
Opinion Piece

Effective frequency estimates in local media planning practice

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ABSTRACT Effective frequency, a cornerstone of media planning, says how many times consumers should be exposed to advertising in order for advertising to be the most effective. Basic effective frequency level is believed to be 'three-plus' exposures and this figure is adopted by most media planners. Beside the basic level, marketing, media and creative copy factors influence the final determination of effective frequency level. Such factors, defined by Ostrow in 1982, were not revised for more than 29 years and still are used in media planning textbooks. This exploratory study examines how local media professionals make their decisions about frequency levels for advertising campaigns.

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INTRODUCTION

John Wanamaker's well-known phrase that he knows half of advertising is a pure waste of money, but he doesn't know which half still has not lost its validity.¹ Indeed, advertising industry wastes millions of dollars every year.² In today's complicated media and marketing environment, accountability has taken on increased significance. With scarcer funds, more aggressive competition, greater choice of media alternatives and almost perfect accountability of Internet advertising, the need to advertise in traditional media with the maximum effectiveness has become greater. Despite the fact that nearly half of all money spent on advertising comes from local

advertisers,³ very little has been done on a local level, where more restrictions and limitations are usually imposed on media planning.⁴ Recently, Cheong, De Gregorio and Kim⁵ examined national media planning practice and call to investigate media-planning concerns at a local level where smaller budgets and local focus may result in different approaches to medial planning.

This article examines how local media professionals plan advertising campaigns for their clients. More specifically, we examine decisions about frequency of advertising campaigns and factors that affect these decisions. First, we review an extensive body of literature on effective frequency. Then we present the analysis of in-depth interviews that were conducted with media directors to identify their approaches to media planning and to compare them with traditional media principles reflected in academic literature. Finally, we provide

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general conclusions and recommendations for local media planners.

EFFECTIVE FREQUENCY CONCEPT

The effective frequency concept, born in the mid-1970s, suggests that for nearly all products there exists an optimal number of advertising exposures below which no or little effect is observed, and above which advertising effectiveness demonstrates diminishing return.⁶

There has always been considerable debate among advertising people concerning the optimum number of advertising exposures that maximizes consumer response to an advertisement. This debate reflects two views on the role of advertising in a marketplace. Advocates of a 'strong' role claim that advertising is a highly persuasive and powerful tool of communication and is able to convince consumers to purchase an advertised product even only after one exposure. As a result, media planning should focus on reach.⁷⁻¹² The 'weak' role camp holds a completely opposite view. Advertising has little impact on consumers. It works mainly as a reminder and, therefore, it should be constantly repeated to have some effect on consumers. The main implication here is that media planning should focus on frequency.¹³⁻¹⁹

As early as in 1972, Krugman²⁰ tried to explain why repetition is important for advertising to be effective. According to the author, most advertisements are fully familiar to most consumers and serve as reminders; therefore, response can be immediate. The goal is to be noticed by consumers at a critical time – when they are in the market. According to Krugman,²⁰ the first exposure is unique by definition – consumers try to understand the nature of the stimulus. During the second exposure, consumers may evaluate personal relevance of advertising, although this is also possible during the first exposure if consumers are interested in advertising. The third exposure is a true reminder. Krugman²⁰ calls for higher frequency because like a product sitting on a shelf, the advertiser never knows when the customer is going to be looking for the advertised product. Hence, the advertiser must rent the shelf space all the time. Krugman's

position can be seen as reconciliation for the two extreme views on the role of advertising. When consumers are ready to buy, advertising represents a strong force and purchase can be made only after one exposure. When consumers are not going to buy, advertising serves as a reminder and purchase can be made later. Krugman's conclusions were misinterpreted by Naples,¹³ who refers to Krugman's research and advocates higher frequency based on McDonald's²¹ teaching-learning model.¹⁶ The author claims that frequency, like in any learning process, helps consumers to understand why they need the advertised product. However, Krugman²⁰ insisted that the main reason for emphasizing frequency is not the learning process (we don't see a lot of new advertising every day or even every month), but rather keeping consumers informed about product or service availability in the market.

