



Work Project presented as part of the requirements for the Award of a Master Degree from NOVA – School of Business and Economics

Consulting project for the marketing oil department of Galp Energia Evaluation of Marketing Campaigns

Consulting Lab carried out under the supervision of:
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Professor Fábio Santos

January 8th, 2016





ACKNOWLEDGEMENTS

We would like to express our gratitude towards our amazing academic advisors, Professor Constança Casquinho and Professor Fábio Santos for the endless guidance, patience and support. Furthermore, we would like to thank Engenheiro Rui Reis, Engenheiro João Torneiro, Engenheiro Alexandre Machado, Luis Madeira Lopes, Fernanda Resende and their respective teams for their incessant support and feedback, which allowed us to achieve our project goals and to immerse completely in Galp's corporate culture.

A special mention must be made to Carmen Patrício for making us feel welcome right from the start of the project.

Moreover, we would like to thank Professors Pedro Neves and Sara Alves for the advice and academic guidance.

Last but not least, to our families and friends for the unlimited support throughout the entire project.

CONSULTING LABS

THE MAIN OBJECTIVE OF THIS FIELD-LAB IS TO PROVIDE A HANDS-ON-APPROACH EXPERIENCE TO STUDENTS WITH LITTLE OR NO EXPERIENCE IN THE JOB MARKET

OVERVIEW

The Consulting Labs provide to master students a truthful, real-life consulting challenge. Our amazing team of three, representing all the masters available at NOVA SBE, embraced the challenge of developing a methodology to measure the performance of all marketing campaigns to be used across all business units. All this, under the supervision of two remarkable Professors with a strong professional background in consulting firms

Throughout 3 months, our team worked daily at Galp's headquarters and was able, through hard work and syndication, to build a strong working relation with several members of the marketing oil department. We truly believe that we have immersed the client's corporate culture and added value to the company

OBJECTIVE

- ✓ **Immerse in client's corporate culture** through a *hands-on-approach* experience in order to simulate a real-life consulting challenge
- ✓ Apply theoretical concepts learned throughout the academic life to a real project
- ✓ Meet client's expectations and add real value to a company
- ✓ Learn working methodologies and soft skills team work, empathy, syndication

 that will be useful throughout student's professional careers

ADVISORS



GALP ENERGIA

Marketing Oil Department

ADVISORS:

Eng.º Rui Reis
Eng.º João Torneiro
Eng.º Alexandre Machado
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EXECUTIVE SUMMARY

SCOPE OF THE PROJECT

METHODOLOGY

EXTERNAL ANALYSIS

INTERNAL ANALYSIS

SALES MODEL

NOTORIETY MODEL

FINAL REFLECTIONS AND RECOMMENDATIONS

CONCLUSIONS



EXECUTIVE SUMMARY – BUSINESS CONTEXT

THE CLIENT, ONE OF THE MOST TRADED SHARE AND HEAVIEST WEIGHING STOCKS IN THE PSI 20, HAS SEVERAL BUSINESS UNITS OPERATING NATIONALLY AND ABROAD

COMPANY – GALP ENERGIA

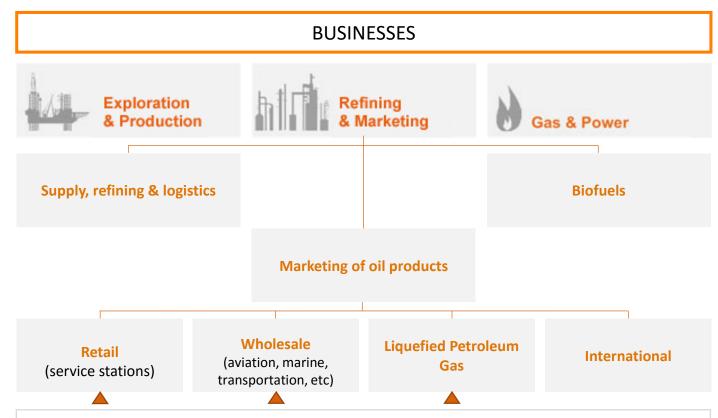
Galp Energia is an energy company whose activities go from exploration and production of oil and natural gas to refining oil, marketing oil products and natural gas, sales and power generation

It has an active presence in 14 countries and an EBITDA RCA €1,314 million

CLIENT - IBERIAN OIL MARKETING

Galp Energia is a leader in marketing oil products in Portugal and has a growing presence in Spain

Marketing oil products goes from selling refined products to direct clients to resellers



Each business unit implements **several marketing campaigns** to promote the success of the group. Furthermore, the Iberian oil marketing department features a communications area that supports those units. The present project develops a **solution to be implemented by the sectors retail, wholesale and LPG**



EXECUTIVE SUMMARY – CHALLENGE

THE CURRENT WORK WILL DESCRIBE A CONSISTENT SOLUTION TO MEASURE THE RETURN (ROI AND PERFORMANCE) OF MARKET-ING CAMPAIGNS, IN LINE WITH BEST PRACTICES

CONTEXT

With a significant drop¹ in oil consumption, increasing competition², financial struggling after the crisis and larger price information accessability³ to consumers, it becomes even more relevant to have **effective and efficient marketing campaigns**. Moreover, the marketing campaigns' budget is limited and companies need to communicate the innovations that the market demands from them in order to succeed

Operating separately, the business units from Iberian Oil Marketing evaluate campaigns using own approaches and methodologies, not always being able to estimate a consistent impact

CHALLENGE

How to measure the performance and Return on Investment (ROI) for every campaign, using a consistent methodology that is utilized by all units?

What are the market best practices?

How can Galp measure results better, all the time?

APPROACH

To answer the proposed challenge it was necessary to understand the problem, to learn possible ways of solving it and to propose a viable a solution. Thus, during the present project the following steps were taken:

- Research academic papers, experts on the area, other companies
- Syndication with all the units involved and responsible people for the success of the businesses
- Modeling from drafts to the a deliverable solutions
- Testing* with data from real campaigns to transform a prototype into the best model, with continuous learning



EXECUTIVE SUMMARY – SOLUTION

UNDERSTANDING THE PROBLEM WAS CRUTIAL TO DEVELOP TWO MODELS THAT BENEFITIAL TO THE CLIENT AND ANSWER THE PROPOSED CHALLENGE

UNDERSTANDING OF THE PROBLEM

- Not all the marketing campaigns are measured in terms of ROI and performance, specially the ones involving notoriety objectives, such as new offer awareness
- The impact of communication efforts is commonly not perceived as an investment, but as a cost instead
- Each business unit department evaluates campaigns separately, with different methodologies (although similar) and assumptions, making the results not comparable amongst units

SOLUTION

Development of two models:

Sales Model

Single model for every campaign resulting directly on sales, volumes or margins

Notoriety Model

Approach to **mixed inputs**, qualitative and quantitative, that results on a rating for each assessed campaign

MAIN BENEFITS OF THE SOLUTION

- Tailor made solution for the client, ready to be used
- Uniform methodology (including same assumptions) for every campaign, from any business unit
- Comparable results across business units
- Base from knowledge transfer inter and intra units, due to use of same methodology
- Evaluation of campaigns not being measured previously, due to creation of a new approach that evaluates factors that go beyond sales volumes

KEY DELIVERABLES

- Two Models sales & notoriety (Two Excel files) & User Guide (Word Document)
- List of Recommendations & Steerings with research, analysis and discussion (Three PDF Documents)



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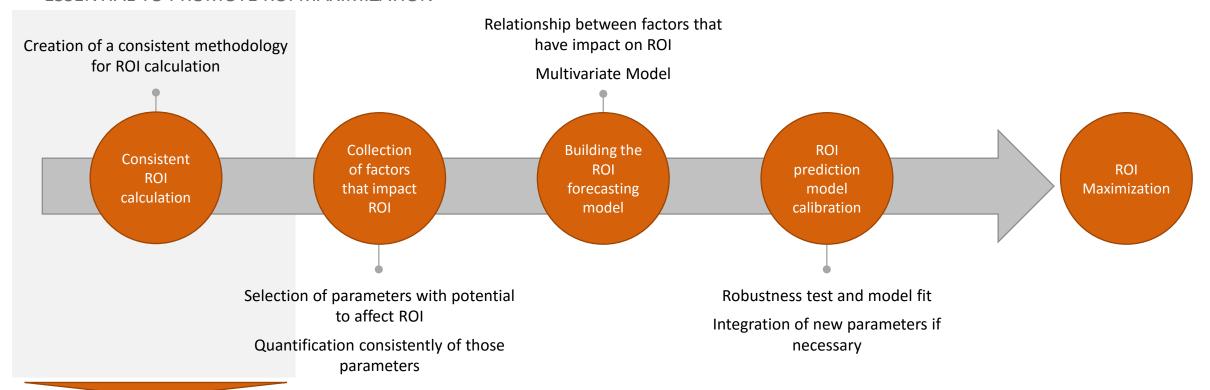
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SCOPE OF THE PROJECT

THE PROJECT GOAL IS TO BUILD A MODEL TO EVALUATE MARKETING CAMPAIGNS AND ACTIONS, AS A CONSISTENT MEASURE IS ESSENTIAL TO PROMOTE ROI MAXIMIZATION



- Consistent evaluation of marketing campaigns is key to sustainable ROI enhancement strategy
- However, not all campaigns have a direct impact on ROI
 - → Two models sales (measure direct ROI) and notoriety (determine impact as rating)
 - → Basis for calculation of key metrics to calculate the success of campaigns and to measure indirect impact on ROI



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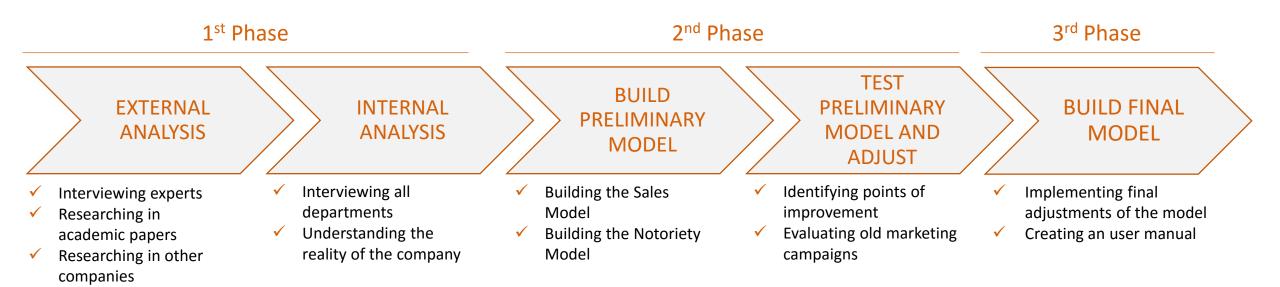
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METHODOLOGY

