

Data & Digital Marketing Analyst - Practical Assessment

Assessment Overview

Duration: 6hrs

Guidelines

1. You must **select any 3 out of the 5 tasks** listed below.
2. Complete the selected tasks **within the total time limit of 2 hours**.
3. **Document your work in a single PDF file**, clearly mentioning:
 - a. The tasks you selected
 - b. Analysis steps
 - c. Visuals, charts, and tables
 - d. Key insights and business recommendations
4. Submit your file named as:
YourName_DataMarketingAssessment.pdf
5. Upload the PDF to the designated platform or email before the deadline.

Task List (Choose Any 3)

Task 1: Social Media Performance Analysis

Scenario:

Analyze social media performance data across 3 platforms (e.g., Facebook, Instagram, LinkedIn). Identify the best-performing content, optimal posting times, and engagement metrics.

Task 2: Campaign Performance Dashboard Creation

Scenario:

Create a visual dashboard for a recent digital ad campaign (Google Ads or Meta Ads). Include metrics such as impressions, CTR, CPC, conversion rate, and ROI.

Task 3: Competitor Analysis & Benchmarking

Time Allocation: 25 minutes

Scenario:

Analyze competitor performance data for **3 brands in the same industry** over the **last quarter**. Focus on digital visibility, social engagement, and ad strategy.

Task 4: A/B Test Analysis & Optimization

Time Allocation: 20 minutes

Scenario:

An A/B test was conducted on email campaigns using different **subject lines**, **send times**, and **call-to-action (CTA) buttons**.

Task 5: Business Impact Presentation (PPT Format)

Time Allocation: 20 minutes

Scenario:

Prepare a **PowerPoint-style summary** of your findings from the completed tasks. Audience includes both marketing managers and senior executives.

Submission Format

1. Combine your results and PPT slides into **one PDF document**.
2. Use appropriate headings for each task.
3. Charts and tables should be **clear, labeled, and readable**.
4. Tools allowed: Excel, Power BI, Tableau, Python, Google Sheets, Canva, etc.

Task 1: Social Media Performance Analysis

Scenario

You're provided with 3 months of social media data from Instagram, Facebook, and YouTube for a lifestyle brand.

Dataset Includes:

- Daily metrics: Posts, Likes, Comments, Shares, Reach, Impressions, CTR
- Content types: Video, Image, Carousel, Stories

- Posting times and days
- Campaign vs. organic performance

Date	Platform	Content_Type	Posts	Likes	Comments	Shares	Reach	Impressions	CTR	Hour_Posted	Campaign_Type	Followers	Budget
1/1/2024	Instagram	Image	5	1250	85	45	8500	12000	3.2	10	Organic	45000	0
1/1/2024	Facebook	Video	3	890	120	78	6200	9800	4.1	14	Campaign	32000	150
1/1/2024	YouTube	Video	2	2100	340	156	15600	18900	8.7	18	Organic	18000	0
1/2/2024	Instagram	Stories	8	980	65	23	7800	11200	2.8	9	Organic	45050	0
1/2/2024	Facebook	Carousel	4	1450	95	89	9200	13500	4.5	12	Campaign	32100	200
1/2/2024	YouTube	Video	1	1850	280	134	13400	16200	7.9	20	Campaign	18020	300
1/3/2024	Instagram	Video	3	1680	145	67	11200	15800	5.1	16	Campaign	45120	250
1/3/2024	Facebook	Image	6	1120	78	42	8900	12400	3.8	11	Organic	32150	0
1/3/2024	YouTube	Video	2	2340	410	189	17800	21200	9.2	19	Organic	18080	0
1/4/2024	Instagram	Reels	4	2850	195	142	18500	25000	6.8	15	Organic	45200	0
1/4/2024	Facebook	Video	2	1650	135	98	10500	14800	5.2	13	Campaign	32200	180
1/4/2024	YouTube	Short	3	3200	285	210	22000	28500	7.4	17	Organic	18150	0
1/5/2024	Instagram	Image	6	1480	98	56	9800	13200	4.1	11	Organic	45280	0
1/5/2024	Facebook	Stories	5	780	52	28	6800	9500	3.2	10	Organic	32250	0
1/5/2024	YouTube	Video	1	2680	445	198	19200	23800	8.9	19	Campaign	18200	400
1/6/2024	Instagram	Stories	7	1120	74	31	8200	11800	3.5	9	Organic	45350	0