The effective frequency concept was introduced by Naples¹³ in the book published by the Association of National Advertisers (ANA). The book represents the first attempt to bring together everything what was known about advertising effectiveness. It was partially based on research done by Krugman²⁰ and McDonald.²² Naples¹³ argues that one exposure within a purchase cycle would normally be ineffective, two could have some impact, but three would be optimum, beyond which diminishing return could set in. The author sets up the effective frequency level as three exposures and concludes that frequency rather than simply reach should be emphasized in media planning as reach alone without repetition would not lead to sales. Naples' book opened the era of effective frequency to a wide professional audience. The concept became very popular and has been dominant in the media planning industry for more than two decades. Over the years, the effective frequency concept has been used and interpreted in many ways and achieved a 'three plus' rule of thumb status.²³ According to Jones,⁹ 'three plus' effective frequency strategy was implemented by 90 per cent of packaged-goods advertisers in the United States. Even today this rule is very popular.²

Later Jones⁸ and Ephron¹⁰ introduced a single-exposure concept, which recognizes a considerable potential of a single exposure and

calls to emphasize reach over frequency. Jones⁸ shows that first exposure was the most effective in terms of sales. Jones⁸ proposes to emphasize reach over frequency by spreading the budget over many weeks in order to cover the target audience at least once a week with minimum duplication and to run as many consecutive weeks as the budget allows. Greater continuity means less short-term concentration (and reduction of diminishing returns). Jones⁸ believes that the three-plus exposure media strategy should be used only in the most exceptional circumstances and gives examples of such situations. The first situation applies to the launch of new brands or new campaigns for existing brands. The second situation is advertising for highly seasonal goods and services. The single-exposure concept got support from some other researchers. Longman¹² claims that brands benefit greater from being exposed to someone new, than from reaching again someone already reached. Gibson¹¹ shows extraordinary impact of single exposure on sales based on a real world experiment by General Mills. Ephron²⁴ suggests a 'news' model for a single-exposure concept. Consumers do not learn from advertising, they simply react. According to the 'news' model, the first exposure generates the peak sales. Later Ephron¹⁰ introduced a recency concept, which states that the greatest sales effect comes from advertising one day before purchase. Fewer sales come from advertising two days before purchase, much fewer from advertising three days before purchase and so on. Ephron¹⁰ represents recency as an idea that advertising influences the brand selection of consumers who are ready to buy. Recency focuses on the window of opportunity preceding each purchase and assigns media planning the job of placing the advertising in that window.¹⁰ The closer to the purchase decision the message appears the more relevant it is, and its relevance makes people notice and remember the message.

The single-exposure concept generated intensive debates in the media community. Critics claim that Jones⁹ looked for exposures that occurred up to 7 days before purchases and didn't indicate whether consumers had additional exposures prior to that period. There is a high probability that

the group received additional exposures within 4 weeks, a period presented in Naples' book as the average brand's purchase cycle. Thus, it is impossible to prove that one exposure alone is sufficient to have an impact on sales. DeWitt¹⁷ suggests that Jones' findings about one exposure during a 7-day period are consistent with traditional advertising research, which assumes an effective frequency level of three to four exposures during a 4-week period. According to DeWitt,¹⁷ many advertising campaigns are ineffective because they are supported by inadequate frequency levels. They never achieve a threshold that would give the chance for advertising to be effective.

As for Ephron's¹⁰ recency concept, it was reasonably pointed out that it does not answer the main question 'when are consumers ready to buy?' Though theoretically the recency concept has great reasoning, in practice it does not improve media planning. Wool¹⁵ considers that frequency still has an important role in media planning even within the framework of the recency concept. There are no ways to check if consumers will be exposed to a message exactly when they are making their purchase decision. It follows that the more often a message is repeated, the greater the chance consumers will be exposed to the message at times close to their purchase decision. Reichel and Wood¹⁹ state that Ephron's media goal is very much in the neighborhood of the goal that would have been set by a planner pursuing the 'old' effective frequency threshold philosophy. The authors consider that Ephron's recommendations of more weeks and thus less advertising 'weight' may apply only to high budget campaigns, where such recommendations operate to prevent planners from choosing flighting options simply for the sake of piling up extra frequency well above traditional threshold levels. In any other situation, with relatively low budgets, media planning strategy would be the same as before the recency concept came out.¹⁹ In an ideal media planning world with 'rifle-shot message delivery' there will be zero waste, but until then effective frequency will remain an important measure of any media plan.¹⁵ In this context, the single-exposure concept can be seen

