

Key_Accounts_analysis

December 15, 2025

1 Key Accounts Analysis

```
[3]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np

[4]: xls=pd.ExcelFile("Sample Month End Report for Assesment.xlsx")

[5]: xls.sheet_names

[5]: ['Time spent Analysis', 'Key Accounts', 'Meeting Log', 'Inquiry Tracker']

[6]: data=pd.read_excel("Sample Month End Report for Assesment.xlsx",sheet_name="Key Accounts")
data
```

	Location	Key Account Names (company name)	Types of Projects
0	Chennai	AECOM	Res/Com
1	Hyderabad	AEDBM	Res/Com
2	Bangalore	Aedium Designs	Res/Com
3	Chennai	Archetype	Res/Com
4	Chennai	Ashok Narayan & Eshwar	Res/Com
5	Bangalore	Base	Res/Com
6	Chennai	Besten Consultants	Res/Com
7	Chennai	Bureau Engineers (structural)	Res/Com
8	Hyderabad	Bureau Hepolt	Res/Com
9	Bangalore	Chandavarkar and Thacker Architects	Res/Com
10	Chennai	cheralathan Architect	Res/Com
11	Bangalore	Chintala Studio.	Res/Com
12	Chennai	creative structures	Com
13	chennai	CRN Architects	Res/Com
14	Bangalore	Design Tree	Res/Com
15	Chennai	Dius Consultants	Res/Com
16	Bangalore	Ducon	Res/Com
17	Bangalore	Gensler.	Res/Com
18	Kerala	Geostructural	Com

19	Bangalore	Inform Architects.	Res/Com
20	Bangalore	Innotech	Res/Com
21	Bangalore	Innovarch	Com
22	Chennai	Jayam Consultants	Res/Com
23	Kerala	Kitco.	Res/Com
24	Kerala	Kumar group	Com
25	Hyderabad	Murthy and Manyam.	Res/Com
26	Bangalore	Nadig consultants	Res/Com
27	chennai	Natraj And Venkat.	Res/Com
28	Chennai	OCI Architects	Res/Com
29	Bangalore	Pragathi	Res/Com
30	Bangalore	Pragrup Architects	Res/Com
31	Bangalore	Prasad Consultants	Res/Com
32	Kerala	Prashant architects	Res/Com
33	Chennai	RSB Consultants	Res/Com
34	Bangalore	Sky tree	Res/Com
35	Hyderabad	Sri harsha Pvt Ltd (Structural)	Res/Com
36	Bangalore	Sterling Engineers	Res/Com
37	Bangalore	Sundaram Architects.	Res/Com
38	Hyderabad	Tameer Consulting Engineers	Res/Com
39	Bangalore	Venkataramana Associates	Res/Com
40	Bangalore	Vishwanath Associates	Res/Com
41	Hyderabad	Zaki Assosiates	Res/Com

Number of Decision Makers/ Sub Teams \

0	15 members of 3 groups reporting to Jayanthi
1	5 members reporting to Rama rao
2	3 teams of 10 members reporting to Nishanth
3	7 members reporting to shivashankaran
4	12 members reportinng to Murthy
5	4 members reporting to Sanjay
6	NaN
7	16 members of 4 teams reporting to Permaian
8	4 members reporting to Ganesh
9	4 members reporting to Prem
10	10 Members reporting to Cheralathan
11	1 team of 8 members reporting to Veena
12	6 members reporting to JSyno Mathew
13	3 members reporting to Lohith
14	70 Architect in 5 teams, with 5 associates rep...
15	12 members in 2 temas reporting to Subbaiah
16	8 members reporting to Syed Ameel
17	1 team of 8 members reporting to Bhavin
18	6 divisions consiting of 70 people with 6 divi...
19	2 teams of 5 members reporting to Urvashi
20	3 teams of 15 members reporting to Bhavesh and...
21	5 members reporting to Chandru

22 5 members reporting to Reddy
 23 6 divisions consisting of 80 people with 6 divi...
 24 1 team of 6 members reporting to Rani
 25 7 members reporting to Balakrishna
 26 5 TEAMS consisting of 6 people each with 5 team...
 27 1 team of 5 members reporting to Natraj
 28 6 members reporting to Poni
 29 10 members reporting to Vishwas
 30 3 members reporting to ravi kumar
 31 2 teams of 7 members reporting to kiran
 32 1 team of 7 members reporting to Nizar
 33 8 Members reporting to Suresh Babu
 34 1 team of 6 members reporting to sanjay
 35 3 members reporting to reddy
 36 2 tems of 6 members reporting to Nagendra
 37 1 team of 5 members reporting to Anitha
 38 6 members reporting to Varshath ali
 39 2 teams of 6 members reporting to Subramani
 40 4 members reporting to vidya
 41 8 members of 2 teams reporting to zaki