1/6/2024	Facebook	Carousel	3	1890	156	112	12500	16800	5.8	14	Campaign	32300	220
1/6/2024	YouTube	Video	2	2950	520	245	21500	26200	9.5	20	Organic	18280	0
1/7/2024	Instagram	Video	4	2100	178	89	14200	19500	6.2	16	Campaign	45450	300
1/7/2024	Facebook	Image	5	1350	92	48	9500	13100	4	12	Organic	32350	0
1/7/2024	YouTube	Short	4	3850	298	265	28000	35200	8.1	18	Organic	18380	0

Your Tasks:

- 1. **Calculate key performance metrics:**
 - a. Engagement rate by platform
 - b. Average reach per post type
 - c. Best performing content categories
 - d. Optimal posting times
- 2. **Identify trends and patterns:**
 - a. Which platform shows highest engagement growth?
 - b. What content format performs best on each platform?
 - c. Are there seasonal patterns in the data?
- 3. **Create actionable recommendations:**
 - a. Content strategy improvements
 - b. Posting schedule optimization
 - c. Platform-specific tactics

Deliverable: Excel analysis with charts and 1-page summary of insights

Task 2: Campaign Performance Dashboard Creation
Scenario

A digital marketing campaign ran across Google Ads, Facebook Ads, and Instagram for 6 weeks. You need to build a comprehensive performance dashboard.

Data Provided:

- Daily spend, impressions, clicks, conversions
- Demographic breakdowns
- Device and placement performance
- Creative performance by ad format

Date	Platform	Spend	Impressions	Clicks	Conversions	Device	Age_Group	Gender	Revenue	CPC	CPM	CPA
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2024-01-01	Google Ads	450	15000	750	45	Desktop	25-34	Male	2250	0.60	30.00	10.00
2024-01-01	Facebook Ads	380	12500	625	38	Mobile	25-34	Female	1900	0.61	30.40	10.00
2024-01-01	Instagram Ads	320	10800	540	32	Mobile	18-24	Female	1600	0.59	29.63	10.00
2024-01-02	Google Ads	520	17200	860	52	Desktop	35-44	Male	2860	0.60	30.23	10.00
2024-01-02	Facebook Ads	420	14100	705	42	Mobile	25-34	Female	2310	0.60	29.79	10.00
2024-01-02	Instagram Ads	380	12900	645	39	Mobile	18-24	Female	2145	0.59	29.46	9.74
2024-01-03	Google Ads	480	16800	840	48	Desktop	25-34	Male	2640	0.57	28.57	10.00
2024-01-03	Facebook Ads	450	15200	760	46	Mobile	35-44	Female	2530	0.59	29.61	9.78
2024-01-03	Instagram Ads	350	11500	575	35	Mobile	18-24	Female	1925	0.61	30.43	10.00
2024-01-04	Google Ads	550	18500	925	55	Desktop	25-34	Male	3025	0.59	29.73	10.00
2024-01-04	Facebook Ads	400	13800	690	41	Mobile	25-34	Female	2255	0.58	28.99	9.76
2024-01-04	Instagram Ads	420	14200	710	43	Mobile	18-24	Female	2365	0.59	29.58	9.77
2024-01-05	Google Ads	500	17000	850	50	Desktop	35-44	Male	2750	0.59	29.41	10.00
2024-01-05	Facebook Ads	380	12800	640	38	Mobile	25-34	Female	2090	0.59	29.69	10.00
2024-01-05	Instagram Ads	360	12000	600	36	Mobile	18-24	Female	1980	0.60	30.00	10.00
2024-01-06	Google Ads	600	20000	1000	60	Desktop	25-34	Male	3300	0.60	30.00	10.00