THE PROJECT PASSED BY THREE STAGES TO THE FINAL PROPOSAL

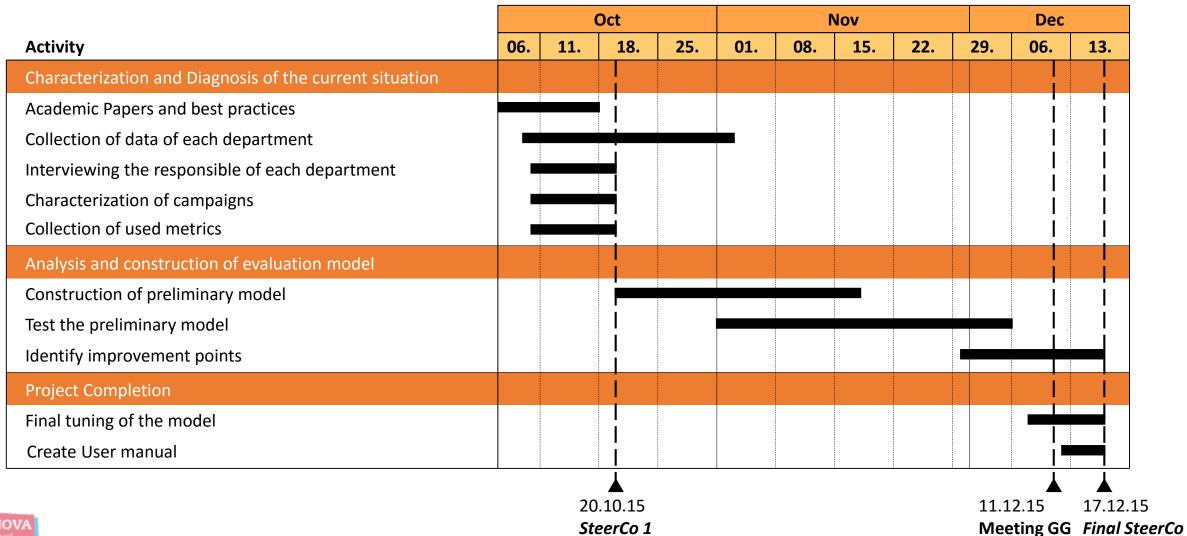


- After defining the project goal, research took place to investigate possible ways of solving the proposed challenge
- Subsequently, a prototype for the model was built and tested with historical data previously collected
- Final suggestions and improvements were then implemented into the delivered models
- Throughout all the project, constant feedback was gathered to guarantee a solution relevant to and applicable by the client
- A detailed flowchart of the process can be found in the Appendix



METHODOLOGY

THE PROJECT PASSED BY THREE STAGES TO THE FINAL PROPOSAL



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EXTERNAL ANALYSIS

THE MAIN GOAL OF THIS ANALYSIS IS TO UNDERSTAND THE BEST PRACTICES AND TO STUDY HOW TO APPROACH THE PROBLEM

EXTERNAL ANALYSIS

WHY?

- ✓ To understand, in theory, how to evaluate marketing campaigns
- ✓ To understand the best practices for measuring ROI
- ✓ To learn what is important to consider and what major obstacles are there

- HOW?
- Screen and study of academic papers from reliable resources about the same subject or similar
- Research about how other companies approach the measurement of the return of their campaigns
- ✓ Discussion with experienced marketing consultants, with know-how from several companies



MAIN CONCLUSIONS FROM EXTERNAL ANALYSIS

A GOOD ROI ANALYSIS ALLOWS GREATER UNDERSTANDING OF CAMPAIGNS AND ITS RESULTS

- ✓ Measuring ROI supports the evaluation of campaigns and it is therefore important to boost growth
- ✓ In order to measure the ROI accurately, the **objectives** must be well-defined. Such objectives consider metrics that are important to see whether one campaign was successful or not
- ✓ There are various models for measuring different types of return, such as sales and notoriety
- ✓ The assumptions and the inputs are different in each model, as well as the outputs. Consequently, the models can be used together so as to be **complementary**



BEST PRACTICES IN MARKETING ¹

GOOD TOOLS FOR MEASURING THE ROLARE FUNDAMENTAL TO DETERMINE THE SUCCESS OF MARKETING CAMPAIGNS AND TO **ENSURE SUSTAINABILITY**

> **SPENDING PRIORITIES**

Understand where marketing investment is being allocated. Certify that this allocation is aligned with the company's strategy and with the future growth

MESSAGE **DEFINITION**

Understand the process of consumer decision-making and clarify the critical points. Define the message and determine the marketing factors that will be most effective influencing the consumers through the Consumer Decision Journey

Based on the business needs, data limitations and analytical preferences should an approach and use it every time. Look at three approaches—benchmarks, advanced

With the approach found before, try to optimize marketing spend through reducing

econometrics, and consumer surveys—which can be used to be complementary

MARKETING

MIX

SPEND EFFICIENCY

nonworking spend and improving efficiencies on working media

SUSTAINABILITY

Implement Best Practices, including KPI's, ROI tools, posture managers. Make Marketing an investment, not a cost



BEST PRACTICES IN ROI MEASUREMENT

THE ROI CALCULATION OF THE CAMPAIGN NEEDS A CLEAR DEFINITION OF OBJECTIVES, WHICH DEPEND ON UNDERSTANDING THE CONSUMER BEHAVIOURS AND THE PURCHASE JOURNEY

UNDERSTAND

- Understand the process of consumer decision-making¹ and clarify the critical touch-points (moments where the consumer is more prone to be influenced, etc.)
- Define the business needs (sales, customers, new products)
- Identify controllable factors² such as investment in marketing, communication effectiveness, product quality, distribution
- Identify uncontrollable factors² as activity competition, economic stability, price per barrel
- Understand the available data, its volatility, behaviour and limitations

DEFINE

- Create SMART objectives which must be:
- Specific A specific goal has a much greater chance of being accomplished than a general goal
- Measurable Establish concrete criteria for measuring progress towards the attainment of each goal
- Action-Oriented defined to be achieved
- Relevant objectives should be important and should have impact
- Time-Bounded defined with time frame

Example:

Increase product A sales by 10%, in Lisbon, for non-retained customers, during the 3rd quarter of the year 2015

MEASURE

- Differentiate the short and long term impact
- Consider all factors such as market growth, competition, internal economies and external conditions
- Make cause-effect analysis and linear regression to understand the weights and limits to be imposed
- Using more than one analytical approach
 - To reduce bias
 - To be global for variables and types of campaigns
- Measure what is possible
- Maintain the methodology



COMMON MODELS USED FOR ROI CALCULATION 1

THERE ARE THREE COMMONLY USED MODELS WITH DIFFERENT PURPOSES BUT COMPLEMENTARY

MARKETING MIX MODELLING (MMM)

- MMM uses Big Data and econometric models to determine spend effectiveness by channel
- It measures the correlation between investments in Marketing and others drivers such as sales
- It includes external variables such as seasonality, competitor and promotional activities to uncover both longitudinal effects (changes in consumer behaviour and segments over time) and interaction effects (differences among offline and online)

Sales

REACH COST QUALITY (RCQ)

- RCQ disaggregates each touch-point into its component parts number of target consumers reached, cost per unique touch, quality of the engagement – using both data and structured judgment
- It converts all factors in the same unit for comparison
- RCQ is often used when MMM is not feasible because of limited data

Notoriety

ATTRIBUTION MODELING (AM)

- AM is the set of rules or algorithms which determine the conversion of traffic into sales
- It is attributed to online touch points such as an email campaign or online advertisement
- It helps assess the relative success of different online investment activities to boost sales
- ✓ The applicability of the models depends on the primary goal of the campaign and the information available
- ✓ The Marketing Mix Modelling approach is more appropriate when the campaign focuses directly on **Sales**
- ✓ The approaches Reach Cost Quality and Attribution Modeling are suitable for campaigns which focus on the company's Notoriety
- NOVA School of Business & Economics
- Attribute Modelling is not a valid solution given Galp's reality. They do not have a fully established and well defined digital strategy

MARKETING MODELING MIX

THE MMM MODEL HAS AN ECONOMETRIC BASIS AND IS OFTEN USED TO ESTIMATE THE IMPACT OF VARIOUS FACTORS IN SALES

GOAL

To allocate the marketing budget in different proportions in order to see the direct impact on sales. To optimize budget allocation to the activities that have the greatest return on investment

INPUT

- Global Sales divided into two components
 - ✓ Sales baseline
 - ✓ Increase in sales
- This component breaks down the variable global sales for each type of promotional campaign
- ✓ Communication tools
- External variables such as seasonality, competitor activities, etc

MODEL

 The marketing mix analysis are carried out using a linear regression model

OUTPUT

- ROI for each marketing activity
- Contribution margin of each marketing activity
- ✓ Cost optimization / campaign budget

LIMITATIONS

Periodicity and Span of data: historical data requires weekly sales and spending on marketing campaigns over several years. The model cannot accurately measure marketing activities if the time-series have a very low frequency



REACH-COST-QUALITY (RCQ)

THE RCQ MODEL ALLOWS TO ASSESS, COMPARE AND SELECT DIFFERENTS COMMUNICATION TOOLS, WHEN THE IMPACT ON SALES IS DIFFICULT TO ESTIMATE

GOAL

To increase the reach & quality of the campaigns without resorting to extra investments (increasing its effectiveness) or **to reduce costs** without compromising the impact of advertising (increasing their efficiency)

INPUT

- Quality of customer commitment loyalty
- ✓ Number of target-consumers reached
- Total cost of each communication action (detailed cost of media used in the campaign)
- Quality of the media used in the campaign

MODEL

Related investment in marketing ("cost"), the number of exposed people ("reach") and its impact by contact ("quality")

- Reach Cost
- ✓ Quality Rating
- ✓ Optimization of costs / budget campaign

OUTPUT

- ✓ Actual Reach Cost
- ✓ Ranking of communication tools

LIMITATIONS

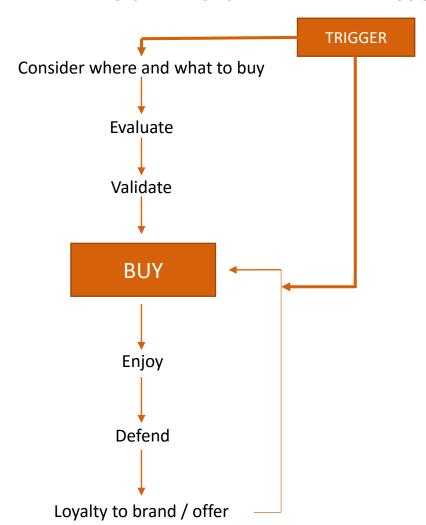
The goals of the communications agency may not be aligned with the marketing goal of the organization (the agency's client). The best solution for the firm may not be in the best interest of the agency.

