UNIT 10 MEDIA SELECTION, PLANNING AND SCHEDULING

Objectives

After going through this unit you should be able to:

- explain the concept of media planning and the role of media in overall marketing and advertising plan
- discuss the considerations relevant to media selection
- describe the dominant factors in media scheduling.

Structure

10.1 Introduction

10.2 The Meaning and Types of Media

10.3 Media Planning: a Process

10.4 Media Selection: a Process

10.5 Media Scheduling

10.6 A Final Word on Media Plans

10.7 Development of Media Strategy

10.8 Summary

10.9 Self-assessment Questions

10.10 Further Readings

10.1 INTRODUCTION

Media management involves one of the most crucial decisions for an advertiser in its objectives to reach effectively the target markets. The decisions assume further critical importance with the wide availability of media vehicles and changing reading and viewing patterns in buying public. For instance, markets have been flooded; with a large assortment of magazines in the recent times. Similarly a vast spectrum of programmes is available on televisions-as the captor of an attentive home audience. Not to be outdone, the hitherto unfamiliar media are now in vogue. Examples include matchboxes carrying product advertisements, or the postal stationery carrying marketing messages of good and social causes. Obviously, baffled the advertiser has to seek answers to the following questions.

a) How to spend the defined funds allocated to advertising and promotional activities?

b) How to match the media audience with the market audience for the product/service?

c) How to benefit from seasonal variations mostly prevalent in sales of all goods and services?

d) How to weave media with the overall marketing effort?

This unit attempts some answers itself.

10.2 THE MEANING AND TYPES OF MEDIA

Media as a term can be defined both from the users and the suppliers perspectives. To the users of media i.e, advertisers and audiences, it is "the mix of mediums that carry the advertisers message and constitute as the vital link between the company that manufactures and serves the product and the customer who buy or might wish to buy it." It is thus a second rung of marketing communication and is aimed at wider audiences located at different places.

Media suppliers on the other hand, include the institutions that offer media. To them it is a "mix of service organizations which aim to fulfil the needs of listeners, viewers and readers for information and entertainment". Note that the media are not primarily and purely for carrying the marketing messages. They render a far more meaningful and comprehensive set of beneficial services in which besides entertainment and information, marketing messages , are carried to the audience. Naturally, therefore, each medium will do its best for making it more attractive and closer to its audience. Also, these media themselves have to market to the media users. Almost every medium- be it television and newspapers, has a sales and marketing department to look after this particular function.

Types of Media

Advertisers face virtually oceanful media choices, though many of them may be summarily rejected as being irrelevant either to the product type or to consumer types. The following are the major types of Media:

- Directory Media
- Direct Mail Media
- Radio Advertising
- Point of Purchase Media
- Outdoor Media
- Newspaper
- Media Magazine
- Transit Media
- Screen Media
- Television Media
- Specialty Media

For a deeper understanding of the qualitative and quantitative picture of Media in India, please refer to Unit 12 of this course.

Activity 1

Choose a particular industry (e.g., computer or cosmetics) or a particular product line (e.g., home-refrigerators) and identify how many of the media mentioned above are actually used.

a) Name of the Industry **Media Chosen.**

…… ……

……..... …….....

……..... …….....

……..... …….....

b) Name of the Product Line

…… ……

……..... …….....

……..... …….....

……..... …….....

10.3 MEDIA PLANNING: A PROCESS

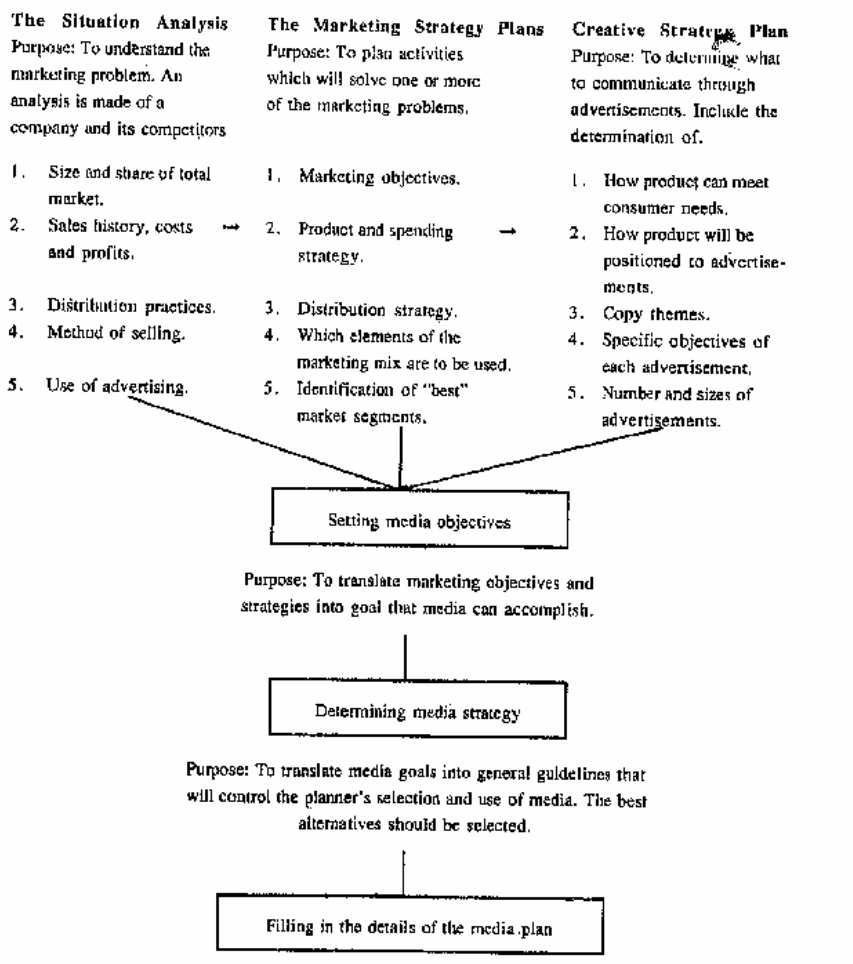
Like any other planning, media planning is done by specialists who have necessary amount of training and experiences. Normally, the media planning answers the following questions:

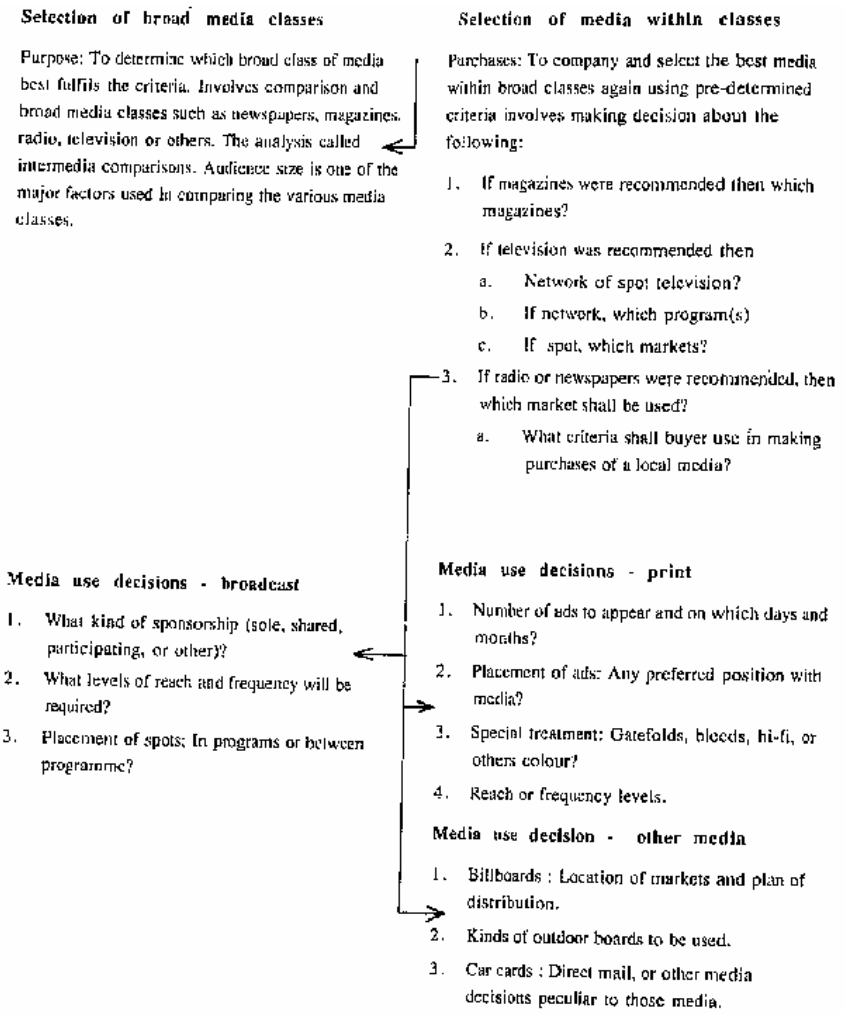
- When ? (the timing of the ad publication)
- Which ? (the selection of the media)
- How? (the co-ordination in media planning)
- How much? (the budgeting of the ad resources)

Thus media planning is a process "of designing a course of action that shows how advertising time and space will be used to contribute to the achievement of marketing objectives . In this process, the media planner takes into consideration factors like media strategy, media tactics, media planning models and the cumulative effect of advertising along with procedures for buying media.

Media plan is the end product of media planning and is similar to a blueprint of advertising programmes of a company. To obtain this blueprint, the company must become involved in many activities that are related to the firm's marketing situations. Figure 1 details the scope of a media plan.

Figure 1 : The Scope of media planning activities





Source: I. Z. Sissors & E.R. Petray: "Advertising Media Planning", Chicago, Illinois Crain Books, 1976,p. 9

At each stage of the planning process, you would recognize the importance of facts and figures, and ways to study them in order to take the `sub-decisions'. So, the relevance of information analysis base begins right at the first stage and stays right through till the evaluation stage. What information is required at each stage will be studied as we go along. Let us study the important stages in the planning process.