as a specific case of a broader three-plus exposure concept. When a consumer is ready to buy, one exposure may be enough to increase sales. In all other cases, at least several exposures are needed to ensure that customers will be informed at a time when they are ready to buy.

Later, media planning industry experienced a significant growth in the use of reach- and frequency optimization models that tried to substitute medial planners. However, computerized models did not help to resolve the frequency paradox. First, optimization is mainly driven by cost per exposure²⁵ and does not take into account lots of qualitative factors. In addition, all inputs including effective frequency levels should be determined by people.² Recently, Cheong, De Gregorio and Kim⁵ examined national media planning practice and concluded that most of medial planners are less satisfied with such models.

According to Naples,²³ the concept of effective frequency was oversimplified and most media people ignored one of the main conclusions of his book – that each brand should experiment to find its own proper frequency equation. Lehmkuhl²⁶ warned media planners that they got the erroneous impression that ANA decreed three or more exposures to be the magic number to establish the frequency level for all products. There are always

some other powerful factors that influence advertising effectiveness. These factors were first presented by Joseph Ostrow in 1982.

Ostrow²⁷ takes a more general approach to the problem of effective frequency. The author presents a set of factors that define whether to increase or to decrease the number of exposures from the baseline (three exposures) in order to achieve the level of effective frequency. For example, Ostrow²⁷ suggests that advertising for established and high-share brands requires fewer exposures to be effective compared to new brands and brands with low market share. Advertising for children and teenagers requires more exposures to be effective than for adults and so on. Ostrow²⁷ divides all factors into three broad categories – marketing factors, message or copy factors, and media factors (see Table 1).

The base line is the level of three exposures. By playing around the basic level and taking into consideration different factors, the media planner is supposed to come up with a particular number of exposures for a particular advertising campaign. According to Ostrow,²⁷ a media planner's task is to define the minimum frequency needed to effectively reach the advertising objectives for the particular brand and then maximize reach at that frequency level. Ostrow's factors²⁷ received much attention and now serve as a guide for many

Table 1: Factors determining effective frequency level (Ostrow, 1982)

<i>Marketing factors</i>					
Established brands	-0.2	-0.1	+0.1	+0.2	New brands
High market share	-0.2	-0.1	+0.1	+0.2	Low market share
Dominant brand (in market)	-0.2	-0.1	+0.1	+0.2	Less well-known brand
High brand loyalty	-0.2	-0.1	+0.1	+0.2	Low brand loyalty
Long purchase cycle	-0.2	-0.1	+0.1	+0.2	Short purchase cycle
Product used occasionally	-0.2	-0.1	+0.1	+0.2	Product used daily
<i>Copy factors</i>					
Simple copy	-0.2	-0.1	+0.1	+0.2	Complex copy
Unique copy (compared with competition)	-0.2	-0.1	+0.1	+0.2	Ordinary copy
Continuing campaign	-0.2	-0.1	+0.1	+0.2	New copy campaign
Product sell copy	-0.2	-0.1	+0.1	+0.2	Image type copy
Single copy execution	-0.2	-0.1	+0.1	+0.2	Several copy executions
New messages (to avoid wearout)	-0.2	-0.1	+0.1	+0.2	Older messages
Larger ad units	-0.2	-0.1	+0.1	+0.2	Small ad units
<i>Media factors</i>					
Lower ad clutter	-0.2	-0.1	+0.1	+0.2	High ad clutter
Compatible editorial environment	-0.2	-0.1	+0.1	+0.2	Non-compatible environment
High attentiveness	-0.2	-0.1	+0.1	+0.2	Low attentiveness
Continuous advertising	-0.2	-0.1	+0.1	+0.2	Pulse or flighted advertising
Few media used	-0.2	-0.1	+0.1	+0.2	Many media used
Opportunities for media repetitions	-0.2	-0.1	+0.1	+0.2	Fewer opportunities

media planners. However, no review of these factors has been undertaken in the past 29 years despite fast changes in consumers' viewing habits and the mass media landscape.

