# On Developing FM Rating Points (FMRP) For Assessing FM Channels Performance - A Factor Analysis Approach

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**Abstract:** This study was undertaken to identify the factors that are responsible for making a FM channel popular among youth and developing a test battery for its performance assessment. Another research issue was to develop a FM channel rating point (FMRP) for rating the popularity of FM channels. Eighty university students (40 male and 40 female with mean(SD) age 20.9 yrs(+2.41 yrs) were selected as a sample for the study. A questionnaire was framed on the basis of available literature and experts views consisting 21 questions. After administering the questionnaire on the subjects in the sample, the data so obtained were subjected to the item analysis for improving the questionnaire. Seven questions were removed from the questionnaire by sacrificing only 2% efficiency in explaining the FM channels characteristics. Final questionnaire included 14 questions that was used to analyze the data. The data was analyzed by using factor analysis. Final questionnaire included 14 questions that were used to analyze the data. The data was analyzed by using factor analysis. Six factors were identified on the basis of eigenvalues and were named as 1) Resource quality, 2) Informative contents, 3) Sports briefing, 4) Regional Music, 5) RJs communication skill, 6) RJs Local dialect competencies. The total amount of variance explained by all these six factors was 69.937%. The first factor i.e. resource quality explained the highest amount of variance i.e. 19.613. By identifying two variables from the first factor and one from each of the remaining five factors, a test battery was developed for the assessment of FM channels. Weights were allotted to each question in the test battery on the basis of the variance explained by the corresponding factors. Finally, on the basis of these weights a criterion was developed to convert the responses of the listeners into a single index FMRP which can be used to compare the popularity of FM channels.

**Keywords:** Factor analysis, FM radio, rating system, RJs.

## 1 Introduction

Audience research was formally established within the BBC in 1936. Its role was to act as an instrument of public accountability as well as providing feedback to the programme makers and management. Research studies are carried out for FM stations to get the proper niche[1](Geller, 1979). Today, audience research is extensively used by public radio managers while making decisions about programming and fund raising [2](Stavitsky, 1995).

The importance of understanding one's audience is important for performance of FM stations [3](Chaffee and McLoed, 1968). Further, the audience identification has been described as the key to successfully satisfying an audience's needs [4](Atkin, 1983). Audience researches are carried out by advertisers and broadcasters to buy and sell audiences [5,6,7](Beville, 1988; Buzzard, 1990;Webster and Lichty, 1991).During 1980s a research revolution swept across U.S. public radio [8](Giovannoni, 1991).

Lumley (1971) [9] discussed three important questions related to audience measurement: What are the purposes of radio broadcasting in general? How can methods be developed to determine whether broadcasting fulfills these purposes? Is it possible to standardize the measurement techniques which have been found to be useful?

Commercial approaches to audience research uses telephone surveys conducted by the Cooperative Analysis of Broadcasting and C.E. Hooper, as well as A.C. Nielsens Audiometer, a mechanical device which metered the usage of radio sets [5,6](Beville, 1988; Buzzard, 1990). Consultants are being hired by the radio stations to conduct a

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psychographic analysis of its listeners to assess their preferences regarding the stations programs and personalities [10,11,12](Psychographic Analysis, 1985, Giovannoni, 1991; Stavitsky, 1993).

The media research promotes meritorious contents toward a "Marketplace" model where the public interest is served by a media system that is responsive to audience preferences as revealed in their choices" [13] (Ettema & Whitney,1994). At present there are hundreds of FM radio channels which are airing their programmes in different cities around India. Though there has been many attempts made in the past to develop the quality programs aired by the FM channels, but very recently in India, a need was felt to conduct scientific researches for providing feedbacks to the channels to improve their program quality and contents so as to fulfil the expectations of listeners in different age categories.