Setting Media Objectives

Why do you think we need to set objectives at all?

Objectives are guidelines- laying out just what is required of the plan. They answer questions of WHO the advertising needs to reach, WHERE, WHEN, HOW, HOW MANY, HOW OFTEN, HOW LONG, and in WHAT ENVIRONMENT.

What is the kind of information required, or what are the factors which would influence setting media objectives?

By answering this, you are essentially in the first stage in the planning process - situation analysis. There are broadly five elements in a media objective statement:

Target Audience - defined in relevant terms Geographic Concentration

Timing Considerations

Reach, Frequency

Creative Requirement

Let us examine each of the above.

a) Target Audience

Identifying, whom the communication is aimed at is the very first task. This is done by identifying those persons, who are recognized to be major contributors to a brand's sale or on the basis of their value as new entrants to the product category. For instance, the target audience for motorcycles would most likely be men in the age group 18-35 years with a monthly income of Rs. 1500 and above.

The kind of information which is looked at this stage is product usership data in terms of the target audience's demographic and psychographic profile. While the first identifies the person, the second highlights his lifestyle/interests.

b) Geography

A brand's sales pattern would differ from market to market. Certain markets are higher in priority either due to their status as being large volume markets, having considerable competitive activity or being developmental markets. Media objectives need to specify increased impact/weight planned for such markets.

The information looked at for this purpose are:

- Market performance - comparative market shares, tonnages, etc.
- Advertising performance - comparative brand awareness and recall by market
- Comparative advertising - strategy and activity by market.

Some examples are shown below:

MARKET SHARES — BOMBAY

		1987				1988			
Brand	X	QTR1	QTR2	QTR3	QTR4	QTR1	QTR2	QTR3	QTR4
	Y								
	Z								

ADVERTISING RECALL — BOMBAY

1988

	JAN	FEB	MAR	APR
BRAND X				
Y				
Z				

COMPARATIVE TV ADVERTISING — BOMBAY

1988

	NO. OF SPOTS	EXPENDITURE
BRAND X		
Y		
Z		

c) Timing

This factor relates to the relative importance given to a certain time period in order to capitalize on either a market seasonality or a media event opportunity. For instance if the campaign is to launch a low-interest item such as lozenges, it would be pertinent to build high initial awareness and thereafter provide continuing support through the key consumption period. Another example - Thums Up Cola drink using the Reliance cup as a media event opportunity - heightening its communication which involved endorsement of the drink by cricketers.

d) Reach/Frequency

Based on the Marketing objectives, it is always important to quantify the actual numbers of target audience desired to be covered and the number of time the target person is to be

exposed to the advertising - in order to effect the desired response. These are the physical dimensions of the achievement of any plan.

The actual number of target persons covered is known as REACH, and the number of exposures they are to receive is the FREQUENCY. Another consideration to be enunciated is the interval at which the exposures must occur or the CONTINUITY.

Strategic Media Planning incorporates setting EFFECTIVE REACH/FREQUENCY objectives, which are nothing but specifying what portion of the target segment must be reached with the essential minimum frequency. Given below are the broad guidelines, arrived at through years of international experience on the approach to setting effective frequency goals:

GENERALLY ACCEPTED FREQUENCY GOALS IN RELATION TO BRAND POSITION

FACTORS	LOW (2+)*	MEDIUM (3+)*	HIGH (4+)*
Brand Awareness	Established Product	⟷	New Product
Purchase Cycle	Long	⟷	Short
Competition	Minimal	⟷	Competitive
Message Complexity	Simple	⟷	Complex
Scheduling Pattern	Continuous	⟷	Flights

*Within a purchase cycle of four weeks.

Refers to actual scheduling of media activity depending on the objectives related to reinforcing and sustaining the brand messages.

The Time Frame for achieving these goals must also be specified in the media objective statement.

e) Creative Requirements

Relevant communication characteristics such as where demonstrability of the product in use, or an audio-visual presentation. of the product giving its benefits -- dictate the kind of media characteristics and environment required. Some situations of creative related requirements for the media :

COMMUNICATION CHARACTERISTICS	QUALITATIVE REQUIREMENT
Demonstration	Authority/Believability
Visualization	Humour/Fun
Sound	Music
Colour	Imaginative/Stimulating

Creative units are mutually agreed upon by the creative and media departments. Examples :

TV/Radio - 30 sec/15 sec commercials

Press - Full page colour

Activity 2

Study the media plan as given in Exhibit I. Suggest modifications, if any, that you would incorporate in a media plan for (a) a pharmaceutical company selling cough-drops (b) a national tour operator agency aiming to increase inland tour traffic in India.

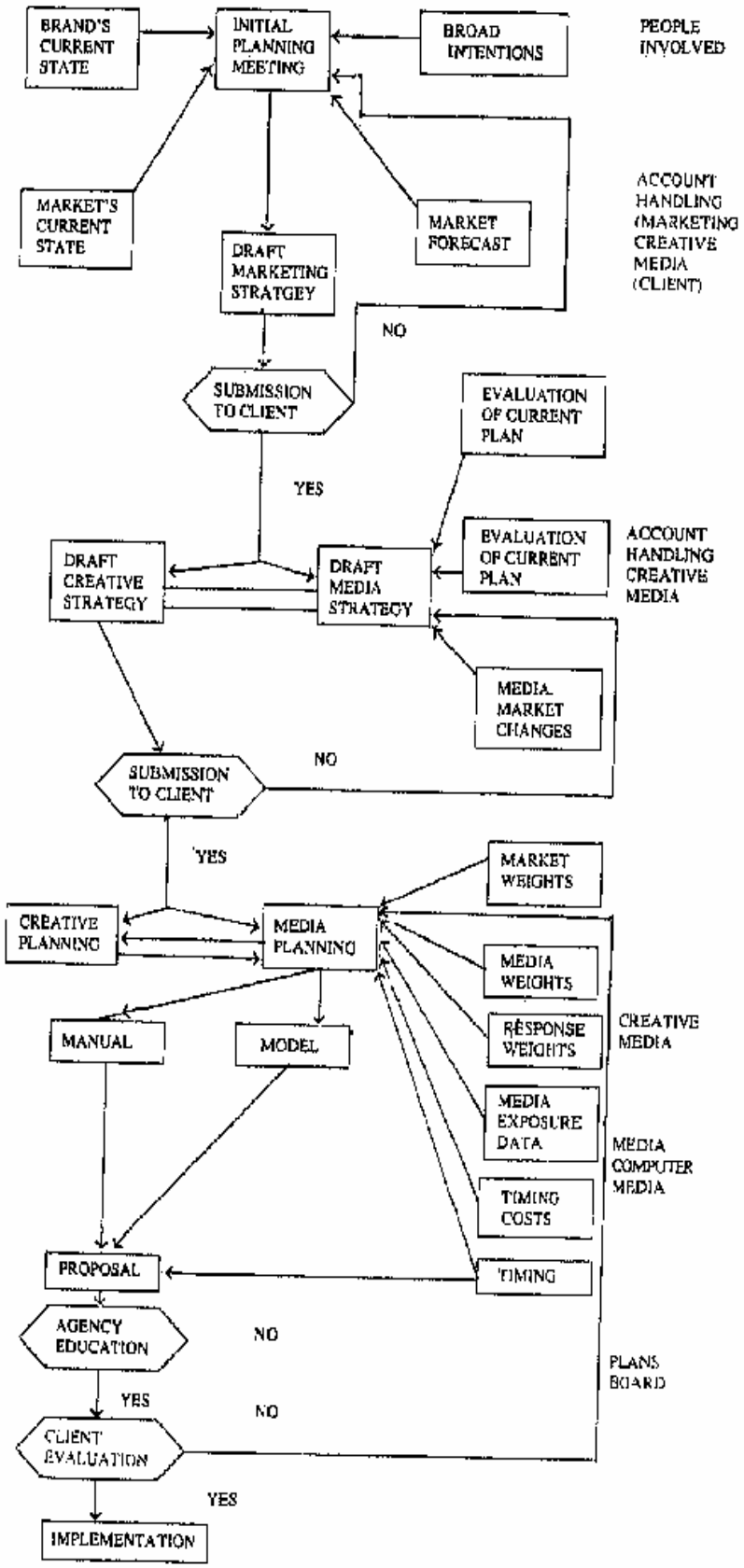
a).....
.....
.....

b).....
.....
.....

A Step by Step approach to Media Planning

Exhibit 2 provides a step by step approach to media planning.

Exhibit 2: A Step by Step Approach to Media Planning



Activity 3

A small-scale manufacturer of your locality has asked you to develop media activities for his domestic grinding machine. Study the Exhibit 2 carefully and recommend an approach. You may make necessary assumptions.

.....