Another limitation is to quantify the quality of media and of a campaign



CONSUMER DECISION JOURNEY 1

THE MARKETING CAMPAIGNS ARE AIMED AT ENCOURAGING CLIENTS TO MAKE A SPECIFIC DECISION WHEN PURCHASING



CHOICE OF INITIAL SET + EVALUATION

Consumers already have in mind an initial set of brands / products, taking into account perceptions and recent contacts between the company and the customer. However, after evaluating the options some brands / products are added or subtracted

ACQUISITION TIME

The purchase decision is the moment of truth. It happens after having taken a decision and results in a transaction

EXPERIENCE AFTER PURCHASE + LOYALTY CYCLE

Consumers experience the product / service, and may enter into a loyalty loop. Once loyal, they have incentives to buy again the same product / brand. Loyal consumers can defend the brand actively (recommend) or passively



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INTERNAL ANALYSIS

THE MAIN GOAL OF THE INTERNAL ANALYSIS IS TO UNDERSTAND HOW IS THE COMPANY EVALUATING THE ACTUAL CAMPAIGNS

INTERNAL ANALYSIS

WHY?

- ✓ To understand the methods currently been used in ROI measurement
- ✓ To develop a model in line with the reality of the company
- To understand the limitations of the data collection and preparation

HOW?

- ✓ Meeting with each area understanding what is the reality of the company – how are the areas involved organized, what data is available, how is data measured, what key limitations does the company has
- Understanding the methods and assumptions used to evaluate marketing campaigns



MAIN CONCLUSIONS FROM INTERNAL ANALYSIS

DESPITE DIFFERENT, THE METHODOLOGIES APPLIED AT THE ORGANIZATION SHARE INPUTS OF THE SAME NATURE AND USE SIMILAR CALCULATION METHODS

- ✓ Each area has its own methodology, evaluating their own campaigns independently. Therefore, the evaluations have different methodologies (although similar) and assumptions, making the results not comparable amongst units. There are also some campaigns that are not being measured in terms of ROI and performance, specially the ones that do not have a direct impact on sales
- ✓ Methodologies do not consider exhaustively interaction between areas cannibalization impacts are not always taken into account
- ✓ The communication office creates their own campaigns, but also functions as an add-in to all areas of the department
 - Consequently, the contribution of communication is seen as a cost rather than as an investment (ROI from the communication is not always calculated)

Objective: A methodology to evaluate every campaign independently of the objective and to be used across all business units



There is no single model, there are various evaluation models depending on the type of campaign (e.g., product with discount, bundle offer, etc.)

INPUTS

- Sales: actual and historical
- ✓ Other Specific
 - Seasonality
 - ✓ Time of machinery on maintenance

METHODOLOGY

✓ Uses comparison of the actual revenues *vs* expected revenues for no campaign to calculate the delta of the sales*

OUTPUT

- Actual vs expected growth without campaign
- Profitability analysis per store



*delta of the sales is the incremental sales due to the campaign, in comparison with the expect sales without campaign

A similar evaluation model is used for all loyalty campaigns

INPUTS

- Fuel sales volumes
- Sales volumes with Continente Card
- ✓ Discount cost
- Standard conversion rate
- Standard fraction of directly operated stores*

METHODOLOGY

- Compares actual sales volumes with previous months and same period of previous year
- Adjusts expected sales with previous growth rate

OUTPUT

- ✓ Contribution margin
- Actual vs expected growth without campaign



There is no single model, there are various evaluation models depending on the type of campaign (e.g., Thematic campaigns with bundles or gifts)

INPUTS

- Fuel sales volumes
- Sales volume of products encompassed in specific promotion
- Discount Cost
- Standard fraction of directly operated stores*

METHODOLOGY

- Compares actual sales volumes with previous months and same period of previous year
- Quantifies the participation rate in the promotion
- Performs qualitative analysis for level of notoriety and satisfaction

OUTPUT

 Retail sales increment during the period of the promotion



There is a single methodology used to calculate the impact of a campaign on the volume of fuel sales. Campaigns are aimed primarily at ensuring the sustainability of the sales margin in the mid / long term, at increasing the volume of fuel sales and at strengthening the relationship with customers.

INPUTS

- ✓ Fuel Sales volume
- Price differences between the firm and competitors

METHODOLOGY

✓ Uses comparison of the actual revenues vs expected revenues for no campaign to calculate the delta of the sales*

OUTPUT

- Contribution margin
- ✓ Break-even point



CAMPAIGN PERFORMANCE EVALUATION MODELS

Examples: campaigns with discount

TWO MODELS ARE NEEDED IN ORDER TO EVALUATE SEPARATELY THE IMPACT OF A CAMPAIGN ON SALES AND NOTORIETY

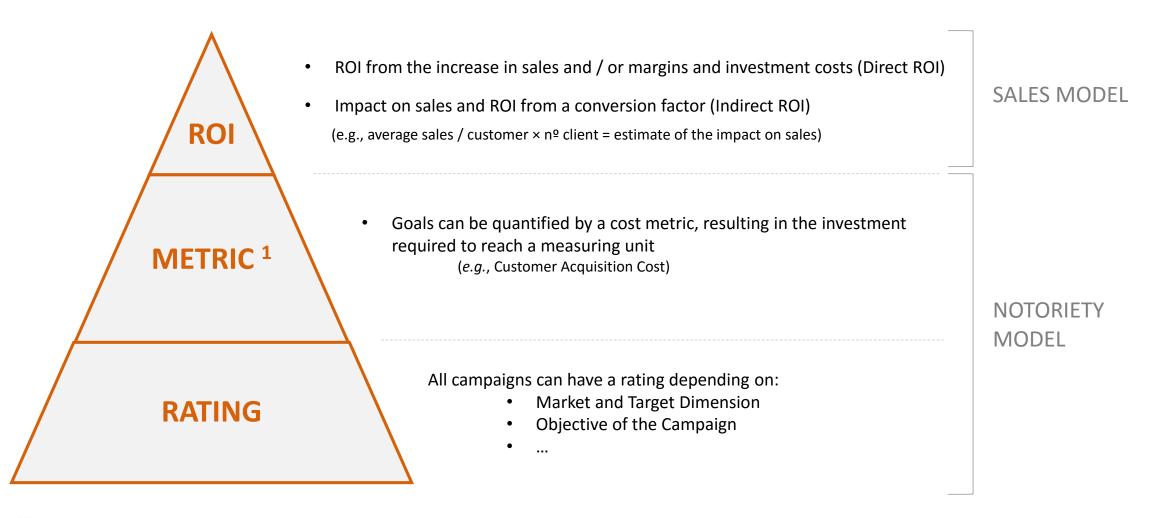
PROPOSED MODELS SALES NOTORIETY Campaigns / actions without direct impact on sales Campaigns / actions with direct impact on sales Quantitative Qualitative predominantly (rating) Objectives: Sales, market share, volume, margins Objectives: visibility, proximity to partners (relationship marketing) and customers loyalty

Examples: partners meeting, presence in fairs



CAMPAIGN EVALUATION MODELS

THERE IS A RATIONAL ON THE BASIS OF THE PROPOSAL OF THE TWO MODELS CREATED





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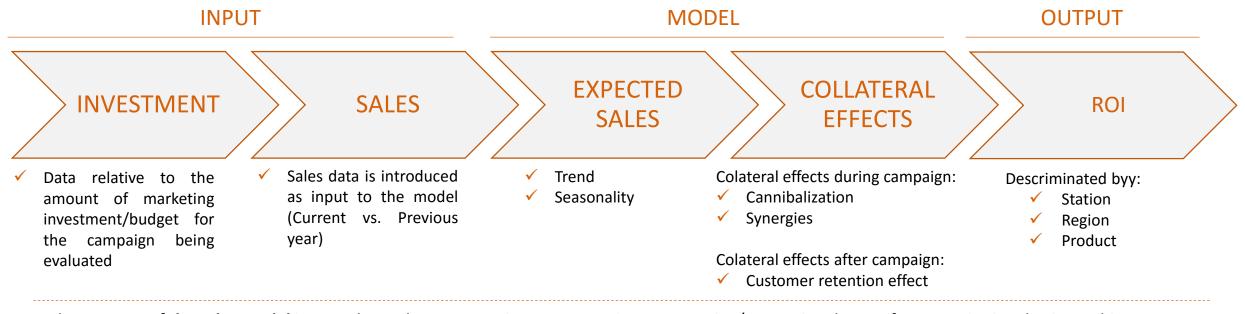
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REFERENCES



THE CONCEPT BEHIND THE SALES MODEL – THE BIG PICTURE

THIS IS THE FLOW OF A PURELY QUANTITATIVE MODEL FROM WHICH THE COMPANY IS ABLE TO CALCULATE, UNDER CERTAIN ASSUMPTIONS AND ERROR, WHAT IS THE RETURN ON INVESTMENT OF A PARTICULAR MARKETING CAMPAIGN



The **purpose of the sales model** is to evaluate the return on investment ratio per campaign/promotional event for a certain time horizon. This way, the company is able to compare different campaigns and tools used by its different business units. By going through a more detailed analysis of the incremental sales and market trends of each segment it is possible to estimate:

- ✓ ROI by campaign, product, region and station.
- ✓ Cannibalization and loyalty effects between campaigns
- ✓ Impact on EBITDA



IDEAS TO DEVELOP THE MODEL

THE SALES MODEL TAKES INTO ACCOUNT SEVERAL METHODOLOGIES ALREADY BEING USED BY GALP AND GIVES IT A TWIST

- Rust et al. (2004) have pointed out that "marketers have not been held responsible for clearly demonstrating how marketing expenditures add to shareholder value". This lack of liability has debilitated their credibility and made it hard for marketers to justify why their budgets should not get cut whenever the firm has a lower than expected profits
- According to Sungil Lee & Shijin Yoo (2012), the ROI computation of any proposed promotion should be the starting point for any decision-maker on whether to proceed with the promotion or not
- Since each business unit has its own methodologies and assumptions there was the need to build a platform able to compare every campaign assuming the exact same principles accross every unit
- From the internal analysis done to assess which methodologies were being used by the company, we were able to determine which ones were more accurate and, we built our model based on some of their assumptions and feedback
- The team was asked to deliver a user-friendly solution that would allow everyone to understand its complexity



SALES MODEL CONCEPT – INPUTS

THIS MODEL HAS SEVERAL INPUTS WHICH ARE DIVIDED IN TWO DIFFERENT CATEGORIAS, INVESTMENT DATA AND SALES DATA

INPUTS

INVESTMENT DATA

Data relative to the amount of marketing investment allocated to the campaign being evaluated. This amount will include all spending on communication tools offered in the market such as, instore points of sale, email, websites, press and, outdoors. Furthermore, it may include some kind of offer that the company is willing to give the customer during the campaign period

SALES DATA

Sales data is introduced as input to the model. To be able to run the model correctly all sales data from the 6 months before the campaign being implemented (current and previous year), as well as, the sales volume from the previous year during the exact campaign time horizon are needed. Each product must be identified by a specific ID to be able to make all possible relations between campaign, product, region and station



SALES MODEL CONCEPT – EXPECTED SALES – SEASONALITY VS. TREND

THERE ARE TWO MAIN FACTORS THAT WERE TAKEN INTO ACCOUNT WHEN ESTIMATING EXPECTED SALES, SEASONALITY AND TREND

The main factors that were taken into account when estimating the expected sales variable were seasonality and sales trend. Other factors, such as the economical environment and weather conditions, were not incorporated in our model not only because getting enough data for them is not easy but also to avoid adding too much complexity to the model which would make its interface less user friendly

&

SEASONALITY

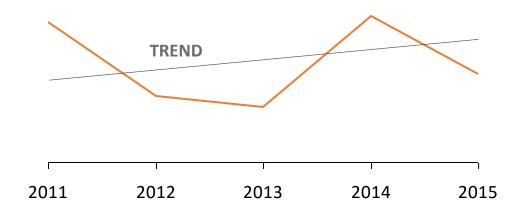
Specific characteristic of a time series which is seen in data as regular and predictable changes experienced throughout a calendar year. Any predictable behavior in a time series that recurs over a one-year period can be assumed to be seasonal.