Estimated Vol of Boq Per Year with EJC \

0	5
1	1 or 2
2	2
3	3
4	5
5	1
6	1
7	5
8	1 or 2
9	2 or 3
10	3
11	1 or 2
12	2 to 3
13	10
14	15
15	3
16	2 or 3
17	2 or 3
18	2 to 3
19	2
20	10
21	1
22	3
23	2
24	1 or 2

25	3 to 4
26	3 to 4
27	5
28	3
29	2 or 3
30	2 or 3
31	2 or 3
32	1 or 2
33	5
34	1
35	1 or 2
36	3
37	2 or 3
38	1 or 2
39	2 or 3
40	2
41	1 or 2

Target number of Boq from the account

0	5
1	1
2	2
3	3
4	5
5	1
6	1
7	5
8	1
9	1
10	3
11	1
12	1
13	8
14	13
15	3
16	1
17	1
18	1
19	2
20	9
21	1
22	3
23	2
24	1
25	2
26	2
27	3

```
28          3
29          1
30          1
31          1
32          1
33          5
34          1
35          1
36          3
37          1
38          1
39          1
40          2
41          1
```

```
[7]: data.isnull().sum()
```

```
[7]: Location          0
      Key Account Names (company name) 0
      Types of Projects          0
      Number of Decision Makers/ Sub Teams 1
      Estimated Vol of Boq Per Year with EJC 0
      Target number of Boq from the account 0
      dtype: int64
```

```
[8]: data['Number of Decision Makers/ Sub Teams']=data['Number of Decision Makers/ Sub Teams'].fillna('unknown')
```

```
[9]: data.isnull().sum()
```

```
[9]: Location          0
      Key Account Names (company name) 0
      Types of Projects          0
      Number of Decision Makers/ Sub Teams 0
      Estimated Vol of Boq Per Year with EJC 0
      Target number of Boq from the account 0
      dtype: int64
```

```
[10]: data.columns=data.columns.str.replace(' ','_')
       data.columns=data.columns.str.lower().str.strip()
```

```
[11]: data = data.rename(columns={'number_of_decision_makers/_sub_teams':_
                                'number_of_decision_makers/sub_teams'})
       data = data.rename(columns={'key_account_names_(company_name)':_
                                'key_account_names(company_name)'})
```

```
[12]: data
```

```

[12]:   location      key_account_names(company_name) types_of_projects \
0     Chennai          AECOM        Res/Com
1     Hyderabad        AEDBM        Res/Com
2     Bangalore        Aedium Designs Res/Com
3     Chennai          Archetype    Res/Com
4     Chennai          Ashok Narayan & Eshwar Res/Com
5     Bangalore        Base         Res/Com
6     Chennai          Besten Consultants Res/Com
7     Chennai          Bureau Engineers (structural) Res/Com
8     Hyderabad        Bureau Hepolt    Res/Com
9     Bangalore        Chandavarkar and Thacker Architects Res/Com
10    Chennai          cheralathan Architect Res/Com
11    Bangalore        Chintala Studio. Res/Com
12    Chennai          creative structures Com
13    chennai          CRN Architects Res/Com
14    Bangalore        Design Tree    Res/Com
15    Chennai          Dius Consultants Res/Com
16    Bangalore        Ducon        Res/Com
17    Bangalore        Gensler.     Res/Com
18    Kerala           Geostructural Com
19    Bangalore        Inform Architects. Res/Com
20    Bangalore        Innotech    Res/Com
21    Bangalore        Innovarch    Com
22    Chennai          Jayam Consultants Res/Com
23    Kerala           Kitco.      Res/Com
24    Kerala           Kumar group   Com
25    Hyderabad        Murthy and Manyam. Res/Com
26    Bangalore        Nadig consultants Res/Com
27    chennai          Natraj And Venkat. Res/Com
28    Chennai          OCI Architects Res/Com
29    Bangalore        Pragathi    Res/Com
30    Bangalore        Pragrup Architects Res/Com
31    Bangalore        Prasad Consultants Res/Com
32    Kerala           Prashant architects Res/Com
33    Chennai          RSB Consultants Res/Com
34    Bangalore        Sky tree     Res/Com
35    Hyderabad        Sri harsha Pvt Ltd ( Structural) Res/Com
36    Bangalore        Sterling Engineers Res/Com
37    Bangalore        Sundaram Architects. Res/Com
38    Hyderabad        Tameer Consulting Engineers Res/Com
39    Bangalore        Venkataramana Associates Res/Com
40    Bangalore        Vishwanath Associates Res/Com
41    Hyderabad        Zaki Assosciates Res/Com

                           number_of_decision_makers/sub_teams \
0     15 members of 3 groups reporting to Jayanthi
1     5 members reporting to Rama rao