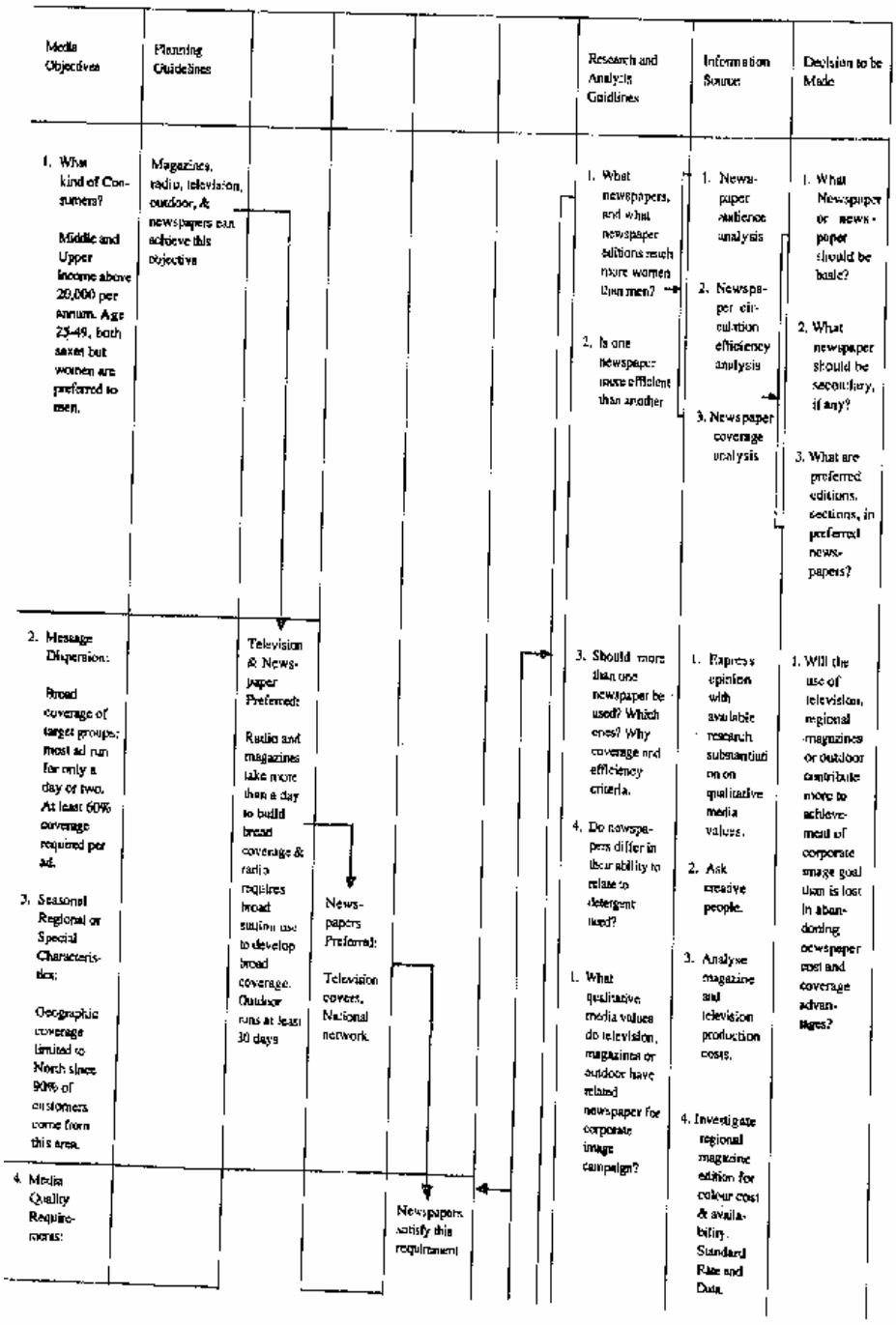
.....

.....

Some Illustrations of Media Plans

Exhibits 3 and 4 show two media plans for two different product categories.

Exhibit 3: Media Planning Guide for a detergent powder



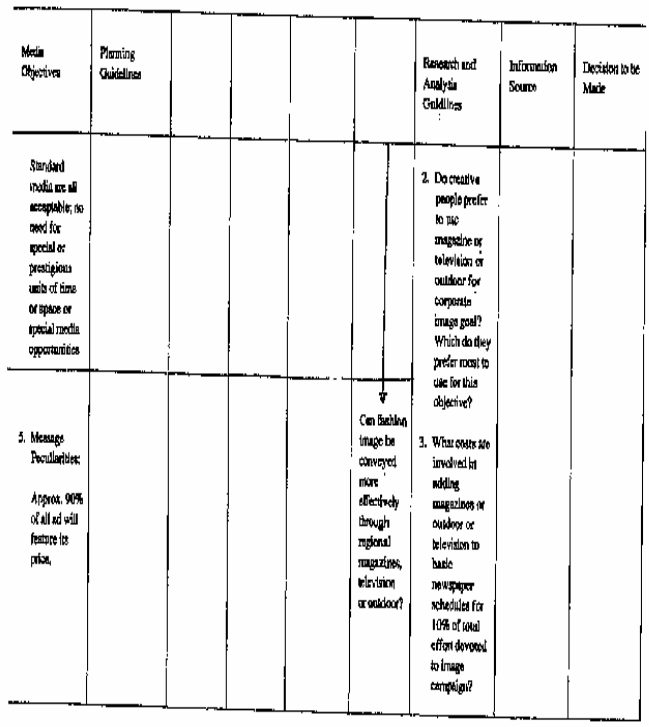
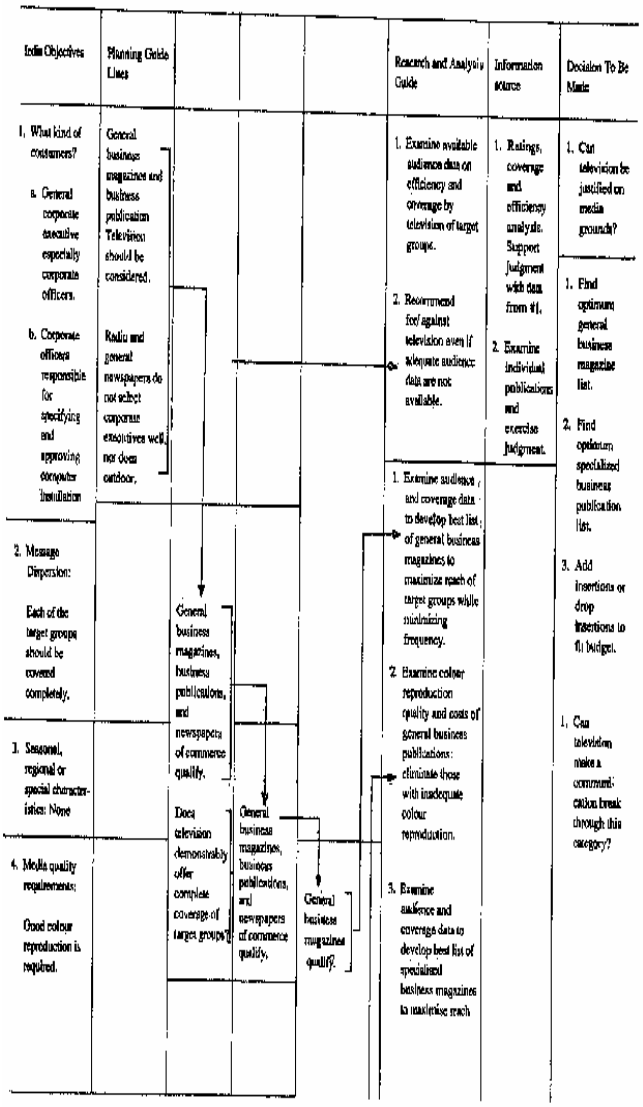
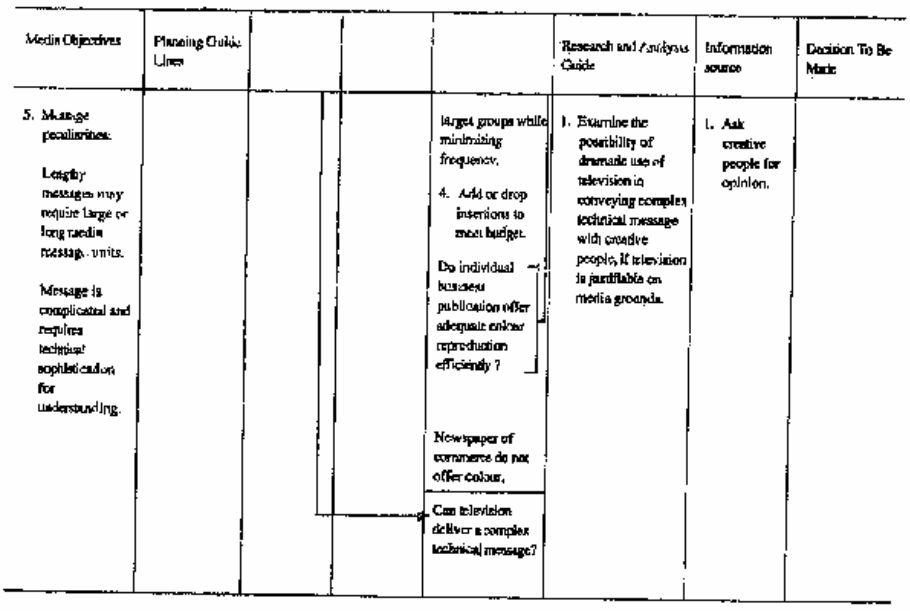


Exhibit 4: Media Planning Guide for a Full Line Computer Manufacturer





Activity 4

a) Study Exhibits 3 and 4 carefully and write down as many conceptual similarities as you can. Identify in both Illustrations.

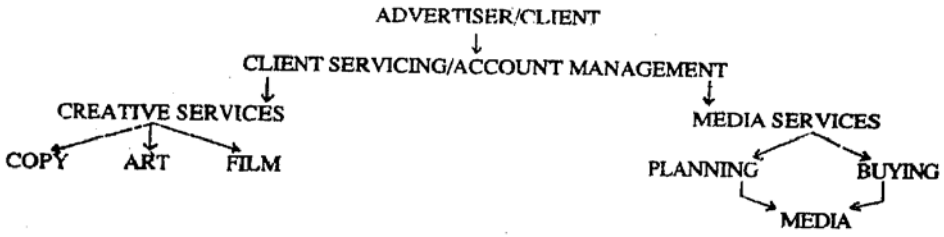
.....
.....
.....

b) Comment upon the general value of the above similarities in media planning.

.....
.....
.....

The Media Planning Function

Having understood the concept of Media Planning, let us see, how its function fits into the overall advertising agency functions in developing campaigns:



Media Planning therefore is one of the dual functions of the media department. Both planning and buying are closely linked: the latter essentially concerned with the execution of the media plan.