2015 2014

AN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

TREND

Looking at how a potential driver of change has developed over time, and how it is likely to behave in the near future. Trend analysis does not precisely predict what the future will look like; it is a dominant tool for strategic planning by creating credible, detailed representations of what the future might look like.





Sources: OECD; Investopedia

SALES MODEL CONCEPT – ESTIMATING EXPECTED SALES

ONE OF THE MAIN ENDOGENOUS VARIABLES ESTIMATED BY THIS MODEL IS THE EXPECTED SALES, WHICH IS BASED ON THE PREDICTION OF WHAT THE COMPANY WOULD HAVE SOLD RELATIVELY TO THE SALES TREND IN A SPECIFIC TIME PERIOD.

$$\text{EXPECTED SALES}_t = \left[\frac{\text{ACCUMULATED SALES VOLUME}_{\alpha}}{\text{ACCUMULATED SALES VOLUME}_{\alpha-1}}\right] \times \text{ACCUMULATED SALES VOLUME}_{t-1}$$

SEASONALLY ADJUSTED TREND ESTIMATION:

t – proposed marketing campaign time horizon α – data for the previous 6 months before implementing the marketing campaign regarding the current year α -1 - data for the previous 6 months before implementing the marketing campaign regarding the previous year

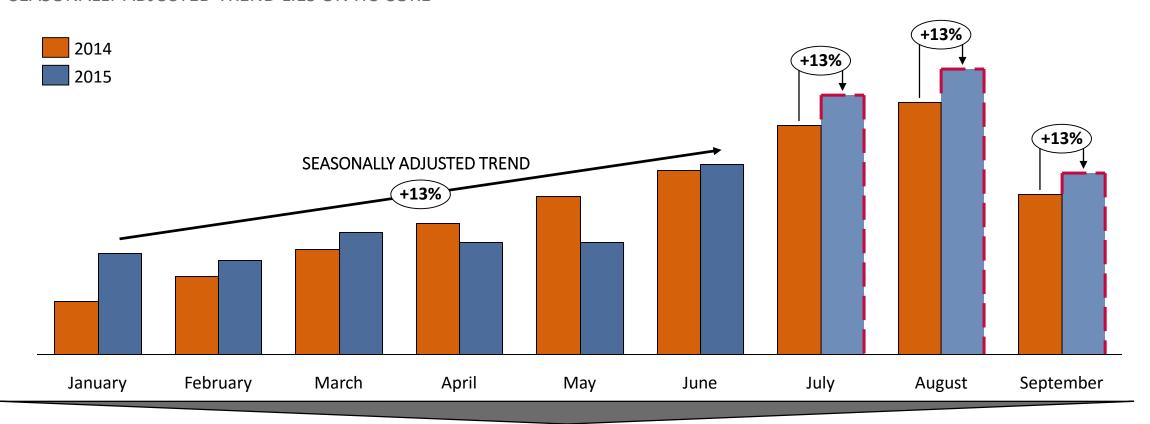
- Calculate the accumulated sales volume growth rate for six months before the actual campaign time horizon (Current versus Previous year).
- Multiply this growth rate by the accumulated sales volume of the same year without promotional action/campaign ID during the period in which it arises.

From these intermediate calculations we obtain the volume of expected sales (derived from a seasonally adjusted trend), ie what the company would sell if it did not invest in this campaign in question.



SALES MODEL CONCEPT – ESTIMATING EXPECTED SALES – CASE STUDY

LOOKING AT A PARTICULAR EXAMPLE WE CAN CLEARLY SEE HOW EXPECTED SALES ARE ESTIMATED. THE ESTIMATION OF THE SEASONALLY ADJUSTED TREND LIES ON ITS CORE



For a campaign planned to begin in July through September, the expected sales volumes are estimated through the product of the growth rate of the accumulated sales volume until June (which in this hypothetical example is equal to 13%) by the sales volumes of July, August and September. This way, we get a seasonally adjusted sales volume prediction of what the company is/was expected to sell.



SALES MODEL CONCEPT – COLLATERAL EFFECTS – CANNIBALIZATION VS. SYNERGY

VS

EACH CAMPAIGN AFFECTS THE OVERALL SALES VOLUMES DIFFERENTLY

CANNIBALIZATION

According to Copulsky's (1976), cannibalization is defined as "the extent to which one product's customers are at the expense of other products offered by the same firm". Hence, market cannibalization refers to a situation where a new product has a negative impact on sales and demand of an existing product. It can affect both the sales volume and market share of the product being already sold by the company. For instance, if Galp had a price promotion on a premium car wash offering the customer the option of having an ice cream for free for every wash it buys during the Summer this will "eat up" the sales of the other washes or even the same product without promotion (in this case the company develops two different ID codes – one to be registered when the client accepts the offer and another one when it does not)

SYNERGY

It happens when various marketing initiatives combined, create an effect greater than the sum of their parts. In this case, doing a certain campaign raises the overall sales volume of a certain product.

CAMPAIGN Y CAMPAIGN W

SALES PRODUCT X

CANNIBALIZATION

INCREMENTAL SALES FROM CAMPAIGN Y

SALES PRODUCT Z

SYNERGY

INCREMENTAL SALES FROM CAMPAIGN W

Sources: http://smallbusiness.chron.com/definition-synergy-marketing-21786.html Investopedia

covered by the promotion being measured

SALES MODEL CONCEPT – ESTIMATING COLATERAL EFFECTS

FOR THE ESTIMATION OF BOTH COLLATERAL EFFECTS, DURING AND AFTER THE CAMPAIGN TIME PERIOD, THE VARIABLES NEEDED ARE THE OVERALL REAL SALES NOT COVERED BY THE CAMPAIGN AND THE EXPECTED SALES OVER THE HORIZON BEING ANALYZED

✓ Using a similar approach as the *Gains loss analysis* method (Rohloff, 1963), which reallocates gains and losses in volume over two periods (normally those immediately before and after the launch of a new product). This way an estimation of all potential collateral effects that emerge from introducing a new campaign in the market is made. The analysis is done to take account of any change in volume between the pre- and post-campaign periods. This collateral effect is always though as what the company would sell if it did not implement the campaign

During the Campaign Time Horizon:

COLLATERAL EFFECT_t(
$$CE_t$$
) = ACTUAL SALES_t^{*} - EXPECTED SALES_t

t – proposed marketing campaign time period

- ✓ If $CE_t > 0$ \Rightarrow this value would say that the company has potentially generated synergies
- ✓ If $CE_t < 0$ → this value would say that Galp has a potencial cannibalization effect. By assumption the company would sell this amount if it did not invest in the campaing being measured

 * overall real sales over that specific period not

After the Campaign Time Horizon:

COLLATERAL EFFECT_{t+p}
$$(CE_{t+p}) = ACTUAL SALES_{t+p}^* - EXPECTED SALES_{t+p}$$

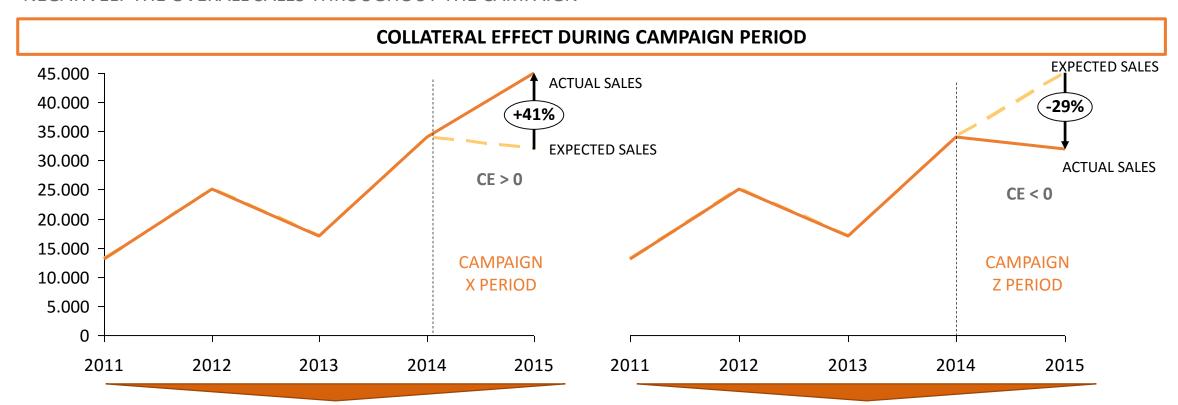
p – number of months after the campaign period

✓ If $CE_{t+p} > 0$ → this value would say that this campaign brought more customers to the company in comparison to the same time period. If negative there are a number of possible reasons that can be brought up to justify this result, either it be by seasonally variations or by the loss of customers



SALES MODEL CONCEPT – COLATERAL EFFECTS – CASE STUDY

THE ANALYSIS THAT IS DONE AT THE CORE OF THIS MODEL IS WHETHER THESE COLLATERAL EFFECTS IMPACT POSITIVELY OR NEGATIVELY THE OVERALL SALES THROUGHOUT THE CAMPAIGN



From this hypothetical example it is possible to see that the actual sales volume was larger than expected (25% larger), generating a positive collateral effect. This means that this campaign has generated synergies to the company.