METHODOLOGY

The nature of this study can be defined as exploratory. We used an interpretive approach²⁸ to tap the knowledge and experience of media professionals and to gain both depth and breadth of understanding of local media planning. The research was conducted in a form of in-depth interviews with key informants of a convenience sample of five media directors of major local advertising agencies from a midsize city in the United States. The agencies, chosen for their prominence, represent five main players in the local advertising market with comparatively big volumes of advertising spending on local TV channels, including cable television. Other agencies were not sampled because they have clients with very small television advertising budgets or specialize in non-television advertising only. Personal interviews help us collect rich material that could not have been collected with the help of scales. To ensure businesses' and respondents' anonymity, code names (A, B, C and so on) are used instead of real names in this article. Profiles of the companies and their media directors are presented in Tables 2 and 3.

Generally speaking, the interviewed sample was representative. Although only media directors were interviewed, other people who work in media planning departments usually accept the agency's philosophy and have very similar experiences because of the same category or set of categories for which they plan. The sample is

Table 2: Company profiles

<i>Company</i>	<i>Year of foundation</i>	<i>Number of clients</i>	<i>Types of clients</i>	<i>Staff</i>
A	1986	64	Auto dealers	25
B	1975	31	Different	10
C	1988	20	Auto parts, insurance, eye care	17
D	1987	22	Retail	12
E	1976	26	Retail, healthcare, entertainment, industrial	9

Table 3: Media director profiles

<i>Name</i>	<i>Years in media planning</i>
A	15+
B	13+
C	12+
D	10+
E	13+

representative for the issue of local advertising planning because selected advertising agencies provide media planning services not only in their own city, but also (in total) in a dozen other media markets in the United States.

ESTABLISHING THE EFFECTIVE FREQUENCY LEVEL FOR LOCAL MEDIA PLANNING

Most marketing and media people have their own guidelines that they utilize in their planning efforts. This is true for advertising agencies of any level, but is especially true for the local planners who rely more on intuition than on figures. All five interviewed media directors support the emphasis on frequency more than on reach. There are two main reasons for this – low advertising budgets and the media directors' professional experiences. Many clients cannot buy reach. Achieving high reach might be possible only at the expense of communication effectiveness. Media plans with low budgets seeking maximum reach won't be able to overcome the threshold frequency level for the advertising to become effective. Media director C observes that as often as she can, she likes to get the highest frequency possible. Professional experiences of all the media directors interviewed document that frequency is more important than reach. If there's a choice to place one spot in a highly rated program or to place several spots in lower-rated programs with the same number of gross rating points, all media directors would prefer the latter even though placing several spots in lower-rated programs leads to lower reach. Despite Jones²⁸ call for reach, the media directors universally believe in frequency. Many factors prevent one exposure from becoming effective and having an impact on consumer. In situations of uncertainty, it is

better to insure the efficient delivery of the message to a limited number of consumers than to try to ineffectively reach all of the target audience. Media directors would prefer to keep the message noticeable, rather than ‘mayonnaising’ the budget across different media or media vehicles. According to media director B, with little budget it is worthwhile to allocate advertising budget within one medium and focus on frequency instead of choosing several media and not having any noticeable response.

All five advertising agencies use a basic effective frequency level that is higher than the traditional level (three). On average, it reaches five to six exposures, with the lowest frequency of 3 and the highest frequency of 12. Although all the local media directors agree that the frequency level depends on many factors, they cannot rank them. The only factor that got high weight compared with others is advertising budget. In theory, frequency level should not depend on the advertising budget, because effective frequency estimation actually defines the size of advertising budget. However, in practice, the media planning process usually starts with some specific budget and there is always a trade off between reach and frequency.