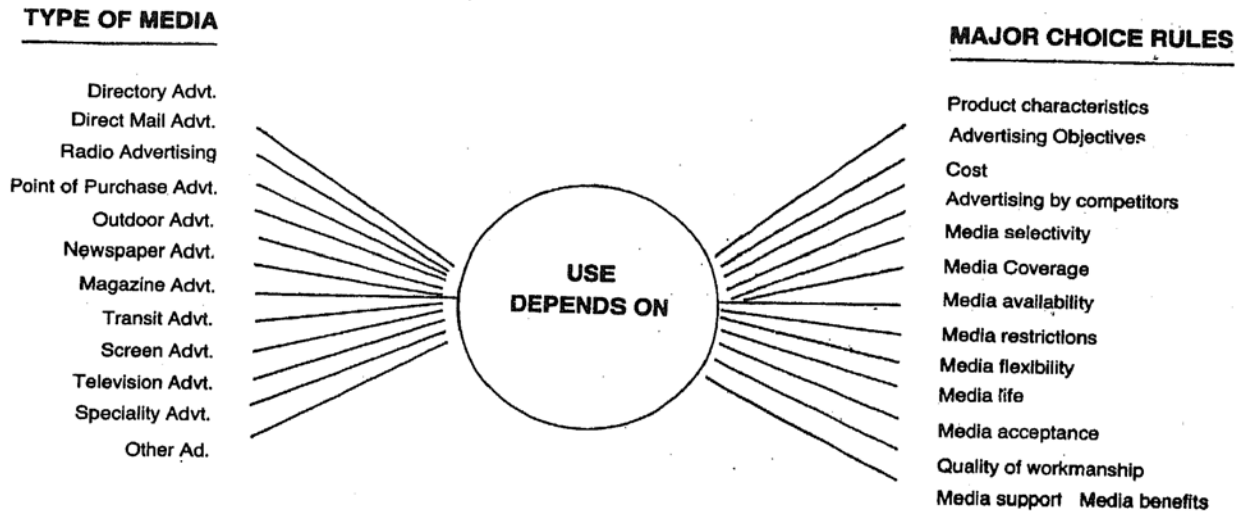
In the development of an advertising campaign both the creative and media departments work in close interaction since the respective tasks of each functions are influenced by decisions taken by the other.

10.4 MEDIA. SELECTION : A PROCESS

Media Selection is a highly involved task for a marketer. The major reason for this involvement is that there could be no single best media strategy that would apply to different situations. The attempt is, therefore, to identify a fit between media choice and market preferences. Differences in these choice approaches necessitate a change in media mixes. Further, media selection differs continuously on account of an imperfect state of knowledge that exists about the media scene. Finally, the patterns of advertisement expenditure on

that exists about the media scene. Finally, the patterns of advertisement expenditure on media vehicles keep on changing with the passage of time. Thus, advertisers and marketers in the same industry may be found spending different amount on various media instruments even though the product and markets are the same. Exhibit 5 outlines the major considerations in media selection.

Exhibit 5: Major Consideration in Media Selection Media Selection,



Source: Advertising : W.H. Bolen p. 191.

In view of the complexities and involvement in media selection, a managerial framework is quite helpful. The following selection process deals with a series of questions that need to be answered in the pursuit of media selection:

What kind of consumers does the advertiser wish to reach?

Although it is expected that the marketing plan would make a specific mention of the target consumers, it must still be given a specific interpretation for a creative media strategy. The objective of the media strategist here is to define the kind of consumers that the advertising will reach. Thus, it attempts to find out those media that will reach the target consumers either exclusively or largely, and which are efficient too. The media strategist knows that to identify a particular consumer characteristic is one thing while it is quite another thing to find descriptive media data adequate enough to use that characteristic for media purposes; One option however, is to use the consumer demographics, consumer psychographics and product usage. Table 1 provides a hypothetical description of these usage data for hair cream users for media selection purposes. It also outlines areas of data requirement for media choice and for target market choice.

Table 1 Consumers and Non-Consumers of a hair cream

Media data requirements	Demographic data requirements of the Target Market				
		Users of Hair Cream			
Particulars	Total Population	Heavy	Light	Total	Non-Users
Consumers are					
# 25 to 35 4.08 crores	5 crores		4,00,000	8,00,000	12,000,000
# Live in Major Town	2.5 crores	3,00,000	5,00,000	8,000,000	2.42 crores
# High Literacy	1.8 crores	3,80,000	5,20,000	9,000,000	1.71 crores
# Party goers	1.0 crores	2,00,000	50,000	2,50,000	97,50,000

What kind of message dispersion is required?

In answering this question of strategic importance in media selection, a string of small questions crops up. For instance, should the message strive to reach **smaller** audience but more **frequently**? Or, is it- more profitable to reach a bigger audience yet reach it **less often**?

In normal circumstances, a media selection is based on the consideration that message should be delivered to as many consumers and prospective consumers as possible. Thus, if a media planner for a toothpaste has to choose between two plans A and B, where plan `A' consists of 8 primetime television exposures within 4 weeks delivering one advertising message at least once in 4 weeks to about 70% households, and where the plan `B' consists of 32 afternoon TV exposures at least once in 4 weeks, the choice will be plan `A'. The name of the game is thus the `number of people reached'. However, many research evidences bring a note of caution in the above selection. These evidences suggest that one exposure is usually ineffective and thus, the central goal of media selection should be to place emphasis on enhancing frequency of exposure rather than reach. Also, it is believed that an exposure frequency of two within a purchase cycle is quite effective while increasing the frequency' beyond three exposures within a brand purchase cycle - even though spread out period of four or even eight weeks, continues to build advertising effectiveness but at a decreasing rate with no evidence of a decline (M.J. Naples : Effective Frequency : The Relationship between Frequency and Advertising Effectiveness, NY, 1979).

The issue gets further complicated with the introduction of message dispersal over time. For instance, should advertising messages be released in an even flow from day-to-day or month-to-month basis or should some other pattern called `pulsing' or `waving' be followed ? Many media strategists support the pulsing or waving pattern of message release on the ground of Cost efficiency. They feel that it strengthens the threshold level of advertisement and serves as a forerunner for the consumer decision to purchase the product in question.

Activity 5

An established manufacturer of a colour television with a national brand has introduced a new VCR in the market. He has sought views (a) psychographics as the basis of media-user profile; and (b) your choice between `pulsing' and `uniform' patterns of releasing message. Give at least one argument for your choice.

a) .....
.....
.....

b) .....
.....
.....

What kind of seasonal and/or regional concentration is required for advertising?

The task of media selection is conditioned by the element of seasonal/regional variations in the media intensity (concentration). It is especially important for those products and services that have seasonal/regional demand. Examples range from ice-creams, soft-drinks to ceiling fans. Festive demands from Puja, Christmas etc. put further pressure on media selection. Finally, the subcultures (e.g. Punjabi or-Bengali) and life styles found in the regional markets with a marked bearing on product demand, call for a special consideration in media selection.

Setting the media in the mode of seasonal concentration is usually easier than regional concentration. The answer lies in having media message either adapted to regional demands and preferences or create a series of different messages catering to the demands of individual regions.

What attributes should be inherent in a selected media?

Media must `add' value to the marketing messages. This is the most important attribute that is inherent in a good media. This `value' is both qualitative and quantitative. Qualitatively, the media and their weight to the messages. Thus, if a particular newspaper is known for its

fair editorial content and for its judicious selection of advertisement, any marketing message that appears in such a newspaper will carry an added' effect.

Marketers and media strategists often face two options in this regard. The first option represents an extreme situation of a media that is highly inexpensive but can deliver the message only at a broad scale. Examples of this option could be hand-bills, posters and the like. The other option represents a `specialized' media that is highly expensive and selective in delivering the message. The examples may include top-of-the drawer magazines and some highly rated TV programmes. Obviously it is riot easy to decide between these two options. Yet a decision is called for.

There are ways in which media strategists find solutions. Firstly, the percepting media selectors are keen to spot and exploit any media opportunity which may add value to the message and help accomplish the media objectives. Secondly, they fully recognise what it is that advertising media can do and what it cannot.

Activity 6

The television media can `add value' to the marketing message in the form of

…… (identify the benefits) but cannot provide

…… (identify the limitations). All this is true for

…… (all, selected, few) product categories. (Fill in the gaps by choosing one of the given options.)

What degree of Synergy can be achieved between message content and media ?

The answer to this question may perhaps provide the last missing piece of the zigsaw that a media selection often is. It attempts to strike a synergy between the type of marketing message to be delivered and the media chosen. It is because there are several media and messages which, if combined well, may be outstanding in their potential impact of the target consumers. For instance, if long arguments and substantive messages are to be given, television may not be the right media to select. Similarly, for creating a close-to-life visual picture of a product, the printed media may perhaps be the wrong one to select. An effective media manager must ever strive to invest his media selection with an understanding of the advertising process. For detailed description of computer models in media selection, refer to Unit 17.

10.5 MEDIA SCHEDULING

Once the media planning and selection is accomplished to the satisfaction of both advertisers and agencies, the attention is diverted to the task of deciding the media scheduling. It concerns answering such questions as how many of each media vehicles space and time units be bought? Over what and time units, this will be bought? Over what period, should such buying be? Do we want a steady schedule or do we want a `pulsed' campaign, concentrating heavily in the beginning and later slowing down ?

Normally media scheduling is considered for a four-week period. Thus, to an advertiser, the following six types of schedules are available.

- **Steady pulse:** Steady pulse is the easiest types of schedules to prepare. For instance, one ad per week for 52 weeks or one ad per month for 12 months may be prepared.
- **Seasonal Pulse:** Seasonal nature of products dictate the use of seasonal pulse in advertising. Examples include Ponds Cold cream; ceiling fans; air-conditioners etc., in the months of winter and summer respectively.
- **Period Pulse:** Scheduling of media at regular intervals but not related to the, seasons of the year, is called the periodic pulse. Examples may include media scheduling of consumer durables (e.g. mixes) and non-durables (e.g. semi-processed food to eat) during Puja or X-mas festivals, for gift purposes.
- **Erratic Pulse:** When advertising is spaced at irregular intervals, it is called erratic pulse. Erratic pulse by itself is not to be ignored. It is quite likely that the advertiser is

trying to cause changes in typical purchase cycles. For instance, ceiling fans, soft-drinks etc. Advertising in months other than the summer months, could attempt to even out purchases throughout the year.