```

2 3 teams of 10 members reporting to Nishanth
3 7 members reporting to shivashankaran
4 12 members reportinng to Murthy
5 4 members reporting to Sanjay
6 unknown
7 16 members of 4 teams reporting to Permaian
8 4 members reporting to Ganesh
9 4 members reporting to Prem
10 10 Members reporting to Cheralathan
11 1 team of 8 members reporting to Veena
12 6 members reporting to JSyno Mathew
13 3 members reporting to Lohith
14 70 Architect in 5 teams, with 5 associates rep..
15 12 members in 2 temas reporting to Subbaiah
16 8 members reporting to Syed Ameel
17 1 team of 8 members reporting to Bhavin
18 6 divisions consiting of 70 people with 6 divi...
19 2 teams of 5 members reporting to Urvashi
20 3 teams of 15 members reporting to Bhavesh and...
21 5 members reporting to Chandru
22 5 members reporting to Reddy
23 6 divisions consiting of 80 people with 6 divi...
24 1 team of 6 members reporting to Rani
25 7 members reporting to Balakrishna
26 5 TEAMS consiting of 6 people each with 5 team...
27 1 team of 5 members reporting to Natraj
28 6 members reporting to Poni
29 10 members reporting to Vishwas
30 3 members reporting to ravi kumar
31 2 teams of 7 members reporting to kiran
32 1 team of 7 members reporting to Nizar
33 8 Members reporting to Suresh Babu
34 1 team of 6 members reporting to sanjay
35 3 members reporting to reddy
36 2 tems of 6 members reporting to Nagendra
37 1 team of 5 members reporting to Anitha
38 6 members reporting to Varshath ali
39 2 teams of 6 members reporting to Subramani
40 4 members reporting to vidya
41 8 members of 2 teams reporting to zaki

5	1
6	1
7	5
8	1 or 2
9	2 or 3
10	3
11	1 or 2
12	2 to 3
13	10
14	15
15	3
16	2 or 3
17	2 or 3
18	2 to 3
19	2
20	10
21	1
22	3
23	2
24	1 or 2
25	3 to 4
26	3 to 4
27	5
28	3
29	2 or 3
30	2 or 3
31	2 or 3
32	1 or 2
33	5
34	1
35	1 or 2
36	3
37	2 or 3
38	1 or 2
39	2 or 3
40	2
41	1 or 2

target_number_of_boq_from_the_account

0	5
1	1
2	2
3	3
4	5
5	1
6	1
7	5

```
8          1
9          1
10         3
11         1
12         1
13         8
14        13
15         3
16         1
17         1
18         1
19         2
20         9
21         1
22         3
23         2
24         1
25         2
26         2
27         3
28         3
29         1
30         1
31         1
32         1
33         5
34         1
35         1
36         3
37         1
38         1
39         1
40         2
41         1
```

```
[13]: data['location'].unique()
```

```
[13]: array(['Chennai', 'Hyderabad', 'Bangalore', 'chennai', 'Kerala'],
           dtype=object)
```

```
[14]: data['location']=data['location'].replace('chennai','Chennai')
```

```
[15]: data['location'].unique()
```

```
[15]: array(['Chennai', 'Hyderabad', 'Bangalore', 'Kerala'], dtype=object)
```

```
[16]: import numpy as np
import re

def convert_boq(value):
    # Handle missing values
    if pd.isna(value):
        return np.nan

    # If already numeric, return as float
    if isinstance(value, (int, float)):
        return float(value)

    # Convert everything else to string
    value = str(value).lower().strip()

    # Extract numbers
    numbers = re.findall(r'\d+', value)

    if len(numbers) == 1:
        return float(numbers[0])

    elif len(numbers) == 2:
        return (float(numbers[0]) + float(numbers[1])) / 2

    else:
        return np.nan

# On average, this account is expected to generate 1.5 BOQs per year
```

```
[17]: data['estimated_boq_clean'] = data['estimated_vol_of_boq_per_year_with_ejc'].
    ↪apply(convert_boq)
```

```
[18]: data[['estimated_vol_of_boq_per_year_with_ejc', 'estimated_boq_clean']].head(15)
```

	estimated_vol_of_boq_per_year_with_ejc	estimated_boq_clean
0	5	5.0
1	1 or 2	1.5
2	2	2.0
3	3	3.0
4	5	5.0
5	1	1.0
6	1	1.0
7	5	5.0
8	1 or 2	1.5
9	2 or 3	2.5
10	3	3.0
11	1 or 2	1.5