Ostrow’s suggestions were supported only partially. Some of them didn’t get support, whereas others were not particularly relevant when applied to a local market. Because of space limitations, confirmed Ostrow’s factors are not discussed in this article. Further, Ostrow’s factors are discussed below in the following order: those that did not get support and those that were not applicable to local media planning process.

The following Ostrow’s recommendations did not get support from the local media directors.

Purchase Cycle and Usage Cycle. Ostrow²⁷ states that frequency level depends on the purchase and usage cycle of a product. The longer these cycles, the lower frequency is required. The recency concept, however, made purchase cycles irrelevant. Although each consumer has his/her own purchase cycle, consumers make their decision to buy at different times. Thus, there are always some customers in a marketplace.

According to media director A, there are always 13–17 per cent of the market who are ready to buy big ticket items such as a car right now. Media director B adds that the key consideration is not usage or purchase cycles, but paydays. Adding frequency to the schedule around the first and fifteenth of the month (paydays) increases effectiveness of advertising in terms of sales. People usually have spending money when they receive their paycheck (Media director B).

Number of Media Used. Ostrow²⁷ states that the more media outlets used in a campaign, the higher the frequency goal. The reason is that it is necessary to have some minimal frequency level within each medium in order to achieve a reasonable presence in the medium (threshold). However, contrary to Ostrow’s suggestion, local media professionals consider that there is no need to establish a higher frequency goal when many media are used in an advertising campaign. On the contrary, a higher frequency must be a goal for one medium campaigns, because of a greater number of distractions (viewers can flip from channel to channel) (Media director C). For example, with high frequency on one TV channel, there is a better chance for a commercial to be seen even if a viewer is switching between different channels. Conversely, spreading commercials over several channels requires lower frequency for each channel because it has the same probability to be seen by ‘switching’ viewers.

Type of Media Plan. Ostrow²⁷ states that a continuous media plan requires lower frequency levels while pulsed or flighting media plans require higher frequency levels. Ostrow’s conclusions are natural within a fixed budget. However, there is no empirical evidence to establish particular frequency levels based on the type of media plan. Within different budgets there can be some situations calling for lower frequency levels in flighting media plans and higher frequency levels for continuous media plans. The only thing that is required with any type of plan is to establish at least a threshold frequency level (Media director A). According to

media director D, clients' budgets define a media strategy. Some of the clients are advertised the whole year and this is a good excuse to have less frequency for their campaigns (Media director D). Local experts consider that after achieving the threshold frequency level, the remaining budget should go to setting up the highest possible frequency.

Message Content. Ostrow²⁷ states that copy, just showing a product or service, requires lower frequency than image copy. The reason is that imagery factors are generally more subtle and complex. Other research also indicates that more complex copy needs more repetition. However, image advertising is disappearing from local television. Contrary to Ostrow, media director C suggests that direct product-oriented advertising needs more repetition because people tend to forget specific prices and addresses faster than images.

Some of Ostrow's suggestions were found to be not applicable for local media planning because of limited advertising budgets of local clients and some other characteristics of local advertising media planning.

Opportunity for Media Repetition. Ostrow²⁷ states that certain media present the opportunity to enhance repetition without paying additional money, so the planner can establish a lower frequency level knowing the client will get more 'bang for the buck'. According to media director E, commercials are not stuck to programs anymore. Stations drop in new spots when the program reruns. In addition, local print advertising have shorter life cycles. As a result, the concept of getting a free airing is not relevant today.

Editorial Environment. Ostrow²⁷ states that where there is very strong and appropriate synergy between editorial content and advertising, lower frequency is generally required. In this situation, the advertiser can get more advertising value for the same money. Ostrow²⁷ advises advertisers to increase frequency in the case of a non-compatible editorial environment. However, local rotation

system of placing commercials does not allow media planners to predict the editorial environment for each message (media director A). Hence, increased frequency in case of a non-compatible environment may actually be counterproductive because of unfavorable associations. This is not a problem for print advertising. Local advertisers do not agree to place their advertisement in a non-compatible environment even when they are offered lower rates (media director B).

