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DEPARTMENT OF STATISTICS
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Project Report On

“The Analysis On Telecom Comapanies”

Submitted by

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PRATAP COLLEGE, AMALNER
(AUTONOMOUS)
(NAAC Re accredited A+++)

CERTIFICATED

This is certified that Sahil Ramesh Patil, Vaibhav Kashinath Thakur, Avinash Vasant Patil & Tushar Prakash Patil are students of T.Y.B.Sc (STATISTICS) in the Academic Year 2021-2022 has successfully carried out the project work with faithfully as well as remarkable finding accordance to the subject

“The Analysis On Telecom Companies”

Under the supervision and guidance of Asst.Prof. Saloni Patil

Place: AMALNER

Date:

Prof. J.B.Jain
(H.O.D of statistics)

ACKNOWLEDGEMENT

We wish our sincere to thanks to the department of statistics because it was not possible to complete our project. We feel very happy to presenting the project which is based on The Analysis of Telecom satisfaction to all over India and customer feedback using Regression. We express our deep sense of gratitude to our project guide Asst.Prof. Saloni Patil & Ms. Priyanka Kale for their inspirative directions and constant encouragement.

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INTRODUCTION

There are lots of sim cards using in India. We analyzing that which sim card is mostly satisfied their customer. Our focus is on some occupation like Student, Businessman etc. How the telecom company provides the feature of data, talk time, and some effect on Customers due to the sudden growth in price of recharges in past few days.

About Telecom Service Provider (SIM):

SIM card full is Subscriber Identity Module. [SIM card](#) as the name suggests is integrated circuit that stores identity of users on mobile telephony devices. SIM card is generally smaller and rectangular, about 25mm by 15mm, and notched at one corner. This feature ensures handy, fail-safe way of inserting the card correctly into the slot in mobile phone. SIM cards can also be used in satellite phones, smart watches etc.

❖ Advantages of Subscriber Identity Module:

This tiny card consists of your phone number, rate plan, your contact list and several other things.

It is portable chip which you can move from one cell phone to other.

The data on SIM card is protected by PIN lock which is usually set by manufacturer. Although you can change this PIN.

❖ Disadvantages of Subscriber Identity Module:

As the SIM card is portable so if anytime you lose it you lose your personal information like phone number, contact list and several others.

If you are using dual SIM handset it is possible that phone battery may drain lot.

In this project we are shading the top three Indian telecom Sim brands.

❖ **Reliance Jio:**

Reliance Jio Info Comm Limited (RJIL), the mobile arm of petrochemical giant Reliance Industries Ltd. (RIL) owned by India's richest man Mukesh Ambani, started its new 4G-only network at the end of 2015 nationwide. Due to its aggressive tactics, it quickly gained millions of subscribers at the expense of Airtel and Vodafone Idea, and became the largest Indian mobile network operator with close to 400 million subscribers.

<http://www.jio.com/>

❖ **Airtel:**

Airtel India (a.k.a. as Bharti Airtel) used to be the biggest provider in India and is now the second largest provider of mobile telephony in the country with about 344.55 million wireless subscribers in India or about 30% of the market. This comes through mergers and acquisitions of other providers like Telenor. The latest merger with Tata Docomo is expected was finished in July 2019 giving another 40 million customers to the new group.

<http://www.airtel.in/>

❖ **Vi:**

In August 2018, **Vodafone** India merged with **Idea** Cellular, and was renamed as Vodafone Idea Ltd. However, the merged entity continued using both the Idea and Vodafone brands until 7 September 2020, when a new brand called **Vi** was introduced.

<https://www.myvi.in/>

This 3-sim card brands are widely famous and using by Indian Consumers. All brands have their special offers and packages according to price. Costumer recharge their sim on the basis of daily need.

❖ Objectives Of Study:

1. To study the issues between sim card.
2. To study the best telecom service.
3. To study the effects on customers by increasing recharge prices.
4. To study the daily need and other using features of customers.

❖ Methodology:

