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# CONJOINT ANALYSIS: A TOOL TO ANALYZE THE PREFERENCES OF MOBILE USERS TOWARDS SERVICE PROVIDERS

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## ABSTRACT

Now a day there is lots of competition among the different mobile service providers. To attract the people towards their services mobile operators have started giving free data and free internet to the customers. To know customers preference towards the mobile service provider we have collected data through questionnaire and collected their responses to reach the conclusion. We have used conjoint analysis to find the most preferable combination of attributes and levels we have used mainly four attributes. First attribute is mobile operator second is technical aspect, third is service satisfaction and fourth is internet facility. The result suggests that most preferable combination is Vodafone and reasons are customers are satisfied with the attributes technical support, Service satisfaction and unlimited internet provided by the operator.

**KEYWORDS:** Service providers, conjoint analysis, attributes, levels.

## INTRODUCTION

India is the fastest growing mobile phone market in the world. The booming telecom industry has been attracting large amount of investments in country. In today's complex business environment, it has become very crucial for companies to attract and retain customers for long term sustainable growth. Just like companies of other business domains Mobile service provider (MSP) also consider their customers to be most important asset.

While Indian operators have long given up the dream to be mobile content service providers or aggregators they are also facing the risk of losing their profitable voice and SMS business to Internet players. All across India, operators see their Average Revenue Per User (ARPU) rates decreasing because of over-the-top communication services like mobile VoIP, Whatsapp and social media like Facebook and Twitter. Especially, younger generations are massively switching from SMS towards these generally free-of charge Internet-based services. As such, operators are forced to either settle for the bit pipe scenario or come up with new, innovative communication services that cannot be replicated by the Internet players. Luckily for operators, several technological developments are already underway that provide the means to develop more innovative rich communication services.

Conjoint broadly refers to any decomposition method that estimates the structure of a consumer‘s preferences, given his/her overall evaluations of a set of alternatives that are pre-specified in terms of levels of different attributes. Hence, is best suited for understanding consumers reactions to and evaluations of predetermined attribute combinations that represent potential products or services. While maintaining a high degree of realism, it provides the researcher with insight into the composition of consumer preference. CJA is based on the simple premise that consumers evaluate the value of a product /service by combining the separate amounts of value provided by each attribute. Here, first a set of real or hypothetical products or services are constructed by combining selected levels of each attribute. These combinations are presented to respondents, who provide only their overall evaluations. Thus, the respondents are asked to perform a very realistic task- choosing among a set of products/services by rating/ranking. Because of construction of the hypothetical product/service in a specific manner, the influence of each attribute and the worth of each level as judged by respondent can be determined by the respondents ‘overall ratings.

## RESEARCH METHODOLOGY

To know preference of mobile users towards service provider we have used questionnaire and collected responses of 75 respondents using convenience sampling. To identify the preferable combination of attributes and levels we have used conjoint analysis. We have used four attributes and different levels for each attribute.

Conjoint analysis is a multivariate technique that can be used to understand how an individual’s preferences are developed. Specifically, the technique is used to gain insights into how consumers value various product attributes based on their evaluation of the

complete product. Conjoint analysis has been widely used in marketing literature to evaluate consumer preferences for hypothetical products and services, as well as for pricing research. The method has been applied to understanding the preferences in various markets including the personnel selection decisions, telecommunications. However, few studies have used conjoint analysis within the mobile industry.

In this paper we have considered, First attribute mobileoperator, second technical aspect, third service satisfaction and fourth internet facility. Levels of first attributes are jio, Vodafone, idea and uninor. Levels for second attribute technical aspect are privacy and security provided by the service provider. Levels for third attribute related to service satisfaction whether the customers are satisfied or not with the services provided by the service provider. A level for fourth attribute is related to unlimited internet service.

We have used 4*2*2*2 type orthogonal design to know the most preferable combination on above four attributes.

We have checked the combination demographic profile wise as well. To know the preference age wise, gender wise, income wise and education wise awe have used cross tabulation.