- **Start up Pulse:** It is quite common to see a heavily concentrated media scheduling to open either a new product or a new campaign. This is called as start up pulse. For instance, the scheduling adopted by Videocon PIP television, or ONIDA - 21 or even the Liril Lime Soaps seen in the July - September 1989 period, had a distinct start up pulse.
- **Promotional Pulse:** This scheduling pattern suits only a particular promotional theme of company. Thus, it will be more in the nature of one-time only and advertising will be heavily concentrated during a particular time. Examples of promotional pulse would include the recent advertising for share/debenture issues by several companies and the MRF media campaign for the Jawahar Lal Nehru Centenary Sports meet in 1989.

Even though several scheduling patterns are available with their unique characteristics, it would be wise to remember that scheduling is a part of media strategy. Hence, a regular review of the scheduling patterns is beneficial to the advertisers.

Analysing Reach, Frequency and Continuity

Any thoughts on media scheduling will be dictated by a careful analysis of three factors of media. They are Reach, Frequency and Continuity (RFC). Several researches have been conducted on analysing the data pertaining to RFC. Given below are some major findings which media planners would do well to remember

- Continuity assumes importance because advertising is often forgotten if not reinforced by continual exposure. It would thus, be unwise for a marketer to spend money one week on running an advertisement which is to be followed by another run say, after six months only. Such long gap will fail to reinforce the message.
- Repeated exposures are needed to impress a message on the memories of a large proportion of consumers.
- As number of exposure increases, the number of persons who remember it increase. Not only this the length of time for which they remember also increases. Remembering is a key thing to media planners.
- An intensive `burst' of advertising is more likely to cause a large number of people to remember it, at least for a short time than spreading the campaign uniformly.
- In many cases reaching as many people as possible may be as important as the task of reaching a fewer number of people but more frequently.

It goes without emphasizing that media planning is more an art than a science because not many credible and universally applied scientific methods have been evolved as yet. It tests, therefore, the knowledge, perception and skills of any media planner. For a description of the minimum reach and Frequency Model (MRF), please refer to Unit 17.

Activity 7

a) Suggest in the following cases which will be the most dominant consideration in media scheduling.

Activity 7

a) Suggest in the following cases which will be the most dominant consideration in media scheduling.

Test-Situations	Dominant Consideration		
	Reach	Frequency	Continuity
1) Government Family Planning Campaigns			
2) Introducing a new toilet soap			
3) Announcing better range of services by a bank			
4) Attracting dealers for consumer durables			

b) Why you think so

……

……

10.6 A FINAL WORD ON MEDIA PLANS

Having gone through the complex process and components of Media Planning, advertisers and media strategists may evolve the following three types of plans (a) The National Media plan (b) The Key Market plan and (c) The Skim plan.

National Plan: Largely applicable to marketers of national brands, the national plan seeks to reach the masses. Obviously, national network of television and national newspapers and magazines will be chosen as the key media vehicles under this plan.

Key Market Plan: In the case of national brands and regional brands, media strategists seek to cover effectively the key markets rather than spread over the entire market thin. This plan is most needed at the introduction stages of the product life - cycle (PLC). It is also required for those products that have regional formulations to suit regional .climatic conditions.

Regional newspapers are the major media vehicle under this plan.

Although there could be several small major key market media plans, it is desirable that they are co-ordinated well. The adverse results of one key market media plan can adversely affect the media plan for another key market. Similarly, customers located on the fringe of two key markets should not get totally confused by the two different advertisement programmes. The. Key market media plans may be different but they should not be diametrically opposed so as to avoid the confusion.

Skim Plan: As most key market media plans concentrate on geographic areas, skim plans aim at a market from a demographic or psychographic perspective. In these plans, the markets first aim to skim off the cream of a segment and then sell it in general to the other markets.

For instance, the first attempts of the marketers may be targeted at well-to-do segments. Later marketers may scale down to serve lower markets. For instance, Quartz watches or premium textiles were sold in the fashion. It is based on the Trickledown theory of communication regarding the innovative products. However, in many cases, marketers prepare skim plan for higher segments with no intention of moving down to other segments. Contessa classic is a case in point. Finally, skim-media plans may also be prepared to target on customers with specific interests and enthusiasm. Sport lovers or computer-buffs are segments for which skim market plans may be prepared by marketers of the related products.

Activity 8

Select a real or hypothetical example of any marketing offering that would respond to the needs of national, regional, key market and skim media plans in India.

Answer

a) National Media Plans are suitable to the products like
.....

b) Key Market Media Plans are suitable to the products like
.....

c) Skim Market Media Plans are suitable to the products like
.....

10.7 DEVELOPMENT OF MEDIA STRATEGY

To refer back to our planning process chart-why indeed do we need to have media strategy ?

To draw an analogy from the world of sports, competing teams would always have a game-plan or a strategy which is designed to win or at least not to lose a match. Similarly the media strategy is the overall game plan which is geared towards strengthening the communication while countering any move the competition may have.

Media strategy therefore defines and provides rationale for the recommended media, spelling out the specific role each one plays either in complementing or supplementing the others. It is not however the tactical plan specific vehicles and exact allocation of budget.

Four basic elements of Media strategy statement are:

- Media Mix
- Usage of Media
- Geographic Allocation
- Scheduling Strategy

Let us examine what each of these are :

Media Mix

For each target market, a market-media match exercise needs to be done and the role each medium would play in contributing to the achievement of media objectives is described. Summary explanation of the approximate allocation by medium is also provided.

Usage of Media

Each medium lends itself for use in various ways, by way of commercial forms in which it is available. How each is to be used in terms of spot buying vs. sponsorship on television, time/space units general interest vs. special interest publications, prime time/space vs. non-prime time/space, colour vs. black & white, main issue vs. supplements and so on – are decisions to be taken so as to extract the best mileage out of the selected media.

Geographic Allocation

In view of the market priorities and the differential media objectives set for such market, how the media mix is to be used in order to allocate the advertising effort is explained in strategic terms.

Scheduling Strategy

The extent and spacing of the media activity in a time frame is expostulated. Rationales for controlling the continiuty of the exposures are also provided. These are dependent upon various factors drawn from various background analysis done earlier on seasonality, competitive advertising, budgetary considerations, brand purchase cycle and so on.

Any other factor which is of strategic media significance and is believed to have a positive impact on the success of the media plan also needs to be highlighted in the Media strategy statement.

Example

Brand X is "a cough tablet distributed nationally, with a concentration in Maharashtra. Target audience: Men 18-45 years with an income of Rs 750 + per month, residing in urban areas, smokers who seek temporary relief by consuming brand X. Creative is based on Audio-Visual demonstration of product in use. The role of advertising is to keep the product at a .'Top-of-mind' recall level since it is an impulse purchase product.

Media Strategy Statement

Given the target group exposure, the role of Advertising and the national coverage requirement, Television emerges as the most cost efficient and effective medium.

While National Television is to be used to provide for a national coverage, regional inputs for priority market of Maharashtra would be to provide with the use of the regional Television network. Programmes with consistent Men viewership would be chosen. Continuous advertising cannot be provided due to budgetary limitations, hence a 'PULSE 'scheduling strategy is to be employed to maintain a perception of consistent presence.

The Media Plan

The Media Plan consists of three broad sections:

- Media vehicle selection
- Media Plan and cost details
- Media activity schedule

What in your opinion would be the criteria to select media vehicles ?

If you have said Cost and Reach, then you've hit the nail on the head. However in order to drive the nail home, you need to rank the vehicles in order of merit, so that selection is possible. Ranking can simply be done by combining the two to get a cost-efficiency index.

Media Vehicle Selection

Having obtained a somewhat large listing of various TV programmes and publications, you would then need to examine how well you could use these vehicles. Since a higher level of average exposure can be desired from a combination of two vehicles which have low levels of audience duplication, this factor has to be kept in mind.

Having done an optimization exercise which is maximizing returns (in terms of Reach/Frequency) on investments (in terms of media costs), a qualitative judgement is necessary to see whether the editorial environment is compatible with the advertising message, or evaluating a vehicle's audience profile in terms of the brand personality.

Media Plan and Cost Details

Exact number of Television spots to be bought with each selected programme, in what duration, at what cost over what network for precisely which market and similarly the exact number of press insertions to be bought with each selected publication, in what size, at what cost, for which market - is indicated in great detail followed by Media Cost Summaries. The latter provide a management summary of the plan outlay by time period, market, medium etc.

Media Activity Schedule

The calendar of media activity is provided on an actual visual diagram (see example below) wherein for each market, what precisely is planned through the campaign is provided at one glance.

Activity Schedule

Bombay							
Television	Prog.	Dur	Rate	Cost	Jan '89	Feb '89	Mar '89
Chitrageet		30 sec			xx	xx	x
Marathi Film		30 sec			x	xx	x

10.8 SUMMARY

- Media Planning is a decision making process, aimed to arrive at three basic decisions
  - What should be the media objectives
  - Which media should be selected
  - How are the selected media to be used
- A media plan evolves from and is fully integrated with the marketing/advertising/creative objectives.
- Setting media objectives is essentially laying guidelines as to who the advertising must reach, where, when, how, how many, how often, how long and in what environment.
- Evaluating media opportunities is to explore which media are available and what role they could play in the coverage of the target audience.
- Developing a Media Strategy entails describing how precisely the selected media-mix would be used in relation to each other with a view to achieve the set media objectives.

It specifies geographic allocation and scheduling strategy.