12	2 to 3	2.5
13	10	10.0
14	15	15.0

```
[19]: data.groupby('location')['estimated_boq_clean'].sum()
```

```
[19]: location
Bangalore    62.0
Chennai      53.5
Hyderabad    11.0
Kerala       7.5
Name: estimated_boq_clean, dtype: float64
```

[]: # Bangalore has the highest BOQ potential (62 BOQs/year),
followed by Chennai (53.5),
making these two cities the primary revenue-driving markets for EJC.

2 Around 86% of EJC's total BOQ opportunity is concentrated in Bangalore and Chennai.

```
[20]: data['boq_gap'] = data['estimated_boq_clean'] - data['target_number_of_boq_from_the_account']
```

```
[21]: data
```

```
[21]:   location      key_account_names(company_name) types_of_projects \
0     Chennai                  AECON          Res/Com
1   Hyderabad                 AEDBM          Res/Com
2   Bangalore                Aedium Designs  Res/Com
3     Chennai                  Archetype      Res/Com
4     Chennai            Ashok Narayan & Eshwar  Res/Com
5   Bangalore                   Base          Res/Com
6     Chennai        Besten Consultants  Res/Com
7     Chennai    Bureau Engineers (structural)  Res/Com
8   Hyderabad                  Bureau Hepolt  Res/Com
9   Bangalore  Chandavarkar and Thacker Architects  Res/Com
10    Chennai      Cheralathan Architect  Res/Com
11   Bangalore           Chintala Studio.  Res/Com
12    Chennai      creative structures  Com
13    Chennai        CRN Architects  Res/Com
14   Bangalore          Design Tree  Res/Com
15    Chennai        Dius Consultants  Res/Com
16   Bangalore            Ducon  Res/Com
17   Bangalore            Gensler.  Res/Com
18    Kerala            Geostructural  Com
19   Bangalore        Inform Architects.  Res/Com
```

20	Bangalore	Innotech	Res/Com
21	Bangalore	Innovarch	Com
22	Chennai	Jayam Consultants	Res/Com
23	Kerala	Kitco.	Res/Com
24	Kerala	Kumar group	Com
25	Hyderabad	Murthy and Manyam.	Res/Com
26	Bangalore	Nadig consultants	Res/Com
27	Chennai	Natraj And Venkat.	Res/Com
28	Chennai	OCI Architects	Res/Com
29	Bangalore	Pragathi	Res/Com
30	Bangalore	Pragrup Architects	Res/Com
31	Bangalore	Prasad Consultants	Res/Com
32	Kerala	Prashant architects	Res/Com
33	Chennai	RSB Consultants	Res/Com
34	Bangalore	Sky tree	Res/Com
35	Hyderabad	Sri harsha Pvt Ltd (Structural)	Res/Com
36	Bangalore	Sterling Engineers	Res/Com
37	Bangalore	Sundaram Architects.	Res/Com
38	Hyderabad	Tameer Consulting Engineers	Res/Com
39	Bangalore	Venkataramana Associates	Res/Com
40	Bangalore	Vishwanath Associates	Res/Com
41	Hyderabad	Zaki Assosciates	Res/Com

```

        number_of_decision_makers/sub_teams \
0      15 members of 3 groups reporting to Jayanthi
1          5 members reporting to Rama rao
2      3 teams of 10 members reporting to Nishanth
3          7 members reporting to shivashankaran
4          12 members reportinng to Murthy
5          4 members reporting to Sanjay
6          unknown
7      16 members of 4 teams reporting to Permaian
8          4 members reporting to Ganesh
9          4 members reporting to Prem
10     10 Members reporting to Cheralathan
11     1 team of 8 members reporting to Veena
12     6 members reporting to JSyno Mathew
13     3 members reporting to Lohith
14    70 Architect in 5 teams, with 5 associates rep...
15    12 members in 2 temas reporting to Subbaiah
16    8 members reporting to Syed Ameel
17    1 team of 8 members reporting to Bhavin
18    6 divisions consiting of 70 people with 6 divi...
19    2 teams of 5 members reporting to Urvashi
20    3 teams of 15 members reporting to Bhavesh and...
21          5 members reporting to Chandru
22          5 members reporting to Reddy