**Analysis**

For analysis we have used conjoint analysis. The demographic profile of the respondents is as follows.

| Characteristic | Frequency | Percentage |
|---|---|---|
| Gender | | |
| Male | 53 | 71% |
| female | 22 | 29% |
| Age | | |
| <18 | 10 | 13% |
| 18-35 | 55 | 74% |
| >35 | 10 | 13% |
| Income | | |
| <10000 | 13 | 17% |
| 10000-25000 | 50 | 67% |
| .25000 | 12 | 16% |
| Current mobile operator | | |
| Jio | 35 | 47% |
| Vodafone | 20 | 27% |
| Idea | 13 | 17% |
| airtel | 7 | 9%S |

**All variables were discrete.**

| Utilities | | | |
|---|---|---|---|
| | | **Utility Estimate** | **Std. Error** |
| Brand | JIO | -1.517 | .971 |
| | VODAFONE | .776 | .971 |
| | IDEA | .429 | .971 |
| | AIRTEL | .311 | .971 |
| Technical support | YES | .276 | .561 |
| | NO | -.276 | .561 |
| Service satisfaction | Privacy | -.558 | .561 |
| | Security | .558 | .561 |
| Unlimited internet | YES | .709 | .561 |
| | NO | -.709 | .561 |
| (Constant) | | 16.389 | .561 |

| Importance Values | |
|---|---|
| Brand | 42.628 |
| Technical support | 10.250 |
| Service satisfaction | 20.759 |
| Unlimited internet | 26.362 |

We can conclude that brand is most important attribute to respondents. According to utility estimate in brands most preferable brand is Vodafone with highest utility value.

**Combination of Utilities**

We can also pick up one attribute level from each attribute and combine their utilities to calculate total utility combination Like,

Brand (Vodafone) + technical support (yes) + service satisfaction (yes) + unlimited internet (yes)

| Correlations | | |
|---|---|---|
| | **Value** | **Sig.** |
| Pearson's R | .720 | .008 |
| Kendall's tau | .441 | .028 |
| a. Correlations between observed and estimated preferences | | |

**Questionnaire**

**A. Demographic profile**

| | |
|---|---|
| Age | |
| Monthly Income | |
| Gender | |
| Current mobile operator | |

**B. Give rank between 1 to 32 from following combinations**

| Sr. no. | Operator | Service satisfaction | Technical aspect | Internet |
|---|---|---|---|---|
| 1 | JIO | YES | PRIVACY | YES |
| 2 | VODAFONE | YES | PRIVACY | YES |
| 3 | IDEA | YES | PRIVACY | YES |
| 4 | AIRTEL | YES | PRIVACY | YES |
| 5 | JIO | NO | SECURITY | YES |
| 6 | VODAFONE | NO | SECURITY | YES |
| 7 | IDEA | NO | SECURITY | YES |
| 8 | AIRTEL | NO | SECURITY | YES |
| 9 | JIO | NO | PRIVACY | YES |
| 10 | VODAFONE | NO | PRIVACY | YES |
| 11 | IDEA | NO | PRIVACY | YES |
| 12 | AIRTEL | NO | PRIVACY | YES |
| 13 | JIO | YES | SECURITY | YES |
| 14 | VODAFONE | YES | SECURITY | YES |
| 15 | IDEA | YES | SECURITY | YES |
| 16 | AIRTEL | YES | SECURITY | YES |
| 17 | JIO | YES | PRIVACY | NO |
| 18 | VODAFONE | YES | PRIVACY | NO |
| 19 | IDEA | YES | PRIVACY | NO |
| 20 | AIRTEL | YES | PRIVACY | NO |
| 21 | JIO | NO | SECURITY | NO |
| 22 | VODAFONE | NO | SECURITY | NO |
| 23 | IDEA | NO | SECURITY | NO |
| 24 | AIRTEL | NO | SECURITY | NO |
| 25 | JIO | NO | PRIVACY | NO |
| 26 | VODAFONE | NO | PRIVACY | NO |
| 27 | IDEA | NO | PRIVACY | NO |
| 28 | AIRTEL | NO | PRIVACY | NO |
| 29 | JIO | YES | SECURITY | NO |
| 30 | VODAFONE | YES | SECURITY | NO |
| 31 | IDEA | YES | SECURITY | NO |
| 32 | AIRTEL | YES | SECURITY | NO |

## CONCLUSION

The result suggests that most preferable brand in respondents is Vodafone and reasons are customers are satisfied with the attributes technical support, Service satisfaction and unlimited internet provided by the operator.

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