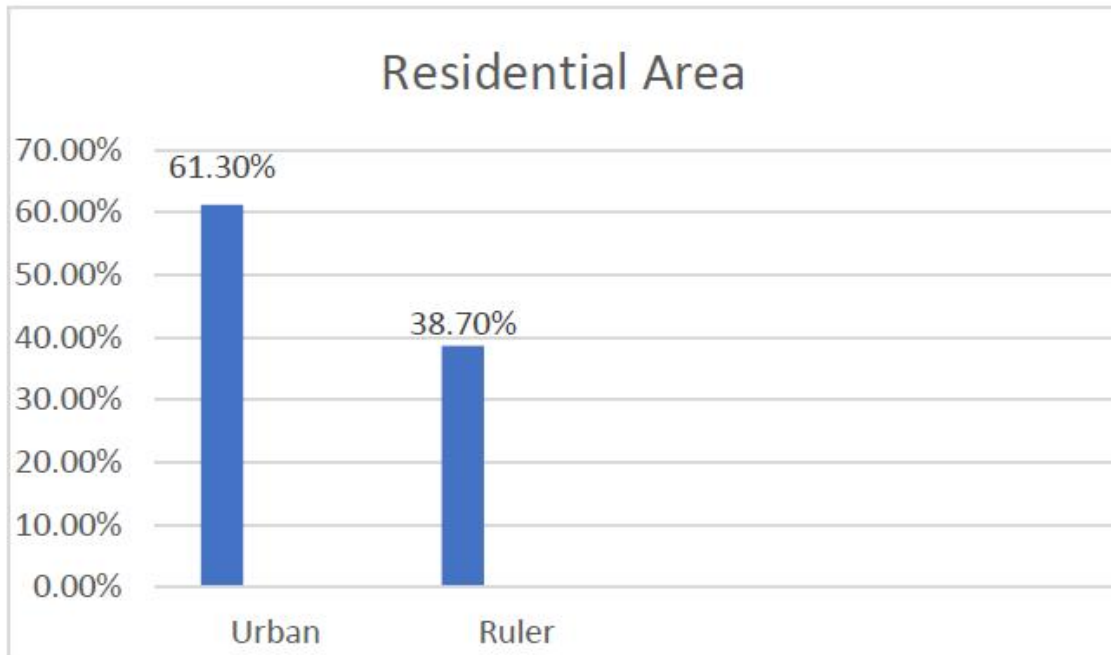
1. Analysis method.
2. Data presentation by graph.
3. Data source Primary data by google form.
4. Proportional test.

❖ Data Collection:

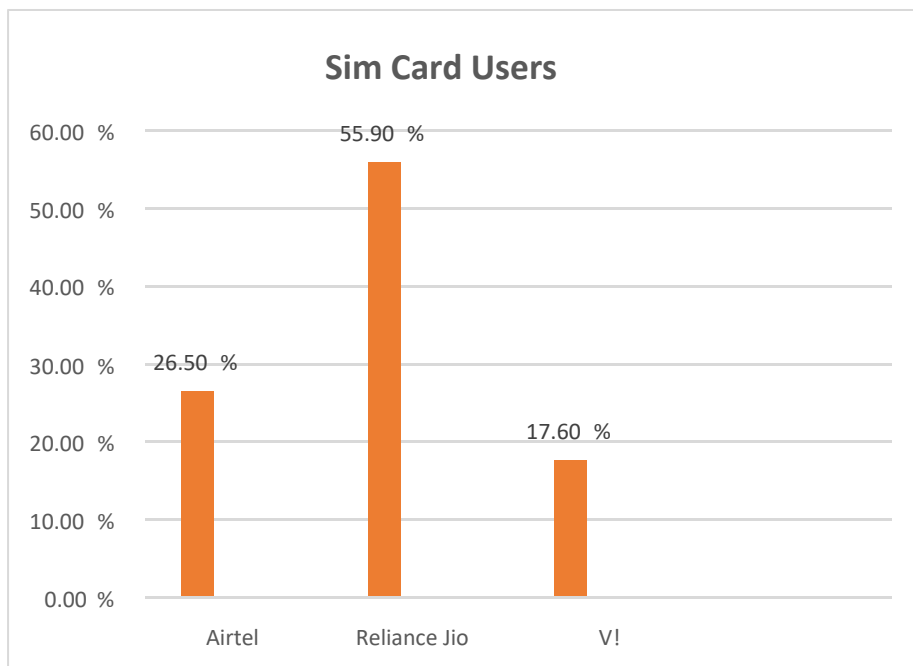
Primary Data by using Google form.

❖ Graphical Analysis

Are You From?



Which Sim card you using?



Analysis-I

Proportion of people satisfied with their current Telecom service brand

H0: Proportion of consumers satisfied with their current Telecom provider may be 50%

H1: Proportion of consumers satisfied with their current Telecom provider may be greater than 50%.

$$H0: P0=0.5 \quad \text{VS} \quad H1: P0>0.5$$

Here, x= No. of consumers saying yes for satisfaction toward current Telecom Service Provider = 88.6

$$n=100$$

$$P = x/n = 0.886$$

$$\text{Risk Factor} = \alpha = 0.05$$

❖ Test Statistics

$$Z_{cal} = \left(\frac{p - p_0}{\sqrt{\frac{p_0 * q_0}{n}}} \right) \sim N(0,1)$$

$$Z_{cal} = 7.72$$

$$Z_{tab} = 1.96$$

❖ Comparison

$$|Z_{cal}| > |Z_{tab}|$$

Decision: H0 is Rejected

❖ **Conclusion:** Proportion of consumers satisfied with their current Telecom provider may be greater than 50%