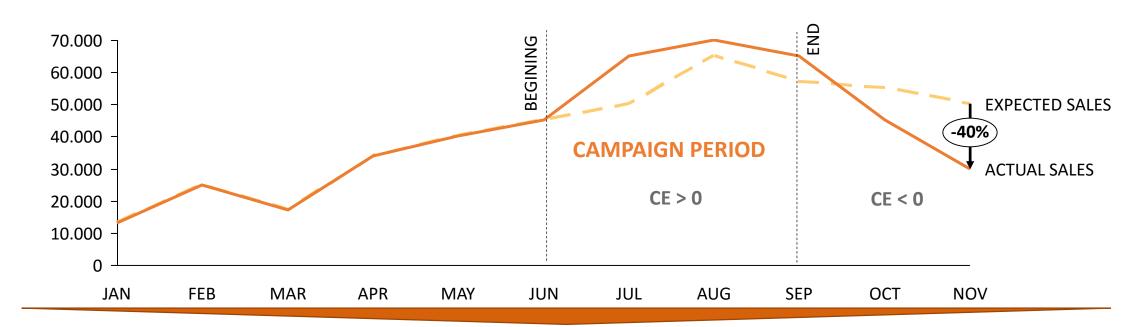
Conversely, this example shows that the actual sales volume was smaller than expected (29% smaller). Hence, this campaign has generated a negative collateral effect. This means that the company would have sold that same amount if the campaign in question did not go forward.



CASE STUDY – SALES MODEL CONCEPT – COLATERAL EFFECTS

IT IS ALSO INTERESTING TO STUDY THE SALES VOLUME BEHAVIOR IN POST-CAMPAIGN PERIOD IN ORDER TO EVALUATE WHETHER THE COMPANY HAS RETAINED MORE CUSTOMERS IN COMPARISON TO THE PREVIOUS YEAR

COLLATERAL EFFECT AFTER CAMPAIGN PERIOD

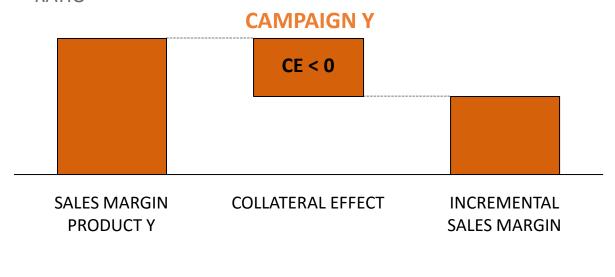


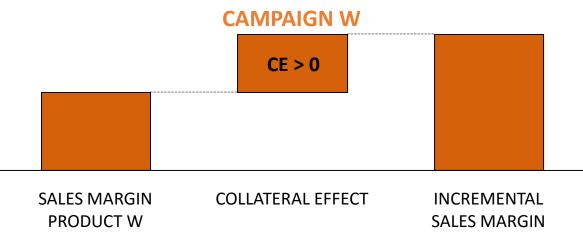
For an hypothetical campaign displaying a similar behavior as the one seen above, it is possible to see that the real sales after the campaign period are inferior to the expected sales. Hence, it seems to be no trace of any Loyalty effect after its implementation. There are a number of plausible explanations for this to happen, for instance, this could be a highly seasonal campaign which is dependent on the weather to succeed (car wash promotions) and since this year there were worst weather conditions it did not meet its predicted goals and, thus this hypothetical campaign did not retain any extra customers when compared with the same period from the previous year.



SALES MODEL CONCEPT – RETURN ON INVESTMENT

THE OVERALL OBJECTIVE OF THIS MODEL IS TO ESTIMATE THE WELL-KNOWN PERMONANCE-METRIC, THE RETURN ON INVESTMENT RATIO





ROI

✓ The overall output of the sales model is an important performace metric known as the Return on Investment ratio (ROI). After calculating the collateral effect that arise throughout the campaign period it is possible to estimate its incremental sales' margin. Furthermore, using the formula below it is viable to calculate the return on investment that this promotion has brought to the company

$$ROI = \frac{INCREMENTAL SALES MARGIN - COST OF INVESTIMENT}{COST OF INVESTIMENT}$$

- Higher ROI means better overall immediate financial performance of the campaign
- After reaching this output the company is able to compare which campaigns/promotions are worth investing in and, which may not be repeated in the near future



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NOTORIETY MODEL – CONCEPT

FOR CAMPAIGNS WITH OBJECTIVES THAT TRANSLATE INDIRECTLY INTO SALES IT IS NECESSARY TO EVALUATE OTHER DIMENSIONS

PURPOSE

To create a model for classification and comparison of marketing campaigns which impact on margins, sales or volumes is indirect. The model is ultimately used for improving quality

INPUTS / CATEGORIES

- Market and target dimension
- ✓ Objective of the campaign
- ✓ Overlap effects → campaign occurring simultaneously
- Media and communication channels
- Event evaluation
- Campaign Track Record

MODEL

- ✓ Each category has a weight ranging between 0 % and 100 %
- ✓ A category consists of one or several criteria
- Each criterion has options to choose from, with scores from 0 to 5
- ✓ The final rating is the sum of the product of the weight of each criterion and the option score

RATING = ∑ SUB-WEIGHT_{CRITERION} X SCORE_{OPTION}

OUTPUT

- Uniform rating enabling the comparison of several campaigns
- ✓ Assessment broken down by category and by criterion for each campaign
- Chart for the campaign rating vs budget
- ✓ Spider chart for the categories of a given campaign



NOTORIETY MODEL – IDEAS TO DEVELOP THE MODEL

THE NOTORIETY MODEL TAKES INTO ACCOUNT THE IMPORTANCE OF SEVERAL INPUTS (INCLUDING QUALITATIVE) AND RETURNS A QUANTITATIVE OUTPUT: A RATING

- In 1992, Kaplan and Norton introduced the concept of the Balanced Scorecard, used to comprise information from financial (quantitative) and non-financial (qualitative and quantitative) measures. This management tool is nowadays used across several companies for describing, communicating and implementing strategy¹
- They highlighted the importance of leading measures, which are hard to identify but can be influenced and have an impact on performance
- Similarly to the Kaplan & Norton's methodology and to the work developed by Vos & Schoemaker (2004), this project presents a model where qualitative and quantitative information is collected through several measures and comprised in a rating
- Vos & Schoemaker suggested a structure of domains (like the categories), divided by indicators (such as the criteria), and dimensions (the options). The dimensions for each indicator are classified from 1 (poor) to 5 (very good) and multiplied by 20, so that the result ranges between 20 and 100. The sum of those results divided by the number of indicators comprises the rating domain. The average of the domain ratings results in the final rating



NOTORIETY MODEL – PROPOSED STRUCTURE

THE MODEL IS ORGANIZED BY CATEGORIES, CRITERIA AND OPTIONS. OPTIONS ARE THE POSSIBLE INPUTS TO THE MODEL AND ARE CLASSIFIED WITH SCORES. THEY CORRESPOND TO CRITERIA AND ARE ORGANIZED IN SEVERAL CATEGORIES, EACH WITH A WEIGHT TO THE FINAL RATING

CATEGORIES

- The inputs of the model are organized within categories
- Each category has a weight (%) that quantifies the importance for the campaign
- The sum of the category weights is 100%
- When all categories are evaluated, 100% of the aspects to be considered by the model are taken into account

CRITERIA

- A category is subdivided into one or more criteria
- Each criteria has a sub-weight (%)
- The sum of the sub-weights results in 100 % of the category's weight

 When all criteria are evaluated, 100% of the aspects of the correspondent category are taken into account

OPTIONS

- Each criteria has several options to choose from
- The options are classified from 1 to 5.
 That value is the score

- Options with a larger positive impact on the model have a high score; when the impact is reduced or negative, they have a low score
- o The final rating encompasses factors that impact the performance of a campaign, considering their significance
- o Criteria, options, correspondent weights and scores are pre-defined and fixed from an user perspective
- The user will only select the options for each criteria for a given campaign

Example: CATEGORY – campaign objective; CRITERIUM – main objective; OPTION – to increase the number of visits; Contribution for Total RATING = sub-weight of the main objective X score correspondent to the increase of the number of visits



NOTORIETY MODEL – METRICS OF THE MODEL

THE INPUTS OF THE MODEL ARE SUBJECT TO A SET OF EVALUATION METRICS TO FORM THE FINAL RATING VALUE

EVALUATION METRIC	DESCRIPTION	RATIONAL	
Weight System	To each criterion a specific weight is assigned. That translates the importance that a criterion evaluation (the score value) has on the final rating and, therefore, on the overall assessment. The sum of all the weights equals to 1 (or 100%)	The weighting of criteria allows to distinguish the impact that each of them has for the success of a marketing campaign. However, it is worth noting that multicriteria decision-making methods are sensitive to criteria weights, thus the selection of weights being crucial for significant results ¹	
Scoring System	Each option is ranked from 0 to 5 based on a Likert scale, a psychometric scale commonly used in questionnaires. Nonetheless, the user is not confronted with a choice between disagreement and agreement or between 0 and 5. Instead, the inputs are quantities (e.g., market size) or statements (e.g., objective of the campaign) to which a fixed score value is beforehand associated	The Likert Scale is an universal method ² , which responses can be easily applied in further calculations, such as happens in the notoriety model. Furthermore, as the user answers are not binomial ($e.g.$, yes or no), the questions are simpler to answer	

RATING = ∑ SUB-WEIGHT_{CRITERION} X SCORE_{OPTION}

The total rating ranges from 0 to 5. It results from the product between the score and weight for all the criteria of the model, which is then normalized by the sum of all weights. This way, the rating considers both the overall importance of the criteria for the campaign success, and the value of the given answer to that criteria. If a criteria is left empty it counts as zero*

A rating is an assessment of quantitative, qualitative, or both types of attributes. It is commonly used across several areas. Examples are credit and movie rating. For the notoriety model here discussed it has the advantage of allowing the simultaneous evaluation of marketing campaign characteristics of different natures



NOTORIETY MODEL – BUILDING PROCESS

A GOOD DEFINITION OF THE INPUTS IS CRUTIAL FOR A SIGNIFICANT ASSESSMENT AND MUST COUNT WITH THE CONTRIBUTION FROM THE MARKETEERS

MODEL ADAPTATION/CUSTOMIZATION TO A COMPANY

This model should be customized to a company according to:

- The trade-off between the degree of detail and the wider application a given organization or department wants it to have
- The complexity of the campaigns carried out by the organization
- The metrics and other information available
- o The purpose: predictive tool, historical evaluation of past campaigns or auditing tool to assess and investigate situations
- The terminology used in the company

!Note that once built, the organization should stick to the model characteristics and not change them!