In India the radio industry recorded a growth of nearly 58% in 2006 with 2.4% to 3.1% share of radio in the advertising industry. This is further expected to increase to 5.5% by the end of 2011. The size of the radio industry is projected to increase at a compounded annual growth rate (CAGR) of 28% from Rs 5 billion in 2006 to Rs 17 billion by 2011 [14](FICCI-PwC report, 2008). It predicts that India's radio advertising revenues will more than double to US$ 390 million between now and 2013, increasing at an 18% CAGR. In contrast, it expects the overall entertainment and media sector in India to deliver a 10.7% CAGR on average over the next five years, compared with a global average of 2.7% over the same period [15] (Indiaknowledge@wharton, 2009).. There is deadlock among the FM channels to succeed in the radio market, so researches towards the development of a test battery may work wonders towards the interest of FM channels.

The core of the interest of all the FM Channels in India is The Indian Potential. Research studies done in this area clearly indicates that there is a vast commercial potential in India for this medium. Plainly, the radio sector cannot and should not be satisfied with the existing growth rate. While consumption in India is still largely at home, 'the radio on the move' trend is catching on in urban and semi-urban areas [16] (Indian entertainment Industry Focus, 2010). The easy availability of FM radio sets at affordable price points (ranging from INR 40-INR 150) is fuelling its mass penetration.

India's radio industry has a strong growth potential if mechanisms and policies are put in place. India, with its diverse regional influences, is in a prime position to take advantage of the growth potential of this segment. With privatization gathering momentum, the increased number of private radio channels across the country is likely to transform commercial radio from an urban phenomenon to a national one. This study is a unique attempt towards understanding various factors responsible for establishing quality FM channels useful for the society, and developing a test battery for assessing the popularity of FM channels on the basis of the listeners response towards identified factors.

Television rating point (TRP) is a mathematical number derived from a matrix of data obtained by the audience for a particular television program or channel of TV shows that indicates the popularity of a TV channel or programmes in India. In this study an attempt has been made to develop a FM channel rating point (FMRP) system for assessing the usefulness and popularity of FM channels in a scientific way.


## 2 Material and Methods

Sample: Eighty college students were randomly selected to act as participants (male = 40, female = 40,) in this study. The mean age and standard deviation of the participants were 20.9 yrs and 2.4 yrs respectively. Out of eighty college students forty were from the postgraduate and forty from undergraduate program. Subjects were informed that the purpose of the study was to explore the expectations of the participants from the FM channels as a listener and that there were no right or wrong answers, and therefore they should give their frank opinion. They were informed that full confidentiality would be maintained about their responses. Sample for the study was drawn only from those students who used to listen to the FM radio channels more often.

Questionnaire Development: A preliminary questionnaire consisting 21 statements was developed on the basis of the literature, audience feedback, responsible of FM channels and with the consultation of experts in the media industry. During the development of the questionnaire the researchers had visited different FM channels available in the Gwalior city and conducted personal interviews with the FM channel managers such as, 91.9FM, 92.7 FM, 94.3 Fm and 95.1 FM. The 21 statements in the questionnaire reflected the listeners possible views and their expectations from the FM channels. The questionnaire measured the attitude of the respondents on these statements. All statements had five options ranging from strongly agree to strongly disagree. These responses were converted on a 5-point scale with 5 marks given to strongly agree and 1 mark to strongly disagree. The questionnaire with 21 statements was administered on 80 subjects selected in the sample. Marks obtained by each subject on all the 21 parameters were added. On the basis of these marks the subjects were divided into higher(having positive attitude) and lower groups(having negative attitude) by using the first and third quartiles. In other words the subjects whose total marks on the questionnaire was less than Q1 was categorized in the lower group whereas the subject having total marks greater than Q3 was categorized in the higher group. Scores on each statement were compared in both these low and high groups using two sample t-tests. The statements for which mean difference was not significant were deleted; because such questions do not explain the characteristics of FM channels. Owing to these criteria seven questions were deleted and the final questionnaire was obtained by retaining