2024-01-06	Facebook Ads	460	15800	790	47	Mobile	35-44	Female	2585	0.58	29.11	9.79
2024-01-06	Instagram Ads	390	13200	660	40	Mobile	18-24	Female	2200	0.59	29.55	9.75
2024-01-07	Google Ads	480	16500	825	49	Desktop	35-44	Male	2695	0.58	29.09	9.80
2024-01-07	Facebook Ads	420	14500	725	43	Mobile	25-34	Female	2365	0.58	28.97	9.77
2024-01-07	Instagram Ads	370	12500	625	38	Mobile	18-24	Female	2090	0.59	29.60	9.74

Your Tasks:

1. **Build a dashboard in Excel/Google Sheets:**

a. Overall campaign KPIs (ROAS, CPA, CTR, CPM)

b. Platform comparison charts

c. Weekly trend analysis

d. Demographic performance breakdown
2. **Performance analysis:**

a. Which platform delivered the best ROI?

b. Identify underperforming segments

c. Calculate cost per acquisition by channel

d. Determine budget reallocation recommendations
3. **Create visualizations:**

a. Performance trends over time

b. Platform comparison charts

c. Demographic insights graphs

Deliverable: Interactive dashboard with key insights highlighted

Task 3: Competitor Analysis & Benchmarking
Scenario

Analyze competitor performance data for 3 brands in the same industry over the last quarter.

Data Available:

- Social media follower growth
- Engagement rates by platform
- Content posting frequency
- Video performance metrics
- Campaign activity indicators

Metric	Our Brand	Competitor A	Competitor B	Competitor C	Competitor D	Industry Avg
Instagram Followers	45,000	68,000	52,000	38,000	75,000	55,600
Facebook Followers	32,000	41,000	38,000	29,000	48,000	37,600
YouTube Subscribers	18,000	25,000	19,000	15,000	32,000	21,800
TikTok Followers	12,000	35,000	28,000	8,000	45,000	25,600
LinkedIn Followers	8,500	15,000	12,000	6,500	18,000	12,000
Average Engagement Rate	4.2%	3.8%	4.6%	3.2%	5.1%	4.18%
Posts per Week	12	15	10	18	20	15
Video Content %	35%	45%	30%	52%	60%	44.4%
Stories per Day	3	5	4	2	6	4
User-Generated Content %	15%	25%	20%	10%	30%	20%
Influencer Partnerships /Month	2	8	4	1	10	5
Average Likes per Post	450	380	520	280	650	456
Average Comments per Post	28	22	35	18	42	29
Average Shares per Post	15	12	18	8	25	15.6
Email Open Rate	22%	25%	21%	19%	28%	23%
Email Click Rate	3.2%	3.8%	2.9%	2.5%	4.1%	3.3%
Website Traffic (Monthly)	45,000	68,000	52,000	38,000	85,000	57,600

Conversion Rate	2.1%	2.8%	2.3%	1.9%	3.2%	2.46%
Average Order Value	\$65	\$58	\$72	\$55	\$78	\$65.6
Customer Acquisition Cost	\$25	\$22	\$28	\$30	\$20	\$25
Customer Lifetime Value	\$320	\$285	\$380	\$275	\$425	\$337

Your Tasks:

- 1. **Comparative analysis:**
 - a. Benchmark your brand against competitors
 - b. Identify content gaps and opportunities
 - c. Analyze competitor posting strategies
- 2. **Market intelligence insights:**
 - a. What trends are competitors capitalizing on?
 - b. Which competitor strategies should be adopted?
 - c. Where are the white space opportunities?

Deliverable: Competitive analysis report with strategic recommendations

Task 4: A/B Test Analysis & Optimization

Scenario

An A/B test was conducted on email campaigns with different subject lines, send times, and call-to-action buttons.