SELECTION OF THE MODEL DEVELOPERS TEAM

- The team should be multi-functional, including people involved in the development and analysis of the campaigns from the organization areas involved in marketing
- The team should have two or three consultants, preferably an internal consultant and an external consultant. Such a structure should facilitate the decision process and the mix of internal and external contribution contributes to a more exhaustive model

BEST PRACTICES

- Brainstorming
- Syndication with marketers, from users to managers
- Iteration / continuous improvement



NOTORIETY MODEL – BUILDING PROCESS

FOR A RELEVANT RATING IT IS IMPORTANT TO DEFINE RIGOUROUSLY THE CATEGORIES, CRITERIA, OPTIONS AND CORRESPONDENT METRICS (WEIGHTS AND SCORES)

DEFINING CATEGORIES

- What subjects characterize each campaign?
- What are the contributors for the success or failure of the campaigns?
- o How much is their contribution (%) to the final rating of the campaign?

DEFINING CRITERIA

- What indicators help measuring the category?
- What metrics does the organization has available or can obtain?
- How much is contribution (%) of each criterion to the assessment of the category?

DEFINING OPTIONS

- What can the options each qualitative criterion be?
- What is the expected range for quantitative criteria?
- What consistency do the answers for each criteria have? Is it possible to select an option for any campaign?
- What score from 0 to 5 should be attributed to each option?



NOTORIETY MODEL – BUILDING PROCESS

FOR A RELEVANT RATING IT IS IMPORTANT TO DEFINE RIGOUROUSLY THE CATEGORIES, CRITERIA, OPTIONS AND CORRESPONDENT METRICS (WEIGHTS AND SCORES)

DEFINING WEIGHTS AND SCORES

- The team of model developers should select starting values for weights and scores that are significant to categories, criteria and options
- Those values should be tested and discussed with people involved in the development and analysis of the campaigns from the organization
- Values should be redefined until tests returning intermediate and final rating properly portray campaigns and their outcomes

TESTING WITH DATA

- Data from different campaigns should be collected and prepared to perform tests
- Exhaustive data (a significant sample) should be used to develop the model and similar (but not equal) data should be used for validation
- Data should represent different types of campaigns developed at the organization and known outcomes*

COLLECTING FEEDBACK, ITERATING AND IMPROVING THE MODEL

- Constant feedback throughout all the building process is essential to develop a significant model (see flowchart in Appendix)
- o There should be working meetings and/or workshops to collect ideas and impressions relevant to the model improvement
- The model should be rebuilt until all the meaningful categories, criteria and options are included and intermediate and final rating properly portray campaigns and their outcomes



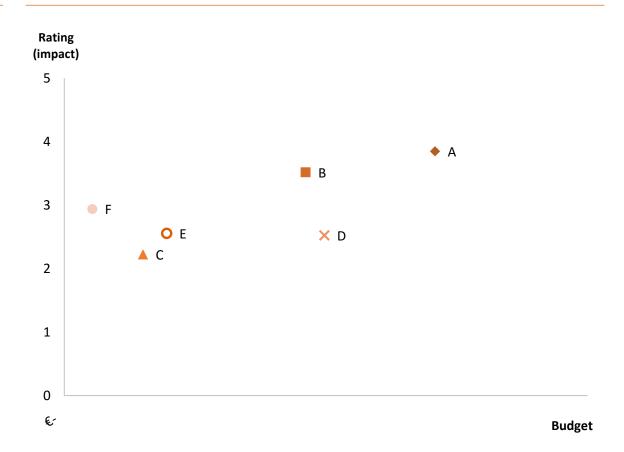
NOTORIETY MODEL – THE OUTPUT

AN HOMOGENEOUS METHODOLOGY RETREIVES AN UNIFORMAL RATING FOR ALL THE CAMPAIGNS, ALLOWING FOR A COMPARATIVE ANALYSIS

NUMERICAL OUTPUT

 Uniform rating enabling the comparison of several campaigns

GRAPHICAL OUTPUT



ADVANTAGES

- Comparison of several campaigns
- ✓ Rating vs Budget analysis
- Global perspective for all the campaigns



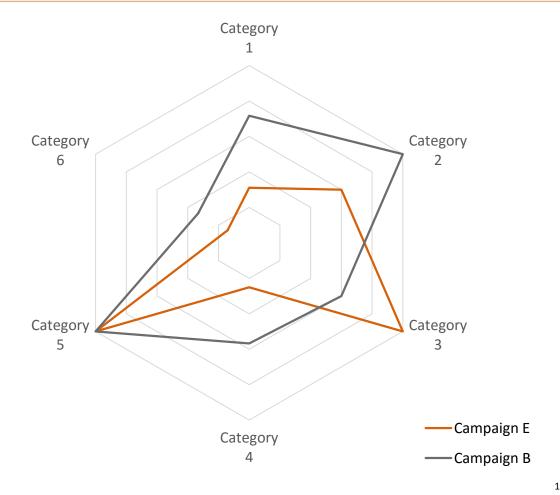
NOTORIETY MODEL – THE OUTPUT

A SPIDER WEB CHART GIVES AN ASSESSMENT AT THE CATEGORY LEVEL AND INDUCES FOR ACTION TO IMPROVE WEAK ASPECTS

NUMERICAL OUTPUT

 Assessment broken down by category for each campaign

GRAPHICAL OUTPUT



ADVANTAGES

- Visualization of results by category at a glance
- Visualization of campaign strengths and weaknesses
- Comparison of campaigns by category
- Understanding of which categories can be improved and by how much (in terms of rating), being an inducer for action ¹



NOTORIETY MODEL – FURTHER FEATURES OF THE MODEL

OBJECTIVES WITH QUANTIFIABLE METRICS PROVIDE VALUABLE INFORMATION WITH WHICH THE MODEL MAY RETRIEVE A COST PER OBJECTIVE'S METRIC UNIT AND AN ESTIMATION OF THE INDIRECT IMPACT ON ROI

NECESSARY CONDITIONS AND DATA		RATIONAL
-------------------------------	--	----------

- Measurable objective
- Metric measured
 - During the campaign
 - Before the campaign, for the trend computation
- Campaign Budget
- Time span

 $\frac{\textit{metric}}{\textit{campaign budget}}$

- The metric is adjusted with the trend
- The trend is obtained as for the revenues model

 $\frac{contribution\ from\ the\ campaign\ -campaign\ budget}{campaign\ budget}$

where, contribution from the campaign = $metric \times conversion$ factor

- The contribution from the campaign is computed with the metric measurements, a conversion factor and correspondent profit margin
- When no profit margin is available, only the resulting increment in sales due to the campaign can be calculated

COST PER METRIC UNIT

OUTCOME

Ex: cost per participant, customer acquisition cost (CAC)

ROI

IMPACT ON SALES

Ex: number of new clients × average revenues/client = expected new revenue



NOTORIETY MODEL – CASE STUDY – DEFINITION OF CATEGORIES FOR THE MODEL

THE INPUTS OF THE MODEL ARE ORGANIZED WITHIN CATEGORIES, EACH WITH A WEIGHT (%) QUANTIFYING THE IMPORTANCE FOR THE CAMPAIGN

CATEGORIES	DESCRIPTION	IMPORTANCE	
✓ Market and target dimension	Measures the dimension of the target of the campaign and of the market, in terms of profitability for the firm	The final return of the campaign in terms of profitability usually does not exceed the target of campaign, therefore, target size acts as a profitability cap for a given initiative.	
✓ Objective of the campaign	Assesses the relevance of the expected result of the campaign	Establishing the objective of the campaign is essential in the preparation of each campaign. In fact, according to McKinsey better MROI starts with better objectives that are based in the consumer decision journey ¹ . Furthermore, when companies only consider traditional marketing funnel's front or back end, they can be missing exciting opportunities ²	
 ✓ Overlap effects → campaign occurring simultaneously 	Quantifies the number of campaigns occurring at the same time for the same target	Campaigns may compete for consumer attention and present alternatives for the same product ³ . Consequently, a campaign can cannibalize the effects of another action and that possible effect should be taken into account	



NOTORIETY MODEL – CASE STUDY – DEFINITION OF CATEGORIES FOR THE MODEL

THE INPUTS OF THE MODEL ARE ORGANIZED WITHIN CATEGORIES, EACH WITH A WEIGHT (%) QUANTIFYING THE IMPORTANCE FOR THE CAMPAIGN

CATEGORIES

DESCRIPTION

IMPORTANCE

✓ Media and communication channels

Based on the Reach Cost Quality model, this category aims to evaluate the impact of different communication channels for the success of marketing campaigns. Ideally it should relate the investment in marketing (cost) with the number of exposed customers (reach) as well as the impact per touch (quality).¹ However, reach and quality is not always known for every communication channel

Often marketing campaigns need to be communicated to the consumer. For example, a new product, a promotion, a new establishment or store. Therefore, the measurement of the effectiveness of the communication is important to assess the success of a campaign. It is worth mentioning that even though reach is not a success metric, knowing this value enables the firm marketers to better understand the consumer decision journey (and the purchase funnel)² and, ultimately, to improve their campaigns

Event evaluation

Media and communication channels are commonly used to reach clients on a B2C approach, but when it comes to B2B, firms often opt for relationship marketing. This category aims at measuring the success of an event

According to Macneil, in situations where contracts exist between parties, the relations among the firm and its clients or partners has an plays a role in projecting exchange into the future. Relationship marketing should, therefore, be accounted in the rating that characterizes the marketing event



NOTORIETY MODEL – CASE STUDY – DEFINITION OF CATEGORIES FOR THE MODEL

THE INPUTS OF THE MODEL ARE ORGANIZED WITHIN CATEGORIES, EACH WITH A WEIGHT (%) QUANTIFYING THE IMPORTANCE FOR THE CAMPAIGN

CATEGORIES DESCRIPTION IMPORTANCE

Campaign Track Record

It assesses historically if the concept being the marketing campaign is innovative for the firm or if, by contrast, was already employed, how often and if it is aligned with market trends Knowing what has and what has not worked well in the past brings relevant information for new campaigns, both because results can be better predicted and because the campaign can be improved for a more successful outcome. The alternative solutions — rough estimations, extrapolations and gut felling — carry more risk for the planned achievements



ACCORDING TO THE CLIENT CAMPAIGNS AND KNOWLEDGE, A SET OF CATEGORY, CRITERIA, OPTIONS AND RESPECTIVE METRICS WERE DEFINED

CATEGORY (CATEGORY WEIGHT)	CRITERIA	CRITERION WEIGHT	OPTIONS	SCORING METHODOLOGY	
MARKET AND TARGET D	DIMENSION (30%)				
	Campaign target size (in terms of profitability)	85%	N/A	Normalization with reference value (fixed)	
	Relative target size to the market (%)	15%	N/A	Product of the input (%) by 5	
OBJECTIVE OF THE CAN	IPAIGN (15%)				
	Main objective	80%	Predefined list of objectives	Scores attributed to each objective according to the CDJ	
	Secondary objective	20%	Predefined list of objectives	Scores attributed to each objective according to the CDJ	



