Connecting People: A Statistical Study of Telecom Service Providers

Prakash S. Chougule[1], Tejaswi S. Kurane[2], Suresh T. Salunkhe[3], Taniya P. Shevarmani[4], Mubin R. Shaikh[5]

[1, 2, 4, 5] Associate Professor, Dept of Statistics, R. C. Shahu College, Kolhapur (MS), India

[3] Principal, Dept of Chemistry, R. C. Shahu College, Kolhapur (MS), India

Abstract: Connectivity provided by telecommunication infrastructure provides a dominant platform and plays a vital role in realization of a smart city Growth is the prime aim for any company. With the changing times and growing competition, it has become essential for the technology-driven companies to identify their core competencies and have a competitive edge over others. Business matrices like net sales, profit after tax, market capitalization and level of satisfaction of the customers are important indicators depicting the stand of the companies in the market. A comparative analysis of the leading telecom service providers such as Bharti Airtel, Vodafone Essar, Idea Cellular, Reliance Communications,

Keywords: Telecom Brand, Z- Test, Chi-square Test, KS-Test, ANVOA, P-value, Level of Significance, Graphical Representation

I. INTRODUCTION

The Telecom Services have been recognized all over the world as an important tool for socio-economic development for a nation. India is the booming market for telecom sector. It is ranked second in the telecom network provider all around the world. This industry has witnessed significant growth in subscriber base over the last decade with better network coverage and competition induced decline in tariff plans. Customer satisfaction has been the major challenge for the companies to retain customers. Almost every brand in the market today has reached parity in terms of the features and technology. Almost every big brand in the market today meets a certain threshold level of product and service performance. But certain brands exceed customer expectations.

It is getting tougher for the marketers to retain the customers. Till a few years back, they could be reasonably certain that they would retain a customer who was satisfied with the product and the quality of service they were providing. That is no longer enough. Study after study shows that customers' satisfaction alone is no longer a real measure of loyalty. Companies now need to try harder and absolutely delight the customer if they want to retain him/her in their fold.

This survey aims to get an overview of the telecom industry. Scope of the study is to understand the various services and products offered by the telecom service providers to their customers and to find out the perception of customers about the services being offered and the customer expectations. We also took into consideration the satisfaction levels of customers onto various facilities provided by their chosen telecom brands. We also analyzed the basis on which the customer chooses his/her telecom service provider. The impact of promotion strategies like advertisements, tariff plans, VAS of the telecom industries on the customers is also studied from this survey.

A. Statistical tools
1) Graphical Tools: Bar diagram, Multiple Bar diagram, Pie-Chart, Clustered bar diagram, Subdivided bar diagram.
2) Tests: Chi-Square test for independence, Proportion, KS test, Test for equality of mean, Colligation and Association test.
3) Other Statistical Methods: ANOVA.
4) Software: 1) R-software 2) MS-Excel

B. Objectives of Study
1) To get an overview of the telecom industry.
2) Explore the services and products offered by the telecom service provider to individual customers.
3) Understand the perception of customers with respect to services offered by the telecom service provider.
4) To study the customer satisfaction and understand their expectations.