The given data can be further divided into product categories in order to analyze the various attributes such as delivery time,estimated delivery time,upon running the following queries the results thus obtained are showcased.

```
SELECT
  t3.*,
  t4.product_category
FROM
  `sql_project.tab_order_State` AS t3
LEFT JOIN (
  SELECT
    t1.*,
    t2.product_category
  FROM
    `sql_project.order_items` AS t1
  LEFT JOIN
    `sql_project.products` AS t2
  ON
    t1.product_id=t2.product_id) t4
ON
  t3.order_id=t4.order_id
```

The above query is saved as a view having the name analysis_product_state which is further joined with orders_state_date table to get the above mentioned data

```
SELECT product_category,count(order_id)as no_of_orders,avg(time_to_delivery) as
avg_del_time,avg(diff_estimated_delivery)as avg_est_del_time,avg(price) as
avg_price,avg(freight_value) as avg_freight_value
FROM `scaler-dsml-sql-381611.sql_project.analysis_product_state`
group by product_category
order by no_of_orders desc
```

Row	product_category	no_of_orders	avg_del_time	avg_est_del_tim	avg_price	avg_freight_valu
1	bed table bath	16197	11.9115624...	11.3326250...	87.6926381...	17.9776538...
2	Furniture Decoration	14779	11.9974438...	11.7236614...	77.0345625...	19.7010778...
3	HEALTH BEAUTY	12479	11.3534849...	10.6951897...	114.966687...	17.8780254...
4	computer accessories	11910	12.7218929...	11.3204500...	114.647914...	18.4510083...
5	sport leisure	11216	11.5022814...	11.5114071...	105.152080...	18.9587508...
6	housewares	11142	10.0401067...	11.8453684...	78.3406767...	19.9064494...
7	Garden tools	7399	13.3032426...	11.5046716...	92.9686322...	20.3150425...
8	Watches present	7195	11.8534372...	11.3645641...	182.169665...	16.4403558...
9	telephony	5766	12.0886795...	10.3403234...	69.0679587...	15.3282206...
10	automotive	5536	11.4271988...	11.4839246...	132.645149...	21.3068352...

The table reveals the majority of orders are from ‘bed table bath’, ‘furniture’...., having similar average delivery time and average estimated delivery time

Upon executing the below query reveals that the following insights

```
select *
from
(SELECT product_category,customer_state,count(order_id)as
no_of_orders,avg(time_to_delivery) as avg_del_time,avg(diff_estimated_delivery)as
avg_est_del_time,avg(price) as avg_price,avg(freight_value) as
avg_freight_value,row_number() over(partition by customer_state order by
count(order_id) desc) as r1
FROM `scaler-dsml-sql-381611.sql_project.analysis_product_state`
group by product_category,customer_state
order by customer_state,no_of_orders desc) t5
where r1<=3
order by no_of_orders desc
```

Row	product_category	customer_state	no_of_orders	avg_del_time	avg_est_del_tim	avg_price	avg_freight_valu	r1
1	bed table bath	SP	7749	8.40760585...	11.0159435...	84.2387688...	14.5193366...	1
2	Furniture Decoration	SP	6345	8.47629066...	11.6816636...	72.1510575...	15.0952702...	2
3	HEALTH BEAUTY	SP	5782	8.14857744...	8.85440814...	93.7796627...	12.8398962...	3
4	bed table bath	RJ	2384	15.6126549...	10.6511329...	84.6254152...	19.2133640...	1
5	bed table bath	MG	1911	12.8774973...	11.3937960...	93.4036682...	20.6496650...	1
6	Furniture Decoration	RJ	1810	14.7024886...	10.9134615...	80.2652375...	20.3336519...	2
7	Furniture Decoration	MG	1692	11.1365533...	12.7191413...	72.8623581...	20.0912943...	2
8	housewares	MG	1468	10.6664350...	11.8269631...	74.9645980...	20.6137874...	3
9	computer accessories	RJ	1439	15.8229018...	10.5576102...	114.585163...	20.9923419...	3
10	Furniture Decoration	PR	1090	12.5837937...	11.2900552...	81.1375688...	23.4887706...	1
11	Furniture Decoration	RS	930	14.1136363...	15.6222943...	80.3476451...	21.3854516...	1

The products categories having the highest no of orders are surprisingly from a single state “SP” and next highest orders for these categories are from the state code “RJ”