Study of Effectiveness of Free Wi-fi Services at the Railway Stations in Palghar Dist.

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Abstract - The purpose of this study was to determine the usage of free public Wi-fi provided by the Railway Ministry, Government of India across the various railway stations. Internet has become a vital part of our everyday lives. Its usage does not limit to just entertainment and access to information but we are also dependent on it for various crucial needs like train timings, online banking, ticket bookings etc. Whether it is providing some vital office information to a co-worker or just telling your loved one that you're on the way home, internet is ruling our lives.

In a historical decision taken by the Railway ministry in January 2016, the facility of free public Wi-fi was started on the Indian railway stations. Soon a lot of railway stations were covered under this programme. This was a remarkable step in the process of making India a digitally progressed country. Though there were challenges in making this programme a nation wide phenomena, it still worked very well.

As the usage of the internet increased we cannot ignore the fact that the cost of the internet has been falling. So in this era of falling internet prices and cheaper data packs so easily available, is the free Wi-fi facility available on the stations makes sense? This study intends to find this.

The key words : *Wi-fi, Railway, Railwire, RailTel.*

I. INTRODUCTION

In the modern era, the things which are essential for the human beings are not only food, water and air but also a fast paced net pack. Slowly, internet has become an integral part of all our lives. So much so that, it is now difficult to imagine our lives without it. We have become dependent on it big time.

Internet surely has myriad benefits and that is why our lives have started revolving around it. Not only does the **Internet** create convenience in sharing and receiving information between users, another **advantage** of the modern **Internet** is its ability for automation.

Keeping the above points in mind the Government of India, under it's unique program called "Digital India" introduced free wifi on the railway stations from January 2016.

The first railway station from which the program was kicked off was Mumbai Central.

Google designed and deployed the wireless infrastructure on top of the fibre optic network in the station created by RailTel. It was offered as a free utility service. The brand name given to it was "Railwire". The service was hugely applauded by the masses and liked by millions. In a year, about hundred railway stations in India were Wi-fi enabled. 300 stations were added to the list in the next year and half.

The users can use the free Wi-fi for thirty minutes and Google is now planning to expand the availability of public Wi-fi outside the stations.

II. RESEARCH METHODOLOGY

An exploratory study was conducted to ascertain the Free wi-fi services usage habits of the Railway passengers in Palghar district. Personal survey of 150 Railway passengers was conducted by using simple random method of sampling.

Research Objectives:

1. To ascertain the consumer awareness about the free Wi-fi services at the railway stations.

2. To ascertain the usage rate of free Wi-fi services.

3. To ascertain whether the demographic variables affect the usage of free Wi-fi services.

Hypothesis:

Ho1: There is no association between gender and usage rate of free Wi-fi facility by the railway passengers.

Ho2: There is no association between usage rate of free Wi-fi facility and income.

Statement of the Problem:

The Project of providing Free wi-fi services at the railway

Indian stations was initiated in association with Google by spending a huge Rs.700 Crore by the Railway ministry. Indian Railway claims that the project has succeeded in its mission of bringing connectivity to millions of unconnected Indians. This initiative was taken up in the year 2016. After it's implementation no review of the said investment was taken by the Railway ministry. This research work is an attempt in the direction of reviewing the effectiveness of the Free Wi-fi services made available by the Railway ministry by spending huge amount of public money. The outcome of this research work will be helpful in designing appropriate measures for ensuring effective use of the said facility.

III. LITERATURE REVIEW

This section of the paper focuses on the previous researches done in this field. Though a lot of literature was not available considering the fact that the field of the study is relatively new.

Considering how important and vital the facility of the wifi has become for the people, the railway ministry of India started the facility of free wifi on the railway stations. Under this program about 100 railway stations were provided with the facility of the free wifi network initially.

Later on around 300 more were added to the list. This facility allowed the traveller to access free wifi service for about thirty minutes. Though the access is timed but it was reported in the various news-papers that due to the good speed the things that could be downloaded were plenty.

It was also reported that around 1.5 million people use this service of free wifi available at various railway stations. There are also cases of people who have cleared their competitive exams using this free wifi. So, we could conclude that something was really working. The data prices were really high at that time so providing free wifi was making a lot of sense.

