Atliqo

TELECOM
Ad-hoc Insights

Presented by Anupam Aditya

Problem statement :

Analyze the impact of Atliqo's 5G rollout on revenue, user behavior, and market share to identify growth opportunities, address customer churn, and evaluate competitive positioning.

This involves examining key metrics such as revenue, active users, ARPU, market share, and unsubscribed users across cities before and after the implementation of 5G.

Ad-hoc-Requests

1. Compare the total revenue generated by Atliqo before and after 5G implementation. Include a percentage change in revenue.

QUERY :

```
WITH cte1 AS
	(SELECT _before_after_5g, ROUND(SUM(atliqo_revenue_crores),2) AS REV
	FROM fact_atliqo_metrics AM
	JOIN
	dim_date DD ON
	DD.date = AM.date
	GROUP BY _before_after_5g)
SELECT b5.REV AS Rev_befor_5G, a5.REV AS Rev_After_5G, ROUND((a5.REV-b5.REV)*100/ b5.REV,3) AS
Per_Change
FROM cte1 b5
JOIN
cte1 a5
WHERE
	b5._before_after_5g = "Before 5G“
	AND
	a5._before_after_5g = "After 5G";
```

Rev_befor_5G	Rev_After_5G	Per_Change
1597.7	1589.66	-0.503

Ad-hoc-Requests

2. Identify the top 5 cities contributing the highest revenue for Atliqo across all time periods.

QUERY :

```
SELECT city_name, ROUND(SUM(atliqo_revenue_crores),2) AS REV
FROM fact_atliqo_metrics AM
JOIN dim_cities DC ON
DC.city_code = AM.city_code
GROUP BY city_name
ORDER BY REV DESC
LIMIT 5 ;
```

city_name	REV
Mumbai	489.55
Delhi	387.2
Kolkata	384.39
Bangalore	338.61
Chennai	296.37

Ad-hoc-Requests

3. Calculate Atliqo's average market share percentage across all cities.

QUERY :

```
SELECT DC.city_code, city_name, ROUND(AVG(ms_pct),2) AS Market_shares
FROM fact_market_share MS
JOIN dim_cities DC ON
DC.city_code = MS.city_code
WHERE company = 'Atliqo'
GROUP BY DC.city_code, city_name
ORDER BY Market_shares DESC
;
```

city_code	city_name	Market_shares
122001	Gurgaon	21.48
226001	Lucknow	21.17
411001	Pune	20.26
641001	Coimbatore	20.24
492001	Raipur	20
302001	Jaipur	19.91
600001	Chennai	19.84
800008	Patna	19.59
700001	Kolkata	19.33
560001	Bangalore	19.15
380001	Ahmedabad	19.13
400001	Mumbai	19
160017	Chandigarh	18.59
110001	Delhi	17.97
500001	Hyderabad	17.72

Ad-hoc-Requests

4. Calculate the month-over-month growth rate in revenue for Atliqo across all cities.

QUERY :

```
WITH Total_REV AS
      (SELECT date, DATE_FORMAT(date, "%b") AS month, ROUND(SUM(atliqo_revenue_crores),2) AS
      Total_Rev
      FROM fact_atliqo_metrics
      GROUP BY date
      ORDER BY date )
SELECT *, LAG(Total_Rev) OVER(ORDER BY date) AS Previous_Month_Rev,
ROUND(((Total_Rev/LAG(Total_Rev) OVER(ORDER BY date))-1)*100,2) AS MOM_Growth_rate
FROM Total_REV
ORDER BY date
;
```

date	month	Total_Rev	Previous_Month_Rev	MOM_Growth_rate
2022-01-01	Jan	354.37	NULL	NULL
2022-02-01	Feb	425.69	354.37	20.13
2022-03-01	Mar	410.45	425.69	-3.58
2022-04-01	Apr	407.19	410.45	-0.79
2022-06-01	Jun	357.56	407.19	-12.19
2022-07-01	Jul	412.76	357.56	15.44
2022-08-01	Aug	419.08	412.76	1.53
2022-09-01	Sep	400.26	419.08	-4.49