**Table 1:** Descriptive statistics for different parameters

| Parameters | Mean | SD |
|---|---|---|
| P1 FM channel must provide more of old Hindi songs | 3.6456 | 1.177 |
| P2 FM channel helps an individuals in discussing their personal problems and suggesting solution to it | 3.9494 | .972 |
| P3 The presentation style of RJ is the key to popularity of an FM Channel | 4.1519 | .961 |
| P4 FM channel should provide some kind of prizes and incentives to its listeners | 4.0000 | 1.025 |
| P6 FM channel must contain more entertaining programs | 4.2152 | .969 |
| P7 A good sense of humor and ability to present funny programmes can do wonders for RJs | 4.1266 | 1.078 |
| P8 It would be more interesting if listeners are given more chance to talk to the celebrities | 3.9367 | .991 |
| P9 RJs voice must be clear and melodious | 4.2658 | .956 |
| P10 FM channel should play $24 \times 7$ | 3.8481 | 1.199 |
| P11 FM Channel must give information about sports | 4.3544 | .817 |
| P12 FM Channel should provide information regarding educational/professional course available in the city | 4.1772 | 1.022 |
| P13 FM Channel should provide information regarding different shopping offers available in the city | 3.9241 | .828 |
| P14 RJs should speak in understandable language preferably in Hindi | 3.7595 | 1.088 |

fourteen questions only. Factor analysis was conducted to know the loss of variance explainability by the removed seven statements. The analysis showed that there was a reduction of 2% variance only by eliminating seven statements. It was a good tradeoff to reduce 2% variance explainability at the cost of eliminating seven questions. The variance explained by the retained 14 questions in the questionnaire was 69.94%.

Data Analysis: The final questionnaire consisting 14 questions was used for analyzing the data. While administering the questionnaire on 80 randomly selected subjects only 79 participants had returned the filled-in questionnaire and therefore the responses of 79 subjects were used for analysis. Before administering the questionnaire the students were briefed about the guidelines to be followed while filling up the questionnaire. Data were collected in a classroom setting. In order to motivate the participants to give reliable response, they were explained the basics of FM channels functioning. The data so obtained from the subjects on all the 14 statements were subjected to descriptive analysis as well as factor analysis.

# 3 Results

Participants responses were converted into scores on each of the 14 parameters. The data obtained were examined for their accuracy and missing values. These data were subjected to descriptive analysis for computing mean and standard deviation. These statistics are shown in Table 1. The mean for the parameter P11(FM channel must give information about sports) was maximum i.e. 4.35, whereas it was minimum for the parameter P1(The FM channel must provide more of old Hindi songs). The mean values for each of the fourteen parameters are graphically shown in the Figure 1.

Further, the factor analysis was used to analyze the data by using the SPSS version 17.0. In order to ensure the applicability of factor analysis on the data obtained in this study the KMO test was applied. Since the value of KMO for this data set was 0.62 which is greater than 0.5 hence application of factor analysis was justified. Further, the value of Bartletts test of sphericity was 241.90, which was found to be significant at 0.000 level. Significant value of Bartletts test indicates that the correlation matrix is not an identity matrix, and therefore the factor model in this study was appropriate.

The first step in applying the factor analysis was to compute the correlation matrix which is shown in Table 2. This table shows the relationship among different parameters. Significant correlations have been shown with star sign. The correlation with one star (*) indicates its significance at .05 level whereas the correlation with two star (**) indicates its significance at .01 level.

The Table 2 reveals that the subjects who believed that FM channel must provide more of old Hindi songs (P1) also believed that it should provide some kind of prizes and incentives to their listeners (P4) and RJs to use understandable language specially Hindi (P14).

Those who believed that FM channels should help an individual in discussing their personal problems(P2) were also of the opinion that RJs voice must be clear and melodious(P9), the FM channels should operate 24x7 (P10), provide sports information (P11), provide educational/professional course opportunities in the city (P12) and different shopping offers available in the city (P13). The subjects, who believed that presentation style of the RJs is the key to the popularity of an FM channel (P3) also had an opinion that RJs voice must be clear and melodious (P9).

