcia@example.com	Male	54	Austria	Vienna
12	12	James Lopez	james.lopez@example.com	Female	43	Belgium	Brussels
13	13	David Wilson	david.wilson@example.com	Male	50	UK	London
14	14	Olivia Wilson	olivia.wilson@example.com	Male	60	Spain	Madrid
15	15	Emma Martinez	emma.martinez@example.com	Male	32	Switzerland	Zurich
16	16	Michael Martinez	michael.martinez@example.com	Male	40	Italy	Rome
17	17	Daniel Thomas	daniel.thomas@example.com	Female	46	Germany	Berlin
18	18	Robert Lopez	robert.lopez@example.com	Female	38	Italy	Rome
19	19	Emma Wilson	emma.wilson@example.com	Female	36	Netherlands	Amsterdam

Query executed successfully.

Day -1

Categorizing Products by Price :-

I took a closer look at the product data and decided to segment products based on their pricing.

I used SQL's **CASE WHEN** statement to do this. It works kind of like an "if-else" in programming — helping you create new categories or labels based on specific conditions.

This kind of logic makes raw numerical data a lot more interpretable and useful in business analysis.

```
1 use marketdb
2
3 -- Categorize the Product on basis of Price
4
5 SELECT * FROM products
6
7 SELECT
8     PRODUCTID,
9     PRODUCTNAME,
10    PRICE,
11
12    CASE
13        WHEN PRICE < 50 THEN 'Low Price'
14        WHEN PRICE BETWEEN 50 AND 200 THEN 'Medium Price'
15        ELSE 'High Price'
16    END AS PriceCategory
17
18 FROM products
```

	PRODUCTID	PRODUCTNAME	PRICE	PriceCategory
1	1	Running Shoes	223.75	High Price
2	2	Fitness Tracker	196.68	Medium Price
3	3	Yoga Mat	485.32	High Price
4	4	Dumbbells	26.21	Low Price
5	5	Soccer Ball	41.26	Low Price
6	6	Tennis Racket	36.07	Low Price
7	7	Basketball	225.12	High Price
8	8	Football Helmet	44.75	Low Price
9	9	Baseball Glove	327.36	High Price
10	10	Golf Clubs	81.59	Medium Price
11	11	Ski Boots	340.2	High Price
12	12	Ice Skates	37.56	Low Price
13	13	Swim Goggles	145.97	Medium Price
14	14	Cycling Helmet	472.32	High Price
15	15	Climbing Rope	410.17	High Price
16	16	Kayak	259.4	High Price

Query executed successfully.

Thank You!