Ad-hoc-Requests

5. Determine the revenue contribution of each internet plan and rank them.

QUERY :

```
WITH cte1 AS
      (SELECT plans, ROUND(SUM(plan_revenue_crores),2) AS Total_Rev
      FROM fact_plan_revenue
      GROUP BY plans)
SELECT *, ROUND(Total_Rev*100/SUM(Total_Rev) OVER(),2) AS Rev_contribution, RANK() OVER(ORDER BY
Total_Rev DESC) AS Ranking
FROM cte1
ORDER BY Total_Rev DESC;
```

plans	Total_Rev	Rev_contribution	Ranking
p1	419.93	21.53	1
p2	297.53	15.25	2
p3	261.54	13.41	3
p4	195.22	10.01	4
p11	185.95	9.53	5
p5	165.61	8.49	6
p6	124.37	6.38	7
p12	116.13	5.95	8
p7	73.8	3.78	9
p8	43.43	2.23	10
p13	31.45	1.61	11
p9	22.68	1.16	12
p10	13.11	0.67	13

Ad-hoc-Requests

6. Identify the top 3 and bottom 3 cities based on ARPU (average revenue per user).

QUERY :

```
WITH cte1 AS
        (SELECT city_name, AVG(arpu) AS AVG_Rev_Per_User, RANK() OVER(ORDER BY AVG(arpu) DESC)
        AS T3, RANK() OVER(ORDER BY AVG(arpu) ASC) AS  B3
        FROM  fact_atliqo_metrics AM
        JOIN
        dim_cities DC ON
        AM.city_code = DC.city_code
        GROUP BY city_name)
SELECT city_name, AVG_Rev_Per_User
FROM cte1
WHERE
        T3 < 4
        OR
        B3 < 4
ORDER BY AVG_Rev_Per_User DESC ;
```

city_name	AVG_Rev_Per_User
Mumbai	213.8750
Patna	212.0000
Lucknow	211.3750
Chandigarh	191.6250
Kolkata	188.3750
Pune	187.1250

Ad-hoc-Requests

7. Compare Atliqo's market share before and after 5G implementation. Highlight the top 3 cities where Atliqo saw the most improvement.

QUERY :

```
WITH cte1 AS
      (SELECT city_name, _before_after_5g,
      ROUND(AVG(ms_pct),2) AS Market_shares
      FROM fact_market_share MS
      JOIN dim_cities DC ON
      DC.city_code = MS.city_code
      JOIN
      dim_date DD ON
      DD.date = MS.date
      WHERE company = 'Atliqo'
      GROUP BY city_name, _before_after_5g
      ORDER BY Market_shares DESC )
SELECT city_name, MAX(CASE WHEN _before_after_5g = 'Before 5G'THEN Market_shares ELSE NULL
END) AS MS_Before_5G, MAX(CASE WHEN _before_after_5g = 'After 5G'THEN Market_shares ELSE NULL
END) AS MS_After_5G,  ROUND(MAX(CASE WHEN _before_after_5g = 'After 5G'THEN Market_shares
ELSE NULL END)-MAX(CASE WHEN _before_after_5g = 'Before 5G'THEN Market_shares ELSE NULL
END),2) AS chg
FROM cte1
GROUP BY city_name ;
```

city_name	MS_Before_5G	MS_After_5G	chg
Gurgaon	22.21	20.75	-1.46
Lucknow	21.87	20.46	-1.41
Pune	20.98	19.54	-1.44
Coimbatore	20.9	19.58	-1.32
Raipur	20.64	19.36	-1.28
Jaipur	20.62	19.2	-1.42
Chennai	20.56	19.12	-1.44
Patna	20.24	18.94	-1.3
Kolkata	19.96	18.69	-1.27
Bangalore	19.83	18.48	-1.35
Ahmedabad	19.8	18.47	-1.33
Mumbai	19.67	18.34	-1.33
Chandigarh	19.25	17.92	-1.33
Delhi	18.66	17.28	-1.38
Hyderabad	18.35	17.09	-1.26

Ad-hoc-Requests

8. Compare metrics (revenue, ARPU, active users) for corresponding months before and after 5G (e.g., January vs. June). Calculate absolute and percentage differences.