- The media plan consists of actual media vehicle selection and their usage in terms of activity, the selection is based on both quantitative and qualitative parameters.
- Media plan evaluation is a crucial final sites to check whether the planned media programme conforms to the objectives as set for it. The evaluation is necessarily qualitative and Reach and Frequency levels are fine-tuned if needed before the plan is implemented.

10.9 SELF-ASSESSMENT QUESTIONS

1) Explain the importance of media scheduling in general and for a specific line of products (either hypothetical or real) whose market has not yet fully developed. What strategic orientation you would like to give? Differentiate between various media plans as 'explained in Section 18.6.
2) Discuss the various steps involved in media planning. Is it going to be different in the 'case of industrial products than in consumer products? How?
3) "Television advertising is too expensive to be flirted with." Do you agree with the statement? List five characteristics that a product must have before advertising it on the television.
4) Are there any constraints on media planning? Identify media constraints in developing countries. Explain how you will deal with these constraints in developing media plans for (a) in-home video games (b) eradication of illiteracy among 'rural women.
5) You have understood that a media strategy must be based on adequate information. As a media strategist of a forest based product, you have to decide:
   a) Whether to use demographic pattern or the product usage pattern of your audience or both; and
   b) Whether to use single media or multimedia for the products.

   State your objectives of the media strategy, collect information on media used by products similar to forest based product, and explain your media strategy.
6) Assume that you are an advertiser of a stereo sound equipment. Would you:
   a) Use a magazine or outdoors;
   b) Radio or Television.

   Once you have selected the media and defended your selection with logical reasons, develop cost estimates for the same and their reach and frequency. For cost considerations, you may refer to Unit 17.
7) As a media planner for a pharmaceutical firm, your task is to develop media plans for a new cough-syrup to be sold in poly-sachets. Develop its objectives, media selection, and its likely pay-off.

10.10 FURTHER READINGS

A.M. Barban, S, M. Cristoe and F, J, Kopek (1976), Essentials of Media Planning (Chicago: Illinois Crain Books).

J.Z. Sissors & E.R. Petray (1976), Advertising Media Planning (Chicago, Illinois Crain Books).

D.H, Gensch (1973), Advertising Planning: Mathematical Models in Advertising Media Planning (Amsterdam: The Netherlands Elsevier Scientific Publishing Company).

W.H. Bolen (1981), Advertising John Wiley & Sons, N.Y.

C.L. Bovee & W.F. Alens(1982), The Contemporary Advertising R.D Irwin ,Inc. Homewood Illinois.

Annexure 1

Computer Mode[l]s in Media Selection

Many agencies and advertisers are malting effective use of the computer in storing and retrieving audience information. For the first time it is possible to make sophisticated use of data on reach, frequency, gross rating points, cost per thousand prospects and so on, for a wide variety of media. While this is largely a data processing function, the pay-off in more precise media selection has been great indeed, In practice, to date, most computer analysis is for intramedia comparisons. The qualitative difference across media cannot be reduced to number very well.

Another advantage has been the growing demand for more and better audience data. The media information services have in large part experienced greatest growth since the advent of the computer.

Finally, there is every reason to expect that the computer models discussed here and other yet to be devised will overcome many of the present limitations,

1) Linear Programming Model

1.1 Linear Programming is intended to derive maximum values for a linear (straight-line) function, given certain constraints on the decision space. When applied to media selection, the model takes the following general form:

Maximize:

$$\text{Total exposure: } = \sum_{i}^{1} = {}^{R\,i}_{1} \quad xi$$

$$\text{Subjected to: } = {}^{i}_{i=1} \; C_i \; X_i \; \leq B$$

Where:

$X_i \leq L_i$

$X_i > 0$ for i = 1, 2,……..I

X_i = Number of insertions in medium i

C_i = Cost per insertion in medium i

B = Total advertising budget available

L_i = Physical limit on insertions in medium i

R_i = Rated exposure value of a single insertion in medium i

The computation routine consists first of dividing each R_i by C_i to derive the rate exposure value per rupee. Then, the objective is to select to medium that returns the highest rated exposure value per rupee (R_i / C_i) and purchase as much as is possible, given the limits

imposed by B (advertising budget) and Li (the total number of possible insertions, say 12 issues of a monthly magazine). Then the solution proceeds to the medium with the next-highest rating and continues until a media schedule is chosen which maximizes the objective function, subject to the constraints imposed.

1.2 The steps in a well-conceived LP media allocation procedure are as follows:

- Establishment of a target market objective,
- Procurement of data on the audience profiles of various candidate media..
- Application of effectiveness rating procedure encompassing at least two phases : (a) audience profile match and (b) analysis of qualitative considerations.
- Determination of the objective function in terms of rated exposure values per rupee,

- Quantification of all constraint conditions, including budgetary limits, limits on media availability, and judgement with respect to the maximum number of insertions desired in certain media.

- Application of a LP computational routine.

- Analysis of the resulting media plan to determine its sensitivity to changes in the constraint condition which are applied as well as changes in the rated exposure values of various candidate media. This will require a series of LP computations so that resulting changes can be isolated.

- Selection of the final media plan on the basis of judgement as to which solution seems most appropriate in terms of stated objectives,

1.3 Advantages of Linear Programming: The LP approach described above is valuable because it:

- Forces Definitions of Markets to be Reached.

- Requires Quantification of Qualitative Factors.

- Establishes a Clear Need for Audience Data.

- Can be applied to Problems with Variety of-Media.

- Allows the Blending of Many Factors.

1.4 Limitations Linear Programming. The following limitations of linear programming should be recognized:

- The Assumption of Equal Effects Repeat Exposures.

- The Assumption of Constant Media Costs.

- The Danger of Fractional Time or Space Purchases.

- Solutions Determined without Consideration of Audience Duplication.

- The Illusion of Definiteness.

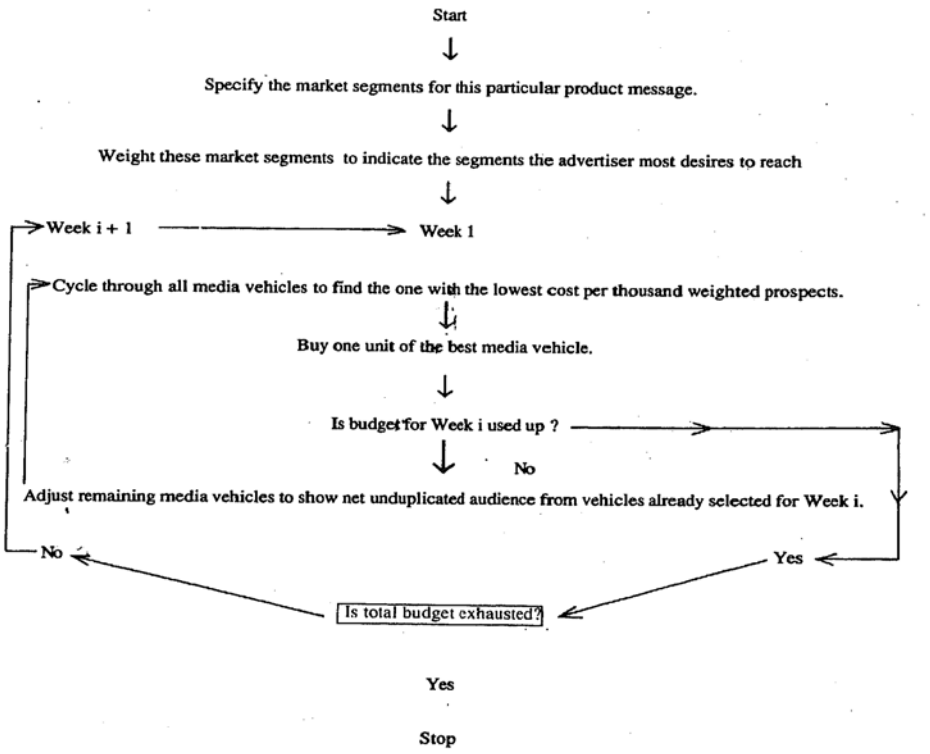
2) Iteration Models

Media scheduling has made limited use of iteration models, in which the approach is to bring one media at a time into the solution, depicted below in Section 2.1.

Note that the medium with the lowest cost per thousand prospects is selected first. Then remaining media vehicles are adjusted to show net unduplicate audience from the vehicle or vehicles already selected. The process continues until the budget is exhausted.

While the iteration model is not hampered with the linearity assumption of LP it has the disadvantage that it cannot guarantee an optimum or "best" solution given stated constraints. This is because the computer algorithm is progressively limited as each medium is chosen. It cannot computer the value of different combinations of media because of the necessity of starting with the highest rated medium and proceeding to the next accordingly. While the first vehicle in the solution might be optimum, there is no guarantee that an optimum solution will rest with two or more media candidates.

2.1 Flow Diagram for the iteration Model



Source: Dennis. H. Gensch, "Computer Models in Advertising Media Selection," Journal of Marketing Research, Vol. 5, (November 1968), p. 416.

3 Simulation Models

Simulation models are designed to assess how a given media schedule or group of schedules will affect a target market. The approach in effect consists of storing the characteristics of a number of individuals in the computer and then evaluating their probable response to the media input. Three different approaches to simulation are in fairly widespread use: [1] the CAM model, [2] the Simulmatic model, and [3] COMPASS.

3.1 The CAM Model. In 1964, the London Press Exchange began operational use of its Computer Assessment of Media (CAM) model. It simulates the process by which individuals are exposed to both magazine and television advertisements. Viewing data are provided in four-week segments by Television Audience Measurement Ltd., and the data are converted into probabilities of viewing over the period of a year. Similar steps are taken on magazine data supplied by the National Readership Survey. Then the individuals into the two samples are carefully paired off so that television viewing and magazine reading patterns are assigned to each individual. These data are then stored in a computer.