Test Data:

- Variant A vs B performance metrics
- Open rates, click rates, conversion rates
- Segmented results by demographics
- Statistical significance indicators

Test_ID	Variant	Subject_Line	Send_Time	CTA_Button	Opens	Clicks	Conversions	List_Size	Open_Rate	Click_Rate	Conv_Rate
1	A	Flash Sale - 50% Off!	10:00 AM	Shop Now	2150	430	86	10000	21.50%	4.30%	0.86%
1	B	Limited Time: Half Price Event	2:00 PM	Get Deal	2380	475	95	10000	23.80%	4.75%	0.95%

2	A	Your Favorites on Sale	10:00 AM	Shop Now	1950	390	78	10000	19.50 %	3.90 %	0.78 %
2	B	Special Pricing Inside	2:00 PM	Get Deal	2220	445	89	10000	22.20 %	4.45 %	0.89 %
3	A	Weekend Special Deals	10:00 AM	Shop Now	2080	416	83	10000	20.80 %	4.16 %	0.83 %
3	B	Don't Miss Out - Save Big	2:00 PM	Get Deal	2450	490	98	10000	24.50 %	4.90 %	0.98 %
4	A	Exclusive Member Savings	10:00 AM	Shop Now	2200	440	88	10000	22.00 %	4.40 %	0.88 %
4	B	Members Only: Huge Discounts	2:00 PM	Get Deal	2520	504	101	10000	25.20 %	5.04 %	1.01 %
5	A	Sale Ends Soon	10:00 AM	Shop Now	1880	376	75	10000	18.80 %	3.76 %	0.75 %
5	B	Final Hours - Act Now	2:00 PM	Get Deal	2380	476	95	10000	23.80 %	4.76 %	0.95 %
6	A	Today Only: Save More	10:00 AM	Shop Now	2050	410	82	10000	20.50 %	4.10 %	0.82 %
6	B	Last Chance: Premium Savings	2:00 PM	Get Deal	2600	520	104	10000	26.00 %	5.20 %	1.04 %
7	A	New Arrivals Sale	10:00 AM	Shop Now	1920	384	77	10000	19.20 %	3.84 %	0.77 %
7	B	Fresh Styles, Hot Prices	2:00 PM	Get Deal	2350	470	94	10000	23.50 %	4.70 %	0.94 %
8	A	Weekly Deals Inside	10:00 AM	Shop Now	2100	420	84	10000	21.00 %	4.20 %	0.84 %

8	B	This Week's Best Offers	2:00 PM	Get Deal	2480	496	99	10000	24.80 %	4.96 %	0.99 %
9	A	Spring Collection Sale	10:00 AM	Shop Now	2250	450	90	10000	22.50 %	4.50 %	0.90 %
9	B	Spring Into Savings	2:00 PM	Get Deal	2650	530	106	10000	26.50 %	5.30 %	1.06 %
10	A	Customer Appreciation Sale	10:00 AM	Shop Now	2150	430	86	10000	21.50 %	4.30 %	0.86 %
10	B	Thank You Sale - Save Big	2:00 PM	Get Deal	2550	510	102	10000	25.50 %	5.10 %	1.02 %

Your Tasks:

1. Analyze test results:

- Determine winning variants
- Calculate statistical significance
- Identify performance drivers

2. Optimization recommendations:

- Which elements should be implemented?
- What additional tests should be conducted?
- How to scale winning strategies?

Deliverable: A/B test analysis with next steps

Task 5: Business Impact Presentation (PPT)

Scenario

Present your findings from all previous tasks to a mixed audience of marketing managers and executives.

Your Tasks:

1. Create a 5-slide presentation covering:

- Key performance insights across all analyses
- Major opportunities identified
- Strategic recommendations with expected impact
- Implementation roadmap

2. Focus on business value:

- Quantify potential revenue impact
- Connect data insights to business objectives
- Prioritize recommendations by ROI

Deliverable: Executive summary presentation