QUERY :

```
WITH metrics_summary AS
        (SELECT d.time_period, d._before_after_5g, SUM(f.atliqo_revenue_crores) AS total_revenue,       ROUND(AVG(f.arpu), 2) AS avg_arpu, SUM(f.active_users_lakhs) AS
        total_active_users
        FROM   dim_date d
        JOIN  fact_atliqo_metrics f ON
        d.date = f.date
        WHERE
        f.company = 'Atliqo'
        GROUP BY  d.time_period, d._before_after_5g),
metrics_comparison AS
        (SELECT  b.time_period AS month_pair, ROUND(b.total_revenue,2) AS before_revenue,  ROUND(a.total_revenue,2) AS after_revenue, ROUND((a.total_revenue -
        b.total_revenue),2) AS revenue_diff, ROUND(((a.total_revenue - b.total_revenue) / b.total_revenue) * 100, 2) AS revenue_diff_pct, ROUND(b.avg_arpu,2) AS before_arpu,
        ROUND(a.avg_arpu,2) AS after_arpu,       ROUND((a.avg_arpu - b.avg_arpu),2) AS arpu_diff, ROUND(((a.avg_arpu - b.avg_arpu) / b.avg_arpu) * 100, 2) AS arpu_diff_pct,
        ROUND(b.total_active_users,2) AS before_active_users,       ROUND(a.total_active_users,2) AS after_active_users, ROUND((a.total_active_users - b.total_active_users),2) AS
        active_users_diff, ROUND(((a.total_active_users - b.total_active_users) / b.total_active_users) * 100, 2) AS active_users_diff_pct
        FROM  metrics_summary b
        JOIN
         metrics_summary a  ON
        b.time_period = a.time_period
        AND
        b._before_after_5g = 'Before 5G'
        AND
        a._before_after_5g = 'After 5G')
SELECT    month_pair,    before_revenue, after_revenue, revenue_diff, revenue_diff_pct, before_arpu, after_arpu, arpu_diff, arpu_diff_pct,    before_active_users, after_active_users,
active_users_diff, active_users_diff_pct
FROM  metrics_comparison;
```

month_pair	before_revenue	after_revenue	revenue_diff	revenue_diff_pct	before_arpu	after_arpu	arpu_diff	arpu_diff_pct	before_active_users	after_active_users	active_users_diff	active_users_diff_pct
1	354.37	357.56	3.19	0.9	187.47	217.80	30.33	16.18	191.71	169.94	-21.77	-11.36
2	425.69	412.76	-12.93	-3.04	185.73	202.47	16.74	9.01	228.28	211.13	-17.15	-7.51
3	410.45	419.08	8.63	2.1	196.47	209.53	13.06	6.65	212.58	204.41	-8.17	-3.84
4	407.19	400.26	-6.93	-1.7	191.27	215.20	23.93	12.51	210.96	188.22	-22.74	-10.78

Ad-hoc-Requests

9. List the top 5 cities where the number of unsubscribed users increased the most after 5G rollout, showing absolute and percentage change.

QUERY :

```
WITH cte1 AS
(SELECT city_name,
ROUND(SUM(unsubscribed_users_lakhs),2) AS u_U, _before_after_5g
FROM fact_atliqo_metrics AM
JOIN dim_cities DC ON
DC.city_code= AM.city_code
JOIN dim_date DD ON
DD.date = AM.date
GROUP BY city_name,_before_after_5g )
SELECT b5.city_name, b5.u_u AS Unsubscribed_users_Before_5G,
a5.u_u AS Unsubscribed_users_After_5G, ROUND((a5.u_u-b5.u_u),2)
AS chg,ROUND((a5.u_u-b5.u_u)/b5.u_u*100,2) AS chg_per
FROM cte1 b5
JOIN
cte1 a5 ON
b5.city_name = a5.city_name
WHERE b5._before_after_5g = 'Before 5G'ANDa5._before_after_5g = 'After 5G'
ORDER BY chg_per DESC
LIMIT 5;
```

city_name	Unsubscribed_users_Before_5G	Unsubscribed_users_After_5G	chg	chg_per
Lucknow	1.72	3.06	1.34	77.91
Pune	4.34	6.74	2.4	55.3
Jaipur	2.23	3.4	1.17	52.47
Chandigarh	1.03	1.5	0.47	45.63
Hyderabad	3.86	5.33	1.47	38.08

Ad-hoc-Requests

10. How does Atliqo's market share compare to its competitors (Britel, DADAFONE, PIO, and Others) before and after 5G rollout?

QUERY :

```
WITH cte1 AS
      (SELECT company, _before_after_5g, ROUND(AVG(ms_pct),2) AS Market_share
      FROM fact_market_share MS
      JOIN
      dim_date DD ON
      DD.date = MS.date
      GROUP BY company, _before_after_5g)
SELECT b5.company, b5.Market_share AS Market_share_before_5G, a5.Market_share AS
Market_share_After_5G
FROM cte1 b5
JOIN
cte1 a5 ONb5.company = a5.company
WHERE
      b5._before_after_5g = "Before 5G“
      AND
      a5._before_after_5g = "After 5G“
ORDER BY Market_share_before_5G DESC
```

company	Market_share_before_5G	Market_share_After_5G
PIO	35.11	35.72
Britel	27.26	27.71
Atliqo	20.24	18.88
DADAFONE	10.22	10.39
Others	7.17	7.29