Degree of Copy Complexity. Ostrow²⁷ states that simple messages require lower frequency levels than complex messages. Obviously, perception and processing of complex messages take more time and effort. According to media director D, copy complexity doesn't vary a lot for local campaigns. All five media directors agree that local clients do not have financial resources to experiment with different copy options in terms of their complexity. When an advertiser has a limited budget, creative strategy is usually simple. Media director A considers automotive advertising to be among the most complicated advertising copies because they contain not only lots of words but also subtitles that are required by law. These subtitles are either small or appear for so little time that there is little opportunity to fully 'process' the message (Media director A). However, this factor does not affect frequency level for local advertising campaigns because most consumers just ignore this part of advertisement.

Message Variations. Ostrow²⁷ states that greater the number of messages used in advertising campaign requires higher frequency. For each execution, lower frequency will probably be assigned, but overall frequency will be higher because usually everything is tied by the same idea (Media director E). Generally speaking, copy variations for local clients do not differ drastically and have a common theme or slogan. In most cases, media planners do not want to complicate the campaign further or confuse the audience by exposing it to different message variations.

Message Uniqueness. Ostrow²⁷ states that more unique copy requires lower frequency. Indeed, message creativity can add a lot to overall advertising effectiveness. Hollis²⁹ says that copy uniqueness tends to improve communication effectiveness of the advertising message. However, the uniqueness factor is very subjective and hardly a measurable factor. Local media directors deal more with new copy version rather than truly original ones. According media director D, it is hard to have anything unique in a local market.

GENERAL DISCUSSION

This exploratory study shows that a number of considerations used in the academic literature might not be particularly relevant when applied to a local media planning. The following preliminary conclusions can be drawn from the study.

Frequency often overpowers reach in local media planning calculations because of inability to guarantee precise targeting. Such inability is a result of media fragmentation and greater audience's control over media exposures.³⁰ Rather than a single-exposure or three-plus exposure approach, local media planners use on average a five-hit minimum frequency. Although there is no formula to calculate the frequency threshold level, achieving such a threshold in any advertising campaign is a necessary condition for advertising success. However, media objectives may only be achieved with appropriate budget, which may be viewed as additional constraint for local media planners.

The frequency threshold for a particular campaign should be determined based on research and professional experience. A higher frequency level should be established in the following situations:

- (i) with new brands/products, (ii) with less known brands, (iii) with lower market share products, (iv) with lower loyalty products, (v) with some categories of audience that require additional effort to perceive and process advertising message (children, older audiences), (vi) with complex copy, (vii) with new copy or new campaigns, (viii) with copy showing product or service (ix) with shorter copy.

There is no reason to lower the frequency level artificially, even in situations where there is potential for lower advertising frequency to have greater impacts. Advertising money should be used solely to keep or advance current advantages of the advertised product (such as high market share, high brand awareness and so on).

Any such guidelines should not carry precise figures. There is no universal answer to how to establish an effective frequency level for an advertising campaign. According to Schultz,³¹ the marketplace is so complex, the communication systems so intertwined and the consumer so impacted and influenced by the plethora of communication channels that any approach which attempts to separate out individual elements is probably misleading at best and may actually be incorrect. The concept of effective frequency is likely to be in demand until it can be replaced by better approach.² Establishing frequency goals for an advertising campaign is a mix of art and science, but with definite bias toward art.²⁷ Even with sophisticated research and computerized software, there is no substitute for experienced media planners and their knowledge of specific products, communication channels and marketing environments.

There are some limitations with qualitative studies, mainly because of sample size and generalizability of results. Hair, Bush and Ortinau (2000) argue that exploratory research is designed to gain preliminary insights into problems and opportunities. This insight allows researchers to further explore the topic quantitatively.

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