The subjects who believed that FM channel should provide some kind of incentives to their listeners (P4) were also found to be of the opinion that FM channels must telecast latest songs more often (P5), provide opportunity to the listeners
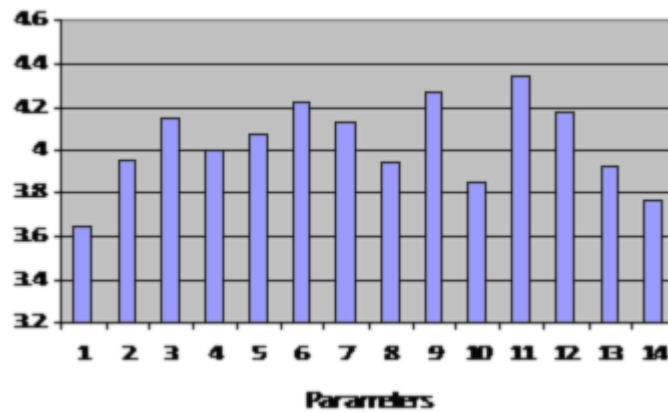
**Fig. 1:** The mean scores of FM parameters

**Table 2:** Correlation matrix for the data on different parameters of FM channels.

|     | P 1 | P 2 | P 3 | P 4 | P 5 | P 6 | P 7 | P 8 | P 9 | P 10 | P 11 | P 12 | P 13 | P 14 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| P1 | 1 | .029 | .026 | .223* | -.157 | .068 | -.166 | .145 | -.120 | -.102 | .092 | -.171 | -.028 | .223* |
| P2 |   | 1 | .132 | .219 | .118 | .161 | .128 | .090 | .400** | .290** | .233* | .396** | .345** | -.145 |
| P3 |   |   | 1 | .065 | -.012 | .116 | -.093 | .131 | .429** | .220 | .143 | .142 | .095 | .023 |
| P4 |   |   |   | 1 | .230* | .103 | -.081 | .315** | .340** | .209 | .015 | .196 | .317** | .138 |
| P5 |   |   |   |   | 1 | .073 | .221 | .192 | .394** | .299** | -.017 | .193 | .186 | -.143 |
| P6 |   |   |   |   |   | 1 | -.088 | -.026 | .131 | .073 | .000 | .065 | .340** | .001 |
| P7 |   |   |   |   |   |   | 1 | .080 | .054 | .273* | .341** | .154 | .097 | .212 |
| P8 |   |   |   |   |   |   |   | 1 | .194 | .434** | .170 | .277* | -.006 | .211 |
| P9 |   |   |   |   |   |   |   |   | 1 | .438** | .075 | .567** | .398** | .062 |
| P10 |   |   |   |   |   |   |   |   |   | 1 | .147 | .420** | .272* | .060 |
| P11 |   |   |   |   |   |   |   |   |   |   | 1 | .200 | .040 | .011 |
| P12 |   |   |   |   |   |   |   |   |   |   |   | 1 | .319** | .016 |
| P13 |   |   |   |   |   |   |   |   |   |   |   |   | 1 | .065 |
| P14 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

\* Significant at 0.05 level (2-tailed)
\*\* Significant at 0.01 level (2-tailed)

to interact with celebrities (P8), RJs voice to be more clear and melodious (P9) and channels to provide information regarding shopping offers available in the city (P13).

Those who believed that, a FM channel must telecast latest songs more often (P5) were also found to believe that RJs voice must be clear and melodious (P9) and FM channels to play 24x7 (P10). The issue of providing more entertaining programmes by the channels (P6) was highly related with that of providing various shopping offers available in the city (P13). Similarly those who were of the opinion that humours and funny programmes works wonder for the channels(P7) were also of the opinion that channels should operate 24x7(P10) and it must provide information about sports (P11).

Those who were of the opinion that the FM channels should arrange an interaction of the celebrities with their listeners (P8) were also of the view that the channels must be operative for 24 7 (Q10) as well as it must provide educational/professional opportunities available in the city (Q12). Further, those who were of the opinion that the RJs voice must be clear and melodious (Q9) were also of the view that the channels must operative 24 7(Q10), and it must provide educational opportunities (P12) and shopping offers available in the city (P13).