But as the years have passed by, the prices of the data packs have fallen considerably. A lot of data is available for the people to use. Also Moate, M. K. ; Chukwuere, E. J. and Mavhungu, B.M. (2017) mention in their research paper which analyses the availability of free wifi for academic institutions about the security issues such systems can cause.

So, in this changing scenario does the free wifi facility available on the railway stations holds any relevance for the people who can get data packs as cheap as dirt? This paper tries to find out.

IV. DATA ANALYSIS

The chi square statistic used to conduct this test is the same as in the goodness of fit test:

$$\chi_c^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

The subscript "c" are the degrees of freedom. "O" is your observed value and E is your expected value. Chi square value is calculated at 0.05 level of significance. Chi-square test was used to test the hypothesis.

Ho1: There is no association between usage rate of free WIFI facility and gender.
H1 : otherwise-

	5 to 10 mins.	10 to 15 mins.	15 to 20 mins.	20 mins. above
Male	20	17	10	6
Female	10	6	5	3

	5 to 10 min.	10 to 15 min	15 to 20 min.	Above 20 min.	Row Totals
Male	20 (20.65) [0.02]	17 (15.83) [0.09]	10 (10.32) [0.01]	6 (6.19) [0.01]	53
Female	10 (9.35) [0.05]	6 (7.17) [0.19]	5 (4.68) [0.02]	3 (2.81) [0.01]	24
Column Totals	30	23	15	9	**77 (Grand Total)**

chi-square = 0.39

p-value = 0 .94

Since p > 0.05 the result is significant.

Therefore, Null hypothesis is accepted. Therefore we conclude that there is no association between the variables , Free Wi-fi services usage rate and gender.

Ho2: There is no association between Free wi-fi services usage rate and income

H2: otherwise -

Opinion	No income (dependent)	Income upto Rs.3 Lakhs	Income: Rs. 3 to Rs.5 Lakhs	Income: Above Rs.5 Lakhs
Yes	33	16	10	6
No	15	12	6	5

	No Income	upto Rs. 3Lakhs	Rs.3 to 5 Lakhs	Above 5Lakhs	*Row Totals*
Yes	33 (30.29) [0.24]	16 (17.67) [0.16]	10 (10.10) [0.00]	6 (6.94) [0.13]	65
No	15 (17.71) [0.41]	12 (10.33) [0.27]	6 (5.90) [0.00]	5 (4.06) [0.22]	38
Column Totals	48	28	16	11	**103** (Grand Total)

chi-square = 1.43

p-value = 0 .69

Since p > 0.05 the result is significant.

Therefore, Null hypothesis is accepted. Hence, it is concluded that there is no relationship between (Free Wi-fi services) usage rate and income.

Q.1 Are you aware of the free wifi facility available at the railway-stations?

Yes --- 154

No --- 6

Q.2 Do you use the free wifi facility available on the railway stations?

Yes --- 88

No --- 72

Q.3 For what do you use the free wifi services?

Entertainment --- 48

Railway Time-table --- 10

News --- 12

Games --- 2

Ticket Booking --- 4

Any Other --- 12

Q. 4 Please rate the free wifi services

Excellent --- 5

Very Good --- 39

Good --- 27

Average --- 14

Poor --- 3

Q.5 In case if you don't use the free wifi facility, state ther reasons for it.

Use own unlimited pack facility --- 27

Wifi facility is slow and ineffective --- 6

Connectivity issue --- 13

I don't use internet --- 1

Any other --- 25

V. FINDINGS

1. There is no association between the usage of free wifi facility and gender.

2. There is no association between usage of free wifi services and income.

3. Out of the 160 responses collected 154 responses said they were aware about the free wifi facility available at the railway stations.

4. 88 respondents replied in affirmative when asked about the usage of the wifi facility on the stations. It means that though majority of the people are aware of the facility, only 50% use it.

VI. CONCLUSION

It has been found out that the awareness about the free wifi facility amongst the travellers is quite high. A majority of the people are aware about this facility. There is no clear cut relationship established between the wifi usage and the variables like gender, income or other demographic variables. It clearly means that the wifi usage is not dependent on the income group or the gender of the user. It also seems that due to the falling prices of the data pack and ready availability of the net packs in the mobile phones the usage of the free wifi facility is not as it was expected to be. A lot of people tend to be using the free data pack available in their phones rather than the free wifi facility available on the stations.

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