Next a target audience for a campaign is selected and weighted. A perception value is assigned to each media vehicle, which attempts to assess the impact an advertisement will have on the viewer or reader in terms of exposure. This is further weighted by variations in prestige and influence from one publication to another. A final series of weights called impact weights is then assigned the message on the person who sees or views it.

The model makes use of a single score which describes how much advertising an individual will receive. The probability of receiving an impression (PRI) is computed as follows:

PRI = Adjusted probability of seeing or viewing the media vehicle x perception x selectivity x impact.

Media schedules then are run, and a single score is produced from the simulated response of the sample of individuals which serves as the criterion of choosing between media schedule

3.2 The Simulmatics Model. The Simulmatics Corporation stores information on nearly 3,000 imaginary individuals representing a cross section of the U.S. population four years of age and over. Data are included on socio-economic characteristics as well as media exposure habits. As with the CAM model, the simulated audience is exposed to an actual media schedule. Modifications are introduced to account for habit formation, saturation with too many of one type of medium, and so on. The summary statistic depict the probable viewing or listening audience and the extent of their exposure.

3.3 Compass Ten large advertising agencies have retained a consulting firm to develop a simulation model referred to a COMPASS (Computer Optimal Media Planning and Scheduling System). No details have been made public.

Annexure 2

The Minimum Reach and Frequency (MRF) Model

2.1 Introduction

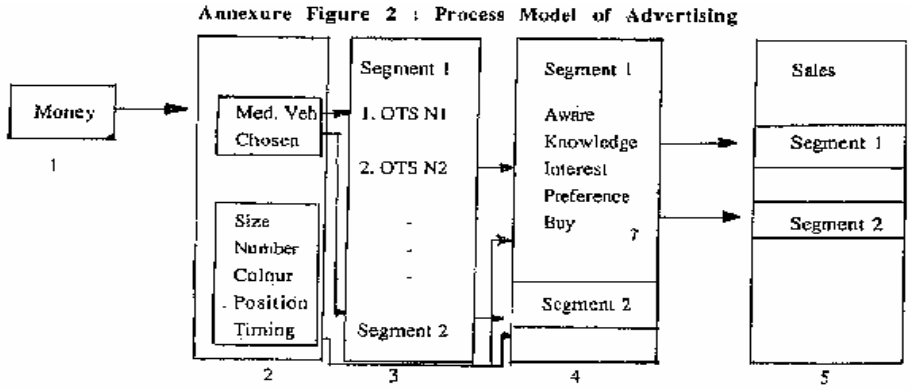
Every advertiser, whether in India or abroad, makes a decision about media planning at least once a year, if not more. In India, the decisions have been based so far on intuition and non-formal procedures. But formal methods can help an advertiser to utilize his advertising rupee better. Motivation for an advertiser to use formal methods in media planning stems from two factors: firstly the expenditure in advertising is very high the Indian industry spent over Rs. 3000 crores on media during 1988-89 and secondly, the number of alternative media available is very large.

The prevalent practice of press media planning in India is to use available circulation and readership data to draw up media plans that will give the desired "reach" and average frequency of exposure among the target audience. Plans drawn through conventional non-formal methods obviously lack in precision and result only in crude estimate of the "reach" and the average frequency of exposure.

This annexure presents a quantitative model for press media planning which uses available audience data and research. The model selects the lowest cost media plan which achieves the desired "reach" and "average" exposure frequency per person in several target audience groups.

2.2 The Process Model of Advertising

Figure Annexure 2 shows the process model of Advertising



The Advertising process starts with the total money available (or required by) the media planner for buying time and space in different media vehicles (Box 1). The planner, through some decision process, converts money into physical quantities like choice of media vehicles and size, number, colour, position, and timing of the advertisement in each of the media vehicles (Box 2). The choice of media vehicles, depending on the audience profiles of the chosen vehicles results into providing zero opportunities - to - see (OTS) to some members of the target audience group(s). The distribution of OTS along with the other decision variables of Box 2 (size, number, etc.) influences the "effect of advertising" in each of the target audience groups. The effect is to be measured in terms of the states of mind and behaviour of the group, e.g., unaware, aware, knowledge, and lastly a state "buy" (Box 4). The distribution of members of each of the target audience groups in these states will decide the level of sales generated during current and future time periods (Box 5).

For using this advertising process as a basis for developing a media planning model, it is necessary to obtain the following relationships either theoretically or empirically:

2.2.1	Relationship between the choice of media vehicles and the distribution of
2.2.2	Effect of distribution of OTS and other variables of Box 2 on each of the states listed in Box 4.

2.2.3	Relationship of distribution of the members of each target audience group in state to sales achieved in current and future time periods

Relationship 2.2.2 and 2.2.3 above singly or jointly are termed as response functions.

2.3 The Model

Since the existing model of media selection are not suitable to Indian conditions, this model has been developed to select a minimum total cost media plan so as to achieve:

- A desired minimum reach in each of the target audience groups.
- A desired average OTS per member reached in each of the target audience groups.
- The actual number of insertions in each selected media vehicle between a minimum and a maximum number specified by the planner.

The detailed mathematical model is given in Section 2.5.

An equivalent verbal representation will be as follows :

{Cost per insertion x of insertions in all media}

Min : Sum of { vehicles under consideration, } (1)

Such that :

Minimum achieved reach ≥ Desired minimum reach for all target audience groups (2)

Achieved avg. OTS per person ≥ Desired average OTS per person for all target audience groups, and (3)

Desired maximum} number of} insertions ≥ Number of insertion in the media vehicle if selected in each media vehicle ≥ Desired min. number of insertions (4)

A major difficulty in obtaining a solution of the above model is that the method of obtaining the minimum reach of a media plan is complex. A mathematical formulation for obtaining the minimum breach of a media plan is given in Section 5. If this is incorporated in the model, it will not be possible to obtain a solution with existing techniques of optimization.

2.4 The Heuristic Method to Solve the MRF Model

To circumvent the problem, constraints (2) and (3) are combined to get a single constraint. As reach times the number of OTS per person reach is total OTS, constraints (2) and (3) become

Achieved total OTS ≥ Desired reach x Desired OTS per person. (5)

The derived problem then becomes :

Min : Sum of {Cost per insertion x No. of } {insertion in all media vehicles } (6)

Such that :

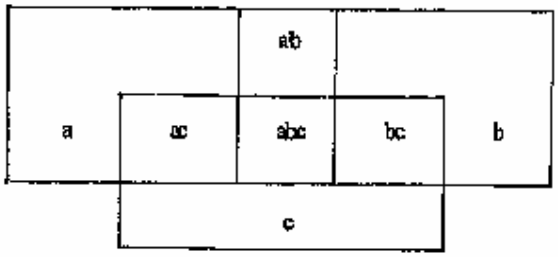
Desired } maximum} ≥ number of} insertions } Number of insertions } in a media vehicle } if selected in each } media vehicle } ≥ Desired Minimum Number of Insertions (7)

Achieved total OTS ≥ Desired minimum reach x Desired average OTS in each target audience group

To solve the original problem (1 - 4), the modified problem 6, 7, and 8 is first solved. As the solution to this problem gives the publications selected in the media plan, the reach and average OTS of this media plan are tested for each target audience group (through constraints 2 and 3). The calculations of reach is made by solving the mathematical programme of Section 2.5. If the reach and the average OTS achieved in each target audience groups are more than the desired values, the media plan obtained is the best (optimal). However, it is possible that in one or more target audience groups the achieved reach and the OTS are less than desired. In such a case, increase the desired OTS in that audience group in the modified problem and resolve the modified problem. The procedure terminates when either all reach and OTS constraints are satisfied (solution obtained - or one or more reach and/or OTS constraint cannot be satisfied implying that the media vehicles under consideration cannot achieve the desired values, i.e., no solution exists for the problem as defined).

2.5 Explanation for Data Requirement for finding Reach

2.5.1 Supposing that three are media vehicles and only one target audience group under consideration. They are A, B, and C. Let the individual audience be a, b, and c. The common, audience of A and B will be ab, of B and C be and of A and C be ac. Also let audience common to A, B and C be abc. The exact reach as is obvious from the diagram, will be a + B + c - ab - ac - be + abc. So, data on abc (higher order overlap) is needed to obtain the exact reach. Similarly, it can also be shown that data on higher order overlaps in needed for finding distribution of OTS.



2.5.2 The MRF Model formulation is as follows :

$$\text{Min} : \sum_{j=1}^{m} C_j x_j \qquad (1)$$

Subject to

$$R_j \geq R_i^*, \text{ for } i = 1, 2, \ldots\ldots, S, \qquad (2)$$

$$\sum_{j=1}^{m} \frac{A_{ij} x_j}{R_j} \geq F^* \text{ for } i = 1, 2, \ldots S. \qquad (3)$$

$$\left.\begin{aligned} x_j - L_j z_{j_1} \geq 0, \\ k_{j_1} z_j - x_j \geq 0, \end{aligned}\right\} \text{ for } j_1 = 1, 2, \ldots m. \qquad (4)$$

all z_j are 0 or 1 and x_j s are non--negative integers.

where

m : Total number of media vehicles (publications) available for selecting a media plan.

S : Total number of target audience groups to be considered.

R^*_j : Desired minimum reach in target audience group i, for i = 1, 2, ...S.

A_{ij_j} : Audience of the media vehicle (publication) j_j in the target audience group i, for i = 1, 2, ...S, and j_j = 1, 2, ...m.

$A_{ij_1j_2\ldots}$: Common audience of the media audience group i for i = 1, 2, ...S, and j_r ....., j_i = 1, 2, ...m, where r = 2, 3,.....m.

C_{j_1} : Cost per insertion in media vehicle j_1, for $j_1 = 1, 2, ...m$.

L_{j_1} : Minimum no. of insertions to be put in the media vehicles $j_1 = 1, 2, ...m$, if selected.

K_{j_1} : Maximum number of insertions to be put in the media vehicles j_1 if it is included in the media plan, for $j_1 = 1, 2, ...m$.