Those who desired that FM channels should be operative 247(P10) were also of the view that the channels must provide educational opportunities (P12) and shopping offers available in the city(P13). Lastly, the subjects who believed

that the channels must provide educational/professional opportunities (P12) were also of the view that it must provide the knowledge about various shopping offers available in the city (P13).

After the correlation matrix was obtained the data was factorized by using the principal component method of factor analysis and the initial solution of the factors was obtained. This initial solution was subjected to varimax rotation for the final solution. The final solution provides more clear cut and non overlapping factors. The initial solution and final solution after the varimax rotation obtained in the analysis are shown in Table 3.

**Table 3:** Total amount of variance explained by each factor prior to and after varimax rotation.

| Compo-nent | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.339 | 23.853 | 23.853 | 3.339 | 23.853 | 23.853 | 2.746 | 19.613 | 19.613 |
| 2 | 1.559 | 11.136 | 34.989 | 1.559 | 11.136 | 34.989 | 1.601 | 11.432 | 31.046 |
| 3 | 1.528 | 10.916 | 45.905 | 1.528 | 10.916 | 45.905 | 1.471 | 10.508 | 41.553 |
| 4 | 1.215 | 8.682 | 54.586 | 1.215 | 8.682 | 54.586 | 1.458 | 10.414 | 51.967 |
| 5 | 1.147 | 8.191 | 62.777 | 1.147 | 8.191 | 62.777 | 1.264 | 9.027 | 60.994 |
| 6 | 1.002 | 7.160 | 69.937 | 1.002 | 7.160 | 69.937 | 1.252 | 8.943 | 69.937 |

It can be seen from the Table 3 that only six factors were retained in the final solution and for each factor the eigenvalue was more than 1. In factor analysis the number of factors can be as many as the variables but only those factors are retained whose eigenvalues are more than 1.

Since these factors were obtained by using the principal component analysis hence the percentage of variability explained by the first factor is the highest. Here, in the final solution, the amount of variance explained by the first factor was 19.613%. The second factor explained 11.43% of the total variance explained by all the six factors together. Third factor explained the variance of 10.50% and the fourth factor explained 10.41% of the total variance. On the hand factor 5 and 6 explained only 9.03% and 8.94% of the total variance respectively.

All these six factors collectively explained 69.94% of the total variability and hence the questionnaire can be considered to be the reliable instrument of measuring the attitude towards various parameters of FM channels.

After extracting six factors on the basis of eigenvalues the variables were identified in each factor on the basis of their loadings on the factor. The factor loadings were used as a criterion of retaining variables in a factor. If factor loading of any variable on the factor was 0.6 or more it was identified in that factor. Owing to this criterion four variables were identified in the first factor. Depending upon the nature of the variables in the first factor it was named as Resource Quality because all the variables under this factor explain the quality of resources which the FM channel programs should have. Similarly the second factor had two variables and it was named as Informative Contents. The factor 3 had only one variable and was named as Sports Briefing. The factor 4 included two variables and was named as Regional Music whereas factor 5 and factor 6 contained only one variable in each and was named as RJs Communication Skill and RJs Local Dialect Competencies respectively. These factors along with the variables identified in it are shown in the Table 4. It can be seen from the Table 4 that the factor 1 consists of maximum number of variables i.e. 4. It is because of the fact that this factor explains the maximum amount of variance in comparison to the remaining five factors.

## 4 Test Battery for Assessing FM Channel

After retaining six factors and identifying the variables in them a test battery was developed by picking up two variables from the first factor and one from each of the remaining five factors. The two variables were identified from the first factor because of the fact that it explains the maximum variance in comparison to that of remaining five factors. The final inclusion of the variables in the test battery was made on the basis of highest loadings of the variable in that factor. However, the parameter P5 was included in the test battery on the basis of its significance in the present day scenario. Thus, while including the variables in the test battery sometimes importance of the variables also needs to be seen instead of only the magnitudes of factor loadings. The variables so selected in the test battery are shown in the Table 5.