ACCORDING TO THE CLIENT CAMPAIGNS AND KNOWLEDGE, A SET OF CATEGORY, CRITERIA, OPTIONS AND RESPECTIVE METRICS WERE DEFINED

WERE DEFINED				
CATEGORY (CATEGORY WEIGHT)	CRITERIA	CRITERION WEIGHT	OPTIONS	SCORING METHODOLOGY
OVERLAP EFFECTS (5%)				
	Number of campaigns occurring simultaneously to the same target	100%	From 0 to +4 campaigns occurring at the same time	Score of 5 for no other campaign Score of 0 for +4 campaigns
MEDIA AND COMMUNIC	CATION CHANNELS + EVENT EVALUATION (35%)			
	Communication budget	25% 50% in case of no event	N/A; Total of the budget allocated in "Budget allocation per channel"	Normalization with reference value (fixed)
	Budget allocation per channel	20% 40% in case of no event	N/A; Filled in by user	Sum of product of a predefined score per channel and the budget per channel, normalized by the total budget
	Number of communication channels	5% 10% in case of no event	N/A; Sum of the number of fields filled in "Budget allocation per channel"	Scores attributed to predefined number of channels
NOVA				



ACCORDING TO THE CLIENT CAMPAIGNS AND KNOWLEDGE, A SET OF CATEGORY, CRITERIA, OPTIONS AND RESPECTIVE METRICS WERE DEFINED

CATEGORY (CATEGORY WEIGHT)	CRITERIA	CRITERION WEIGHT	OPTIONS	SCORING METHODOLOGY
MEDIA AND COMMUNI	CATION CHANNELS + EVENT EVALUATION (35%)			
	Overall Satisfaction (from question- naires)	25% 50% in case of no communicati on channels	N/A; Average from the positive answers to the questionnaire, filled in by the user	Product of the input (%) by 5
	Event participation rate	15% 30% in case of no communicati on channels	N/A; Number of participants per total number of invited guests, filled in by the user	Product of the input (%) by 5
	Response to the survey rate	10% 20% in case of no communicati on channels	N/A; Number of answered questionnaires per number of participants, filled in by the user	Product of the input (%) by 5
CAMPAIGN TRACK RECO	DRD (15%)			
	Campaign concept	100%	From innovative and never tested; tested in pilot; already used by the firm to used and in line with market trends	•

ACCORDING TO THE CLIENT CAMPAIGNS AND KNOWLEDGE, A SET OF CATEGORY, CRITERIA, OPTIONS AND RESPECTIVE METRICS WERE DEFINED

 Scores were first attributed to objectives according to the consumer decision journey¹, an alternative approach to the purchase funnel, model traditionally associated to the consuming journey

They were afterwards readjusted according to internal expertise from company XPTO

• The compound-category *Media and communication channels + Event evaluation*, with a total weight of 35% for the final rating merges two categories, with criteria-weights varying according to the nature of the campaign

When a campaign only uses communication or only has an event, criteria weights assume the values listed below, as an alternative to the weights that caracterize them when a given campaign has both communication and an event:

		COMMUNICATION+EVENT	COMMUNICATION ONLY	EVENT ONLY
MEDIA AND COMMUNICATI ON CHANNELS	Communication budget	25%	50%	<u>-</u>
	Budget allocation per channel	20%	40%	-
	Number of communication channels	5%	10%	<u>-</u>
EVENT	Overall Satisfaction (from questionnaires)	25%	-	50%
	Event participation rate	15%	-	30%
	Response to the survey rate	10%	-	20%
	Total	100%	100%	100%



NOTORIETY MODEL – CASE STUDY – EXAMPLE OF THE ANALYSIS OF A CAMPAIGN

CAMPAIGNS SUCH AS EVENTS WITH PARTNERS CAN BE EVALUATED WITH THE NOTORIETY MODEL, WHICH PRODUCES NUMERIC AND VISUAL RESULTS

Description – Meeting between partners

Length - 1 day

Objectives:

- ✓ To promote the relationship and proximity between company XPTO and its partners
- ✓ To encourage the network and experience sharing among the partners
- ✓ To create bounds between company XPTO and its partners

Mechanic:

- √ 1 day event, with dinner, show and DJ
- ✓ x invited guests, y participants (participation rate of 89 %)
- ✓ Partner of the Year Prize delivery
- ✓ Satisfaction evaluation with a questionnaire (survey response rate of 20%)



Strengths

- ✓ Market and target size
- ✓ Track Record of the campaign → concept previously used by the company with success
- ✓ No other campaigns for the same target

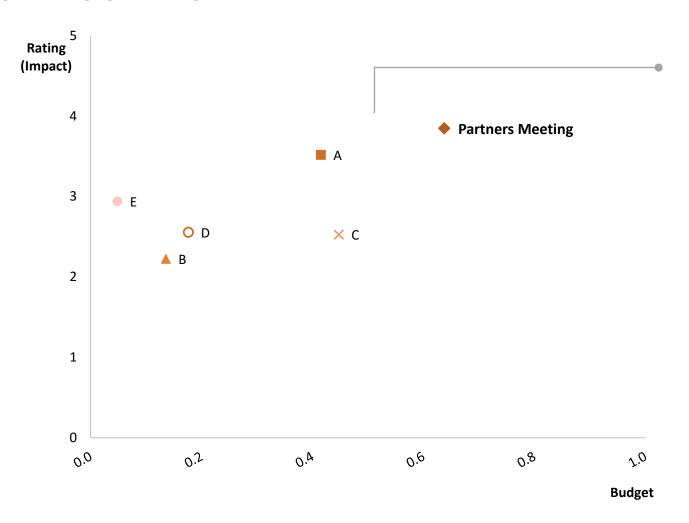
Rating:

Metric: *w* € per participant



NOTORIETY MODEL – CASE STUDY – EXAMPLE OF THE ANALYSIS OF A CAMPAIGN

CAMPAIGNS SUCH AS EVENTS WITH PARTNERS CAN BE COMPARED WITH DIFFERENT AND SIMILAR CAMPAIGNS USING THE VISUAL OUTPUTS OF THE NOTORIETY MODEL



Two campaigns with similar mechanics (campaign A and Partners Meeting)

- ✓ Similar ratings → Similar impact
- ✓ However different budgets
- Due to the similarity of campaigns,
 the ratings are base for comparison



NOTORIETY MODEL – CASE STUDY – EXAMPLE OF ASSESSMENT FOR SEVERAL CAMPAIGNS⁶³

CAMPAIGNS SUCH AS EVENTS WITH PARTNERS CAN BE ANALYSED INDIVIDUALLY OR COMPARED WITH DIFFERENT AND SIMILAR CAMPAIGNS USING THE VISUAL OUTPUTS OF THE NOTORIETY MODEL



Spider Chart Analysis

- After analysing the trade-off between overall rating (impact) and budget of each campaign on the previous graft. The spider graft, on the left, is able to show and compare campaigns by each category
- As compared before, in this chart, it is possible to identify the reason for the small difference on the rating of the two campaign with similar methodologies (campaign A and Partners Meeting). This difference is based on market potential, *i.e.*, on the size of the market impacted by the campaign



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SALES MODEL

- The model developed in this project to measure ROI has as key advantages the readiness to use, a single framework for all the business units (with the same assumptions) and the transparency of the methodology. Therefore, the results of all the campaigns evaluated are comparable and consistent; and improvements or updates to the model, can immediately be implemented by all the business units. Having the same basis, and being the same model within all the department also facilitates knowledge transfer and understanding of the outcomes for all the campaigns.
- At the same time, there are a number of limitations affecting all the campaign evaluations. These constraints go from the dependency on the data validity (*i.e.*, reliability of the data used as input for the model) to the mechanics of the campaign. The model is of easy use, when it is also simple to collect data seamlessly and in the right format, which is related to how the data is organized in the databases. Furthermore, the model only partially includes the influence of external factors, not considering unexpected changes in the economical environment, in consumer and supplier behaviors (supply & demand), legislation, and so on. The margins are considered as fixed throughout the campaign. Concerning the calculus of the trend, the model uses the same methodology for short, mid and long-term campaigns. Regarding the final result, the analysis cannot properly expurgate the contribution of several campaigns running simultaneously, due to the fact that the model is built evaluate campaigns individually.



NOTORIETY MODEL

- The notoriety model was built as a solution to measure the performance of campaigns that are not commonly assessed, as it is not possible to directly calculate the ROI. Similarly to the sales model, it provides a single framework for all business units, with the same methodology and assumptions. Thus, it also supports sharing of improvements and understanding of the results. Additionally, the notoriety model creates a basis to measure campaigns based on its purpose (objective), company and offer awareness and mechanics, as it is possible to include inputs/categories such as communication channels, client satisfaction levels, brand notoriety, and so on. Another characteristic of this model is related to its structure, that offers two ways for the user to insert the inputs, namely, to fill in the options. One alternative is a dropdown box with predefined options, forcing the user to always attribute a characteristic to the campaign; the other method is an open field, that when left in blank is considered as zero, lowering the final rating. This particularity of the model promotes the maximum information to be given when assessing a campaign, and the measurement of campaign attributes. A good example is to advocate the elaboration of a satisfaction survey after each event to evaluate it.
- The disadvantage of having a model transversal to all the business units, is loss of specificity. That loss results in the limited inclusion of categories that are not appropriate to all the campaigns; and on the disregard that the same categories may not have the same weight for the final rating for all the business units and/or type of campaign. In case of considerable variety among campaigns and goals, the organization or department may consider if it is more suitable to have more than one notoriety



NOTORIETY MODEL

sub-model. Yet, then, the results using different models cannot be compared on the same basis. That is the trade-off between generality and specificity inherent to models.