❖ Testing Relation of Prices of Recharge and Validity of Recharge

x	y
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	239
28	299
28	299
28	299
56	479
56	479
84	719
84	719
84	719
84	719
84	719
84	719
84	719
84	719
84	719
84	719
84	719
365	2999
365	2999
365	2999

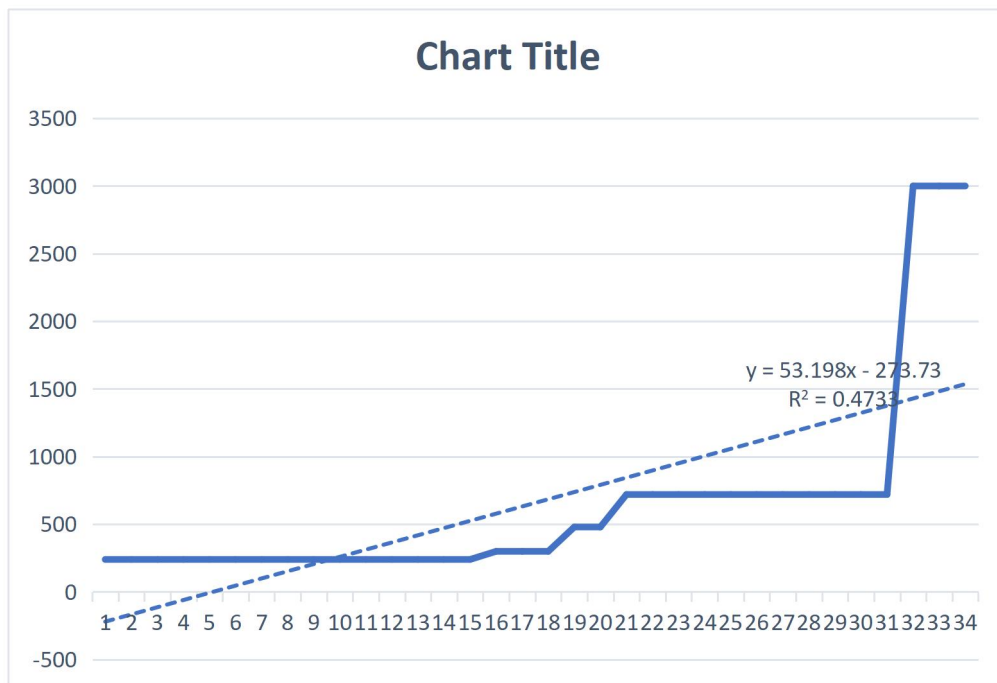
❖ **Correlation:**

$$\text{Cov}(x,y)=\sum \frac{(x-x_{br})*(y-y_{br})}{n}$$

$$= 72593.64$$

$$R=\frac{\text{cov}(x,y)}{\sigma(x)*\sigma(y)}$$

$$= 0.999738$$



From The above solution we can say that the correlation is highly positive.

FINDINGS

- 1) 61.30% Consumers are from URBAN and remaining RURAL area consumers.
- 2) 55.90% consumers are JIO users, 26.50% consuming are Airtel & 17.60% are V!
- 3) From the analysis it concludes that proportion & consumers satisfied with their current Telecom provider may be greater than 50%.
- 4) There is positive relation between prices of recharge and validity of recharge.

CONCLUSION

There are various telecom companies in India and they provide us different types of services. In our project three major Indian telecom companies such as Reliance JIO, Bharti Airtel and Vodafone-Idea(V!).

By the above different types of analysis, we can conclude that V! telecom company performance have some network issues but provides best offers as compared to other, And our next telecom company is Airtel which is best in service and offers but by our report analysis some costumers are unsatisfied for higher recharge prices.

For which we did this project such as from our project aim to find best telecom company for customer satisfaction, we get finally a best which is Reliance Jio Brand. Reliance jio is a very successful company in India & providing customer satisfaction in one of their primary motives and they proved it by their performance through our analysis.

QUESTIONNAIRE

1. YOUR NAME
2. ARE YOU FROM?
 - a) URBAN b) RURAL
3. OCCUPATION?
 - a) STUDENT b) BUSINESSMAN c) HOUSEWIFE d)EMPLOYE
4. WHICH SIM CARD YOU USING?
 - a) AIRTEL b) RELIANCE JIO c) V!
5. ARE YOU SATISFIED WITH YOUR SIM CARD NETWORK?
 - a) YES b) NO
6. ARE YOU WANT TO CHANGE YOUR SIM CARD TO OTHER TELECOM COMPANY?
 - a) YES b) NO
7. DO YOU USE SECOND NETWORK PROVIDE?
 - a) YES b) NO
8. WHAT IS YOUR DAILY NEED?
 - a) DATA b) TALK TIME c) SMS
9. ECONOMICALLY WHICH PACK YOU PREFER?
 - a) 28 b) 56 c) 84 d) 365
10. WHICH SIM CARD YOUR PREFER FOR FUTURE?
 - b) RELANCE JIO b) AIRTEL c) V!