```

23 6 divisions consisting of 80 people with 6 divi...
24 1 team of 6 members reporting to Rani
25 7 members reporting to Balakrishna
26 5 TEAMS consisting of 6 people each with 5 team...
27 1 team of 5 members reporting to Natraj
28 6 members reporting to Poni
29 10 members reporting to Vishwas
30 3 members reporting to ravi kumar
31 2 teams of 7 members reporting to kiran
32 1 team of 7 members reporting to Nizar
33 8 Members reporting to Suresh Babu
34 1 team of 6 members reporting to sanjay
35 3 members reporting to reddy
36 2 tems of 6 members reporting to Nagendra
37 1 team of 5 members reporting to Anitha
38 6 members reporting to Varshath ali
39 2 teams of 6 members reporting to Subramani
40 4 members reporting to vidya
41 8 members of 2 teams reporting to zaki

estimated_vol_of_boq_per_year_with_ejc \\\n
0 5
1 1 or 2
2 2
3 3
4 5
5 1
6 1
7 5
8 1 or 2
9 2 or 3
10 3
11 1 or 2
12 2 to 3
13 10
14 15
15 3
16 2 or 3
17 2 or 3
18 2 to 3
19 2
20 10
21 1
22 3
23 2
24 1 or 2
25 3 to 4

26	3 to 4
27	5
28	3
29	2 or 3
30	2 or 3
31	2 or 3
32	1 or 2
33	5
34	1
35	1 or 2
36	3
37	2 or 3
38	1 or 2
39	2 or 3
40	2
41	1 or 2

	target_number_of_boq_from_the_account	estimated_boq_clean	boq_gap
0		5	0.0
1		1	1.5
2		2	2.0
3		3	3.0
4		5	5.0
5		1	1.0
6		1	1.0
7		5	5.0
8		1	1.5
9		1	2.5
10		3	3.0
11		1	1.5
12		1	2.5
13		8	10.0
14		13	15.0
15		3	3.0
16		1	2.5
17		1	2.5
18		1	2.5
19		2	2.0
20		9	10.0
21		1	1.0
22		3	3.0
23		2	2.0
24		1	1.5
25		2	3.5
26		2	3.5
27		3	5.0
28		3	3.0

29		1	2.5	1.5
30		1	2.5	1.5
31		1	2.5	1.5
32		1	1.5	0.5
33		5	5.0	0.0
34		1	1.0	0.0
35		1	1.5	0.5
36		3	3.0	0.0
37		1	2.5	1.5
38		1	1.5	0.5
39		1	2.5	1.5
40		2	2.0	0.0
41		1	1.5	0.5

```
[22]: data['boq_gap']
```

[22]:	0	0.0
	1	0.5
	2	0.0
	3	0.0
	4	0.0
	5	0.0
	6	0.0
	7	0.0
	8	0.5
	9	1.5
	10	0.0
	11	0.5
	12	1.5
	13	2.0
	14	2.0
	15	0.0
	16	1.5
	17	1.5
	18	1.5
	19	0.0
	20	1.0
	21	0.0
	22	0.0
	23	0.0
	24	0.5
	25	1.5
	26	1.5
	27	2.0
	28	0.0
	29	1.5
	30	1.5

```
31    1.5
32    0.5
33    0.0
34    0.0
35    0.5
36    0.0
37    1.5
38    0.5
39    1.5
40    0.0
41    0.5
Name: boq_gap, dtype: float64
```

3 Most accounts have correct targets, but a few still have good growth potential with low risk

```
[24]: data.groupby('types_of_projects')['estimated_boq_clean'].sum()
```

```
[24]: types_of_projects
Com           7.5
Res/Com      126.5
Name: estimated_boq_clean, dtype: float64
```

4 Residential & Commercial projects dominate BOQ volume.

```
[28]: company_boq=data.
       ↪groupby('key_account_names(company_name)')['estimated_boq_clean'].sum().
       ↪sort_values(ascending=False)
```

```
[31]: # top 10 companies with high estimated boq
company_boq.head(10)
```

```
[31]: key_account_names(company_name)
Design Tree            15.0
CRN Architects         10.0
Innotech                10.0
Ashok Narayan & Eshwar   5.0
Bureau Engineers (structural) 5.0
AECOM                  5.0
RSB Consultants          5.0
Natraj And Venkat.       5.0
Murthy and Manyam.        3.5
Nadig consultants         3.5
Name: estimated_boq_clean, dtype: float64
```

[]: