

## CROSS-RATING

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Single-media plans are few and far between in most markets. Advertisers prefer multi-media campaigns, whose track-record and batteries of tests have proved superior. This performance gap is accounted for by the quantitative and qualitative complementarity between media: each media channel has its own audience (targets are complementary) and messages (impacts are also complementary).

In order to assess the real effectiveness of a specific media campaign, the combined impacts of selected media must be calculated. Measurements of how effective a media plan is have integrated this requirement since they evaluate impact scores according to the extent and type of advertising exposure. Media planning, however, has remained fragmented: each media channel has its own dedicated teams and software, ruling out a global approach to performance.

In recent years, international research has been developed to fill this gap. The «Cross Rating» solution developed by JFC on behalf of Interdeco and ZenithOptimédia is part of this new development. Cross Rating is a two-media print-TV decision-making software programme that has two objectives: to assess the performance of a mixed media plan and better allocate spending between these two media.

### **A strong necessity for a new instrument aimed at estimating the synergy of two medias**

Magazines as compared to other medias are known to offer three key advertising advantages: high impact, targeting capability and high-touch closeness to readers. Today's market recognises these strengths. And numerous studies have already been developed to demonstrate these attributes.

Conversely, the impact of magazines has been less often emphasized by advertising space selling companies. With each new wave of published results, the AEPM (the French JIC for magazines audience measurement) points out that over 95% of the French read at least one magazine, a notion that the market still has a hard time accepting. Our intent was not to forego the qualitative benefits of the printed press, which will remain distinctive, but to fill the gap and provide another channel to demonstrate our effectiveness.

Nevertheless, it took a long time before the impact of magazines was felt. This is due to the market's degree of maturity and structure. Magazines have historically been sold in a fragmented fashion. Titles used to be sold and marketed as separate products, in competition with one another. In the nineties, the creation of «media offerings» on each press segment was an initial step in facilitating access. Today, we are reaching a third phase: that of media promotion and up-selling. Magazines today are marketed in the form of either titles, or offerings or as media. Television is entering a fragmentation phase as the press consolidates.

### **The main benefits for press clients in using Cross Rating tool**

In a nutshell, the tool enables advertisers to improve their media strategy and hence the effectiveness of their advertising campaigns. Cross Rating fulfils two functions: it calculates how effective a two-media plan is (print & TV), and optimises expenditure allocation to boost performance.

This tool possesses two distinct features: on the one hand, Cross Rating accurately assesses the performance of all two-media plans taking into account total coverage, the share of the target reached by both these media (press and TV), the level of total repetition by type of media and total GRP costs per type of media. On the other, Cross Rating includes a rather revolutionary optimisation engine which boosts the performance of the advertiser's media plan by adjusting expenditure allocation according to media type, channel and vehicle. The results are spectacular.

### **A revolution in media planning: the main innovative aspects of the approach**

Complementarity between different media is a major focus of investigation in media market research today. During the various development phases (which took almost a year), we investigated the solutions and methods selected by other market players in France and abroad. Most media agencies have designed similar tools to address the same concerns. ZenithOptimédia, a partner in this project, had already developed radio-TV and TV-Internet decision-making software in conjunction with JFC.

As part of this fast-expanding line of research, Cross-Rating constitutes a major technological breakthrough. As far as we can assess (not all tools of this type have been publicised in recent times), our approach is distinctive in several regards.

Cross Rating draws on a novel method of reconciling press and TV data, referred to as «Zip». Under this method source integrity is fully preserved. In other words, the performance levels of the mixed media plan that we obtain for each media type are strictly identical to those that would be obtained by using dedicated software to separately calculate the effectiveness of each media plan. With Zip, all data is preserved without any distortion whatsoever.

In addition, Cross Rating features an exclusive optimisation engine.

For the first time two key market players have come together to pool their expertise in a project such as this. This is unprecedented. The collaboration between Interdeco and ZenithOptimédia is, according to JFC which has developed the software, proof of the sound basis and far-reaching implications of the common approach.

### **Gathering the data from different sources: A process called ZIP**

Two main methods can be used to produce a software programme like Cross Rating. The first involves using a «single-source» study like Simm in France. Its merit is to construct direct links between audiences of different media. The same female respondent may state that she reads Version Fémina, listens to Europe 1 in the morning and watches France 2 every evening at 8 pm. Is this a drawback? The audience ratings for each type of media do not match market norms. The statistics must therefore be adjusted to fit into our frames of reference.

The second method uses reference sources. We undertook to produce results identical to market standards. However, we needed to address the links between media: how can we reconcile Aepm data with Médiamat (French TAM) data? The statistics are then used to re-construct the links, not to adjust reference levels.

In both cases, we must collate field data and process statistics. After investigating both solutions, we chose the second solution for two reasons. First, we think it paramount to preserve reference levels. The credibility and hence usefulness of Cross Rating depended on this. Second, JFC's experience helped develop a novel method that re-constructs links between the two databases by fully preserving the data from each source. This is «Zip».

### **The ZIP process is not a fusion**

As the term «merging» implies, Zip «twins together» two databases. It joins together individuals from two surveys based on shared qualification criteria (listening profile and socio-demographic profiles).

The key difference is that merging creates a third database from two sources, whereas Zip leaves the original two sources intact and does not create a third one. Merging involves assigning the listening profile of one individual to a twin individual from a different source so as to create a new individual who has the features of both twins. Zip does not translate a listening profile but only exposure to a given media plan. The merging process is executed once and for all. Zip enables data translation for each media plan.

### **How the optimisation engine works**

Three initial options may be considered: «increasing budget» (this assumes that the user wants to improve the effectiveness of a media plan by increasing the share of budget dedicated to print media without reducing the share of TV advertising budget), an «unchanged budget» (the aim here is to shift the balance between print and TV media to increase their effectiveness without increasing overall budget) and, finally, a «decreasing budget» (this third option, still under development, will enable cutting the budget while maintaining the effectiveness of the media plan through better resource allocation).

Once the option has been chosen, the user will import an existing TV plan, choose an optimisation parameter (e.g. «coverage» or «repetition among individuals with low exposure to TV»), select a basket of titles and start up the optimisation engine. The optimisation curve then gets plotted in real-time.

Cross Rating delivers all standard performance indicators for media planning purposes: coverage, repetition, impact (GRP), savings (cost per GRP). These indicators are used to assess the effectiveness of the TV media plan, print media plan and global media plan alike.

Let's take a specific example: an automotive advertiser recently invested two million euros in a 100% TV campaign. This decision enabled him to reach 75% of his target (CSP + individuals), 5.4 times on average. The impact of this TV burst totalled 408 GRP, i.e. a cost per GRP of 4,729 Euros. If this campaign had been more evenly balanced, its effectiveness would have been greater.

If the TV budget had been cut by 10% (i.e. about 200 K euros), TV coverage would have remained unchanged (75%). Only average repetition would have slightly decreased, down from 5.4 to 4.9. In other words, there would have been slightly fewer individuals «over-exposed» to the TV message. At the same time, what would the print media press have enabled? With 200 K euros, the print media would have contributed a gain of 18 points of coverage, raising it to 93%! In the same way, the total impact of this media plan would have increased from 408 to 488 GRP, i.e. a 20% rise. Since these gains were obtained with an unchanged budget package, the cost per GRP is reduced by as much. In this scenario, media spending fell from 4,729 to 3,980 euros, a saving of 16%!

With a 20% budget transfer and not 10% as previously, the results are even more noteworthy. The TV media plan, although down 20%, continues to deliver a 75% coverage. The resources generated enable the press media to contribute 20 points of additional coverage, i.e. a total of 95%! The impact increases to 520 GRP (instead of the initial 408, i.e. +27%), and the cost/GRP ratio is down to 3,720 Euros (-21%).

Many case studies have been conducted by mixing different market segments, targets and impact levels. The findings are very consistent: 1) television reaches saturation point very quickly, much quicker than is generally believed; 2) magazines greatly complements TV and very adequately fills the gaps left by TV.

These gains are quite spectacular. The idea that a TV media plan may be cut by 20% without jeopardising coverage may trigger reactions from the market... However, spending levels on television are not determined by media planning performance alone. The media agencies weigh up other criteria. Two in particular that come to mind are share of voice and terms of purchase.

Advertisers will typically want to maintain their share of voice relative to their previous share of voice and that of their competitors. But if you can conclusively demonstrate to them that part of their media spending is being poorly used, must they continue being wrong because everyone else on the market is wrong? This also holds true for the market share of TV channels which determine purchase prices. If it can be proven that the share of budget allocated to a given channel is way too high or does not deliver the expected results, should one continue to accept unjustified rebates? Cross Rating provides an optimum share of media budget (called «optimédia»). It tells the advertiser how to best allocate his or her resources in a rational world where effectiveness is the sole concern.

We have developed an option which takes this objective into account. Under the «increasing budget» option, the level and structure of the TV media budget does not budge; to it we add a print media budget (either by increasing overall spending or by replacing a third party media channel). The contribution from magazines is very convincing. In the previous example, a 20% increase in total budget in favour of the press will raise coverage by 20 points (up from 75% to 95%) and impact levels by some 200 GRP (from 408 to 602 or +48%) while decreasing the cost/GRP ratio by -20%.

### **Comparability of the indicators**

Different methodologies in collecting the data often generate scepticism when it comes to comparing indicators. This issue comes up regularly when discussing media planning but never when discussing media plan effectiveness. When different players in the advertising market measure how effective a media campaign is, they apply traditional methods: they establish target groups and review whether their campaign has had a positive impact on brand awareness, image or sales, without taking into consideration the kind of contact they have had.

This is a legitimate concern that have addressed in Cross Rating. This covers two distinctive aspects: on the one hand, the kind of contact (a TV commercial is different from magazine visuals), on the other, the measurement of this contact («a respondent who says he/she was in a room» is not the same as saying that he/she «remembers reading a magazine»).

Differences in measuring audiences cannot be addressed by an operating software programme. This raises the question of how data collection methods are developed. Each type of media has its own methods, strengths and weaknesses. Must these methods converge? We have our own convictions on this point but they fall outside the scope of Cross Rating. On the other hand, we must take the differences in types of contact into account. To do this we have introduced two coefficients recognised by the market: the «beta» coefficient developed by Armand Morgensztern, which weighs coverage recall depending on the type of media; and the «multiplier» coefficient which takes the two-media synergy into account.