R_i : The reach attained by a media plan in target audience group i, for $i = 1, 2.....S$.

F_i : The frequency (average OTS) attained by the media in target audience group i, for $i = 1, 2, ...s$.

z_{j_1} : 1, if the media vehicle j is included in the media plan,

0 other wise, and

x_{j_1} : The number of insertions to be placed in the media vehicle j_1.

The modified problem used in obtaining a solution was as follows :

$$\text{Min} : \sum_{j_1=1}^{m} C_{j_1} x_{j_1} \qquad (1)$$

Subject to

$$\left.\begin{array}{l} K_{j_1} \; z_{j_1} - x_{j_1} \geq 0 \\ \vdots \\ x_{j_1} - L_{j_1} \; x_{j_1} \geq 0 \end{array}\right\} \text{for } j_1 = 1, 2, ...m. \qquad (4)$$

$$\sum_{j_{i=1}}^{m} A_{j_1 j_1} x_{i_{j_1}} \geq R_i^* F_i^* \quad i = 1, 2, ...S \qquad (5)$$

all z_{j_1}'s are 0 or 1 x_{j_1}' s are non–negative integers.

2.6 Micro Lower Bound on the Reach of Media Plan of Vehicles

The micro lower bound on the reach of a media plan of m vehicles would be given by the optimal objective function value of the following non–linear mathematical programme.

$$\text{Max } [[M^* - 1) \sum_{j\,i=1}^{M} Aijizji - \sum_{j2>j1=1}^{M} Aijij \; zji \; zji]z/(M^*) \qquad (1)$$

Subject to

$$m^* \geq \{[2 \sum_{jz>ji=1} Aiji \; j \; zji \; zj \;]/ \sum_{ji=1}^{M} Aiji \; zji \; \} + 1 \qquad (2)$$

$$m^* \leq \{[2 \sum_{j2\,ji=1} Aijij \; zjl \; zj \;]/ \sum_{ji=1}^{M} Aijl \; zjii \; \} + 2 \qquad (3)$$

$z_i = 0$ or 1; for $j_1 = 1, 2, ..., m$ and m^* in a positive interger

The above programme seems to be intractable in nature. However, if m^* is assumed to be fixed, it can be reformulated as a 0 – 1 quadratic programme.

$$\text{Max} : [(mx - 1) \sum_{ji=1}^{M} Aijl \; ji - \sum_{j2>j1=1} Aiji \; j2 \; zji \; zj2]/(M)_2 *$$

Subject to

z_{j_1} ' s are 0 or 1.

It is obvious that the value of m^* would lie between 2 and the integral part of

{2 $\sum_{j2>ji=jj} Ai\ j2 / \sum_{ji=1} Ai\ j + 2$ } say M * *

For each value of m* starting from 2 to m** a different 0 -I quadratic programme could be formulated and solved. It would be easy to check back whether the actual value of m*, in different cases, satisfied the constraints (2) and (3). The maximum objective function value corresponding to the solution for which m* satisfies constraints (2) and (3) would be the optimal value of the non-linear programme (1) - (3). As such, this value would be the micro lower bound on the reach of the media plan in target audience group i.

2.7 The Implementation Model

The MRF and the solution procedure outlined above were applied to develop a media plan for a frequently bought, low value, daily use convenience-packaged product in one of the four zones of India. The model required some judgemental data as well as some hard data.

2.7.1 Data for the Zonal Plan

The media plan was to be developed only for the western zone. The user decided that the target audience groups for the product were all adults residing in urban areas in :

a) Middle-middle income category
b) Upper-middle income category
c) Upper income category
d) Gujarat State
e) Madhya Pradesh State
f) Maharashtra State

2.7.2 The following data was then generated for the MRF model. The judgemental data was arrived at through discussions with the user.

a) **Publications to be considered :** In all, 46 publications were considered to be appropriate for advertising the product.

b) **Minimum and maximum number of insertions :** For each of the 46 publications, a minimum and a maximum number of insertions were specified. The minimum number of insertions was decided on the basis of the judgement that if a publication was included at all in the media plan, it would have a number of readers who did not read other publications; therefore, such readers should be provided a minimum number of OTS to get some response, The maximum number of insertions reflected the judgement of the user that a larger number of insertions would not lead to added response.

c) **Minimum reach:** On the basis of past research on the usership of the product and the expected sales in the period for which the media plan was being developed, reach targets in the three income groups for the zone as a whole were specified. Minimum reach was not specified in the three states because it was assumed that the reach in each income category of a state would be proportional to the reach for the zone as a whole in the category (see Table 2.1 (annexure) for the reach specified by the user).

d) **Minimum average OTS:** For the three income categories, it was thought that an average of 20 OTS per person would be required to evoke reasonable response from an individual.

e) **Total OTS:** The minimum total OTS desired in a state was specified as proportional to the sales potential of the state in the zone.

(Item g - e constituted the judgmental data required for the MRF model, In any. application of the model the user has to provide these judgemental data.)

f) **Media audience and cost data :** The audience of each of the 46 publications in each of the six target audience groups was obtained from the NRS report, Common audience of all combinations of two of the 46 publications in the three income categories (in which minimum reach was specified) was also required in the model. The NRS report provided common audience data on the basis of overall media vehicle audiences and not in each income category. To obtain the common audience between any two publications in each income category, the user agreed to make an assumption, The assumption was that the ratio of the common readership of one publication with another

to its readership would be the same in all the income categories in a zone. For example, assume that 10% of all the readers of the Times of India also read The Indian Express. Then, in each of the income categories also, 10% of the readers of The Times of India were assumed to read The Indian Express.

g) The cost per insertion in each of the 46 publications was provided by the user.

2.8 The Results

Using the above data, the MRF model was formulated and solved to obtain the minimum cost media plan. A comparison of the desired reach and OTS values in each target audience group and the values achieved by a media plan developed by the user and the plan developed by applying the heuristic method was made.

Results of the comparison are presented in Table 2.1 (annexure). It may be noted that knowledge about the reach and average OTS per person for the user's plan could be had only by using the method of estimating reach suggested here.

These results showed that the media plan developed through the application of the method had about 40% lower cost in comparison with the plan developed by the user.

Table 2.1 (Annexure) : Comparison of Media Plans for a Zone

	Characteristics	Desired Minimum Value	Media plan developed by Heuristic	
			User	Method
1.	Publications in the final plan (Nos.)		46	28
2.	Total Cost (Rs.)		1.88,366	64,690
3.	Minimum reach in income category (in lakhs)			
	a) Upper	6.5	8.58	8.82
	b) Upper middle	12.2	13.2	12.3
	c) Middle	19.6	24.0	23.06
	d) Total	38.3	45.70	43.30
4.	Average frequency (DTS) per individual in income category (Nos.)			
	a) Upper	20	25.0	21.0
	b) Upper middle	20	24.4	21.0
	c) Middle	20	23.5	21.6
5.	Total OTS in state (in lakhs)			
	a) Maharashtra	467	981.00	813.73
	b) Gujarat	[61	389.00	346.85
	c) Madhya Pradesh	138	212.00	235.70

2.9 The Evaluation of the Model

The MRF model provides certain advantages to the media planner. But it has its limitations.

2.9.1 Advantages

a) Solution of the mathematical programme provides the user with an improved (lowest cost) media plan as compared with the non-formal, manual method. The improved results are mainly due to a better method of estimating the minimum reach of a media plan and a systematic search for improved solution through higher speed devices (computer).

b) The decision parameters used in the model are the ones currently being used by advertising practitioners in India (i.e. reach and average OTS per person reached). As the methods of obtaining these parameters for a media plan were not well known so far in the profession, the use of even these parameters was not explicit. The MRF model forces a media planner to state explicitly the requirement of reach and average OTS which will be consistent with the general marketing objectives. As such the use of this model will, most probably, help the practitioners in sharpening their own judgement.

c) The model in its current form is capable of dealing with multiple target audience groups.

2.9.2 Limitations

a) Since the model uses the NRS data, it is essentially meant for press media planning only. However,-this is a data specific limitation rather than the limitation of the model itself. If detailed data on audience of individual vehicles or different media is available, the same model can be used for developing a multimedia plan or a separate media plan for radio and cinema.

b) The output parameters used in the model are only the reach and the average OTS and not the response of the audience groups. However, as pointed out earlier, the lack of research studies and unwillingness of practitioners to provide judgemental data makes the formulation of a response model an impossible task for the time-being. It is believed that experience with this model will stimulate efforts in future for more research on advertising response functions. Response functions will help in specifying the proper reach and the OTS parameters for the MRF modeL

c) It is possible to argue that the model required considerable judgemental data. However, in the absence of research work, it is necessary to use judgement. Also, it requires no more judgement than what the practitioners are currently making and are familiar with.

d) The model provides the total number of insertions in each publication and not their timing. This definitely is a limitation of the model. However, once again, if scheduling of advertisements has to form a part of the model, the effect of timing on target audience would have to be known. As already pointed out, response functions are not available so far in India.

e) The model, as it exists, does not consider the casual readership of publications. Steps in that direction are under way. Also, the solution procedure is only a heuristic which does not ensure the best results (minimum cost). In a set of small sample problems, the results obtained through the heuristic method were within 1-2% of the optimal results. This, however, does not ensure the same level of accuracy for large problems.

2.10 Imperatives

As the model uses complicated mathematics and requires analysis of large data, a high speed facility with memory (like a computer) is necessary. For making the MRF model operational, the development effort will involve writing computer programmes and writing the entire NRS data on a magnetic tape which can be used along with the programme. All this effort is likely to cost to a user. Operating costs of running the model for developing a media plan will include costs of punching of the input data, running the programmes on the computer, and interpreting the results. The total cost of developing a media plan, therefore, will include the operating expenses (which will vary according to the type of computer and the facilities that a computer centre offers) and an amortization amount towards the development costs.