In its current version, the notoriety model proposed does not yet consider external factors neither relevant information that is not being measured. For example, the model built for Galp does not analyze the results of tests to a new concept in a specific context, or a new model for partners meetings. Additionally, historical information is only being partially tested. For example, Galp's model is not taking into account success rates from previous campaigns. Another limitation worth being mentioned is the static nature of the model, where growth rates (e.g., market growth rate, increased importance rate for communication channels, etc.) of inputs are not yet being considered. The model also does not allow the introduction of new options, such as new media channels and changes in the corresponded scores. Those modifications can be performed, a new version of the model can be created, but the ratings cannot be compared with results from previous versions although they should be with these updates more accurate

The next session lists a set of points of improvement (some of them already mentioned) that can be implemented in the further versions of both the sales and notoriety models, not disregarding that there is still much room for improvement. Moreover, with new metrics (such as the ones provided by Google Analytics) and new campaign characteristics (e.g., new communication channels) continually emerging, these models are a constant work-in-progress



THE PROPOSED MODELS ARE THE FIRST VERSION FOR BETTER CAMPAIGN ASSESSMENT. THEREFORE, THERE ARE POINTS OF IMPROVEMENT

GERAL

SALES

NOTORIETY

- ✓ Objectives must be SMART*
- ✓ Campaigns evaluation models should include external variables

- ✓ Sales of the campaign should have an associated id code
- ✓ BW data extraction must be done uniformly

- ✓ The event satisfaction survey must be reviewed to:
 - 1. Be aligned with the goals of the campaign
- 2. the survey must be MECE** 3. the response rate increase
- ✓ The dimension of the objective should be taken into account in the rating. Therefore, a higher objective should valued
- ✓ In the category of market potential, the evolution of the market targeted should be taken into account
- ✓ Communication media should include effects on channels that are not directly controlled by the firm



^{*} SMART: Specific, Measurable, Attainable, Relevant, Time-bounded

^{**} MECE: mutually exclusive and collectively exhaustive

SOME RECOMMENDATIONS ARE VALID FOR THE TWO MODELS

POINTS OF IMPROVEMENT

Objectives should be SMART*, which implies there are clear metrics to evaluate the campaigns

In order to determine the success of the campaign and evaluate its impact, a good definition and measurement of the goals it's fundamental

PROPOSED SOLUTION

- ✓ Form to build SMART goals
- List of available metrics and study possible future metrics with potential of implementation

Campaigns evaluation models do not include external variables, such as rainfall, economic factors, competitive actions, unexpected large impact events, etc

✓ Platform for data collection and ways to measure that impact ROI



THE MAIN RECOMMENDATIONS FOR THE SALES MODEL ARE BASED ON DATA EXTRACTION

POINTS OF IMPROVEMENT

Sales of the campaign should have an associated id code, greatly to facilitate the entry and processing of data in the sales model, in particular, in order to separate the fuel sales volumes with and without discount

BW data extraction, between the different business areas, **must be uniform**, so that data can be introduced with minimal processing in the sales model

PROPOSED SOLUTION

- ✓ Introduction of id codes for fuel directly into the database (SAP BW)
- ✓ Separation of the volume with and without discount
- ✓ If there is overlapping discounts (two or more campaigns simultaneously) the sales volumes should be given directly from the system according with the campaign to be examined

 Create a template (query) to standardize the way data are processed and integrated into the model



THE SATISFACTION SURVEYS ARE AN IMPORTANT TOOL FOR MEASURING SUCCESS OF EVENTS AND MUST BE USED IN ORDER TO GIVE THE BEST POSSIBLE OPINION

POINTS OF IMPROVEMENT

PROPOSED SOLUTION

The event satisfaction survey must be reviewed to:

1) Be aligned with the goals of the campaign (example: measure responsiveness of participants in relation to competition)

- The questionnaire should be composed of a common core in order to compare different events and to be applied in the model
- The remaining questions in the survey should consider the specific purpose of the event, which may include, among others, the participant's responsiveness measurement to work with other brands

- 2) the **survey must be MECE**** mutually exclusive and collectively exhaustive
- ✓ The questions asked in the survey should be clear and should not exist overlap for example, ask the opinion about the decor and about the event's image are two question that do not explain clearly different issues. At the same time, the questions asked in the survey should cover all relevant topics on which feedback from participants is important

3) To **increase the response rate** in order to the feedback be more robust

✓ Test several best practices***, including how to write shorter forms including relevant questions, offer gifts, etc



ROBUST, CONSISTENT AND RELIABLE METRICS ARE THE BASE TO ACHIEVE A BETTER MODEL TO MEASURE PERFORMANCE

POINTS OF IMPROVEMENT

The dimension of the objective should be taken into account in the rating. Therefore, a higher objective should valued (*e.g.* collect 500 clients *vs* 80000 clients), which implies SMART objectives and appropriate metrics

PROPOSED SOLUTION

✓ Form to build SMART goals

/

The category of market potential, only considers the current market size, sub-segment and target of the campaign. **The evolution of these groups are not been taken into account**, and therefore this category does not consider whether they are increasing or decreasing

- ✓ Add a field which includes the trend of development of the market for the last few months, so that contribute to the final rating of the campaign
- Update the estimate ROI and impact on sales from the market developments, so that the impact of the campaign takes into account what would happen if there were no campaign

Communication media should include effects on channels that are not directly controlled by the firm, such as newspapers and news coverage, customer satisfaction and brand equity

As above proposed, create a platform for information gathering and ways of measuring factors that impact ROI in particular the communication of a campaign or action



EXECUTIVE SUMMARY

SCOPE OF THE PROJECT

METHODOLOGY

EXTERNAL ANALYSIS

INTERNAL ANALYSIS

SALES MODEL

NOTORIETY MODEL

FINAL REFLECTIONS AND RECOMMENDATIONS

CONCLUSIONS

REFERENCES



CONCLUSIONS

THIS PROJECT HAS BROUGHT TWO INNOVATIVE MODELS FOR THE COMPANY

This project resulted in an important platform to evaluate the performance of campaigns from different business units using the exact same assumptions and methodology. Hence, now it is easier to transfer knowledge from one business unit to another.

Through hard work and frequent syndication it was able to build and deliver two different models (Sales and Notoriety Model), which allow the evaluation of any campaign. Furthermore, the models were delivered with an user guide and two video tutorials explaining every detail step by step.

To facilitate the evaluation of each campaign a SMART objective is required. In order to create those objectives a form has been developed.

Our team truly believes that these outputs have added value to the company, which is supported with the positive feedback given by the client.



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CONCLUSIONS

REFERENCES



Arikan A., (2008). 'Multichannel Marketing: Metrics and Methods for On and Offline Success', Sybex Bertram D., (2007). 'Likert Scales',

Bhandari R., Gordon J., Singer M. and Van der Scheer H., (2013). 'Putting the pieces together: Making sense of marketing analytics to drive above-market growth', McKinsey Company

Bhandari R., Singer M. and Van der Scheer H., (2014). 'Using marketing analytics to drive superior growth', McKinsey Company

Blois K. and Ivens B., (2006). 'Measuring relational norms: some methodological issues', European Journal of Marketing

Cardona M., (2013). "Smart analytics" can tap up to 20% of lost ROI, The Economist Group

Celeste P. and Bettencourt Moniz L., (2015). '52 Métricas de Marketing e Vendas', Sabedoria Alternativa

Cheong Y., Gregorio F. and Kim K., (2014). 'Advertising Spending Efficiency Among Top U. S. Advertisers from 1985 to 2012: Overspending or Smart Managing?', American Academy of Advertising

Copulsky W., (1976). 'Cannibalism in the marketplace', Journal of Marketing

Court D., Elzinga D., Mulder S. and Jørgen Vetvik O., (2009). 'The consumer decision journey', McKinsey Company

Court D., Gordon J. and Perrey J., (2012). 'Measuring marketing's worth', McKinsey Company

Eastman J., (2015). 'Why your marketing planning process is broken, and what to do about it', McKinsey Company

Edelman D. and Singer M., (2015). 'Competing on Customer Journeys', Harvard Business Review



Gordon J. and Perrey J., (2015). 'The dawn of marketing's new golden age', McKinsey Company Gordon J., Basu A. and Klapdor S., (2015). 'How to reallocate marketing budgets to drive growth', McKinsey Company Griniute I., (2012). 'Measurement of Marketing Communications Performance: Implications and Theory Building for B₂B Organizations', Master Thesis: Business and Social Sciences, Aarhus University Hanssens D., Thorpe D. and Finkbeiner C., (2008). 'Marketing When Customer Equity Matters', Harvard Business Review Jacobs J., Jain P. and Surana K., (2014). 'Is sports sponsorship worth it?', McKinsey Company Jeffery M., (2007). 'Best Practice ROI Marketing', Kellogg School of Management Kaplan R. and Norton D., (1992). 'The Balanced Scorecard: Measures that Drive Performance', Harvard Business Review Kaplan R., (2010). 'Conceptual Foundations of the Balanced Scorecard', Working Paper, 10-074 Lomax W., (1996). 'The measurement of cannibalization', Marketing Intelligence & Planning Lomax W., East HR., Clemente M., (1997). 'The measurement of cannibalization', Journal of Product & Brand Management Megdal L. and Bender S., (2006). 'Evaluating Media Campaign Effectiveness: Others Do it, Why Don't We?', ACEEE Summer Study on Energy Efficiency in Buildings

Perrey J. and Spillecke D., (2013). 'Retail Marketing and Branding: A Definitive Guide to Maximize ROI', John Wiley & Sons



Roland T. Rust, Tim Ambler, Gregory S. Carpenter, V. Kumar, Rajendra K. Srivastava, (2004). 'Measuring Marketing Productivity:

Current Knowledge and Future Directions', Journal of Marketing

Productivity: Current Knowledge and Future Directions', Journal of Marketing

Sparkman R. and Locander W., (1980). 'Attribution Theory and Advertising Effectiveness', Journal of Consumer Research

Sungil L., Shijin Y., (2012). 'Return on marketing investment: Pizza Hut Korea's case', Management Decision

Taylor C., (2010). 'Measuring return on investment from advertising: holy grail or necessary tool?', International Journal of Advertising

Twose D., (2015). 'How not to assess advertising effects', International Journal of Market Research

Vos M. and Schoemaker H., (2004). 'Accountability of Communication Management: A Balanced Scorecard for Communication Quality', Lemma Publishers

Vos M., (2012). 'A Balanced Scorecard developed to measure and improve communication quality - Measuring Organisational Communication & PR', University of Jyväskylä, Finland

Zardari N., Ahmed K., Shirazi S. and Yusop Z., (2015). 'Weighting Methods and their Effects on Multi-Criteria Decision Making Model Outcomes in Water Resources Management', Springer



Index Mundi Oil Consumption in Portugal,

http://www.indexmundi.com/energy.aspx?country=pt&product=oil&graph=consumption, last consulted on 4th January 2016

Marketing Return on Investment,

http://www.mckinsey.com/client_service/marketing_and_sales/expertise/marketing_return_on_investment, McKinsey & Company

Survey Monkey Blog; Best practices for every step of survey creation, http://svy.mk/1TQD1S2,

last consulted on 16th December 2015

Survey Monkey Blog; Category, Survey Science, http://svy.mk/1TQCUpC, last consulted on 16th December 2015

The Marketing Navigator,

http://www.mckinsey.com/client_service/marketing_and_sales/tools_and_solutions/the_marketing_navigator, McKinsey & Company