Thus, finally seven test parameters were identified to evaluate the quality and popularity of the FM channels and their progarmmes.

**Table 4:** Factor along with identified variables and their factor loadings in the final solution.

| Factor 1: **Resource Quality** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 5 | The Channel must telecast latest songs more often | .684 |
| 9 | RJ's voice must be clear and melodious | .706 |
| 10 | FM channel should play 24x7 | .715 |
| 12 | FM Channel should provide information regarding educational/professional courses available in the city | .626 |

| Factor 2: **Informative contents** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 6 | The FM Channel must contain more entertaining programs | .728 |
| 13 | FM Channel should provide information regarding different shopping offers available in the city | .773 |

| Factor 3: **Sports briefing** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 11 | FM Channel must give information about sports | .859 |

| Factor 4: **Regional music** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 1 | The FM Channel must provide more of old Hindi songs | .786 |
| 4 | FM channel should provide some kind of prizes and incentives to its listeners | .648 |

| Factor 5: **RJ's communication skill** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 3 | The presentation style of RJ is the key to popularity of an FM Channel | 0.868 |

| Factor 6: **RJ's local dialect competencies** | | |
|---|---|---|
| No. | *Test Parameters* | *Factor loading* |
| 14 | RJ's should speak in understandable language preferably in Hindi | 0.905 |

**Table 5:** Test battery for assessing FM channels.

| No. | Test parameters | Factor loadings |
|---|---|---|
| 5 | The Channel must telecast latest songs more often | .684 |
| 10 | FM channel should play 24x7 | .715 |
| 13 | FM Channel should provide information regarding different shopping offers available in the city | .773 |
| 11 | FM Channel must give information about sports | .859 |
| 1 | The FM Channel must provide more of old Hindi songs | .786 |
| 3 | The presentation style of RJ is the key to popularity of an FM Channel | .868 |
| 14 | RJ's should speak in understandable language preferably in Hindi | .905 |

## 5 FM Channels Rating Points

On the basis of the parameters identified in the test battery shown in Table 5 an index providing the FM channel rating point (FMRP) was developed to evaluate the popularity of FM channels among audience. FMRP was developed by allotting different weights to the responses of the audience on the above mentioned seven parameters in the questionnaire. The following is the criteria of computing the FMRP.

$$FMRP = 2.72 \times P5 + 2.90 \times P10 + 3.26 \times P13 + 3.0 \times P11 + 2.98 \times P1 + 2.58 \times P3 + 2.56 \times P14$$

Where, P5, P10, P13, P11, P1, P3 and P14 are the scores (out of 5) of the respondent on the respective parameters. Thus, the minimum value of FMRP recorded for a particular respondent would be 20 (when all the marks obtained on these seven parameters are 1) and the maximum value would 100 (when all the marks on these seven parameters are 5). If

the responses on these parameters are obtained on a sample of n subjects then the single FMRP can be obtained by taking the average of individual FMRP obtained by the subjects as discussed above. This FMRP can be used to compare the popularity of FM channels. Since the performance of each FM channels need to be evaluated hence one need to modify all the seven statements mentioned in the table 5 as follows:

–The channel telecast latest songs more often
–FM channel play $24 \times 7$
–FM channel provide information regarding different shopping offers available in the city
–FM channel gives information about sports
–The FM channel provides more of old Hindi songs
–The presentation style of RJ is good
–RJs speak in understandable language with good in Hindi

Responses can be obtained on a 5-point scale as discussed in the procedure section and may be converted into marks before computing the individual FMRP.

# 6 Discussion

During the development of the questionnaire, 21 questions were studied but after the item analysis seven questions were dropped. These seven questions did not explain much of the variability in explaining the performance of FM channels. This fact was proved by the application of factor analysis where total variability was reduced from 72% to 69.94% i.e around two percent. Thus, it was a good tradeoff to done away with seven test parameters just by sacrificing 2% variability.