### **A tool which will surely need to be upgraded**

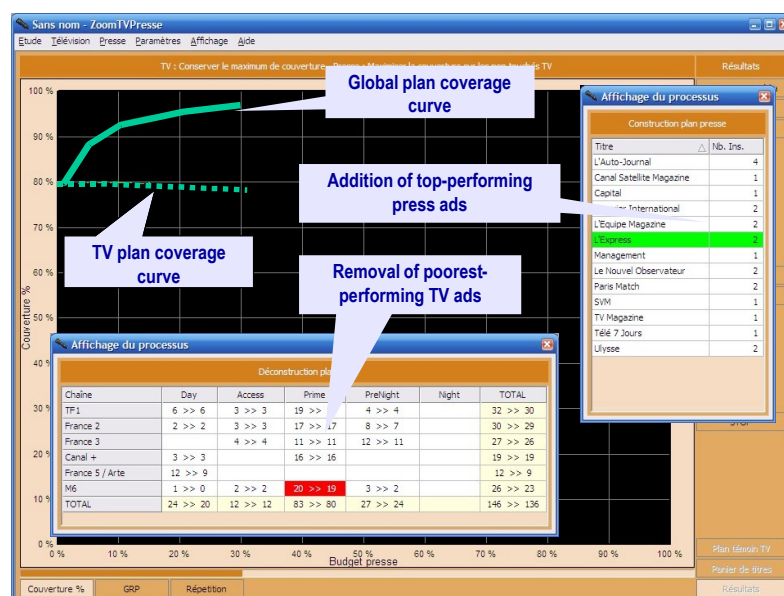
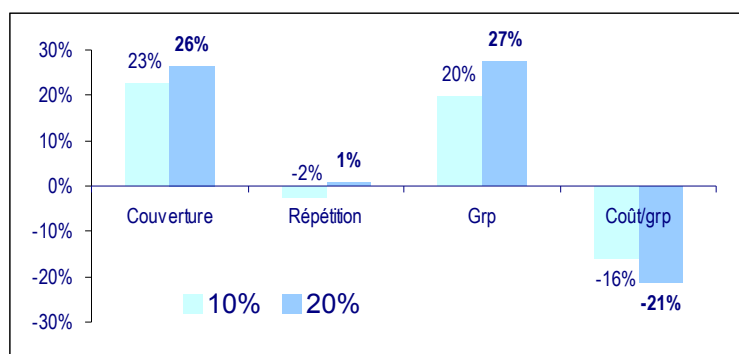
This initial version of the tool represents a major advance in media optimisation. Many applications and lessons can be drawn from it and could even change certain market practices. So far, it may help change arbitrary and unwise habits of some '100% TV' advertisers

## Illustrations

### Re-allocation of resources on a constant expenditure basis

	0% press	10% press	20% press
Budget	1,930	1,942	1,934
Coverage	75%	92%	95%
Repetition	5.42	5.29	5.46
GRP	408	488	520
Cost/GRP	4,729	3,980	3,720

### Improvement in performance



## Focus on the statistic input

### What is a ZIP?

It is not a fusion, as no data is previously transferred, once for all, at the Data's refining stage, from one source to the other one.

However, it looks like a fusion, as it is the concept of *distance* between the individuals which is used to create 'twins' within a segment of population.

Un ZIP is a set of bi-univocal bonds created between individuals from two sources – not between couples of twins – but through binomial of clones resulting from the twins, so that two clones of one given binomial have the same weight.

### The clone of an individual (interviewed people).

Each current individual of the first sample is considered as a 'stock' individual of a cloning operation destined to gear it down into several fictitious individuals called clones.

The characteristics of a clone are fully identical to the ones of the 'stock individual' from which it results, excepted his weight which is a part of the 'stock individual' one.

### The sum of the clones resulting from one given 'stock individual' weights equals the weight of that individual.

Each binomial is a couple of clones respectively stemmed from the two individuals of a couple of twins.

Both clones of a binomial strictly have the same weight, by definition.

A ZIP is thus a vector of binomials.

Each binomial of the vector consists in:  
a weight,  
the ID code of a 'stock individual' from the principal source,  
the ID code of a 'stock individual' from the broad source.

Diagram of a ZIP process

TV	Terrain x			Clones	Terrain y			Presse
	38441		Coef	Poids	Coef		40688	
	1546	1	100	1546	44	1	3494	
	2154	2	90	1948	56	1		
		2	10	206	6	2	3386	
	1542	3	100	1542	46	2		
	3561	4	46	1638	48	2		
		4	54	1923	44	3	4336	
	1254	5	100	1254	29	3		
	1589	6	73	1159	27	3		
Médiadata		6	27	430	18	4	2456	Aepm
	1245	7	100	1245	51	4		
	...	...	...	...	...	...	...	

### The property of a ZIP

A ZIP is symmetrical.

One given ZIP between two sources therefore allows a complementarity approach, either in a direction or the other.