While studying the correlation among 14 FM parameters in the questionnaire several parameters were found to be related among themselves which were discussed during the findings of the study. But the highly significant relationships were observed between channel operation round the clock (P10) with the quality of RJs voice (P9) and with the opportunity for the audience to interact with the celebrities. In fact people would love to hear the channel all the time only when its RJs have catchy voice [17] (Webster and Lichty, 1991). Much of the success of the programme depends upon the style of the RJs who can hold the audience for longer duration. Further, people would tune a particular FM channel if they see any opportunity to talk to their preferred celebrities. Thus, FM channel operators must emphasize on these two dimensions for making the channel more popular among audience.

By applying the principal component analysis six factor were identified to rate any FM channels. Thus, instead of concentrating on so many parameters if the channel administrator takes care of the six parameters like 1) Resource quality, 2) Informative contents, 3) Sports briefing, 4) Regional Music, 5) RJs communication skill, 6) RJs Local dialect competencies, they can enhance their popularity.

Among these six factors quality of resources is the most important factor. It is mandatory to know the likes and dislikes of the people in the region where the channel operates. It cannot be universal for the whole country or state and therefore one must understand the dynamics of the area before finalization of the contents to be included in their daily schedule for operation. People expect that FM channels must give the latest happenings around the city and the world as well [12] (Stavitsky, 1993). FM on the move is becoming more popular now-a-days. People prefer to use FM channels during driving for their preferred latest music and interesting talks rather than any other music [18](Giovannoni,1985). The factor informative contents becomes more meaningful if the channel keep airing the educational opportunities, scholarship programmes and any shopping offer available in the city [19,12](Hinman, 1992; Stavitsky, 1993). People now a day are becoming more sports friendly and therefore sports briefing is another important parameter on which the channels popularity is rated.

Undoubtedly RJs communication skill and his/her knowledge about the local dialects are the two most important parameters which are responsible for the popularity of channels largely [20](Bailey , 1995). The city where the study has been conducted is at the Hindi speaking belt of India and may be because of this, most of listeners liked to listen to the programmes in Hindi rather than any other language.

Finally, a FM channel rating point (FMRP) has been developed by giving the weights to each of the seven parameters identified in the test battery. These weights were calculated on the basis of the percentage variability explained by the factors from which these parameters were identified. This FMRP can be used by the researchers to rate a particular

channel on the basis of the test battery developed in this study. The battery can be used to check the popularity of the channel by the college students only. However studies may be undertaken to develop such index for wider applicability on bigger audience.

This study had the two main purposes. Firstly, we wanted to develop a questionnaire to know the attitude of the college students on different aspects of the FM channels. That has been achieved by developing the final questionnaire consisting of 14 questions which measure around 70% of the total variability.

Secondly, we wanted to develop a test battery which could be used by the FM channel administrators to improve their programmes and policies. This was completed by developing the test battery consisting seven test parameters as shown in Table 5. Further, an attempt was made to develop an index known as FM channel rating point (FMRP) for assessing the popularity of FM channels by using the parameters identified in the test battery and giving them weights. However, a modified set of questions as suggested under the heading FM Channels Rating Points should be used to rate a particular FM channels.

## 7 Conclusion

The FM radio could play an important role in sustainable development, due to its ability to mobilize the society and give information to people about their development problems and their solution. It encourages people and communities to participate in social projects, and hence spurring the overall development process. Due to this important factor it is the responsibility of FM radio managements to devise their programs in such a way so as to focus on problems facing the society and their possible solutions. When planning a radio program it should be determined as to how much time should be allocated to it and what would be its utility. For radio programs some accepted rules would be formed, so as to avoid the problems related to their broadcasting. It should be kept in mind which linguistic group dominates a particular area and what are their interests. The present questionnaire developed may act as a vital instrument for the FM radio channels to gain an insight regarding the expectations of listeners from them so that the programme quality could be improvised and made useful to the society.

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